

**A SPECIAL ORDINANCE OF THE CITY OF NEVADA, MISSOURI AUTHORIZING THE EXECUTION OF AN AGREEMENT WITH BLACK AND VEATCH FOR AN ENGINEERING STUDY CONCERNING WATER TREATMENT PLANT UPGRADES.**

**WHEREAS**, the City of Nevada's Water Treatment Plant is aging, and;

**WHEREAS**, the City's engineers and the Missouri Department of Natural Resources recommend modifications, and;

**WHEREAS**, the City has implemented the procedure of selection of a qualified engineering firm, and;

**WHEREAS**, the staff recommends the engineering services contract attached hereto and referred to herein.

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEVADA, MISSOURI, THAT:**

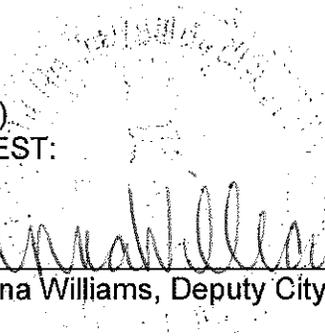
**Section 1.** The agreement attached hereto and incorporated herein by reference is approved as a contractual obligation of the City of Nevada, Missouri.

**Section 2.** The Mayor and the City Clerk are hereby authorized and directed to execute said agreement on behalf of the City of Nevada, Missouri, and to affix the municipal seal thereto and to attest the same.

**Section 3.** This ordinance shall be in full force and effect from and after its date of passage and approval.

**PASSED, APPROVED AND ADOPTED** by the City Council of the City of Nevada, Missouri, this 17th day of October, 2017.

(seal)  
ATTEST:

  
  
Johnna Williams, Deputy City Clerk

  
Brian L. Leonard, Mayor

**AGENDA ITEM**  
October 3, 2017

Subject: Water Treatment Plant Improvements Engineering Study

Department: Water Treatment Plant

Request for qualifications were solicited by the City of Nevada for engineering services in reference to an engineering study for water treatment plant upgrades. A special committee was established to review the qualifications submitted by interested engineering firms. Based on an official scoring system, the Committee selected Black and Veatch as the most qualified engineering firm to perform the requested engineering services.

This ordinance will approve the attached agreement, in the amount of \$114,000.00 with Black and Veatch, 8400 Ward Parkway, Kansas City, MO. 64114, to perform an engineering study of the water treatment plant to include recommendations for plant upgrades of aged equipment and treatment technologies.

**MASTER AGREEMENT  
FOR DESIGN PROFESSIONAL AND ENGINEERING SERVICES  
CITY OF NEVADA, MISSOURI**

**THIS AGREEMENT** is made on the 17th day of October 2017, by and between Black & Veatch, of 11401 Lamar Avenue, Overland Park, Kansas, 66211, hereinafter called "Contractor" and City of Nevada, Missouri, hereafter called "City" whose address is 110 S. Ash, Nevada, Missouri 64772.

**WHEREAS**, the City and many Contractors enter into multiple agreements each year for different projects; and

**WHEREAS**, each of these agreements contain the basic terms and conditions under which the Contractor will perform services for the City on specific Projects; and

**WHEREAS**, the basic terms and conditions typically do not change from agreement to agreement; and

**WHEREAS**, the City desires to simplify the contracting process by prequalifying Contractors and entering into Work Orders that set forth the scope of work, schedule and compensation for each project and incorporate the basic terms and conditions applicable to each contract; and

**WHEREAS**, the City and Contractor desire to enter into an Agreement that will be incorporated into each subsequent Work Order entered into by City and Contractor; and

**WHEREAS**, the City desires to enter into master agreements with qualified Contractors to agree on the basic terms and conditions under which the Contractor may perform services for the City as defined below in Sec. 2 on an "as needed" basis determined solely by the City pursuant to the Work Order defined in Section 2.

**NOW, THEREFORE**, in consideration of the mutual agreements contained in this Agreement, City and Contractor agree as follows:

**PART I**

## SPECIAL TERMS AND CONDITIONS

### Sec. 1. Agreement of the Parties.

Execution of this Agreement does not create any right in or expectation to a contract with the City nor obligates the City to negotiate or execute a Work Order with a Contractor. Neither party has any obligation under this Agreement until this Agreement is effective and:

1. This Agreement is signed by both parties; and
2. A Work Order (as defined below in Sec. 2) is mutually agreed upon, signed by the parties and certified as to availability of funds by the City Manager.

