



# MOLINE CITY COUNCIL AGENDA

Tuesday, April 8, 2014

6:30 p.m.

(immediately following the Committee-of-the-Whole meeting)

City Hall

Council Chambers – 2<sup>nd</sup> Floor

619 16th Street

Moline, IL

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## CALL TO ORDER

## PLEDGE OF ALLEGIANCE

## ROLL CALL

## CONSENT AGENDA

All items under the consent agenda are considered to be routine in nature and will be enacted by one motion. There will be no separate discussions of these items unless a council member so requests, in which event the item will be removed from the consent agenda and considered as the first item after approval of the consent agenda.

COUNCIL MEMBER	PRESENT	ABSENT
Knaack		
Parker		
Bender		
Brown		
Turner		
Schoonmaker		
Liddell		
Acri		
Mayor Raes		

## APPROVAL OF MINUTES

Committee-of-the-Whole and Council meeting minutes of April 1, 2014.

## SECOND READING ORDINANCES

### 1. Council Bill/Special Ordinance 4007-2014

A Special Ordinance authorizing the Utilities General Manager to accept a technical services proposal from River Cities Engineering for upgrade of the Water Treatment Plant control system hardware and software and integration of UV disinfection equipment, which includes a base amount of \$77,687.00, and specific pricing for added scope work, should such work be required.

**EXPLANATION:** City staff seeks to accept a technical services proposal from River Cities Engineering that will provide for upgrade of the Water Treatment Plant control system hardware and software and integration of UV disinfection equipment as required to comply with Illinois Environmental Protection Agency safe drinking water regulations.

**FISCAL IMPACT:** \$1,610,655.00 is budgeted for this project in 310-1720-434.08-45.

**PUBLIC NOTICE/RECORDING:** N/A

### 2. Council Bill/Special Ordinance 4008-2014

A Special Ordinance granting a variance to Section 28-3200(a) of the Moline Code of Ordinances to delay installation of a sidewalk for property located at 3404 14<sup>th</sup> Street.

**EXPLANATION:** This ordinance will grant a variance to delay installation of sidewalk due to lack of connecting sidewalks and a substandard street without curbs or gutters.

**FISCAL IMPACT:** N/A

**PUBLIC NOTICE/RECORDING:** N/A

## RESOLUTIONS

### 3. Council Bill/Resolution 1052-2014

A Resolution authorizing the ceding of Home Rule Volume Cap for the calendar year 2014 to the Quad Cities Regional Economic Development Authority in the amount of \$4,325,900.

**EXPLANATION:** In that encouraging economic development meets the City's goals as well as promotes a strong local economy, it is recommended that the City allocates to the Quad Cities Regional Economic Development Authority its home rule volume cap allocation for the calendar year 2014 in the amount of \$4,325,900 to be used for future projects.

**FISCAL IMPACT:** Increased property values

**PUBLIC NOTICE/RECORDING:** File with Governor's Office

**4. Council Bill/Resolution 1053-2014**

A Resolution authorizing the Mayor and City Clerk to apply for a highway permit and execute the necessary forms in conjunction with the Quad Cities Classic scheduled for Sunday, May 11, 2014.

**EXPLANATION:** This is an annual event sponsored by Cornbelt Running Club. Fourth and Fifth Avenue are state routes. Therefore, local approval of usage is necessary before permission can be sought from the Illinois Department of Transportation.

**FISCAL IMPACT:** N/A

**PUBLIC NOTICE/RECORDING:** N/A

**OMNIBUS VOTE**

**MISCELLANEOUS BUSINESS**

**PUBLIC COMMENT**

Members of the public are permitted to speak after first stating their name and address.

**EXECUTIVE SESSION**

OMNIBUS VOTE		
Council Member	Aye	Nay
Brown		
Turner		
Schoonmaker		
Liddell		
Acri		
Knaack		
Parker		
Bender		
Mayor Raes		

Council Bill/Special Ordinance No.: 4007-2014

Sponsor: \_\_\_\_\_

A SPECIAL ORDINANCE

AUTHORIZING the Utilities General Manager to accept a technical services proposal from River Cities Engineering for upgrade of Water Treatment Plant control system hardware and software and integration of UV disinfection equipment, which includes a base amount of \$77,687.00, and specific pricing for added scope work, should such work be required.

WHEREAS, the City of Moline is installing UV disinfection equipment at the Water Treatment Plant to comply with Illinois Environmental Protection Agency drinking water regulations; and

WHEREAS, the Water Treatment Plant control system hardware and software must be upgraded and the UV disinfection equipment must be integrated into said control system to allow for proper monitoring and control of the UV disinfection process; and

WHEREAS, the Water Treatment Plant control system upgrades and integration work must be completed in a competent and timely manner while the Water Treatment Plant is in operation without disrupting treatment and pumping operations; and

WHEREAS, River Cities Engineering has previously provided high quality technical services for and is thoroughly familiar with the Water Treatment Plant control system; and

WHEREAS, River Cities Engineering has provided a technical services proposal for required Water Treatment Plant control system upgrades and UV disinfection integration work; and

WHEREAS, City staff has determined that River Cities Engineering proposal best meets the needs of the City, in regard to the timely and successful completion of the UV disinfection project.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MOLINE, ILLINOIS, as follows:

**Section 1** – That Utilities General Manager is hereby authorized accept a technical services proposal from River Cities Engineering for upgrade of the Water Treatment Plant control system hardware and software and integration of UV disinfection equipment, which includes a base amount of \$77,687.00, and specific pricing for added scope work, should such work be required, provided said proposal is substantially similar in form and content to Exhibit “A,” attached hereto and incorporated herein by this reference thereto, and has been approved as to form by the City Attorney.

