

# City of Columbia

701 East Broadway, Columbia, Missouri 65201



**Agenda Item Number:** R 47-15

**Department Source:** Water & Light

**To:** City Council

**From:** City Manager & Staff

**Council Meeting Date:** 3/16/2015

**Re:** Engineering Services Agreement for Condition Assessments of the McBaine Water Treatment Plant and West Ash Pump Station

## Documents Included With This Agenda Item

Council memo, Resolution/Ordinance, Exhibits to Resolution/Ordinance

**Supporting documentation includes:** None

## Executive Summary

Staff has prepared for Council consideration a resolution authorizing the City Manager to execute an agreement with Black & Veatch of Chesterfield, Missouri in the amount of \$249,400.00 for professional engineering services required for the condition assessment of the McBaine Water Treatment Plant and West Ash Pump Station.

## Discussion

Columbia Water and Light is currently planning the modification and upgrade of the existing McBaine Water Treatment Plant to ensure compliance with existing and anticipated water quality regulations and projected future water demands. Future water demands are project to exceed existing plant capacity of 32 million gallons per day by 2024 according to the most recent long range water studies. The Water Treatment Plant Preliminary Design Report prepared by Carollo Engineers, recommended steps in planning for the plant expansion. A vital step identified in the report was the completion of a detailed condition assessment of the plant facilities. This assessment is needed to determine the life expectancy of current plant equipment and costs associated with continued operation of plant equipment to match the life of potential expansion options. Staff has elected to also include the West Ash Pump Station as part of the assessment due to its similar age to the McBaine Water Treatment Plant and the criticality of the facility to the water distribution system.

The proposed scope of services, in Attachment "A" of the agreement, will include the evaluation of existing maintenance and performance data and a physical assessment of assets including a review of mechanical, structural, chemical, electrical, instrumentation and control components. A detailed engineering report will be prepared based on the results of the study including: (1) costs to rehabilitate current deteriorated assets to return to design operating conditions, (2) costs to rehabilitate and upgrade current deteriorated assets without increasing capacity, and (3) costs to rehabilitate and upgrade current deteriorated assets with an increase in operating capacity. This assessment will be instrumental in planning for the future expansion of the McBaine Water Treatment Plant, Well Field and West Ash Pump Station. The data collected from this Condition Assessment

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will also serve as the foundation for an enhanced asset management program.

Black & Veatch was selected to conduct this work through a formal request for proposal process. Black & Veatch has historically displayed their expertise in producing quality products and services for Columbia Water and Light and served as the original designer of both the McBaine Water Treatment Plant and the West Ash Pump Station.

## Fiscal Impact

Short-Term Impact: The proposed contract with Black & Veatch is not to exceed \$249,400.00 for the Condition Assessment of the McBaine Water Treatment Plant and West Ash Pump Station with an estimated time of completion of 210 calendar days. Funding for this project has been appropriated under Capital Improvement Project No. WT0147 for the McBaine Water Treatment Plant Condition Assessment and Upgrade.

Long-Term Impact: None

## Vision, Strategic & Comprehensive Plan Impact

Vision Impact: Development, Economic Development, Environment

Strategic Plan Impact: Infrastructure

Comprehensive Plan Impact: Infrastructure

## Suggested Council Action

Staff recommends Council approve this resolution allowing the City Manager to execute an agreement with Black & Veatch for the Condition Assessment of the McBaine Water Treatment Plant and the West Ash Pump Station.

## Legislative History

None

  
Department Approved

  
City Manager Approved

Introduced by \_\_\_\_\_ Council Bill No. R 47-15

**A RESOLUTION**

authorizing an agreement for professional engineering services with Black & Veatch Corporation for condition assessment of the McBaine Water Treatment Plant and West Ash Pump Station.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Manager is hereby authorized to execute an agreement for professional engineering services with Black & Veatch Corporation for condition assessment of the McBaine Water Treatment Plant and West Ash Pump Station. The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor

**AGREEMENT**  
**For**  
**PROFESSIONAL ENGINEERING SERVICES**  
**Between**  
**THE CITY OF COLUMBIA, MISSOURI**  
**And**  
**BLACK & VEATCH CORPORTATION**

THIS AGREEMENT made as of \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between the City of Columbia, Missouri, hereinafter called the CITY, and BLACK & VEATCH CORPORTATION, hereinafter called the ENGINEER.