### Sec. 2. Work Order.

A. Services. All services assigned by City to Contractor under this Agreement will be set forth in a written Work Order specific for each Project.

B. "Work Order" means the following:

1. A document in substantial conformance with Attachment A and any amendments thereto, attached hereto and incorporated herein, which contains the following:

- a. Identification of the project ("Project") to which the Work Order applies;
- b. Description of the services to be performed ("Services");
- c. Compensation to be paid to Contractor for the Services ("Compensation");
- d. Proposed schedule for performance of the Services ("Schedule");
- e. The effective date of the Work Order; and
- f. Any additional terms and conditions specific to the Project.

C. Each Work Order and any amendment to a Work Order executed pursuant to this Agreement will automatically be incorporated by reference into and made a part of this Agreement. The terms and conditions of this Agreement are part of each Work Order and any amendment to a Work Order executed hereunder.

D. This Agreement imposes no financial obligation on the City. The City's financial obligation under this Agreement is limited to amounts set forth in each Work Order, which shall be signed by the City Manager or his designee.

E. Changes to this Agreement can be made only by a written amendment signed by both parties. Changes to a Work Order can be made only by a written Work Order Amendment signed by both parties.

F. It is a condition precedent to payment of any invoice from Contractor for services

provided under a Work Order that Contractor is in compliance with, and not in breach or default of all terms, covenants and conditions of this Master Agreement and the applicable Work Order. If damages are sustained by City as a result of breach or default by Contractor, City may withhold payment(s) to Contractor for the purpose of set-off until such time as the exact amount of damages due City from Contractor may be determined. No request for payment will be processed unless the request is in proper form, correctly computed and is approved as payable in accordance with the Work Order and this Master Agreement. City is not liable for any obligation incurred by Contractor except as approved under the provisions of the Work Order and this Master Agreement.

**Sec. 3. Contractor's Responsibilities**

- A. Contractor shall designate a project manager for the performance of the service.
- B. Contractor shall perform the services as an independent contractor and not as City's agent or employee. Contractor shall be solely responsible for the compensation, benefits, contributions and taxes, if any, of its employees and agents
- C. The standard of care applicable to Contractor's services will be the degree of skill and diligence normally employed by professionals performing the same or similar services. Contractor shall re-perform any services not meeting this standard without additional compensation.
- D. If the Scope of Services performed by Contractor under this Agreement includes construction administration, then Contractor shall perform such additional Works set forth in the General Conditions of the City's construction contract and comply with the limitations set forth in the General Conditions, except as otherwise amended.

**Sec. 4. Responsibilities of City. City shall:**

- A. Make available to Contractor existing records, maps, plans and other data possessed by City when such are necessary, advisable or helpful to Contractor in the completion of the work under this Agreement.
- B. If required or upon recommendation of Contractor, retains the services of a soils/geotechnical consultant.
- C. Designate in writing a person to act as City representative with respect to the work to be performed pursuant to each Work Order; with such person having complete authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to the materials, equipment elements and systems pertinent to the work covered by a Work Order, and the responsibility to be available to inspect and review the work and to consult with Contractor at any reasonable time.
- D. If the Scope of Services performed by Contractor under this Agreement includes

construction administration, City will notify Contractor of any modifications to the City's General Conditions.

**Sec. 5. City's Rights.**

A. City shall have the right to inspect and review the work being done and to consult with Contractor at any reasonable time. Conferences will be held at the request of City or Contractor.

B. If the City determines it to be in the best interest of any Project, the Contractor shall replace the project manager or any other employee of the Contractor, Contractor's sub consultant, suppliers or other persons or organizations performing or furnishing any of the work on the Project

**Sec. 6. Merger.**

This Master Agreement consists of two (2) parts, Part I Special Terms and Conditions (including any Attachments, Work Order or other incorporated documents) and Part II Standard Terms and Conditions. This Agreement, including any Attachments, Work Order(s) and incorporated documents, constitutes the entire agreement between City and Contractor with respect to this subject matter.

**Sec. 7. Conflict Between Agreement Parts.**

In the event of any conflict or ambiguity between Part I Special Terms and Conditions and Part II Standard Terms and Conditions of this Agreement, Part I will be controlling.