**Section 2** – That this ordinance is an exercise of the City’s home rule powers granted to it by virtue of Article VII, Section 6 of the 1970 Illinois Constitution, and shall therefore take precedence over any conflicting State statutes or rules.

**Section 3** – That this ordinance shall not constitute a repeal of any or all ordinances or resolutions in conflict herewith, but shall be construed as a one-time variance to Chapter 27 with regard to such conflicting ordinances or resolutions.

**Section 4** – That this ordinance shall be in full force and effect from and after passage, approval, and if required by law, publication in the manner provided for by law.

CITY OF MOLINE, ILLINOIS

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Date

Passed: \_\_\_\_\_

Approved: \_\_\_\_\_

Attest: \_\_\_\_\_

City Clerk

Approved as to Form:

\_\_\_\_\_  
City Attorney



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Davenport, Iowa 52806  
563.386.4777 Voice  
563.386.4999 Fax  
www.rivercities.us Internet

February 19, 2014

Mr. Greg Swanson  
City of Moline  
30 – 18<sup>th</sup> Street  
Moline, IL 61265

RE: Water System Controls HMI Upgrade and UV System Integration

Quote: 13440

Dear Greg:

We are pleased to present the following proposal for your consideration:

Project Summary

The City of Moline has requested that River Cities Engineering provide pricing for upgrading the iFix HMI portion of the water system controls. The current iFix software is out of support and will not run on a Windows 7 operating system platform. River Cities Engineering is also providing pricing for the integration of the UV system being added to the current filter control system.

Scope of Work – HMI Upgrade

River Cities Engineering is to provide the latest Proficy iFix software for each component of the water system control HMI application. This includes the control room unlimited iFix SCADA development node, the control room unlimited iFix SCADA runtime node and the historian server node. The three iClient nodes in the offices are to be switched to iFix Webspaces. The control room iClient development node is to be eliminated. River Cities Engineering is proposing to provide Proficy Portal software that is to be utilized as a reporting tool for data that is collected in the Historian server. River Cities Engineering will provide report templates and training for plant personnel to produce reports as needed. Two Windows 7 Professional Workstations for the control room are to be provided by River Cities Engineering. The current server used for the historian will be reused. River Cities Engineering will load all software on all iFix and historian machines, convert the existing applications to the current revisions, load and test the applications.

## HMI Upgrade Deliverables

River Cities Engineering will provide the following services for the City of Moline HMI upgrade portion of this project:

- Latest Revisions of Proficy iFix Software
- Latest Revisions of Proficy Historian Software
- Latest Revisions of Proficy Portal Software
- Dell Computer Workstations Running Windows 7 Professional
- Proficy Software Loading and Setup Labor
- Proficy Portal Report Template Setup and Training
- Application Conversion and Setup Labor
- Onsite Application Checkout Labor

## Scope of Work – UV System Integration

River Cities Engineering is proposing to provide integration services as outlined in section 40 90 50 of the "Process Control System Description" provided by the City of Moline. From this document, the scope of work is detailed below.

### SYSTEM INTEGRATION

- A. River Cities Engineering will provide all labor, materials, equipment, and incidentals as shown, specified, and required to test, start-up, and place in satisfactory operation a complete process control system.

### SYSTEM DESCRIPTION

- B. The Control descriptions provide the functional requirements of the Control represented in the Contract Documents.
  1. Descriptions will be provided as follows:
    - a. Control system overview and general description.
    - b. Equipment to be controlled.
    - c. Major field mounted instruments (does not include local gauges).
    - d. Manual control functions.
    - e. Automatic control functions/interlocks.
    - f. Major indications provided at local control panels.
    - g. Remote indication and alarms.
- C. The Control descriptions are not intended to be an inclusive listing of all elements and appurtenances required to execute loop functions, but are rather intended to supplement and complement the Drawings and other Specification Sections. The Control Descriptions will be the base document for the SYSTEM INTEGRATOR creation of the Control

Strategies. Identification of required elements, documentation, and coordination between loops are to be developed during shop drawings. Finalizing and tuning of strategies, as required by process characteristics, are to be completed during startup.

## SUBMITTALS

D. General: Provide all submittals, including the following, as specified in Division 01.

E. Action Submittals

1. Product Data: Submit manufacturer's official and published product data, specifications, and installation recommendations for each item.
2. Shop Drawings: Submit shop drawings as per Section 01 33 00, and as required below. Include the following information in each submittal:

Complete control descriptions/strategies developed from the Control Descriptions specified.

- a. I/O List complete with Instrument Ranges and Alarm levels, setpoints.
- b. Each permissive detailed.
- c. Provide complete control description for all areas of control. Including sufficient detail for a complete understanding of each operator controllable set point, failure modes, flow balancing and level controls.
- d. Submit complete control descriptions for all areas of control within control parameters as described within.
- e. All screens for all control strategies will be completed and included in the submittal.

F. Contract Closeout Information Submittals: Provide submittals as required below.

1. Project Record Documents: In addition to requirements described in Division 01, Contract Closeout, provide the following:
  - a. Program documentation: Provide paper copies of all software development and configuration including listing of all register tables.
2. Operation and Maintenance Data: Provide operation and maintenance manuals as specified in Division 01. Include the following information:
  - a. Software licenses.
  - b. Documentation of programming of graphic screens.
3. Warranty: Provide warranty certificate as described in Division 01.