WITNESSETH, that whereas the CITY intends to make improvements as described below, hereinafter called the PROJECT, consisting of the following:

McBaine Water Treatment Plant Condition assessment,  
including Well field and West Ash Booster Pump Station

NOW, THEREFORE, in consideration of the mutual covenants set out herein the parties agree as follows:

ENGINEER shall serve as CITY's professional engineering contractor in those assignments to which this Agreement applies, and shall give consultation and advice to CITY during the performance of the services. All services shall be performed under the direction of a professional engineer registered in the State of Missouri and qualified in the particular field.

**SECTION 1 - AUTHORIZATION OF SERVICES**

1.1 ENGINEER shall not undertake to begin any of the services contemplated by this agreement until directed in writing to do so by CITY. CITY may elect to authorize the PROJECT as a whole or in parts.

1.2 Authorized work may include services described hereafter as Basic Services or as Additional Services of ENGINEER.

**SECTION 2 - BASIC SERVICES OF ENGINEER**

2.1 General

2.1.1 Perform professional engineering services as set forth in Attachment A - "Scope of Services," dated , January 30, 2015.

2.1.2 The ENGINEER will designate the following listed individuals as its project team with responsibilities as assigned. The ENGINEER shall dedicate whatever additional resources are necessary to accomplish the PROJECT within the specified time frame but will not remove these individuals from the assigned tasks for any reason within the control of the ENGINEER without the written approval of the CITY.

<u>Name and Title</u>	<u>Assignment</u>
Tom Ratzki, Vice President	Project Director
Andrew Hansen, Project Manager	Project Manager
Ben Freese, Engineering Manager	Engineering Manager–Pointof Contact

All of the services required hereunder will be performed by the ENGINEER or under its supervision and all personnel engaged in the work shall be fully qualified and authorized or permitted under state and local law to perform such services.

None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the CITY and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 The ENGINEER shall furnish such periodic reports as the CITY may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred, and any other matters covered by this Agreement.

2.3 The ENGINEER shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Agreement and any other records as deemed necessary by the CITY to assure proper accounting for all project funds. These records must be available to the CITY or its authorized representatives, for audit purposes, and must be retained for three (3) years after expiration or completion of this Agreement.

### SECTION 3 - ADDITIONAL SERVICES OF ENGINEER

#### 3.1 General

If authorized in writing by CITY, and agreed to in writing by ENGINEER, ENGINEER shall furnish or obtain from others Additional Services of the following types which are not considered normal or customary Basic Services. The scope of Additional Services may include:

##### 3.1.1 Financial Consultation

To the extent permitted by the rules of the Municipal Securities Regulatory Board promulgated under Dodd-Frank Wall Street Reform and Consumer Protection Act for an entity that is not a registered municipal advisor, Consult with CITY's fiscal agents and bond attorneys and provide such engineering data as required for any bond prospectus or other financing requirements

- 3.1.2           Property Procurement Assistance  
Provide consultation and assistance on property procurement as related to professional engineering services being performed.
- 3.1.3           Obtaining Services of Others  
Provide through subcontract the services or data set forth in Attachment A.
- 3.1.4           Preliminary or final engineering design of capital facilities except as specifically identified herein.
- 3.1.5           Preparation of reports, data, application, etc., in connection with modifications to FEMA floodplain definition and/or mapping.
- 3.1.6           Extra Services  
Services not specifically defined heretofore that may be authorized in writing by CITY.

#### SECTION 4 - RESPONSIBILITIES OF CITY

- 4.1           Provide full information as to CITY's requirements for the PROJECT.
- 4.2           Assist ENGINEER by placing at ENGINEER's disposal available information pertinent to the assignment including previous reports and other data relative thereto, including the items outlined in Attachment A - "Scope of Services," dated January 30, 2015.
- 4.3           Guarantee access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform his services under this Agreement.
- 4.4           Examine all studies, reports, sketches, estimates, Bid Documents, Drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto.
- 4.5           Provide such professional legal, accounting, financial and insurance counseling services as may be required for the PROJECT.
- 4.6           Designate Shawn Carrico, as CITY's representative with respect to the services to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define CITY's policies and decisions with respect to materials, equipment, elements and systems to be used in the PROJECT, and other matters pertinent to the services covered by this Agreement.