**Sec. 8. Term of Agreement.**

A. This Agreement shall be effective for a period of one (1) year and shall automatically continue year to year unless one of the following conditions occur: (1) either Party sends notice to other Party that the Agreement is terminated; or (2) the parties sign a new Master Agreement for Contractors that supersedes this Agreement.

B. The City Manager or his designee is authorized to enter into an amendment document to extend the term and/or time for performance of this Agreement and any Work Order.

C. In the event of the expiration or partial termination of this Agreement, Contractor shall, unless otherwise directed by City, complete its performance of any outstanding Work Order(s) then pending in accordance with the terms and conditions of such Work Order(s) and this Agreement. In such case, the specifications, terms and conditions of the Work Order(s) and this Agreement shall be deemed to have survived the expiration of this Agreement with respect to such Work Order(s) until such time as the Work Order(s) are completed.

**Sec. 9. Notices.**

All notices required by this Agreement shall be in writing sent by regular U.S. mail, postage prepaid or commercial overnight courier to the following:

City of Nevada  
Master Agreement  
JD Kehrman, City Manager  
110 South Ash  
Nevada, Missouri 64772

Phone: (417)-448-5101 E-mail: [JDKehrman@nevadamo.gov](mailto:JDKehrman@nevadamo.gov)

All notices are effective on the date mailed or deposited with courier.

**Sec. 10. Attachments to Part I.** The following documents are Attachments to Part I of this Agreement and are attached hereto and incorporated herein by this reference:

- ATTACHMENT A** Standard Work Order Form
- ATTACHMENT B** Scope of Services

**Sec. 11. Documents Incorporated by Reference.** The following documents are not attached to this Agreement but are incorporated into and made a part of this Agreement by this reference:

- All Work Orders entered into pursuant to this Agreement.
- All amendments to any Work Order entered into pursuant to this Agreement.

**THIS AGREEMENT CONTAINS INDEMNIFICATION PROVISIONS**

**CONTRACTOR**

**CITY OF NEVADA, MISSOURI**

I hereby certify that I have authority to execute this contract on behalf of Contractor

By: Jeffrey W. Henson

By: Brian L. Leonard

Name Printed: Jeffrey W. Henson

Name Printed: Brian L. Leonard

Title: Associate Vice President

Title: MAYOR - City of Nevada

Date: October 23, 2017

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

(Affix Corporate Seal)

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## PART II

### STANDARD TERMS AND CONDITIONS

#### Sec. 1. General Indemnification.

A. For purposes of this Section 1 only, the following terms shall have the meanings listed:

1. **Claims** means all claims, damages, liability, losses, costs and expenses, court costs and reasonable attorneys' fees, including attorneys' fees incurred by the City in the enforcement of this indemnity obligation.

2. **Design Professional's Agents** means Design Professional's officers, employees, subcontractors, subconsultants, successors, assigns, invitees, and other agents.

3. **City** means City, its Program Manager/Construction Advisor and any of their agents, officials, officers and employees.

B. Design Professional's obligations under this Section with respect to indemnification for acts or omissions, including negligence, of City shall be limited to the coverage and limits of General (not Professional) Liability insurance that Design Professional is required to procure and maintain under this Agreement. Design Professional affirms that it has had the opportunity to recover the costs of the liability insurance required in this Agreement in its contract price.

C. Design Professional shall defend, indemnify and hold harmless City from and against all Claims arising out of or resulting from all acts or omissions in connection with this Agreement caused in whole or in part by Design Professional or Design Professional's Agents, regardless of whether or not caused in part by an act or omission, including negligence, of City. Design

City of Nevada Master Service Agreement

Professional is not obligated under this Section to indemnify City for the sole negligence of City.

D. Nothing in this section shall apply to indemnification for professional negligence which is specified in a separate provision of this Agreement.

E. In no event shall the language in this section constitute or be construed as a waiver or limitation of the City's rights or defenses with regard to sovereign immunity, governmental immunity, or other official immunities and protections as provided by the federal and state constitutions or by law.

#### Sec. 2. Indemnification for Professional Negligence.

Design Professional shall indemnify, and hold harmless City and any of its agencies, officials, officers, or employees from and against all claims, damages, liability, losses, costs, and expenses, including court costs and reasonable attorneys' fees, to the extent caused by any negligent acts, errors, or omissions of the Design Professional, its officers, employees, subconsultants, subcontractors, successors, assigns, invitees and other agents, in the performance of professional services under this Agreement. Design Professional is not obligated under this Section to indemnify City for the negligent acts of City or any of its agencies, officials, officers, or employees.