## 1.2 QUALITY ASSURANCE

- A. General: Provide Quality Assurance as specified in Division 01.
- B. The purpose of this section is to convey information required for complete and functioning systems. System Integrator is responsible for all details necessary to properly program, configure, adjust, and commission the software requirements to place in operation the UV Disinfection systems.
- C. Meetings
  - 1. Schedule the following meetings:
    - a. Two (2) Process Control System Coordination Meetings of up to four (4) hours each and one (1) I&C Coordination Meeting of up to four (4) hours will be held to review Project activity, the submittal schedule, documentation requirements, and application software programming requirements for the Process Instrumentation and Control System.
      - (1) During the first coordination meeting (4 hours), the ENGINEER and OWNER will review the functional description for the System and respond to initial questions raised by the System Integrator as to design intent.
      - (2) The remaining two (2) meetings will be conducted to provide ENGINEER and OWNER review of programming effort and further clarification of design intent for the functional description of the System.
    - b. Schedule two (2) eight hour report workshops, the first for use as report development workshop and the second as a report review workshop, both as described in 40 90 50 section 3.3 below.
    - c. Process Control System Coordination Meetings will be held at Plant Site. System Integrator's designer specifically assigned to Project, OWNER, and ENGINEER, will attend meetings as required.
    - d. When requested by OWNER, and/or ENGINEER, System Integrator will attend Construction Project Meetings held at WWTP.

## 1.3 RESPONSIBILITY

- A. System Integrator will provide application software programming as specified herein.

## 1.4 APPLICATION SOFTWARE PROGRAMMING

- A. The System Integrator will provide application software programming as specified in this and related Sections. System Integrator will download and test application software programming after successful completion of:
  - 1. Coordination with Process Control System Commissioning as specified in Section 40 80 50.

## B. Equipment Testing

1. The Contractor will test the UV Disinfection equipment without the benefit of the SCADA system or SCADA programming required by this section prior to testing as part of this system.
2. Software based Equipment Testing and Start-Up will not begin until System Integrator has successfully completed application software programming, downloading, and testing, including all workshops and coordination meetings.
3. The System Integrator shall fully demonstrate software operation of UV Disinfection equipment for each filter using installed P/CC, FOP PLC, HMI software and graphics. The demonstration shall be witnessed by Engineer and Owner.

## PART 2 EXECUTION.

### 2.1 UV DISINFECTION CONTROL – SYSTEM COMPONENTS

- A. The ETS UV disinfection system includes a packaged control system to control the output of UV system automatically in response to changes in flow and water clarity. The packaged control system is designed to interface with several external systems directly through the PLCs and through SCADA for control and monitoring. The systems are as follows:
  1. Operation and Control Systems provided by ETS:
    - a. P/CC
    - b. OIT
    - c. UPS
    - d. UVI-UV Intensity Measurement
    - e. UV Lamp Control
- B. The UV disinfection system will have additional equipment installed for use by the OWNER to operate the system. The OWNER plant SCADA system will control these points, monitor the ETS UV system and provide some control points to the ETS UV system via hard wire connections. SCADA will monitor Effluent Turbidity, Effluent Flow, and monitor and control the Effluent Valve. The OWNER through SCADA connection to the P/CC will provide the plant flow signal and select operation modes of the UV System. The systems are as follows:
  1. Operation, Control and Monitoring Systems provided by SCADA:
    - a. UV Transmittance (via P/CC)
    - b. UV Filter Effluent Turbidity Monitor
    - c. UV Filter Effluent Valves (Control through SCADA with permissive to/from PLC)

- d. UV Filter Effluent Flow Rate
  - e. Operator to select how many filter(s) are in the Ready
- C. Power/Control Cabinet (P/CC)
- 1. The P/CC communicates to SCADA (through Filter Panel PLCs) via existing network connections. Each P/CC will communicate to the Moline Water Treatment Plant SCADA via existing connections.
  - 2. The P/CC provides the following functions:
    - a. Remote on/off
    - b. Communication and data mapping in plant SCADA
    - c. Process parameter measurement (UVT, flowrate, UV Intensity)
    - d. Alarms
    - e. Dose pacing
- D. UVD P/CC Operator Interface
- 1. The OIT allows the Operator to monitor and control the UV system. The Operator will have access to a system overview as well as detailed information on each subsystem. The main menu provides access to following operations:
  - 2. Alarms:
    - a. An Active Alarm screen and a Historical Alarm screen will be provided.
  - 3. Trends:
    - a. UVT, flowrate, UVI and Dose are trended with a data sample rate of once per minute.
    - b. Totalized Lamp Power, Current and Voltage are trended with a sample rate of once per minute.
    - c. The trended data is retained in OIT for 30 days.
- E. UV Transmittance (UVT) Monitors
- 1. One UVT monitor will sample water in the effluent pipe from each corresponding filter. The UVT will be connected to the corresponding P/CC.
  - 2. Indications:
    - a. Local Display at transmitter
    - b. UVD P/CC OIT

c. Plant SCADA

3. Alarms:

a. High UVT/UVA (adjustable)

b. Low UVT/UVA (adjustable)

c. Sensor Failure

d. Leak detection

F. UV Filter Effluent Valve (FEV)

The existing FEVs are located before each UV reactor. These modulating valves operate in full open /full close operation and are used to isolate filters for service. The corresponding Filter Control Panel PLCs monitor and control the existing valves.