4.7 Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any defect in the PROJECT.

4.8 Furnish approvals and permits from all governmental authorities having jurisdiction over the PROJECT and such approvals and consents from others as may be necessary for completion of the PROJECT.

4.9 Furnish ENGINEER data such as probings and subsurface explorations, with appropriate professional interpretations; property, boundary, easement, right-of-way, topographic and utility surveys; zoning and deed restriction; and other special data or consultations, all of which ENGINEER may rely upon in performing his services under this Agreement.

## SECTION 5 - PERIOD OF SERVICE

5.1 This Agreement will become effective upon the first written notice by CITY authorizing services hereunder.

5.2 This Agreement shall be applicable to all work assignments authorized by CITY subsequent to the date of its execution and shall be effective as to all assignments authorized.

5.3 Services shall be started within 10 calendar days of Notice to Proceed and completed as indicated in **Attachment B – Compensation**. CITY shall have the right to establish performance times for individual phases or elements of the PROJECT by delivering a written schedule setting out the performance times to the ENGINEER.

## SECTION 6 - PAYMENTS TO ENGINEER

6.1 Amount of Payment

6.1.1.1 For time spent by personnel, payment at the hourly rates indicated in the "Schedule of Hourly Labor Billing Rates" (Attachment B – Compensation). Such rates include overhead and profit. The schedule is effective to January 1, 2016, and may be revised thereafter.

6.1.1.2 For outside expenses incurred by ENGINEER, such as authorized travel and subsistence, commercial services, and incidental expenses, the cost to ENGINEER.

6.1.1.3 For reproduction, printing, long-distance telephone calls, company

vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to "schedule of charges (2015)" (Attachment B – Compensation). This schedule is effective to January 1, 2016; and may be revised thereafter.

6.1.1.4 For professional services rendered by others as subcontractor(s) to ENGINEER such as surveying, real property descriptions, soil borings, subsurface investigations, laboratory testing, field quality control tests, progress photos, or other activities required or requested by CITY, will be billed at the cost to ENGINEER.

6.1.1.5 For time spent by outside individual professional consultants employed by ENGINEER in providing services to CITY, the cost to ENGINEER. Expenses incurred by such outside consultants in service to CITY shall be reimbursable in accordance with 6.1.1.2 above.

6.1.2 Total payment for Scope of Services and all other expenses and costs to the City under this agreement and described herein shall not exceed \$249,400.00

## 6.2 Payments

6.2.1 The ENGINEER shall submit an invoice for services rendered to the CITY not more than once every month. Upon receipt of the invoice and progress report, the CITY will, as soon as practical, pay the ENGINEER for the services rendered, provided the CITY does not contest the invoice.

## SECTION 7 - GENERAL CONSIDERATIONS

### 7.1 Insurance

7.1.1 ENGINEER'S INSURANCE: ENGINEER agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this contract the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as CITY's review or acceptance of insurance maintained by ENGINEER is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by ENGINEER under this contract

**Commercial General Liability** ENGINEER agrees to maintain Commercial General Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. Coverage shall not contain any endorsement(s) excluding nor limiting Contractual Liability or Cross Liability. If the contract involves any underground/digging operations, the general liability certificate shall include X, C and U (Explosion, Collapse and Underground) coverage.

**Professional Liability** ENGINEER agrees to maintain Professional (Errors & Omissions) Liability at a limit of liability not less than **\$2,000,000** per claim and **\$2,000,000** aggregate. For policies written on a "Claims-Made" basis, ENGINEER agrees to maintain a Retroactive Date prior to or equal to the effective date of this contract. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced; or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this contract, ENGINEER agrees to purchase a SERP with a minimum reporting period not less than two **(2)** years. The requirement to purchase a SERP shall not relieve ENGINEER of the obligation to provide replacement coverage.

