



ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

June 6, 2018

To: Terrence D. McCracken, Secretary to the Authority

From: Michael T. Haendiges, Production Engineer *MTH*

Subject: Contract EMA-003A
Distribution SCADA Replacement
ECWA Project No. 201400160

Attached is Amendment No. 4 to the Professional Services Contract with EMA, Inc. for time extension and cost reduction due to scope change for the above referenced project.

The following documents are attached:

- Blue Authorization Form - this form provides the project name and project number, the action that is being requested of the Board, and it provides a list of approvals that are required prior to being acted on by the Board.
- Three copies of the Amendment signed by the Consulting Engineer and the Production Engineer.
- Supporting EMA Inc. documentation that includes: Progress Billing No. 44, EMA Memo May 31, 2018, EMA Change Order Request – Additional System Testing and Witnessing

Amendment description:

- Amendment No. 4 is a change order request for EMA to provide personnel to witness and document the pumping station and tank cutovers to the new SCADA system for the remaining sites in the project. EMA's original scope was for participation in cutover of twelve of fifty eight sites. ECWA requested that they continue to perform this service for the duration of the project. This will ensure that their design intent and specifications are met. ECWA does not have the resources to perform this service on a full time basis for the duration of the project that is scheduled to be completed in December 2018.

MTH*Imb

Attachments

cc: R.Stoll

L.Kowalski

CONT-EMA-003-A-1401-I-186-B



EMA, Inc.
2355 Highway 36 West, Suite 200
St. Paul, MN 55113-3819

phone: 651.639.5600
www.ema-inc.com

MEMO

DATE: May 31, 2018
TO: Mike Haendiges
FROM: Dean Foote
CC: Philip Gaberdiel
Craig Yokopenic
SUBJECT: Revised Change Order Request – SCADA System Test Witnessing and Project Extension.

EMA's original scope of services included Periodic Sites visits and Test Witnessing during system cutover and testing associated with the new Distribution SCADA System. This level of effort was based on EMA staff participating in cutover and testing activities at approximately 12 sites, with ECWA staff handling the bulk of the activities for the remaining 46 sites.

ECWA has requested that EMA provide additional cutover and testing support along with assisting with the transition of operators over to the new system. These activities represent additional scope, and we are requesting a change order for the work.

The work is proposed to be performed on a Time and Materials basis and not to exceed \$74,280. Our estimated costs for providing additional support services is based on Gary Scheerer and Aaron Grabowska's rates as follows:

130 hours * \$150/hour	=	\$ 19,500 (Gary Scheerer)
390 hours * \$102/hour	=	\$ 39,780 (Aaron Grabowska)
<u>Expenses*</u>	=	<u>\$ 15,000</u>
TOTAL		\$ 74,280

*Assuming 8 trips onsite for Gary Scheerer and Aaron Grabowska temporarily relocating to Buffalo.

If you have any questions, please feel free to contact me and we look forward to performing this work for ECWA.

EMA Change Order Request – Additional SCADA System Test Witnessing

The Water Distribution SCADA System upgrade project currently underway involves the implementation of new HMI hardware and software located at the Van de Water plant, deployment of a new radio network to communicate with remote sites, and replacement of PLC hardware and software at 56 remote sites. Kaman Automation, Inc. was awarded a contract for this project in July 2016.

The new HMI system is currently operational, along with the new radio network. Kaman has also replaced the PLC's at 15 remote sites. Remote site installation and testing activities will continue until December 2019.

EMA, Inc. developed the system design for the Water Distribution SCADA System upgrade project and has been providing construction administration services. In conjunction with these services, EMA included scope and budget for periodic site visits to participate in cutover and testing activities at a selected number of sites (approximately 12), with ECWA staff handling the bulk of the activities.

Due to some of the issues experienced to date with the testing and cutover process, along with the limited availability of ECWA staff, ECWA has requested that an EMA staff member participate in all field testing activities. EMA's original budget for periodic site visits will be depleted by the end of May 2018. This change order provides funds for EMA to provide onsite test support through the end of December 2019.

WAN Design	A#1	\$219,880
Interim IT Director	A#2	\$299,616
WAN Construction	A#3	\$188,390
Current Adjusted EMA Contract Amount		\$3,652,798
SCADA System Test Witnessing	A#4	\$74,280
New Contract Amount		\$3,727,078

APPROVED BY:

EMA, Inc.