G. Filter Effluent Flow Monitors

1. The existing effluent flow monitors are located before each UV reactor, as shown. This monitor will be used to calculate the flow through each UV reactor.

## 2.2 UV DISINFECTION CONTROL – SYSTEM OPERATION DESCRIPTIONS

A. Operation Philosophy

1. The control philosophy is designed to allow automatic operation of the UV equipment under normal conditions. Human intervention is required when critical or major alarms occur and may be required during an event causing extreme or unstable conditions.
2. The UVD control strategy includes equipment protection interlocks. It monitors a number of alarm conditions that will result in control actions designed to maintain the required level of disinfection.
3. When a power loss occurs to the UV system, the control system will recover the disinfection operations automatically when power is restored. The P/CC retains the control program in memory and will be powered by the integral UPS. The PLC will report a P/CC Run on UPS alarm to SCADA.
4. When a filter is out of service, the status of the P/CC will be automatically converted to Standby to allow continued system monitoring.

B. Off Specification Effluent

1. The SCADA system shall record and totalize flows per filter that are off specification as indicated by UV System alarm, periods that lamps are not on such as during periods of power outage, and provide daily, monthly, and annual reports with totals of off spec effluent.

C. Alarm Philosophy - Alarms from the ETS packaged system will be mapped and annunciated on the plant SCADA system. The ETS system shall control the equipment based on their recommended alarm response, including warnings and shutdowns.

a. The Filter Gallery alarm horns shall fire upon a critical alarm from the P/CC. When this alarm is activated, all plant wide alarm horns shall annunciate concurrently.

2. Provide alarms to indicate to plant operators that maintenance attention is required or to indicate an extreme alarm condition in which the disinfection performance may be jeopardized.

a. The 100 most recent alarms will be recorded in an alarm history register and will be displayed when prompted on the OIT. All alarms shall be recorded and stored in iHISTORIAN.

b.

c. Digital I/O modules will be provided to remotely indicate status and alarms such as:

(1) Alarm conditions

(2) Bank Status (one for each UV bank supplied)

D. Programming

1. HMI: Modify existing filter graphic screens to indicate UV status. Provide new screens as required to display, trend, and animate all data mapped and hard wired signals for UV system. Add alarms to alarm screens.

2. PLC: Modify existing program within each Filter Operating Panel PLC for the addition of signals and alarms as shown on the drawings. Fully test each modified PLC program for filter operation to verify success. Retain copy of unmodified program for disaster recovery.

3. Historian: configure historian to allow viewing of data and storage of data indefinitely. Provide provisions for offloading of data to external media for long term storage. Provide provisions for reading and restoring off-loaded data for viewing and reporting.

E. Data Mapping

1. Map all signals within P/CC PLC to the Filter Operating Panel PLC using Modbus over Ethernet connection provided by the UV equipment supplier. Display, trend, record and make available for reporting purposes all signals mapped from P/CC PLC within FOP PLC (refer to section 3.3 and reporting requirements).

F. Filter Control

1. Each of the eight (8) existing filter control panels have current monitoring and control of the various existing valves and monitors associated with the filtering system. This UVD system is to work in unison with this filtering system.

2. Provide automated flow control of the UV system, from the existing flow meter via the filtering panel PLC. Allow for manual selection of filters, Active, Ready, Standby, through the SCADA system.
3. Provide a control system to have three operating statuses for each filter, as follows:
  - a. Active Status: Under this mode, the FIV is open, the FEV is open, and effluent is being disinfected by the UV reactor. The filter waste valve (FWV) is closed. The lamps are powered.
  - b. Ready Status: The FIV is open, but the FEV is fully closed, preventing flow through the reactor, and the UV reactors are in start-up sequence. This is triggered manually when the FWV is opened. The lamps are powered.
  - c. Standby Status: The corresponding filter is out of service. The FIV and the FEV are fully closed. The UV reactors are inactive and lamps are off.
4. Transition from Active status to Standby status will be done automatically:
  - a. Upon Operator initiated command through SCADA sending a signal to "take filter out of service", SCADA will close FEV and FIV of corresponding filter. Once valves are closed, SCADA will send signal to corresponding P/CC to "stop". This will turn off lamps and start re-strike timer. This timer will inhibit lamp(s) from being struck again for a defined period of time to allow a sufficient cool down time to protect the lamps, as required by the manufacturer.
  - b. Manually pressing the "STOP" button on the P/CC while in SCADA MODE will generate a critical local stop fault.
  - c. Interlock
    - (1) The UV reactor cannot be stopped unless the FEV is fully closed.
5. Transition from Standby status to Ready status will be done automatically :
  - a. Upon SCADA receiving a signal that the corresponding FWV is open, SCADA will send signal to corresponding P/CC to "start". Start sequence turns on the lamps for warm-up.
  - b. Manually pressing the "START" button on the P/CC while in SCADA mode will do nothing. Button is only operable in LOCAL mode.
  - c. Interlock
    - (1) The UV reactor cannot be started unless the FIV and FWV are fully open.
6. Transition from Ready status to Active status:

- a. At the P/CC a green "RUNNING" LED will flash on and off, to signal warm up. When the system goes into running mode the green LED will go solid, and the valve open output will be energized. Upon energizing this output, the indicating light on Filter Control Panel, as shown, for "UV Ready" should illuminate, signaling to operator that filter is ready to go back on line. Filter can then be turned on manually via SCADA or filter control panel.
- b. The indicating light on Filter Control Panel, as shown, for "UV Active" should illuminate once flow is signaled to be going through reactor.
- c. Interlock
  - (1) The FEV cannot be opened unless P/CC reads "UV READY".

