

ENGINEERING SERVICES AGREEMENT
FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS

Updated March 2007

THIS AGREEMENT is made in Douglas County, Kansas, by and between the City of Lawrence, Kansas, hereinafter called the City, and Black & Veatch Corporation hereinafter called the Consultant. The City intends to construct an improvement project, **UT1892CIP Naismith Valley Interceptor Sewer and Abandonment of Pump Station 8**, (hereinafter called the Project) in Lawrence, Kansas, described in Exhibit A.

The City hereby contracts with the Consultant for professional engineering services in connection with the Project, for such engineering services more particularly described herein in consideration of the mutual covenants herein set forth. By executing this Agreement, the Consultant represents to the City that the Consultant is professionally qualified to provide such and is licensed to practice engineering by all public entities having jurisdiction over the Consultant and the Project.

SECTION I - DEFINITIONS

As used in this Agreement, the following terms shall have the meanings ascribed herein unless otherwise stated or reasonably required by this contract, and other forms of any defined words shall have a meaning parallel thereto.

“Additional Services” means any services requested by the City which are not covered by Exhibit A of this Agreement.

“Agreement” means this contract and includes change orders issued in writing.

“City” means the City of Lawrence, Kansas.

“Consultant” means the company or individual identified on page 1. Consultant shall employ for the services rendered, engineers, architects, landscape architects, and surveyors licensed, as applicable, by the Kansas State Board of Technical Professions.

“Contract Documents” means those documents so identified in the Contract for Construction of this Project, including Engineering Documents. All terms defined in said General Conditions shall have the same meaning when used in this Agreement unless otherwise specifically stated or in the case of a conflict in which case the definition used in this Agreement shall prevail in the interpretation of this Agreement.

“Engineering Documents” means all plans, specifications, reports, drawings, tracings, designs, calculations, computer models, sketches, notes, memorandums or correspondence related to the work described in Exhibit A attached hereto.

“Engineering Services” means the professional services, labor, materials, supplies, testing and other acts or duties required of Consultant under this Agreement together with Additional Services as City may request and evidenced by a supplemental agreement pursuant to the terms of this Agreement.

“Project” is as described in Exhibit A.

“Subsurface Borings and Testing” means borings, probings and subsurface explorations, laboratory tests and inspections of samples, materials and equipment; and appropriate professional interpretations of all the foregoing.

“Utilities Engineer” means the person employed by the City with the title of Utilities Engineer who is licensed to practice engineering in the State of Kansas.

“Utilities Director” means the person employed by the City with the title of Utilities Director.

SECTION II - PAYMENT

A. COMPENSATION.

1. Maximum Total Fee and Expense: The City agrees to pay the Consultant a fee based on the actual hours expended on the Project at the rates indicated in the attached Fee Schedule; Exhibit B and the actual reimbursable expenses permitted under this Agreement and incurred on this Project, but not to exceed a maximum fee of \$118,425 for Preliminary Design Services. Professional fees are based on the scope of services outlined in Exhibit A of this Agreement and shall be completed in accordance with a mutually agreed to schedule. Payment to Consultant shall not exceed the amounts in each phase as detailed in Exhibit B. Other methods of compensation are allowed only after written approval by the Utilities Director.
2. Hourly Rate: Any Additional Services which are not set forth in this Agreement will be charged on the basis of the hourly rate schedule attached hereto as Exhibit B and reimbursable expenses not contemplated in this

Agreement will be charged at actual cost. No Additional Services or costs shall be incurred without proper written authorization of the City.