#### Sec 3. Insurance.

A. Design Professional shall procure and maintain in effect throughout the duration of this Agreement, and for a period of two (2) years thereafter, insurance coverage not less than the types and amounts specified below. In the event that additional insurance, not specified herein, is required during the term of this Agreement,

Form MA100 (Rev. 5/9/2012)

Page 6

Design Professional shall supply such insurance at City's cost.

1. Commercial General Liability Insurance: with limits of \$2,000,000 per occurrence. The policy shall be written or endorsed to include the following provisions:

a. Severability of Interests Coverage applying to Additional Insured

b. Per Project Aggregate Liability Limit or, where not available, the aggregate limit shall be \$2,000,000

c. No Contractual Liability Limitation Endorsement

2. Worker's Compensation Insurance: as required by Missouri State Statute Chapter 287 RSMo.

3. Professional Liability Insurance with limits Per Claim/Annual Aggregate of \$2,000,000.

B. The policies listed above may not be canceled until after thirty (30) days written notice of cancellation to City, ten (10) days in the event of nonpayment of premium. The Commercial General Liability Insurance specified above shall provide that City and its agencies, officials, officers, and employees, while acting within the scope of their authority, will be named as additional insureds for the services performed under this Agreement. Design Professional shall provide to City at execution of this Agreement a certificate of insurance showing all required endorsements and additional insureds.

C. Regardless of any approval by City, it is the responsibility of Design Professional to maintain the required insurance coverage in force at all times; its failure to do so will not relieve it of any

contractual obligation or responsibility. In the event of Design Professional's failure to maintain the required insurance in effect, City may order Design Professional to immediately stop work, and upon ten (10) days notice an opportunity to cure, may pursue its remedies for breach of this Agreement as provided for herein and by law.

D. In no event shall the language in this Section constitute or be construed as a waiver or limitation of the City's rights or defenses with regard to sovereign immunity, governmental immunity, or other official immunities and protections as provided by the federal and state constitutions or by law.

#### **Sec. 4. Design Standards and Endorsement.**

A. Except as otherwise directed in writing by City, in the performance of services under this Agreement, Design Professional shall comply with all design standards required by federal, state, local laws or codes.

B. Design Professional shall use all design standards recognized and used in the industry in the performance of services under this agreement. Design Professional shall endorse all plans and specifications, or estimates, and engineering data furnished under this Agreement if prepared by Design Professional. All subcontractors as appropriate shall endorse their respective plans and specifications, or estimates, and engineering data furnished for the Plan or Project.

C. Design Professional shall monitor quality assurance for their design services and shall revise the design and plans at their own expense in case of error or oversight in design by Design Professional or any subcontractor to Design Professional.

**Sec. 5. Copyright and Ownership of Documents.**

Design Professional shall on its behalf and on behalf of its employees and agents, promptly communicate and disclose to City all computer programs, documentation, software and other copyrightable works and all discoveries, improvements and inventions conceived, reduced to practice or made by Design Professionals or its agents, whether solely or jointly with others, during the term of this Agreement resulting from or related to any work Design Professional or its agents may do on behalf of City or at its request. All inventions and copyrightable works that Design Professional is obligated to disclose shall be and remain entirely the property of City. It is agreed that all inventions and copyrightable works are works made for hire and shall be the exclusive property of City. Design Professional hereby assigns to City any rights it may have in such copyrightable works. Design Professional shall cooperate with City in obtaining any copyrights or patents.

B. Original documents, including plans, specifications, reports, maps, models and renderings, including electronic media, prepared or obtained under the terms of this Agreement shall be delivered to and become the property of City and basic survey notes, diaries, sketches, charts, computations and other data shall be made available upon request by City without restriction or limitation of their use. There shall be no legal limitations upon City in the subsequent use of the documents or ideas developed in the documents. In the event that any of the documents are reused by City, the nameplates or other identification to the Design Professional will be removed and the Design Professional will be released of subsequent liabilities. In the event that any of the design drawings are reused or modified by City, the name plates or other

identification to the Design Professional will be removed.