### 2.3 REPORT REQUIREMENTS

- A. The System Integrator shall develop the SCADA reports using information provided by the OWNER in a collaborative effort with the OWNER. The System Integrator shall integrate the reports into the existing SCADA for available use at SCADA locations determined by the OWNER.
- B. In addition to process data and plant performance reports required by the OWNER, troubleshooting and system informational reports required to meet the functional requirements defined in Sections 40 90 00 and 40 90 50 shall also be provided, including hourly, daily, monthly and yearly reports, and other system management reports.
- C. Daily Reports
  - 1. Daily report shall summarize plant operation for the previous day. The report shall be generated on demand at any time following the end of the day covered by the report by specifying the date. The information printed shall be based on calculations using stored hourly averages and laboratory and manual input data. The report shall be automatically generated and transferred to a DVD or historian for storage for future retrieval as selected by the operator. Any manually entered data for parameters included in a report, such as laboratory data, entered into the data archive subsequent to the date of the report but designated as data for that date shall be included in the report. The laboratory report portion of the daily report shall be available for printing by itself on demand at the discretion of the operator without requiring printing of the entire daily report.
  - 2. Report format shall consist of: correct date, plant name, report name, page number, group headings, subheadings, point identifications, engineering units, and a table of hourly averages of points included on the page. The daily minimum, average, maximum, and total where applicable shall also be calculated and printed for each point, and stored for use with Monthly Report.
  - 3. Values for which there are no data available shall be identified with a special character. Thus, only values that are actually zero shall be printed as such.
- D. Monthly Reports

1. The Illinois Environmental Protection Agency requires a monthly certification to allow inactivation credit utilizing ultraviolet light. The following data is needed to be reported to insure the water passing through the UV reactors is on-specification. If any of these values are not available by SCADA, provide data entry fields in the report for the Operator to fill in manually.
  - a. UV intensity monitored continuously and recorded every 4 hours.
  - b. Validated dose monitored continuously and recorded every 4 hours.
  - c. Flow rate through reactor is monitored continuously and recorded every 4 hours.
  - d. Flow and Totalization meters have been calibrated for the month.
  - e. Duty sensors were calibrated with a reference sensor for the month.
  - f. Reference sensors have been calibrated for the year.
  - g. UVT duty/online meter(s) calibrated were calibrated weekly for the month.
  - h. Monitor continuously any off-specification event and record water volume.
  - i. Monitor lamps on and off cycles and record.
  - j. Monitor time lamps are in service (energized) and record.
  - k. Monitor total time ballasts were energized and record.
  - l. Monitor total hours each quartz sleeve was in operation and record.
  - m. Monitor total hours each duty sensor was in operation and record.
  - n. Water's UVT monitored continuously and recorded every 4 hours.
  - o. Monitor the temperature of the water in the reactor and record.
  - p. Monitor and record monthly water samples for: iron, calcium, hardness, pH, and oxygen reduction potential.
  - q. Calculate the total volume of "Off-Specification" water produced during the month (mgd)(A)
  - r. Calculate the total volume of water produced this month (mgd)(B)
  - s. Calculate the "Off-Specification" water produced as a % of volume of water produced  $(A/B * 100)$

E. Yearly Reports

1. Yearly report shall summarize plant operation for the previous calendar year. Report shall consist of monthly averages or totals for important plant variables and manual inputs, stored on the historian.
  2. Format for the report shall be identical with the Monthly report with the exception of the month being deleted from the heading, replaced by the year and the date column replaced by calendar months.
- F. Data Retention
1. Retain data within Historian indefinitely. Historian shall allow viewing of data and generation of demand reports indefinitely. Provide provisions for offloading of data to external media for long term storage. Provide provisions for reading and restoring off-loaded data for viewing and reporting.
- G. On Demand Reports
1. All reports shall be available for printing on demand with data displayed though period to date data, or for a selected period. For example, a daily report can printed for a specific date, or that day. Similar for monthly and yearly reports. For example, the yearly report generated in August shall have data through the date and time requested.
- H. Development Process
1. REPORT DESIGN WORKSHOP 1: Prior to the development of any reports, a one-day coordination workshop shall be held with OWNER at OWNER's site. The System Integrator is responsible for leading the workshop. The following items shall be addressed during these workshops.
    - a. Layouts for the monthly, daily, and yearly reports.
    - b. Conventions for showing alarm conditions, device status, and process variable values.
    - c. Format of special reports
    - d. Preliminary report formats for review by OWNER.
    - e. General guideline for layout of the reports, and typical reports. This guideline shall establish the typical content and information content of each report.
    - f. Preliminary list of each report to be developed by the System Integrator.
    - g. Reports to be held open for 10 days to allow manual entry as required.
    - h. Day light savings and leap year to be automatically built into the reports.
    - i. Explain how these project reports will be integrated into the existing SCADA reports.