Dean Foote
 Dean Foote
 Practice Group Manager

5 June 18
 Date

ERIE COUNTY WATER AUTHORITY

Michael Haendiges June 5, 2018
 Michael Haendiges
 Production Engineer

Date

Jerome Schad
 Chairman

Date

PROFESSIONAL SERVICES CONTRACT

AGREEMENT made this 4th day of September, 2014, by and between:

ERIE COUNTY WATER AUTHORITY
295 Main Street, Room 350
Buffalo, New York 14203

hereinafter referred to as the "Authority", and

EMA, Inc.
2355 Highway 36 West, Suite 200
St. Paul, MN 55113

hereinafter referred to as "Consultant".

WHEREAS, the Authority desires to contract with the Consultant to render professional services upon the terms and for the consideration hereinafter stated;

WHEREAS, the Consultant represents that it is properly qualified to render such services; and

WHEREAS, the parties desire to set forth herein the terms and conditions under which the said professional services will be furnished;

NOW, THEREFORE, in consideration of mutual promises herein set forth, the parties agree as follows:

1. QUALIFICATION OF CONSULTANT:

The Consultant shall perform its services under this agreement in a skillful and competent manner in accordance with the prevailing standards of the consulting profession. The Consultant will be responsible to the Authority for errors or omissions in the performance of its services and failure to perform thereof.

2. SCOPE OF SERVICES:

Listed below is a synopsis of the Scope of Services. Details of the level of effort for each Track/Phase/Task and associated cost are shown in Consultant's original proposal, attached hereto as Exhibit "C", dated May 22, 2014, and Exhibit "C.1", dated August 1, 2014 and incorporated by reference.

Project Management Track

The Consultant will begin the Project Management task by developing a Project Plan. The Plan will include the following information:

- **Task Assignments** – This section will define the roles and responsibilities of Consultant's project manager and project team. The Project Plan will also identify the specific activities that will be assigned to ECWA staff.
- **Budget and Schedule Management/Progress Reporting** – An initial project schedule will be developed and included in the Project Plan. Budget/schedule management and monthly progress reporting will utilize this baseline schedule. **QA/QC** – This section will include a description of Consultant's quality assurance and quality control systems. Consultant's standard QA/QC process and procedures will be modified as necessary to conform to Authority's technical review process and QA/QC templates.
- **Schedule of Deliverables** – The Project Plan will include a table of the anticipated deliverables under this project including at a minimum the following information: name of deliverable, delivery format, and schedule for delivery. This table will be updated by Consultant as necessary and reviewed monthly at the Project Meetings.
- **Project Progress Reports** will be submitted to Authority's Project Manager each month for the duration of the entire project. The progress reports will be formatted to summarize the work completed for the current month and the work planned for the following month. The progress reports will also provide a task-by-task analysis of budget expended versus progress to date. If the expenditures for any task are significantly out of proportion to progress, the report will include a discussion of the contributing factors and a proposed plan for correcting the situation. Progress reports will also include an updated Action List, Decision Log, and Project Schedule.

A Project Kickoff meeting, chaired by Consultant's Project Manager, will be held following project award and Notice-to-Proceed. This meeting will ensure a common understanding of the detailed project scope and schedule by the entire project team. Consultant will review the planned tasks, with special emphasis on activities that will involve Authority staff.

Work and Asset Management System Track

The purpose of this track is to optimize work practices and implement a Commercial, Off-the-Shelf Software (COTS) Work and Asset Management System (WAMS). The WAMS project will provide benefits to Authority that include:

- Integrate work practices between multiple operating groups
- Eliminate duplication and redundant systems and maintenance activities
- Improve availability and accuracy of data for management of the Authority

Phase 1 Business Process Analysis

The first step toward procuring a COTS Work and Asset Management System is to improve current work practices by applying industry best practice concepts. To accomplish this, Consultant will work with the Authority to apply these concepts on how work is currently carried out. Consultant will then identify opportunities to improve the efficiency and effectiveness of current work practices.

The work to be analyzed in this track includes management, line maintenance, plant operations and maintenance, meter shop work, hydrants and valves maintenance, fleet use and maintenance, and related inventory control work and purchasing processes. Together with the Authority, Consultant will verify this list of work areas is correct and complete, and determine how to optimize processes.