3. Reimbursable Expenses: Reimbursable expenses shall be included in the total maximum fee. Reimbursable expenses include expenses of transportation in connection with the Project; expenses in connection with authorized out-of-town travel; long-distance communications; expenses of printing and reproductions, postage and facsimile transmissions; expenses of renderings and models requested by the City and other costs as authorized by the City. Reimbursable expenses will not include overhead costs or additional insurance premiums. Unit rates for reimbursable expenses shall be included in Exhibit B attached.
4. Sales Tax: Compensation as provided for herein is exclusive of any sales, use or similar tax imposed by taxing jurisdictions on the amount of compensation, fees or services. Should such taxes be imposed, the City shall reimburse the Consultant in addition to the contractual amounts provided. The City shall provide tax exempt number if required, and if requested by the Consultant.
5. Billing: Consultant shall bill the City monthly for all services and reimbursable expenses. It is understood by the Consultant that monthly pay requests must be received by the 5th day of the month. The bill submitted by Consultant shall itemize the services and reimbursable expenses for which payment is requested, notwithstanding any claim for interest or penalty claimed in a Consultant's invoice. The City agrees to pay the Consultant

within ten (10) days of approval by the governing body. If the Consultant fails to submit an itemized bill for services and/or reimbursable expenses within sixty (60) days of completion of the services, the City shall have no duty to pay the Consultant for those services.

6. City's Right to Withhold Payment: In the event the City becomes credibly informed that any representations of the Consultant provided in its monthly billing are wholly or partially inaccurate, the City may withhold payment of disputed sums then, or in the future, otherwise due to the Consultant until the inaccuracy and the cause thereof is corrected to the City's reasonable satisfaction. In the event the City questions some element of an invoice, that fact shall be made known to the Consultant immediately. The Consultant will help effect resolution and transmit a revised invoice if necessary. The City shall pay the undisputed portion of any invoice as provided in Part 5 of this Section II.
7. Progress Reports: A written progress report, as set out in Exhibit C, must be submitted with each monthly pay request indicating which specific design tasks and their percentage have been completed to date, and tasks that will be performed the following month. This report will serve as support for payment to the Consultant.
8. Timing of Services: Consultant will perform the services in a timely manner; however, if during their performance, for reasons beyond the control of the Consultant, protracted delays occur, the parties agree that they will negotiate

in writing an equitable adjustment of time and compensation, taking into consideration the impact of such delays.

9. Change in Scope: For substantial modifications in authorized Project scope, and/or substantial modifications of drawings and/or specifications previously accepted by the City, when requested by the City and through no fault of the Consultant, the Consultant shall be compensated for time and expense required to incorporate such modifications at Consultant's standard hourly rates per Exhibit B. Provided, however, that any increase in contract price or contract time must be requested by the Consultant and must be approved through a written supplemental agreement prior to performing such services. Consultant shall correct or revise any errors or deficiencies in its designs, drawings or specifications without additional compensation when due to Consultant's negligence, error, or omission.

10. Additional Services: The Consultant shall provide, with the City's concurrence, services in addition to those listed in Exhibit A, when such services are requested, in writing, by the City. Prior to entering into any Additional Services, the Consultant must submit a proposal outlining the Additional Services to be provided, estimation of total hours and a maximum fee based upon the hourly rate schedule attached hereto as Exhibit B. Payment to the Consultant, as compensation for these Additional Services, shall be in accordance with the attached hourly rate schedule attached as Exhibit B. Reimbursable expenses incurred in conjunction with Additional Services shall be paid separately and those reimbursable expenses shall be

paid at actual cost. Records of reimbursable expenses and expenses pertaining to Additional Services and services performed on an hourly basis shall be made available to the City if so requested in writing. Production of these documents shall be made at the Consultant's office during normal business hours within a reasonable time at a date and time mutually convenient to both parties.

11. Supplemental Agreement: This Agreement may be amended to provide for additions, deletions and revisions in the services or to modify the terms and conditions thereof by written amendment signed by both parties. The contract price and contract time may only be changed by a written supplemental agreement approved by the City, unless it is the result of an emergency situation in which case the Utilities Director may give verbal and facsimile approval to be followed by a written and approved supplemental agreement. If notice of any change affecting the general scope of the services or provisions of this Agreement, including but not limited to, contract price or time, is a requirement of any insurance policy held by the Consultant as a requirement of this Agreement, the giving of such notice shall be the Consultant's responsibility.