2. Following the Report Design Workshop, the System Integrator shall develop the Process Reports defined during Report Design Workshop 1. The complete set of selected Reports shall be printed and submitted for review.
  3. REPORT DESIGN WORKSHOP 2: After the OWNER has reviewed the Draft Report Design Submittal, a one-day workshop shall be held with the OWNER at the Moline Water Plant site. The System Integrator shall coordinate this meeting, and shall ensure that the System Integrator's system configuration personnel who will be developing the reports attend these workshops.
  4. The purpose of this workshop is to review each Report in detail and to gather comments for required modifications to the reports developed by the System Integrator.
  5. Following this Design Workshop, the System Integrator shall modify the reports in preparation for the SCADA Factory Acceptance Test.
- I. Testing
1. Reports shall be tested as part of the Factory Acceptance Test, and then repeated with actual historical data during the Site Demonstration Test.

#### UV System Integration Deliverables

River Cities Engineering will provide the following services for the City of Moline UV System Integration portion of this project:

- Control System Additions Design
- Time Allotment For Review Meetings
- UV System Controls Communication Software
- PLC IO CAD Drawings
- PLC Programming Labor
- HMI and Report Development Labor
- HMI Review/Report Workshop Labor
- Project Documentation Labor
- Project Review And Offsite Testing Labor
- Onsite Startup and Testing Labor

#### Exclusions and Clarifications

In the event unforeseen tasks arise that are not described in the Process Control System Description or Communication between the UV System Controls and the existing Water Plant SCADA system requires additional hardware/software to communicate properly, additional charges will be billed at River Cities Engineering current "Time and Material" rates. River Cities Engineering current labor rates for project engineering straight time is \$94 per hour and material is River Cities Engineering' cost plus 20%.

All labor has been estimated as straight-time. If The City of Moline requires work to be performed on an accelerated schedule, outside of River Cities Engineering's normal business hours, on Saturdays, Sundays, or Holidays, additional charges for overtime labor will apply.

Pricing

River Cities Engineering can implement the proposed scope of work for a fixed price:

Software Upgrade

Computer Hardware and Software	\$ 30,219.00
Software Installation and Application Conversion Labor	\$ 12,784.00
Onsite Startup and Testing Labor	<u>\$ 4,888.00</u>
<b>Software Upgrade Total Cost</b>	<b>\$ 47,891.00</b>

UV System Integration

Controls Design	\$ 2,256.00
Review Meetings	\$ 2,256.00
UV System Controls Communication Software	\$ 1,596.00
PLC IO CAD Drawings	\$ 3,760.00
PLC Programming Labor	\$ 1,504.00
HMI and Report Development Labor	\$ 5,640.00
HMI Review/Report Workshop Labor	\$ 2,256.00
Project Documentation Labor	\$ 2,256.00
Project Review And Offsite Testing Labor	\$ 1,504.00
Onsite Startup and Testing Labor	<u>\$ 4,512.00</u>
<b>UV System Integration Total Cost</b>	<b>\$ 27,540.00</b>

River Cities Engineering looks forward to working with The City of Moline on this project. If you have any questions or concerns regarding the contents of this proposal, please do not hesitate to contact us.

Submitted by,

Jim Mitchell  
Project Engineer  
River Cities Engineering

## Terms and Conditions

### Billings and Terms of Payment

Unless otherwise specified in River Cities Engineering's quotation, the Purchaser shall pay the purchase price (including the price of goods and fees for services) in full within 30 days after the services are rendered or the goods are shipped. Monthly billings will be on a percent complete basis for labor expended and material received plus a projection of costs to the end of the month. In the event part of an order is shipped, the Purchaser shall pay in full the purchase price for the items shipped within thirty (30) days after shipment. All invoices from River Cities Engineering unpaid after the due date shall bear interest at the rate of one and one-half percent per month. River Cities Engineering may, at its option, cease to perform services or deliver goods to the Purchaser, upon the Purchaser's failure to make timely payment. In the event that collection of any amounts due hereunder are referred to an attorney by River Cities Engineering, Purchaser shall bear all costs of collection, including but not limited to, River Cities Engineering's reasonable attorney's fees.

### Warranty

River Cities Engineering warrants all equipment manufactured by the River Cities Engineering to be free from defects in material and workmanship under normal use and service for a period of twelve (12) months from date of shipment. All parts or products not manufactured by River Cities Engineering will be covered only by the express warranty of the manufacturer. The warranty does not extend to damage or wear caused by misuse, negligence, accident, corrosion, modification by Purchaser, faulty installation, loss of product, or tampering in a manner to impair normal operation of the equipment. River Cities Engineering guarantees to replace, or at its option to repair, any equipment or parts thereof which are found defective in material or workmanship within one year from date of delivery. River Cities Engineering's obligation with respect to such parts shall be limited to replacement or repair F.O.B. job-site, and in no event shall River Cities Engineering be liable for consequential or special damages, or for transportation, installation, adjustment or other expenses which may arise in connection with such equipment or parts. Expendable items are specifically excluded from this warranty.

### Limits of Liability

In no event, regardless of cause, shall River Cities Engineering assume responsibility for or be liable (a) for penalties or penalty clause of any description, or (b) for indemnification of Purchaser or others for costs, damages, or expenses each arising out of or related to the goods or services of this order or for certification unless otherwise specifically provided herein or (c) for indirect, incidental, special, or consequential damages under any circumstances including any loss, injury or damages. River Cities Engineering's maximum liability, including direct damages, shall not exceed the amount of the purchase order. This limitation of River Cities Engineering's liability will apply regardless of the form of action, whether in contract or tort, including negligence.