The Consultant will perform the following tasks under Phase 1:

- Task 1.1 Best Practices Training
- Task 1.2 Evaluate Current Work
- Task 1.3 Assess and Index Maintenance and Asset Management Practices
- Task 1.4 Develop “To-Be” Processes
- Task 1.5 Perform “Eliminate/Reduce/Shift/Redesign” Process

Phase 2 Management and Change Management Training

Consultant will provide Change Management Training, which will allow staff to better align their skills and required training with the needs of the Authority.

Consultant will conduct individual interviews with management and other Authority leaders to understand their perspective of the strengths and weaknesses of the supervisory team and identify expectations of the program outcomes.

Consultant will develop a training program framework that addresses the current and future development needs of supervisory employees throughout the Authority for non-technical supervisory skills. Consultant will develop training plan policies, goals, objectives, and procedures.

The Consultant will perform the following tasks under Phase 2:

- Task 2.1 Leadership/Management Training Needs Analysis
- Task 2.2 Develop Training Plan

Phase 3 Organization Redesign - Staffing

Consultant will focus on identifying and addressing organizational issues related to implementing the To-Be (Phase 1, Task 1.4) processes.

Consultant will assess and understand organizational opportunities and constraints as they relate to:

- Results of the Business Process Analysis
- Progress on the Authority's Strategic Plan
- Internal Communication Issues

Consultant will attend staff meetings to observe the challenges with current communications. Consultant will identify if communication is constructive in conducting business. Consultant will look to identify any underlying issues that affect the effectiveness of communication so that they can be addressed in the recommendations.

As part of the redesign process and task optimization, the Authority's current staffing plan may need to be modified to meet the new operating requirements. Consultant will either confirm that the existing staffing approach is adequate or will provide Authority with an updated staffing plan for consideration.

Phase 4 Work and Asset Management (WAM) System Requirements Definition

Based on the results of the business process analysis, Consultant will work with the Authority to further develop user and technical requirements for a Work and Asset Management system. Identifying user requirements will position the Authority to select a WAM that will be used by the staff and will provide improvements in business processes. Identifying technical requirements will ensure the Authority will select a WAM that integrates with GIS and other systems, as well as supports mobile technology.

The Consultant will perform the following tasks under Phase 4:

- Task 4.1 Develop High Level Requirements and Business Case
- Task 4.2 Drill-Down Sessions Detailed Requirements
- Task 4.3 Review Detailed Requirements
- Task 4.4 Issue RFQ/RFP and Prepare to Evaluate Responses

Phase 5 Software Evaluation and Procurement

Based on the previous analysis and recommendation performed under Phase 4, the Authority will make a decision as to whether to develop a Request for Proposals (RFP) for procurement of appropriate software or have Consultant procure and implement the software.

The Consultant will perform the following tasks under Phase 5:

- Task 5.1 Evaluate Procurement Options
- Task 5.2 Evaluate RFQ/RFP Responses for Short List (if this procurement option is selected)
- Task 5.3 Conduct Short List Evaluation (if this procurement option is selected)

- Task 5.4 Determine Preferred Vendor
- Task 5.5 Negotiate Contract
- Task 5.6 Hardware Requirements Meeting
- Task 5.7 Business Process Improvement
- Task 5.8 Develop Detailed Plan and Schedule
- Task 5.9 Technical Infrastructure Preparation
- Task 5.10 Maintenance and Data Requirements

Phase 6 System Implementation

Consultant will install four instances of the new software: one test environment, one development environment, one training environment, and one production environment. Consultant will test the installation and load data into the test environment.

The initial training environment will include demonstration data out of the box to be used for training. The three remaining environments will be set up with no data, and Consultant will load Authority data into these environments during the migration process.

The Consultant will perform the following tasks under Phase 6:

- Task 6.1 Software Installation
- Task 6.2 System Administration
- Task 6.3 Define Technical Requirements
- Task 6.4 WMS Configuration
- Task 6.5 Data Validation/Migration
- Task 6.6 Testing
- Task 6.7 Resolve Deficiency List
- Task 6.8 Training

IT Strategy Development Track

Creating an IT Master Plan will address IT needs while providing a roadmap to make technology investments to improve business operations as well as to plan, budget, and implement high-priority recommendations from the Management Audit project.