**Sec. 6. Compliance with Laws.**

Design Professional shall comply with all federal, state and local laws, ordinances and regulations applicable to the work and this Agreement.

**Sec. 7. Termination for Convenience.**

A. City may, at any time upon ten (10) days notice to Design Professional specifying the effective date of termination, terminate this Agreement, in whole or in part. If this Agreement is terminated by City, City shall be liable only for payment for services rendered before the effective date of termination. Design Professional shall prepare an accounting of the services performed and money spent by Design Professional up to the effective date of termination and shall return to City any remaining sums within thirty (30) days of such date.

B. If this Agreement is terminated prior to Design Professional's completion of services, all work or materials prepared or obtained by Design Professional pursuant to this Agreement shall become City's property.

C. If this Agreement is terminated prior to Design Professional's completion of the services to be performed hereunder, Design Professional shall return to City and sums paid in advance by City for services that would otherwise have had to be rendered between the effective date of termination and the original ending date of the Agreement. Design Professional shall prepare an accounting of the services performed and money spent by Design Professional up to the effective date of termination and shall return to City any remaining sums within thirty (30) days of such date.

**Sec. 8. Default and Remedies.**

If Design Professional shall be in default or breach of any provision of this Agreement, City may terminate this Agreement, suspend City's performance, withhold payment or invoke any other legal or equitable remedy after giving Design Professional notice and opportunity to correct such default or breach.

**Sec. 9. Waiver.**

Waiver by City of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach of the same or of any term, covenant or condition. No term, covenant, or condition of this Agreement can be waived except by written consent of City, and forbearance or indulgence by City in any regard whatsoever shall not constitute a waiver of same to be performed by Design Professional to which the same may apply and, until complete performance by Design Professional of the term, covenant or condition, City shall be entitled to invoke any remedy available to it under this Agreement or by law despite any such forbearance or indulgence.

**Sec. 10. Acceptance.**

No payment made under this Agreement shall be proof of satisfactory performance of the Agreement, either wholly or in part, and no payment shall be construed as acceptance of deficient or unsatisfactory work.

**Sec. 11. Modification.**

Unless stated otherwise in this Agreement, no provision of this Agreement may be waived, modified or amended except in writing signed by City.

**Sec. 12. Headings; Construction of Agreement.**

The headings of each section of this Agreement are for reference only. Unless the context of this Agreement clearly requires otherwise, all terms and words used herein, regardless of the number and gender in which used, shall be construed to include any other number, singular or plural, or any other gender, masculine, feminine or neuter, the same as if such words had been fully and properly written in that number or gender.

**Sec. 13. Severability of Provisions.**

Except as specifically provided in this Agreement, all of the provisions of this Agreement shall be severable. In the event that any provision of this Agreement is found by a court of competent jurisdiction to be unconstitutional or unlawful, the remaining provisions of this Agreement shall be valid unless the court finds that the valid provisions of this Agreement are so essentially and inseparably connected with and so dependent upon the invalid provisions(s) that it cannot be presumed that the parties to this Agreement could have included the valid provisions without the invalid provision(s); or unless the court finds that the valid provisions, standing alone, are incapable of being performed in accordance with the intentions of the parties.

**Sec. 14. Records.**

A. For purposes of this section:

1. "City" shall mean the City Manager, the City department administering this Contract and their delegates and agents.
2. "Record" shall mean any document, book, paper, photograph, map, sound recordings or other material, regardless of physical form or

characteristics, made or received in connection with this Contract and all Contract amendments and renewals.

B. Design Professional shall maintain and retain all Record for a term of two (2) years that shall begin after the expiration or termination of this Contract and all Contract amendments. City shall have a right to examine or audit all Records and Design Professional shall provide access to City of all Records upon ten (10) days written notice from the City.

**Sec. 15. Assignability and Subcontracting.**

A. Assignability. Design Professional shall not assign or transfer any part or all of Design Professional's obligation or interest in this Contract without prior written approval of City. If Design Professional shall assign or transfer any of its obligations or interests under this Contract without the City's prior written approval, it shall constitute a material breach of this Contract. This provision shall not prohibit Design Professional from subcontracting as otherwise provided for herein.