SECTION III - RESPONSIBILITIES OF CONSULTANT

- A. **SCOPE OF SERVICES:** The Consultant shall furnish and perform the various professional duties and services in all phases of the Project to which this Agreement

applies, as specifically provided in Exhibit A and which are required for the completion of the Project

B. GENERAL DUTIES AND RESPONSIBILITIES

1. Personnel: The Consultant shall assign only qualified personnel to perform any service concerning the Project. Derek L. Cambridge, Associate Vice President will perform as the Consultant's principal for this Project. As principal on this Project, this person shall be the primary contact with the Utilities Director, Utilities Engineer, or another person so designated, and shall have authority to bind the Consultant. So long as the individual named above remains actively employed or retained by the Consultant, he/she shall perform the function of principal on this Project.
2. Independent Contractor: The Consultant is an independent contractor and as such is not an employee of the City.
3. Special Services: The Consultant may be called on to serve as a Consultant or witness in any litigation, arbitration, legal or administrative proceeding arising out of this Project. The Consultant shall not be paid extra by the City if the appearance is to defend Consultant's professional engineering services. If the Consultant is requested in writing by the City to appear as a witness, the Consultant will be paid its hourly fee as reflected on the hourly rate schedule attached hereto as Exhibit B.
4. Subsurface Borings and Material Testing: If tests additional to those provided in Exhibit A are requested by the City for design, the Consultant shall prepare

specifications for the taking of the additional borings. Such Subsurface Borings and Testing, as defined herein, shall be provided by the Consultant through other contractors. Payment to the Consultant will be negotiated in writing.

5. Service by and Payment to Others: Any work authorized in writing by the City and performed by a third party other than the Consultant, or their subconsultants in connection with the proposed Project, shall be contracted for and paid for by the City directly to the third party or parties. Fees for extra work shall be subject to negotiation between the City and the third party. Fees shall be approved by the City prior to the execution of any extra work. Although the Consultant may assist the City in procuring such services of third parties, the Consultant shall in no way be liable to either the City or such third parties in any manner whatsoever for such services or for payment thereof.

6. Subcontracting of Service: The Consultant shall not subcontract or assign any of the architectural, engineering or consulting services to be performed under this Agreement without first obtaining the written approval of the City regarding the services to be subcontracted or assigned and the firm or person proposed to perform the services. Neither the City nor the Consultant shall assign any rights or duties under this Agreement without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this Agreement.

7. Endorsement: The Consultant shall sign and seal all final plans, specifications, estimates and engineering data furnished by the Consultant. The Consultant warrants to the best of its knowledge, information and belief that its performance will be done in a professional manner. Any review or approval by the City of any documents prepared by the Consultant, including but not limited to the plans and specifications, shall be solely for the purpose of determining whether such documents are consistent with the City's construction program and intent. No review of such documents shall relieve the Consultant of their responsibility for the accuracy. It will be the Consultant's responsibility to verify the existence of any and all rights-of-way and easements, including temporary construction easements, that are necessary for the Project construction. Rights-of-way and easements shown on the construction plans shall have proper legal verification to prove their existence.
8. Professional Responsibility: The Consultant will exercise reasonable skill, care and diligence in the performance of its services as is ordinarily possessed and exercised by a licensed professional performing the same services under similar circumstances.
9. Inspection of Documents: The Consultant shall maintain all Project records for inspection by the City during the contract period and for three (3) years from the date of final payment.