Phase 1 Information Systems Assessment/Assess Current Situation

Consultant will analyze Authority's current information technology environment, focusing on business and technical fitness. The assessment will utilize an application analysis workshop and infrastructure review to examine (but not be limited to) hardware (servers, workstation, notebooks, mobile, etc.), networks, operating systems, software, applications, application interfaces, and connectivity. During this task, Consultant will share best practices and industry trends and identify potential opportunities revealed by industry best practices.

Consultant will prepare a report that summarizes results of needs assessment and recommendations involving the information systems and applications. Following a review meeting, the results will be finalized and incorporated into the final deliverable.

Phase 2 Technology Organization Governance and Skills Assessment

The Consultant will focus on two elements of the Authority's organization: the methods associated with IT Governance and the skills possessed by the Authority's IT professionals. Effective technology services delivery is heavily dependent on an organizational structure that reflects the Authority's business objectives. In addition to structure, documented and optimized governance procedures must be practiced. Information technology governance is the set of procedures and business rules used to determine the Authority's technology strategy and ensure Data Processing staff support delivers value, mitigates technology risks, and measures Data Processing Department performance. IT governance is not an isolated discipline or activity. It is integral to Authority operations. The IT organization design and staffing levels and skills must support the following:

- Service levels (performance, capacity, continuous service, problem resolution, security, upgrades and modifications, etc.)
- Third party contracts and activities
- Information technology budgeting and planning
- End-user training
- Administrative procedures (backup and recovery, disaster recovery, facilities maintenance, etc.)
- System and process performance monitoring

Consultant will compile the results into an IT organization and governance report. This report will include the current situation and present recommendations for organizational structure and governance procedures, and staffing and training requirements based on the results of the interview and workshop activities.

Phase 3 Develop Information Technology Projects Plan/Roadmap

Consultant will apply a facilitated process to develop IT projects for updating the Authority's IT Master Plan. The first step in this process involves consolidating the information systems assessment and staffing evaluation findings and conclusions, identifying improvement opportunities, and formulating projects for acting upon those recommendations. Working with leadership, Consultant will conduct an opportunities evaluation workshop to identify critical success factors, objectives, actions for the implementation roadmap of the IT Projects Plan, and the ongoing sustained support for current applications and systems.

Each IT project will be separately summarized with a purpose, description, timeline, cost estimate, staffing implications, prerequisites, and justification that identifies the business needs based on the Authority's requirements. Practice improvements and systems integration will be considered depending on the specific project.

Once the projects are presented to the Authority for review and approval, one of the last steps in the process will involve the prioritization of the IT projects. The resulting list of projects will then be analyzed for business and technical interdependencies, and staffing implications, as well as the Authority's Strategic Planning Objectives and constraints.

Transmission SCADA Track

The purpose of this track is to provide enhanced operations of the Transmission System.

Phase 1 SCADA System Design

The first phase focuses on development of the requirements and design of the SCADA System replacement. This phase ensures the Authority's operational requirements are clearly and accurately reflected in the design of the replacement system.

The Consultant will perform the following tasks under Phase 1:

- Task 1.1 Transmission system SCADA Replacement Pre-Design
- Task 1.2 Transmission system SCADA Replacement Design

Phase 2 SCADA System Implementation

In this project activity, the base replacement SCADA System will be implemented. The base system will enable system operations to be transferred to the new system but will not have some of the advanced features that will be part of the ultimate system.

The Consultant will perform the following tasks under Phase 2:

- Task 2.1 Transmission system SCADA Replacement - Base System
- Task 2.2 RTU/Radio Replacement - Critical Sites & Remaining Sites
- Task 2.3 SCADA System Training

Phase 3 Operations & Maintenance Re-Organization

In conjunction with the SCADA System replacement, Consultant will assist the Authority in restructuring the existing operations and support to more effectively utilize the new system.

The Consultant will perform the following tasks under Phase 3:

- Task 3.1 Restructure SCADA Maintenance and Support
- Task 3.2 Restructure Transmission System Operations

Phase 4 System Optimization

Replacing the Transmission System SCADA System will enable the Authority to consider implementing more advanced automated control schemes. The more flexible and powerful programming capabilities of the M340 PLCs can be leveraged to provide a greater degree of localized automatic control. In addition, by leveraging the IP-based communications capabilities of the SD9 radios, it may be possible to establish peer-to-peer communications between some sites which will support control schemes that involve multiple remote sites.