**Business Automobile Liability** ENGINEER agrees to maintain Business Automobile Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence and not less than \$150,000 per individual, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the ENGINEER's own automobiles, and trucks; hired automobiles, and trucks; and automobiles both on and off the site of work. Coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event ENGINEER does not own automobiles, ENGINEER agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

**Workers' Compensation Insurance & Employers' Liability** ENGINEER agrees to take out and maintain during the life of this contract, Employers' Liability and Workers' Compensation Insurance for all of their employees employed at the site of the work, and in case any work is sublet, the ENGINEER shall require the subcontractor similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the ENGINEER. Workers' Compensation coverages shall meet Missouri statutory limits. Employers' Liability minimum limits shall be \$500,000 each employee, \$500,000 each accident and \$500,000 policy limit. In case any class of employees engaged in hazardous work under this contract is not protected under the Workers' Compensation Statute, the ENGINEER shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.

**Excess/Umbrella Liability** The above liability limits may be satisfied by any combination of primary and excess/umbrella liability policies.

**Additional Insured** ENGINEER agrees to endorse CITY as an Additional Insured with a CG 2026 Additional Insured – Designated Person or Organization endorsement, or similar endorsement, to the Commercial General Liability. The Additional Insured shall read "City of Columbia."

**Waiver of Subrogation** ENGINEER agrees by entering into this contract to a Waiver of

Subrogation for each required policy herein except professional liability. When required by the insurer, or should a policy condition not permit ENGINEER to enter into an pre-loss agreement to waive subrogation without an endorsement, then ENGINEER agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should ENGINEER enter into such an agreement on a pre-loss basis.

**Certificate(s) of Insurance** ENGINEER agrees to provide CITY with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect. Said Certificate(s) of Insurance shall include a minimum thirty **(30)** day endeavor to notify due to cancellation or non-renewal of coverage. The Certificate(s) of Insurance shall name the City as additional insured in an amount as required in this contract and contain a description of the project or work to be performed.

**Right to Revise or Reject** CITY reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage. Additionally, the CITY reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein or any insurer providing coverage due of its poor financial condition or failure to operating legally.

7.1.2        **HOLD HARMLESS AGREEMENT:** To the fullest extent not prohibited by law, ENGINEER shall indemnify and hold harmless the City of Columbia, its directors, officers, agents and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any negligent act or failure to act, or willful misconduct, of ENGINEER, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with ENGINEER or a subcontractor for part of the services), of anyone directly or indirectly employed by ENGINEER or by any subcontractor, or of anyone for whose acts the ENGINEER or its subcontractor may be liable, in connection with providing these services except as provided in this Agreement. This provision does not, however, require ENGINEER to indemnify, hold harmless or defend the City of Columbia from its own negligence, except as set out herein.

7.1.3        **Professional Oversight Indemnification.** The ENGINEER understands and agrees that CITY has contracted with ENGINEER based upon ENGINEER's representations that ENGINEER is a skilled professional and fully able to provide the services set out in this Agreement. In addition to any other indemnification set out in this Agreement, ENGINEER agrees to defend, indemnify and hold and save harmless the CITY from any and all claims, settlements and judgments whatsoever arising out of the CITY's alleged negligence in hiring or failing to properly supervise the ENGINEER.

The insurance required by this Agreement shall include coverage which shall meet ENGINEER's obligations to indemnify the CITY as set out above and the CITY shall be named as co-insured for such insurance.

## 7.2 Professional Responsibility

7.2.1 ENGINEER will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted good professional engineering practices. If the ENGINEER fails to meet the foregoing standard, ENGINEER will perform at its own cost, and without reimbursement from CITY, the professional engineering services necessary to correct errors and omissions which are caused by ENGINEER's failure to comply with above standard, and which are reported to ENGINEER within one year from the completion of ENGINEER's services for the PROJECT.

7.2.2 In addition, ENGINEER will be responsible to CITY for damages caused by its negligent conduct during its activities at the PROJECT site or in the field.

## 7.3 Estimates and Projections

Estimates and projections prepared by ENGINEER relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are based on ENGINEER's experience, qualifications and judgment as a design professional. Since ENGINEER has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, competitive bidding or market conditions and other factors affecting such estimates or projections, ENGINEER does not guarantee that actual rates, costs, performance, schedules, etc., will not vary from estimates and projections prepared by ENGINEER.

## 7.4 On-Site Services

PROJECT site visits by ENGINEER during construction shall not make ENGINEER responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s)' failure to perform its work in accordance with the plans and specifications.