### Termination of Contract

Cancellations or stop-work requests by Purchaser on any order or part thereof, must be made in writing. Purchaser agrees to pay River Cities Engineering's standard contract labor rate for all labor incurred, River Cities Engineering's net material costs for all materials purchased for that order, including any restocking charges incurred.

### Accelerated / Decelerated Pace of Work Execution

Purchaser acknowledges that if Purchaser requires River Cities Engineering to perform on an accelerated schedule, the risk of errors in the design and development of hardware and software increases as do certain costs, such as but not limited to, express shipping of incoming purchases to River Cities Engineering, charges for expedited manufacture, development and/or delivery of hardware and/or software to River Cities Engineering and, express shipping to Purchaser by River Cities Engineering. Purchaser agrees that upon Purchaser's request to River Cities Engineering to perform on an accelerated basis, Purchaser will compensate River Cities Engineering for the additional costs incurred and work required as a result of the accelerated pace of project execution. Delays caused by the Purchaser, its agents or subcontractors that impact the productivity of River Cities Engineering will be considered a reimbursable claim. The cost impact will be negotiated with the Purchaser. The time and material rate in effect for the project will be utilized to calculate the value of time lost and reimbursable costs.

### Changes in Scope

Changes to work that are considered by River Cities Engineering to be beyond the scope of the present contract will be addressed by declaring to the Purchaser in writing the complete scope, cost, and schedule impact of the desired changes. River Cities Engineering will only take action on the changes when the Purchaser has responded in writing that he agrees with the scope, cost, and schedule impacts.

### Dispute Resolution

It is agreed that any dispute arising out of the performance, negligent performance or non-performance of this contract, will be determined by submission to arbitration as provided by state of domicile law, and not by a lawsuit or resort to court process except as state of domicile law provides for judicial review of arbitration proceedings. All parties to this contract, by entering into it, are giving up their constitutional right to have any such dispute decided in a court of law before a jury, and instead are accepting the use of arbitration as their exclusive remedy. Such arbitration shall be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

### Venue and Jurisdiction

These Terms and Conditions shall be construed in accordance with the law of the state of domicile of River Cities Engineering.

### Force Majeure

If River Cities Engineering is unable to perform the obligations of this contract due to wars, acts of terrorism, riots, acts of governmental authorities, acts of God, civil disturbances, explosions, and other such acts, River Cities Engineering may terminate and have no liability under the terms of this contract.

### Storage of Materials on Site

Materials stored on site to be installed by others are to be considered delivered to the purchaser's care and custody. Materials stored on site to be installed by River Cities Engineering are to be considered in the care and custody of River Cities Engineering but are considered to be billable for progress billing in accordance with the progress billing procedures outlined in the contract terms and conditions.

### Taxes

The Purchaser is responsible for all applicable taxes, including sales and use tax.

### Proposal Expiration

Proposal is valid for 30 days.

Council Bill/Special Ordinance No.: 4008-2014

Sponsor: \_\_\_\_\_

A SPECIAL ORDINANCE

GRANTING a variance to Section 28-3200(a) of the Moline Code of Ordinances to delay installation of a sidewalk for property located at 3404 14<sup>th</sup> Street.

\_\_\_\_\_

WHEREAS, the owner of a newly subdivided lot addressed as 3404 14<sup>th</sup> Street (part of parcel # 072809) has requested a variance from installing sidewalks; and

WHEREAS, City standards require sidewalk installation along all streets at the time a lot is developed; and

WHEREAS, the City Council has identified a lack of connecting sidewalks and a substandard street without curbs or gutters at this location which constitute hardships on the subject property.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MOLINE, ILLINOIS, as follows:

**Section 1** - That this Council hereby finds and declares upon the recommendation of its Committee-of-the-Whole on March 25, 2014, that it is in the best interest of the City of Moline, Illinois, to grant a variance to Sec. 28-3200(a) of the Moline Code of Ordinances for the following described territory to allow the owner of 3404 14<sup>th</sup> Street to delay installation of a sidewalk until such time that it is deemed necessary by the City to place sidewalk at this location:

Lot 2 of Wendt Manor Subdivision, City of Moline, Rock Island County, Illinois.

**Section 2** - That this ordinance shall not constitute a repeal of any or all ordinances or resolutions in conflict herewith but shall be construed as a one-time variance with regard to such conflicting ordinances or resolutions.

**Section 3** - That this ordinance is an exercise of the City's home rule powers granted to it by virtue of Article VII, Section 6 of the 1970 Illinois Constitution, and shall therefore take precedence over any conflicting State Statutes or rules.

**Section 4** - That this ordinance shall be in full force and effect from and after passage, approval, and if required by law, publication in the manner provided for by law.