SECTION IV - CITY OF LAWRENCE RESPONSIBILITIES

A. GENERAL DUTIES AND RESPONSIBILITIES

1. Communication: The City shall provide to the Consultant information and criteria regarding the City's requirement for the Project; examine and timely respond to the Consultant's submissions; and give notice to the Consultant, who shall respond promptly, whenever the City observes or otherwise becomes aware of any defect in the services.
2. Access: The City will-provide access agreements for the Consultant to enter public and private property when necessary.
3. Duties: The City shall furnish and perform the various duties and services in all phases of the Project which are outlined and designated in Exhibit A as the City's responsibility.
4. Program and Budget: The City shall provide full information stating the City's objectives, schedule, budget with reasonable contingencies, and necessary design criteria.
5. Other consultants: The City may contract with "specialty" consultants when such services are requested by the Consultant.
6. Testing: Any tests required to supplement the scope of services or tests required by law shall be furnished by the City.
7. Legal, Insurance, Audit: The City shall furnish all legal, accounting and insurance counseling services as may be necessary at any time for the Project. The City shall furnish all bond forms required for the Project.

8. Project Representative: The Utilities Director, or the Utilities Director's designee, shall represent the City in coordinating this Project with the Consultant, with authority to transmit instructions and define policies and decisions of the City.

SECTION V - GENERAL PROVISIONS

A. TERMINATION

1. Notice: The City reserves the right to terminate this Agreement for either cause or for its convenience and without cause or default on the part of the Consultant, by providing written notice of such termination to the Consultant. Upon receipt of such notice from City, the Consultant shall, at City's option as contained in the notice: Immediately cease all services and meet with City to determine what services shall be required of the Consultant in order to bring the Project to a reasonable termination in accordance with the request of the City. The Consultant shall also provide to the City digital and mylar copies of all drawings and documents completed or partially completed at the date of termination. The Consultant is entitled to terminate this agreement by providing thirty (30) days written notice.
2. Compensation for Convenience Termination: If City shall terminate for its convenience, as herein provided, City shall compensate Consultant for all services completed to date prior to receipt of the termination notice. Compensation shall not include anticipatory profit or consequential damages, neither of which will be allowed.

3. Compensation for Default Termination: If the City shall terminate for cause or default on the part of the Consultant, the City shall compensate the Consultant for the reasonable cost of services completed to date of its receipt of the termination notice. Compensation shall not include anticipatory profit or consequential damages, neither of which will be allowed. The City also retains all its rights and remedies against the Consultant including but not limited to its rights to sue for damages, interest and attorney fees.
4. Incomplete Documents: Neither the Consultant, nor its subconsultant, shall be responsible for errors or omissions in documents which are incomplete as a result of an early termination under this section, the Consultant having been deprived of the opportunity to complete such documents and certify them as ready for construction.

B. DISPUTE RESOLUTION

City and the Consultant agree that disputes relative to the Project should first be addressed by negotiations between the parties. If direct negotiations fail to resolve the dispute, the party initiating the claim that is the basis for the dispute shall be free to take such steps as it deems necessary to protect its interests provided, however, that notwithstanding any such dispute the Consultant shall proceed with the services as per this Agreement as if no dispute existed.

C. OWNERSHIP OF ENGINEERING DOCUMENTS

All Engineering Documents prepared in connection with this Project shall be the property of the Consultant, whether the Project for which they are made is executed

or not; however, the Consultant shall provide the City a copy of all Engineering Documents as requested by the City and related to services for which the consultant has been compensated.

Reports, plans, specifications and related documents are the Consultant's copyrighted instruments, and the Consultant, at its option, may so identify them by appropriate markings. Provided that the Consultant is paid in full for its services, then the City may reuse these final documents without any additional compensation. However, such reuse shall be for City use and the Consultant shall have no liability for City alteration to the documents or for any use other than as intended pursuant to the terms hereof.

D. INSURANCE

Unless otherwise specified, the City shall be shown as an additional insured on all applicable insurance policies except professional liability and worker's compensation. All general and automobile liability insurance shall be written on an occurrence basis unless otherwise agreed to in writing by the City. The City shall be given written thirty (30) days notice of any insurance policy cancellation.

1. Professional Liability: The Consultant shall maintain, throughout the duration of this Agreement, Professional Liability Insurance in an amount not less than one million dollars (\$1,000,000), per claim and annual aggregate, and shall provide the City with certification attached to this Agreement.