## 7.5 Changes

CITY shall have the right to make changes within the general scope of ENGINEER's services, with an appropriate change in compensation, upon execution of a mutually acceptable amendment or change order signed by an authorized representative of the CITY and the President or any Vice President of the ENGINEER.

## 7.6 Suspension of Services

Should CITY fail to fulfill its responsibilities as provided under Section 4 to the extent that ENGINEER is unduly hindered in his services or if CITY fails to make any payment to ENGINEER on account of its services and expenses within ninety (90) days after receipt of ENGINEER's bill therefor, ENGINEER may, after giving seven (7) days' written notice to CITY, suspend services under this Agreement until CITY has satisfied his obligations under this Agreement.

#### 7.7 Termination

Services may be terminated by the CITY at any time and for any reason, and by the ENGINEER in the event of substantial failure to perform in accordance with the terms hereof by the CITY through no fault of the ENGINEER, by ten (10) days' notice. If so terminated, CITY shall pay ENGINEER all uncontested amounts due ENGINEER for all services properly rendered and expenses incurred to the date of receipt of notice of termination.

7.7.1 In the event of CITY's termination of the Agreement pursuant to the above section, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared under this Agreement, shall at the option of the CITY become its property.

Further, the ENGINEER shall not be relieved of any liability to the CITY for any damages sustained by the CITY by virtue of any breach of this Agreement by ENGINEER and the CITY may withhold any payments due the ENGINEER for the purpose of set-off until such time as the exact amount of damages to the CITY, if any, is determined.

#### 7.8 Publications

Recognizing the importance of professional development on the part of ENGINEER's employees and the importance of ENGINEER's public relations, ENGINEER may prepare publications, such as technical papers, articles for periodicals, and press releases, pertaining to ENGINEER's services for the PROJECT. Such publications will be provided to CITY in draft form for CITY's advance review. CITY will review such drafts promptly and will provide comments to ENGINEER. CITY may require deletion of proprietary data or confidential information from such publications but otherwise will not unreasonably withhold its approval. The cost of ENGINEER's activities pertaining to any such publication shall be paid entirely by ENGINEER.

#### 7.9 Nondiscrimination

During the performance of this Agreement, ENGINEER agrees to the following:

7.9.1. ENGINEER shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. ENGINEER shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion,

sex, age, disability, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. ENGINEER agrees to post notices in conspicuous places, available to employees and applicants for employment.

7.9.2 ENGINEER shall, in all solicitation or advertisements for employees placed by or on behalf of ENGINEER, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, disability, or national origin.

7.9.3 ENGINEER shall comply with all provisions of State and Federal Laws governing the regulation of Equal Employment Opportunity including Title VI of the Civil Rights Act of 1964.

7.10 Successor and Assigns

CITY and ENGINEER each binds himself and his successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither CITY nor ENGINEER shall assign, sublet or transfer his interest in the Agreement without the written consent of the other.

7.11 Rights and Benefits

ENGINEER's services will be performed solely for the benefit of the CITY and not for the benefit of any other persons or entities.

7.12 Compliance with Local Laws

ENGINEER shall comply with all applicable laws, ordinances and codes of the state and city.

7.13 Law; Submission to Jurisdiction Governing.

This Contract shall be governed by, interpreted and enforced in accordance with the laws of the State of Missouri and/or the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Contract Document, shall be Boone County, Missouri or the United States Western District of Missouri. The parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri and waive any defense of forum non conveniens

7.14 Employment of Unauthorized Aliens Prohibited

7.14.1 ENGINEER agrees to comply with Missouri State Statute section 285.530 in that they shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

7.14.2 As a condition for the award of this contract ENGINEER shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. ENGINEER shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

7.14.3 ENGINEER shall require each subcontractor to affirmatively state in its contract with ENGINEER that the subcontractor shall not knowingly employ, hire for employment or continue to employ an unauthorized alien to perform work within the state of Missouri. ENGINEER shall also require each subcontractor to provide ENGINEER with a sworn affidavit under the penalty of perjury attesting to the fact that the subcontractor's employees are lawfully present in the United States.

7.15 No Waiver of Immunities

In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitutions or laws.

7.16 Entire Agreement

This Agreement represents the entire and integrated Agreement between ENGINEER and CITY relative to the Scope of Services herein. All previous or contemporaneous agreements, representations, promises and conditions relating to ENGINEER's services described herein are superseded.