CITY OF MOLINE, ILLINOIS

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Date

Passed: \_\_\_\_\_

Approved: \_\_\_\_\_

Attest: \_\_\_\_\_

City Clerk

Approved as to Form:

\_\_\_\_\_  
City Attorney

Council Bill /Resolution No. 1052-2014

Sponsor: \_\_\_\_\_

A RESOLUTION

AUTHORIZING the ceding of Home Rule Volume Cap Authority.  
\_\_\_\_\_

WHEREAS, the Internal Revenue Code of 1986 provides that the amount of home rule volume cap which may be used by the City of Moline (the "City") as a constitutional home rule unit is equal to its population multiplied by \$100.00; and

WHEREAS, the Illinois Private Activity Bond Allocation Act, 30 ILCS 345/1 et.seq. provides, among other things that the corporate authorities of any home rule unit may reallocate to a state agency any portion of its unused allocation of volume cap; and

WHEREAS, the City has available year 2014 volume cap and desires to utilize this cap in cooperation with the Quad Cities Regional Economic Development Authority (QCREDA) to support projects that will create jobs and expand the City's tax base.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MOLINE, ILLINOIS, as follows:

That the City of Moline, Illinois hereby agrees to reallocate to the Quad Cities Regional Economic Authority (QCREDA) its 2014 home rule volume cap allocation in the amount of \$4,325,900 to be used to support projects that will provide job opportunities and new investments.

BE IT FURTHER RESOLVED the Finance Director is hereby authorized to execute a Letter of Agreement with QCREDA consenting to such allocation on behalf of the City as authorized.

BE IT FURTHER RESOLVED the Finance Director shall provide a notice of such allocation to the Office of the Governor of the State of Illinois and that this resolution shall be effective from and after its passage.

CITY OF MOLINE

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
April 8, 2014

\_\_\_\_\_  
Date

Passed: April 8, 2014

Approved: April 15, 2014

Attest: \_\_\_\_\_

City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

Council Bill/Resolution No.: 1053-2014

Sponsor: \_\_\_\_\_

A RESOLUTION

AUTHORIZING the Mayor and City Clerk to apply for a highway permit and execute the necessary forms in conjunction with the Quad Cities Classic scheduled for Sunday, May 15, 2014.

\_\_\_\_\_  
WHEREAS, Cornbelt Running Club is sponsoring a road race included in the City of Moline which constitutes a public purpose; and

WHEREAS, this event will require temporary lane closure of the northernmost east-bound lane of 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 1<sup>st</sup> Street to the easternmost side of 11<sup>th</sup> Street, 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 11<sup>th</sup> Street to the easternmost side of 26<sup>th</sup> Street (all lanes), 10<sup>th</sup> Street from the northernmost side of 5<sup>th</sup> Avenue (Illinois 92) to the southernmost lane of 4<sup>th</sup> Avenue (all lanes), and the southernmost west-bound lane of 4<sup>th</sup> Avenue from the easternmost side of 10<sup>th</sup> Street to westernmost side of 1<sup>st</sup> Street; and

WHEREAS, Section 4-408 of the Illinois Highway Code authorized the Department of Transportation to issue permits to local authorities to temporarily close portions of State Highways for such public purposes.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MOLINE, ILLINOIS, as follows:

That permission to temporarily close the northernmost east-bound lane of 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 1<sup>st</sup> Street to the easternmost side of 11<sup>th</sup> Street, 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 11<sup>th</sup> Street to the easternmost side of 26<sup>th</sup> Street (all lanes), 10<sup>th</sup> Street from the northernmost side of 5<sup>th</sup> Avenue (Illinois 92) to the southernmost lane of 4<sup>th</sup> Avenue (all lanes), and the southernmost west-bound lane of 4<sup>th</sup> Avenue from the easternmost side of 10<sup>th</sup> Street to westernmost side of 1<sup>st</sup> Street be and it is hereby requested of the State.

BE IT FURTHER RESOLVED that this closure shall occur during the approximate time period between 6:30 a.m. to 10:30 a.m. on Sunday, May 11, 2014.

BE IT FURTHER RESOLVED that this closure is for the public purpose of a road race.

BE IT FURTHER RESOLVED that temporary lane closure of the northernmost east-bound lane of 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 1<sup>st</sup> Street to the easternmost side of 11<sup>th</sup> Street, 5<sup>th</sup> Avenue (Illinois 92) from the westernmost side of 11<sup>th</sup> Street to the easternmost side of 26<sup>th</sup> Street (all lanes), 10<sup>th</sup> Street from the northernmost side of 5<sup>th</sup> Avenue (Illinois 92) to the southernmost lane of 4<sup>th</sup> Avenue (all lanes), and the southernmost west-bound lane of 4<sup>th</sup> Avenue from the easternmost side of 10<sup>th</sup> Street to westernmost side of 1<sup>st</sup> Street be and it is hereby requested of the State.

BE IT FURTHER RESOLVED that police officers, flaggers, and officials shall permit emergency vehicles in emergency situations to pass through the closed area as swiftly as is safe for all concerned.

BE IT FURTHER RESOLVED that all debris shall be removed from the City of Moline prior to re-opening the State Highway.

BE IT FURTHER RESOLVED that the closure and detour shall be marked according to the Illinois Manual on Uniform Traffic Control Devices.

BE IT FURTHER RESOLVED that the City of Moline shall provide comprehensive general liability insurance policy or an additional insured endorsement in the amount of \$100,000.00 per person and \$500,000.00 aggregate which names the Illinois Department of Transportation and its officials, employees, and agent as insured and which protects them from all claims arising from the requested road closing.

BE IT FURTHER RESOLVED that a copy of this Resolution be forwarded to the Illinois Department of Transportation to serve as a formal request for the permission sought in this resolution and to operate as part of the conditions of said permission.

CITY OF MOLINE, ILLINOIS

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
April 8, 2014

Date

Passed: April 8, 2014

Approved: April 15, 2014

Attest: \_\_\_\_\_  
City Clerk

Approved as to form:

\_\_\_\_\_  
City Attorney