The Consultant will perform the following tasks under Phase 4:

- Task 4.1 Implement System Coordination Programming
- Task 4.2 Implement System Optimization Programming

3. **PAYMENT FOR SERVICES:**

A. For services described under Section 2, Scope of Services, the Authority shall pay Consultant the following hourly billing rates on the hours worked at straight time (without overtime premium), plus direct non-salary expenses. Itemized invoices shall be submitted for payment monthly. A Roster identifying the employee and title corresponding to the Classification in this section is attached as Exhibit D. The Roster shall be amended as required to accurately reflect personnel changes of the Classification titles of individuals performing work under this Contract. Amending the Roster shall not be considered an alteration of the contract. Consultant shall provide an amended Roster within two (2) weeks of Authority's request for an Amended Roster.

<u>Classification</u>	<u>Hourly Rate</u>
Principal-in-Charge.....	\$340
Program Manager.....	\$280
Principal Consultant.....	\$250
Senior Consultant.....	\$230
Consultant.....	\$200
Senior Engineer.....	\$200
System Engineer.....	\$180
Project Engineer.....	\$160
Engineer.....	\$145
Technician.....	\$130
Project Administrator.....	\$100

B. Consultant anticipates that this project can be completed in approximately 39 months, but will confirm and finalize the project schedule with the Authority staff during project initiation.

The amount of compensation to be paid to Consultant for all services under this Agreement shall not exceed **Two Million, Nine Hundred Thirty-Eight Thousand, Seven Hundred Seventy-Six Dollars and Zero Cents (\$2,938,776.00)** referred to hereafter as the Not To Exceed Amount ("NTE"). Total compensation due Consultant shall be the actual amount invoiced based upon the Consultant's hourly billing rates, which may be less than the NTE amount. Reimbursable Expenses are included in the NTE. The NTE does not include Hardware and Software, and subcontractors and their reimbursables for reasons set forth in paragraph 3.E., below. The estimate for the total cost of this project is Four Million, Three Hundred Eighty-Eight Thousand, Seven Hundred Seventy-Six Dollars and Zero Cents (\$4,388,776.00), subject to adjustments as the Authority deems appropriate based upon recommendations by the Consultant.

The following table provides a breakdown of the Total Estimated Project Cost:

Total Estimated Project Cost					
Track	Labor	Subs	HW/SW	Expenses	Total
Project Management	\$379,840.00	\$---	\$---	\$48,000.00	\$427,840.00
Work and Asset Management System					
Phase 1 – Business Process Analysis	\$256,128.00	\$---	\$---	\$15,000.00	
Phase 2 – Management and Change Management Training	\$27,840.00	\$---	\$---	\$5,000.00	
Phase 3 – Organization Redesign – Staffing	\$37,120.00	\$---	\$---	\$5,000.00	
Phase 4 – WAM System Requirements Definition	\$89,088.00	\$---	\$---	\$25,000.00	
Phase 5 – Software Evaluation and Procurement	\$152,192.00	\$---	\$250,000.00	\$50,000.00	
Phase 6 – System Implementation	\$323,408.00	\$---	\$---	\$80,000.00	
Work and Asset Management System Total	\$885,776.00	\$---	\$250,000.00	\$180,000.00	\$1,315,776.00
IT Strategy Development					
Phase 1 – Information Systems Assessment/Assess Current Situation	\$27,840.00	\$---	\$---	\$5,000.00	
Phase 2 – Technology Organization Governance and Skills Assessment	\$55,680.00	\$---	\$---	\$5,000.00	
Phase 3 – Develop Information Technology Projects Plan/Roadmap	\$74,240.00	\$---	\$---	\$5,000.00	
IT Strategy Development Total	\$157,760.00	\$---	\$---	\$15,000.00	\$172,760.00
Transmission SCADA Track					
Phase 1 – SCADA System Design	\$205,200.00	\$---	\$---	\$15,000.00	
Phase 2 – SCADA System Implementation	\$383,800.00	\$410,000.00	\$740,000.00	\$25,000.00	
Phase 3 – Operations & Maintenance Re-Organization	\$88,400.00	\$---	\$---	\$10,000.00	
Phase 4 – System Optimization	\$520,000.00	\$---	\$---	\$25,000.00	
Transmission SCADA Total	\$1,197,400.00	\$410,000.00	\$740,000.00	\$75,000.00	\$2,422,400.00
Special Services	\$---	\$---	\$---	\$---	\$50,000.00
Subtotal	\$2,620,776.00	\$410,000.00	\$990,000.00	\$318,000.00	
Total Estimated Project Cost					\$4,388,776.00

Legend:

Labor = Hourly Rate x Estimated EMA Labor Hours. See Exhibit C for estimated hours.