**[SIGNATURES ON FOLLOWING PAGE]**

**CITY OF COLUMBIA, MISSOURI**

By: \_\_\_\_\_  
Mike Matthes, City Manager

ATTESTED BY:

\_\_\_\_\_  
Sheela Amin, City Clerk

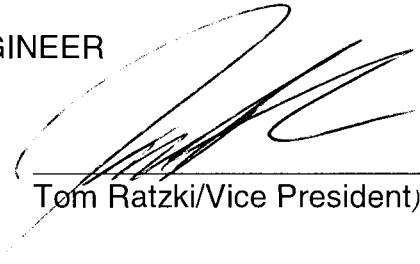
APPROVED AS TO FORM:

\_\_\_\_\_  
Nancy Thompson, City Counselor

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. \_\_\_\_\_, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

\_\_\_\_\_  
Director of Finance

ENGINEER

By:  \_\_\_\_\_  
Tom Ratzki/Vice President)

## **NOTICE TO VENDORS**

### **Section 285.525 – 285.550 RSMo Effective January 1, 2009**

Effective January 1, 2009 and pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the employer's hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at:  
[http://www.dhs.gov/xprevprot/programs/gc\\_1185221678150.shtm](http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm).

**Effective 1/1/2009**

LINDA A. MERKEL  
Notary Public, Notary Seal  
State of Missouri  
St. Louis County  
Commission # 12289634  
My Commission Expires January 08, 2016

# **ATTACHMENT A TO AGREEMENT FOR ENGINEERING SERVICES**

## **SCOPE OF SERVICES**

City: Columbia Water and Light  
Project Title: McBaine Water Treatment Plant Condition Assessment  
Engineer: Black & Veatch Corporation

The scope of work for this study consists of the following tasks:

### **A. Project Initiation and Administration**

1. Project Kickoff Meeting – Conduct a meeting at the McBaine WTP to confirm the project scope, define project objectives, and review preliminary condition assessment inspection plan. List of ongoing and planned projects for the wellfield, water treatment plant, and West Ash Pumping Station will be provided by the City for discussion. A summary of potential asset management programs will be presented to identify the type of information that should be collected and proper format to assist with input into future asset management software.

2. Project Management – Manage project scope, schedule, and budget as required to monitor the progress of the work, coordinate staffing requirements, and provide invoicing to the City. Monthly invoices to the City will include status reports and budget tracking.

- a. Regular teleconference updates – up to 10 teleconferences during the course of the project to keep CWL apprised of project activities and serve as a means to relay information and make project decisions.

### **3. Data Collection**

- a. Prepare Data Request – Prior to the kickoff meeting, prepare detailed list of desired information to include McBaine WTP drawings, system

operating reports, water quality data, O&M manuals, chemical usage, well field drawings, West Ash Pump Station drawings, and other data as required.

- b. Review documents, identify data gaps, and request additional information as required.
- c. Develop Facility Assessment Plan which will include procedures and forms for the condition assessment and submit to the City for review. Condition assessment forms and documentation will be configured to allow for population of the condition assessment data to an Asset Management program in the future, to the greatest extent possible.
- d. Conduct pre-assessment conference call to review the proposed plan and schedule with the City and confirm what information from the previous pre-design report should be incorporate and not re-evaluated as part of this project. The scope is based on using the following information from the Preliminary Design Report, dated December 2012:

- i.* Plant hydraulic profile
- ii.* Existing treatment process unit capacities
- iii.* Historical raw water quality
- iv.* Cost data where applicable

The assessment will not include the sludge lagoons, or any buried piping and will only involve above ground components of the wells.

## B. Facility Assessment

1. Civil/Process/Operations Review. An overall facility review will be completed by the Engineer's Engineering Manager (EM) over a 2 day period to capture a majority of the general and civil related assets. The EM will be assisted by our Process Engineer and Operations Specialist. The City should provide at least one person knowledgeable about the current condition and operation of the plant to assist in this review. The assessments should identify current operational constraints, reliability issues, capacity restrictions, and water quality compliance concerns.