B. Subcontracting. Design Professional shall not subcontract any part or all of Design Professional's obligations or interests in this Contract unless the subcontractor has been identified in a format required by City. If Design Professional shall subcontract any part of Design Professional's obligations or interests under this Contract without having identified the subcontractor, it shall constitute a material breach of this Contract. The utilization of subcontractors shall not relieve Design Professional of any of its responsibilities under the Contract, and Design Professional shall remain responsible to City for the negligent acts, errors, omissions or neglect of any subcontractor and of such subcontractor's

officers, agents and employees. City shall have the right to reject, at any point during the term of this Contract, any subcontractor identified by Design Professional, and to require that any subcontractor cease working under this Contract. City's right shall be exercisable in its sole and subjective discretion. City shall not be obligated to pay or be liable for payment of any monies which may be due to any subcontractor. Design Professional shall include in any subcontract a requirement that the subcontractor comply with all requirements of this Contract in performing Design Professional's services hereunder.

**Sec. 16. Conflicts of Interest.**

Design Professional certifies that no officer or employee of City has, or will have, a direct or indirect financial or personal interest in this Agreement, and that no officer or employee of City, or member of such officer's or employee's immediate family, either has negotiated, or has or will have an arrangement, concerning employment to perform services on behalf of Design Professional in this Agreement.

**Sec. 17. Conflict of Interest - Certification.**

Design Professional certifies that Design Professional is not an expert witness for any party in litigation against the City at the time of the issuance of this Contract.

**Sec. 18. Buy American Preference.**

It is the policy of the city that any manufactured goods or commodities used or supplied in the performance of any city Agreement or any subcontract hereto shall be manufactured or produced in the United States whenever possible.

**Sec. 19. Independent Contractor.**

Design Professional is an independent contractor

and is not City's agent. Design Professional has no authority to take any action or execute any documents on behalf of City.

**Sec. 20. - LIMITATIONS OF RESPONSIBILITY**

Engineer shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; (2) the failure of any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to the Owner or to comply with federal, state, or local laws, regulations, and codes; or (3) procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to Engineer in Attachment A Work Orders or Attachment B Scope of Work.

**Sec. 21. - OPINIONS OF COST AND SCHEDULE**

Since Engineer has no control over the cost of labor, materials, or equipment furnished by others not under contract to Engineer, or over the resources provided by others not under contract to Engineer to meet Project schedules, Engineer's opinion of probable costs and of project schedules for construction shall be made on the basis of experience and qualifications as a professional engineer. Engineer does not guarantee that proposals, bids, or actual Project costs will not vary from Engineer's opinions of probable cost or that actual schedules will not vary from Engineer's projected schedules.

**ATTACHMENT A**

STANDARD WORK ORDER FORM

WORK ORDER NO. 1 FOR ENGINEERING PROFESSIONAL SERVICES

CITY DEPARTMENT: Water Treatment Plant

PROJECT NAME: Water Treatment Plant Engineering Study 2017

PROJECT NO. \_\_\_\_\_

This Work Order is made this 17<sup>th</sup> day of October, 2012~~2017~~, by and between City of Nevada, Missouri, a home rule charter city of the State of Missouri, hereafter called City whose address is 110 S. Ash, Nevada, Missouri 64772 (City), and Black and Veatch (Contractor) pursuant to the terms and conditions set forth in the Master Agreement for Contractors executed between the parties on the \_\_\_\_ day of \_\_\_\_\_, 2012~~2017~~, (Agreement), which incorporate this Work Order and any Amendments to this Work Order by reference.

1. The Work Order number, Project Name and Project Number shall be referenced in each invoice submitted by Contractor to City under this Work Order.
2. Contractor shall perform the following Scope of Services under this Work Order including time of performance for this Work Order:
  - A. Contractor shall perform the Scope of Services listed on **Attachment B**
3. Unless sooner terminated as provided in the Master Agreement, this Work Order shall remain in force until the City closes out this capital improvement project. The City Manager is authorized to enter into an amendment to extend the term of the Work Order and time of performance for this Work Order. Contractor shall meet the following Schedule for the Services:
4. The Maximum Compensation to be paid to Contractor for the performance of the Services under this Work Order is \$ 114,000. Contractor shall be paid on the following basis:
5. Contractor shall provide the following deliverables under this Work Order:
6. Other terms and conditions of this Work Order are:
  - A. Provide project-specific liability insurance as required in Master Agreement.
7. Attachments to this Work Order:

**CONTRACTOR**

Jeffrey W Henson  
Signature

Jeffrey W Henson  
Name (Printed or Typed)

October 23, 2017  
Date

**CITY OF NEVADA, MISSOURI**

Brian L Leonard  
Signature

Brian L Leonard  
Name (Printed or Typed)

10/17/17  
Date

## **ATTACHMENT B**

### **SCOPE OF SERVICES**

### **SCOPE OF PROJECT**

#### **Engineering Study – Water Treatment Plant**

The existing plant was built and placed into operation in 1984. The Reverse Osmosis Vessel technology was changed from hollow fiber to spiral wound technology in the early 1990's. The current design capacity is 1.4 MGD. Due to loss of efficiency within the RO process we are currently only able to produce approximately 1.1 MGD. We frequently experience demand in excess of 1.0 MGD and peaks of 1.4 MGD during summer high demand months. The plant was designed to be a 75% recovery RO plant. We are currently performing at approximately 55% recovery with heavy bio-fouling. Our goal is to examine new technologies or upgrades to the current plant treatment infrastructure to enable the treatment process to meet current and future water demand of a minimum of 2 MGD.

**The engineering study should include recommendations for the following items.**

#### **Analysis of current Reverse Osmosis Treatment process including:**

- New RO technology for added daily treatment capacity
- Converting from Chlorine Gas to Sodium Hypochlorite
- Replacement of current sulfuric acid bulk storage tank
- Replacement of current caustic bulk storage tank
- Replacement of pumps and piping for interior sulfuric acid and caustic pump rooms
- Upgrade or replacement of current degasification system
- Upgrade or replacement of current air scrubbers
- Upgrading current automation control process to full SCADA system
- Replacement or upgrade of high service pumps and associated manifold and distribution piping
- Replacement or upgrade of the 5-micron filter system
- Cost Estimates for replacing or upgrading existing treatment process equipment



Nevada, Missouri  
 Water Treatment Plant Study  
 1-Aug-17

Task/Level of Effort		Project Dir.	Project Mgr.	Eng. Mgr.	Sr. Process Engr.	Process Engineer	Technician	Mech Process	Elect. Eng.	I&C Eng.	Quality Control Eng.	Estimator	Admin. & Accounting	Total Staff Days	Labor	Expenses	Total
1.	Project Initiation Meeting	0.75	0.75	0.75	0.5	0.5		0.5	0.5	0.5				5	\$7,442	\$0	\$7,442
2.	Prepare Data Request		0.25		0.5	1.5		0.25	0.5	0.25				3	\$4,250	\$0	\$4,250
3.	Conduct Facility Inspection		1			3		1.5	1.5	1.5				9	\$10,420	\$75	\$10,495
4.	Reverse Osmosis System Evaluation		0.5		2.5	3.5	1		0.25	0.5				8	\$11,580	\$0	\$11,580
5.	Alternative Disinfectant (Sodium Hypochlorite) Evaluation		0.5			0.25	1	4	0.25	0.25				6	\$7,810	\$0	\$7,810
6.	Sulfuric Acid Storage & Feed System Improvements		0.25			0.25	0.5	2	0.25	0.25				4	\$4,330	\$0	\$4,330
7.	Sodium Hydroxide (Caustic) Storage & Feed System Improv.		0.25			0.25	0.5	2	0.25	0.25				4	\$4,330	\$0	\$4,330
8.	Degasification System Scrubber Improvements		0.25		0.25	1		2	0.25	0.25				4	\$5,170	\$0	\$5,170
9.	High Service Pump Discharge Pipe & Valve Replacement		0.25	1										1	\$1,876	\$0	\$1,876
10.	Plant Control System Evaluation		0.25			0.5			0.5	3				4	\$5,260	\$0	\$5,260
11.	Ozone Facility Evaluation		0.5		3	5.5	1	2	1.5	0.25				14	\$18,350	\$0	\$18,350
12.	Conceptual Opinion of Probable Project Cost		0.25		0.25	1		1.5	1.5	1				6	\$6,860	\$0	\$6,860
13.	Engineering Study Report	0.5	1	2	0.75	3		2	2.5	2	1	3	4.25	22	\$25,882	\$565	\$26,247
<b>Totals</b>		1.25	6	3.75	7.75	20.25	4	17.75	9.75	10	1	3	4.25	88.8	\$113,560	\$440	\$114,000