Subs = SCADA Integrators, Engineering Consultants, Electrical Contractors, Microwave System Consultants.

HW/SW = Hardware and Software for Work and Asset Management and SCADA.

Expenses = Direct Non-Salary Expenses.

Details of the level of effort for each Track/Phase/Task and associated cost are shown in Consultant's original proposal (attached as Exhibit "C").

C. Direct non-salary expenses shall include airfare, lodging, and meals while traveling.

D. The Authority shall reimburse the Consultant for actual direct non-salary expenses incurred by the Consultant when engaged directly in Authority work. Any direct non-salary expenses submitted for reimbursement which has not been pre-approved, or requested in advance by the Authority will be reimbursed at the sole discretion of the Authority.

E. The Authority shall reimburse the Consultant for actual subcontractor and hardware/software expenses incurred by the Consultant when engaged directly in Authority work. Any subcontractor and hardware/software expenses submitted for reimbursement which has not been pre-approved, or requested in advance by the Authority will be reimbursed at the sole discretion of the Authority. The Authority reserves the right to contract directly with proposed subcontractors and procure hardware and software if, after considering procurement procedures and warranty issues, it is in the Authority's best interest to do so.

F. The Authority shall reimburse travel expenses to the Consultant in accordance with the New York State Office of the State Comptroller's Travel Guidelines (available on their website at <http://www.osc.state.ny.us/agencies/travel/travel.htm>) and at the per diem rates website at: <http://www.gsa.gov/> under Travel Resources, Per-Diem Rates. Allowable reimbursement for commercial airline travel shall include the actual expense or cost for the least expensive logical fare via the most direct route, or a reasonable alternative route if it results in lower fare.

G. Special Services

The Authority may require the Consultant to provide or arrange for and assist in obtaining one or more of the following special services in carrying out the project. Because it is not possible to determine in advance the need for or the cost of such services, these are included as separate elements of cost which shall be separately negotiated. These services include but are not limited to:

1. Soils Investigations - including test borings, pavement cores, and the related analysis.
2. Detailed mill, shop and/or laboratory inspection of materials and equipment.
3. Land surveys, maps, plates, descriptions and title investigations which may be required to acquire lands, easements, and rights-of-way for the proposed facilities.
4. Additional copies of reports, contract drawings and documents.
5. Extra travel and subsistence for the Consultant and his staff beyond that normally required under ordinary circumstances, when authorized by the Authority.
6. Assistance to the Authority serving as an expert witness in litigation arising from project development or construction.
7. New York State SEQR (Type I and Unlisted Actions).
8. Air, water, soil, and/or residuals sampling, testing, and/or analysis.
9. Operation and maintenance manuals.
10. Start-up services.
11. Hazardous material testing and assessment.
12. Wetlands investigations, delineation, and mitigation.
13. Submittals to NYSERDA for energy rebates.
14. SPDES Permit revisions.