These reviews will focus on major assets which are critical in determining the anticipated cost to rehabilitate the plant so that all equipment and processes function as intended. Smaller assets such as piping and valves smaller than 4 inches, ladders,

portable equipment, eyewash stations, etc. will not be inspected and catalogued as part of the assessment program.

The civil and operational review will also identify specific mechanical, structural, chemical, electrical, and I&C assets and issues which require assessment by discipline specific engineers, thus making their inspection and assessment process more efficient.

A detailed assessment and collection of asset information will not be conducted for systems that have been identified for replacement by City staff. However, the overall condition of these items will still be summarized and a rating provided in the report to use as a basis for prioritizing replacement. These items include the aerators, basin equipment, electrical gear, and chlorine gas feed system. In addition, the City currently has a separate consultant performing a best professional judgment (BPJ) regarding lime residual disposal. This may impact the level of evaluation for existing lime handling components.

Process evaluation shall be conducted with provides recommendations for improved process control and performance, most specifically with regarding to lime softening and filter performance.

2. Engineering Discipline Reviews – The EM will develop an assessment plan for the specialized discipline specific engineers. This plan will identify the key assets to be assessed along with a schedule for the assessments. The assessments will be conducted in groups throughout the course of one day. It is anticipated that each discipline will require 8 hours on site to complete to their assessments. The inspections will be limited to equipment and structures that can visually be examined while the plant is in service and will avoid confined spaces unless specifically planned for in advance. The EM will facilitate the inspections with input as required by the City.

The engineering discipline Reviews anticipated include:

- Electrical
- Structural
- Architectural
- SCADA/Instrument and Controls
- HVAC/Plumbing

Condition assessments will be supported by the prior review of available plans, records, and preliminary interviews with City staff. These interviews shall discuss

performance issues and maintenance history of the respective processes and equipment.

- a. Analyze data collected during condition assessment. Prioritize areas of greatest need. Document the inspection and inventory of existing plant assets.
- b. Record asset identification information collected in the condition assessment in an electronic format that may be suited for future use in an Asset Management system.

C. Workshop No. 1

1. Conduct workshop at the McBaine Water Treatment Plant. Attendees will include project manager, engineering manager, and process engineer. Other disciplines will participate via conference call.
2. Review and discuss findings and deficiencies identified during:
  - a. Process review;
  - b. HVAC/Plumbing review;
  - c. Structural review;
  - d. SCADA review;
  - e. Electrical review.
3. Discuss prioritization of existing assets, discuss how asset relates to potential expansion of treatment facility.
4. Determine which assets will require modifications to be evaluated during subsequent phase.
5. Present proposed evaluation criteria, monetary and non-monetary. Determine preliminary weighting factors to be used in the evaluation phase.
6. Prepare technical memorandum documenting condition assessment and prioritization of assets determined at Workshop No. 1. Four hard copies and one electronic copy will be provided.

D. Evaluation Phase - Evaluations will consist of developing up to three alternatives for each process area. The three alternatives will generally include (1) costs to rehabilitate

deteriorated assets to return to current operating conditions, (2) costs to improve operation, performance, and reliability without increasing capacity, and (3) costs to increase capacity. Each alternative will include layout drawings, capital and O&M costs, and construction sequencing. Consideration for the water supply being classified as “Groundwater under the Influence” will be incorporated into the alternatives.

Evaluations for individual processes will include the following:

1. well field upgrade, which may include well, pipe, valve, fitting, and other appurtenance improvements;
2. review of data previously compiled by the Owner pertaining to specific capacity;
3. aeration options that address possible hydraulic limitations to solids contact units;
4. solids contact basin process improvements and expansion
5. filter underdrains, media configuration, and filter backwash and valves
6. high service pumps;
7. conveyance piping and valves
8. SCADA system;
9. Lime feed system
10. Chlorine gas, bulk sodium hypochlorite, and onsite generation
11. Other chemical feed systems
12. West Ash pumping station
13. Modifications to the power distribution system
14. Medium and high voltage Electrical gear
15. Recarbonation facilities
16. General site safety/security

#### Workshop No. 2

1. Prepare preliminary prioritized list of recommended improvements based on evaluation findings.
2. Conduct a half day workshop to review findings from evaluations. Process and electrical engineers will participate in the workshop by teleconference. Develop consensus on recommended improvements and prioritization of improvements.
3. Review and discuss annual funding capabilities of City.
4. Review and discuss City's desired schedule for implementation of improvements.