H. No mark-up shall be allowed on any direct non-salary expenses and subcontractor costs submitted for reimbursement.

4. **SUBCONTRACT AND ASSIGNMENT:** The Consultant may not subcontract or delegate any of the work, services, and/or other obligations of the Consultant without the express written consent of the Authority. The Authority and the Consultant bind themselves and their successors, administrators and assigns to the terms of this Agreement. The Consultant shall not assign, sublet or transfer its interest in the Agreement without the written consent of the Authority.
5. **AMENDMENTS:** No modification or variation from the terms of this Agreement shall be effective unless it is in writing and authorized by a resolution of the Board of Commissioners of the Authority and signed by all parties.
6. **RIGHT TO TERMINATE:** The Authority reserves the right to terminate the Consultant's services at any time, without cause, based on seven (7) days written notice. Consultant shall not be entitled to lost profit and shall perform only such services, after notification of termination, as the Authority directs.
7. **INDEMNIFICATION:** The Consultant shall indemnify the Authority against any and all claims arising from the services performed by the Consultant herein and shall defend and hold harmless the Authority from and against all claims, suits, actions, costs, counsel fees, expenses, damages, judgments or decrees based upon or arising out of damage to property or injury to persons or other tortious conduct caused or contributed to it by the Consultant or anyone under its direction or control or on its behalf in the course of its performance under this Agreement. The Consultant further agrees to indemnify, defend and hold harmless the Authority from any and all claims in reference to the services performed by the Consultant hereunder which may infringe on a patent, copyright, trade secret or other proprietary right of any third party.
8. **CONFIDENTIAL INFORMATION:** To assist the Consultant in the performance of this Agreement, the Authority may provide the Consultant with confidential information including, but not limited to information relative to the services to be performed. All information received by the Consultant in any fashion and under any conditions resulting from the rendering of the services in consideration of this agreement, is considered confidential. The Consultant shall hold in confidence and not disclose to any person or any entity, any information regarding information learned during the performing of services including but not limited to information relative to the services to be performed.

The Consultant shall use at least the same degree of care to protect and prevent unauthorized disclosure of any confidential information as it would use to protect and prevent unauthorized disclosure of its own proprietary information. The Consultant shall use confidential information only in the performance of this Agreement. No other use of the confidential information whether for the consultant's benefit or for the benefit of others shall be permitted.

In no event is the Consultant authorized to disclose confidential information without the prior written approval of the Authority. The terms of this paragraph shall be binding during and subsequent to the termination of this agreement.

9. **INSURANCE:** The Consultant shall secure and maintain such insurance as will protect itself from claims under the Workers' Compensation Act; claims for damages because of bodily injury, including personal injury, sickness or disease, or death of any of its employees or of any person other than its employees; and from claims for damages because of injury to or destruction of property including loss of use resulting there from in the amounts indicated on Exhibit "A". The Consultant shall provide and maintain insurance that will provide coverage for claims arising out of the negligent performance of its services. The Consultant shall provide Certificates of Insurance certifying the coverage required by this provision.

10. **COPYRIGHTS, TRADE MARKS, AND LICENSING:** All materials produced under this Agreement, whether produced by the Consultant alone or with others, and whether produced during regular working hours, shall be considered work made for hire and the property of the Authority. The Consultant shall, during and subsequent to the terms of this Agreement, assign to the Authority, without further consideration, all right, title and interest in all material produced under this Agreement. All material produced under this Agreement shall be and remain the property of the Authority whether or not registered.

In performing work under this agreement, the Consultant may be granted access to the Authority's GIS data, documents, and other information. The Consultant understands and agrees that the use of such data, documentation and information shall be treated as confidential information and the Consultant shall abide by the terms and conditions of any confidentiality and copyright leasing agreements (attached as Exhibit "B").

11. **NEW YORK LAW AND JURISDICTION:** Notwithstanding any other provision of this Agreement, any dispute concerning any question of fact or law arising under this Agreement which is not disposed of by agreement between the Consultant and the Authority shall be governed, interpreted and decided by a Court of competent jurisdiction of the State of New York in accordance with the laws of the State of New York.

12. **CONFLICTS OF INTEREST:** The Consultant represents that it has advised the Authority in writing prior to the date of signing this Agreement of any relationships with third parties, including competitors of the Authority, which would present a conflict of interest with the rendering of the services, or which would prevent the Consultant from carrying out the terms of this Agreement or which would present a significant opportunity for the disclosure of confidential information. The Consultant will advise the Authority of any such relationships that arise during the term of this Agreement. The Authority shall then have the option to terminate the Agreement without further liability of the Consultant, except to pay for services actually rendered.

13. **ADDITIONAL CONDITIONS:** The Consultant and the Authority acknowledge that there may be additional conditions, terms and provisions which shall apply specifically to the services to be performed. The parties agree to negotiate in good faith to agree upon such additional terms.
14. **ENTIRE AGREEMENT:** This Agreement constitutes the entire understanding of the parties and no representations or agreements, oral or written, made prior to its execution shall vary or modify the terms herein. This Agreement supersedes all prior contemporaneous communications, representations, or agreements, whether oral or written with respect to the subject matter hereof and has been induced by no representations, statements or agreements other than those herein expressed. No agreement hereafter made between the parties shall be binding on either party unless reduced to writing and signed by an authorized officer of the party sought to be bound thereby.
15. **INDEPENDENT STATUS:** Nothing contained in the Agreement shall be construed to render either the Authority or the Consultant a partner, employee or agent of the other, nor shall either party have authority to bind the other in any manner, other than as set forth in this Agreement, it being intended that the Consultant shall remain an independent contractor responsible for its own actions. The Consultant is retained by the Authority only for the purpose and to the extent set forth in this Agreement.