#### E. Engineering Report

1. Modify prioritized list of recommended improvements based on conclusions from Workshop No. 2.
2. Prepare phased implementation plan for improvements based on priorities and desired schedule discussed at Workshop No. 2.
3. Prepare and submit one electronic version of a draft condition assessment report consisting of updated individual technical memoranda for condition assessment, evaluation of alternatives, and a phased implementation plan for recommended improvements with description and estimated capital costs for each recommendation.
4. Revise condition assessment report and submit five final hard copies and one CD with electronic files for the report.
5. The Project Manager and Project Engineer will present the findings of the final report in Columbia to the Water and Light Advisory Board.

F. Supplemental Services

1. Any work requested by the City that is not described in this Appendix A will be considered as supplemental services.
2. Supplemental services shall include, but are not limited to:
  - a. Meetings with local, State, or Federal agencies to discuss the study;
  - b. Appearances at public hearings or before special boards, other than those appearances specifically listed above;
  - c. Supplemental engineering work that may result from requirements of regulatory agencies that become effective subsequent to the date of this agreement;
  - d. Special consultants or independent professional associates requested or authorized by Owner;
  - e. Additions to an engineering report to update or revise the final report;
  - f. Pilot plant studies and tests;
  - g. preparation of a hydraulic model or revisions to an existing model, except as specifically listed above;
  - h. Development of an Asset Management Program.
  - i. Specialty testing identified during condition assessment activities.
  - j.

**ATTACHMENT B**  
**TO**  
**AGREEMENT FOR ENGINEERING SERVICES**  
  
**COMPENSATION**

City: Columbia Water and Light  
Project Title: McBaine Water Treatment Plant Condition Assessment  
Engineer: Black & Veatch Corporation

For the services described in Attachment A of this Agreement, except for Supplemental Services described in Paragraph H, the Owner agrees to pay the Engineer as follows.

- A. Owner agrees to pay the Engineer based on the following hourly rates, plus expenses, not to exceed two hundred forty -nine thousand and four hundred dollars (\$249,400.00). The Schedule of Hourly Billing Rates and Charges indicated herein is effective for service in 2015. The Schedule of Hourly Billing Rates and Charges will be revised and re-issued in March 2016.

**SCHEDULE OF HOURLY BILLING RATES (2015)**

<b><u>Title</u></b>	<b><u>2015 Billing Rates</u></b> <b>(per hour)</b>
Principal	\$262
Project Manager	\$209
Sr. Engineering Manager	\$190
Engineering Manager	\$165
Design Engineer – Level 5	\$154
Design Engineer – Level 4	\$148
Design Engineer – Level 3	\$126
Design Engineer – Level 2	\$113
Design Engineer – Level 1	\$104
Sr. Process Engineer	\$210
Process Engineer	\$165
QC Admin/Senior Eng.	\$198
Technician Admin	\$162
Technician – Level 4	\$122
Technician – Level 3	\$109
Technician – Level 2	\$98
Technician - Level 1	\$84
Estimator	\$160

Project Accountant	\$85
Administrative	\$79

- B. Compensation for reimbursable expense items and other charges incurred in connection with the performance of the work shall be billed in accordance with the following schedule:

**SCHEDULE OF CHARGES (2015)**

<b><u>Expense Item</u></b>	<b><u>Unit Cost</u></b>
Travel, Subsistence, and Incidental Expenses	Net Cost
Automobile/Motor Vehicles — Local Mileage	\$0.51/mile
Automobile/Motor Vehicles — Rental	Net Cost
Telephone and Telegraph Costs	*
Reproduction of Reports, Drawings & Specifications	*
Postage & Shipping Charges of Job-Related Materials	*
Computer Services	*
Photograph and Video Reproductions	Net Cost
Sub-Consultant Fees	Net Charge x 1.10

\* An hourly expense rate of \$8.75 shall be billed for each hour worked to cover cost noted above.

**SCHEDULE**

It is understood and agreed that:

- A. Engineer shall submit a draft version of the final report for Owner's review within 180 days.
- B. Engineer shall submit a final version of the final report within 14 days following receipt of Owner's comments to the draft version of the report.