The Consultant is free to choose the aggregate number of hours worked and substantially all of the scheduling of such hours as it shall see fit at its discretion within the limitations set forth hereinbefore in Paragraph 2.

Neither the Consultant nor its employees shall be considered under the provisions of this Agreement or otherwise as having an employee, servant or agency status or as being entitled to participate in any plans, arrangements or distributions of the Authority.

In providing the services under this Agreement, the Consultant represents and warrants that it has complied with all applicable federal, state and local laws particularly with respect to licenses, withholdings, reporting and payment of taxes. The Consultant agrees to furnish copies of documentation to the Authority evidencing its compliance with such laws. The Consultant further represents and warrants that any income accruing to the Consultant and its employees from the Agreement shall be reported as such to the appropriate taxation authorities.

16. **COMPLIANCE:** The Consultant agrees that the Agreement herein shall be in compliance with and governed by the provisions of Sections 2875, 2876, and 2878 of the Public Authorities Law of the State of New York. The Consultant further affirms under the penalties of perjury that there was no collusion in the proposal submitted herein to the Authority which forms the basis of the within Agreement.
17. **GRATUITIES:** The Consultant prohibits its employees from using their positions for personal financial gain, or from accepting any personal advantage from anyone under circumstance which might reasonably be interpreted as an attempt to influence the

recipients in the conduct of their official duties. The Consultant or its employees shall not, under circumstances which might be reasonably interpreted as an attempt to influence the recipients in the conduct of their duties, extend any gratuity or special favor to employees of the Authority.

18. **NOTICE:** Any notices required by this Agreement or otherwise shall be delivered by United States Postal Service or personal delivery upon the addresses hereinbefore stated. Any change in such addresses shall be required to be in writing to the other party and acknowledged as such.
19. **SEVERABILITY:** If any provision of this agreement shall be held invalid or unenforceable, in whole or in part, such provision shall be modified to the minimum extent necessary to make it valid and enforceable, and the validity and enforceability of all other provisions of this agreement shall not be affected thereafter.
20. **TERMINATION:** The Authority reserves the right to terminate this contract in the event it is found that the Certification filed by the Consultant in accordance with New York State Finance Law Section 139-k was intentionally false or intentionally incomplete. Upon such finding, the Authority may exercise its termination right by providing written notification to the Consultant in accordance with the written notification terms of this contract.

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ERIE COUNTY WATER AUTHORITY

By: Francis G. Warthling
Francis G. Warthling, Chairman

EMA, Inc.

By: Craig Yokopenic
Craig Yokopenic, Executive Vice President

STATE OF NEW YORK)
COUNTY OF ERIE)ss:

On the 4th day of September, in the year 20 14, before me personally came Francis G. Warthling to me known, who, being by me duly sworn, did depose and say that he resides in Blasdell, New York, that he is the Chairman of the Corporation described in the above instrument; and that he signed his name thereto by order of the Board of Directors of said Corporation.

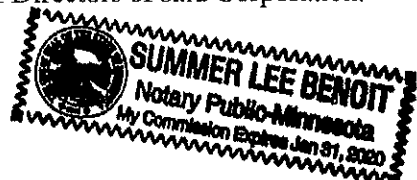
Patricia Fabozzi
Notary Public

PATRICIA FABOZZI #4957586
Notary Public, State of New York
Qualified in Erie County
My Commission Expires October 16, 2017

Minnesota
STATE OF NEW YORK)
COUNTY OF ERIE Ramsey)ss:

On the 28th day of August, in the year 20 14, before me personally came Craig Yokopenic, to me known, who, being by me duly sworn, did depose and say that he resides in Lake Elmo, MN, that he is the Executive Vice President of the

(City and State)
Corporation described in the above instrument; and that he signed his name thereto by order of the Board of Directors of said Corporation.


SUMMER LEE BENOIT
Notary Public-Minnesota
My Commission Expires Jan 31, 2020

Summer L. Benoit
Notary Public