2. Commercial General Liability

Each Occurrence \$500,000

General Aggregate \$500,000

The policy must also include personal injury; products/completed operations; contractual liability and independent contractors.

3. Worker's Compensation: The Consultant shall retain Worker's Compensation Insurance in the statutory amounts.

4. Employer's Liability:

Bodily Injury by Accident \$100,000 (each accident)

Bodily Injury by Disease \$500,000 (policy limit)

Bodily Injury by Disease \$100,000 (each employee)

5. Automobile Insurance: The Consultant shall maintain a policy in the minimum amounts as required for general liability to protect against claims for bodily injury and/or property damage arising out of the ownership or use of any owned, hired and/or non-owned vehicle.

6. Industry Ratings: City will only accept coverage from an insurance carrier which offers proof that it:

- a) Is licensed to do business in the State of Kansas;
- b) Carries a Best's Policyholder rating of A or better; and
- c) Carries at least a Class X financial rating; or is a company mutually agreed upon by the City and Consultant.

7. Subconsultant's Insurance: If a part of this Agreement is to be sublet, the Consultant shall either:

- a) Cover all subconsultants in its insurance policies; or
- b) Require each subconsultant not so covered to secure insurance which will protect against all applicable hazards or risks of loss in the amount so designated.

Whichever option is chosen, the Consultant shall indemnify and hold harmless the City as to any and all damages, claims, or losses, including attorney's fees, arising out of the negligent acts or omissions of its subconsultants.

E. INDEMNITY

1. Indemnify and Hold Harmless: For purposes of this Agreement, the Consultant hereby agrees to indemnify and hold harmless the City and its employees and officials from any and all loss to the extent caused or incurred in whole or in part as a result of the negligence or wrongful acts of the Consultant, its officers, subsidiaries, employees and subconsultants/assignees and their respective officers and employees, in the performance of services pursuant to this Agreement.

In the case of any claims against the City or its employees and officials indemnified under this Agreement, by an employee of the Consultant, its officers, subsidiaries, or subconsultant/assignees, the indemnification

obligation contained in this Agreement shall be limited to those losses caused by the negligence of the Consultant but shall not be limited by any limitation on amount or type of damages, compensation or benefits payable by or for the Consultant, its officers, subsidiaries, or subconsultant/assignees, under workers' compensation acts, disability benefit acts, or other employee benefit acts, as allowed by law. The Consultant's obligation hereunder shall not include amounts attributable to the fault or negligence of the City or any third party for whom the Consultant is not responsible.

F. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the parties and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except in writing mutually agreed to and accepted by both parties to this Agreement.

G. APPLICABLE LAW

This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Kansas.

H. ASSIGNMENT OF AGREEMENT

This Agreement shall not be assigned or transferred by either the Consultant or the City without the written consent of the other.

I. NO THIRD PARTY BENEFICIARIES

Nothing contained herein shall create a contractual relationship with, or any rights in favor of, any third party.

J. FEDERAL LOBBYING ACTIVITIES (Only applies to projects receiving federal funds via the City): N/A

K. COVENANT AGAINST CONTINGENT FEES

The Consultant warrants that they have not employed or retained any company or person, other than a bona fide employee working for the Consultant, to solicit or secure this Agreement, and that they have not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the City may terminate this Agreement without liability or may, in its discretion, deduct from the contract price or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

L. COMPLIANCE WITH LAWS

Consultant shall abide by all applicable federal, state and local laws, ordinances and regulations applicable to this Project until the Engineering Services required by this Agreement are complete. Consultant shall secure all occupational and professional licenses, permits, etc., from public and private sources necessary for the fulfillment of its obligations under this Agreement.

M. TITLES, SUBHEADS AND CAPITALIZATION

Title and subheadings as used herein are provided only as a matter of convenience and shall have no legal bearing on the interpretation of any provision of the

Agreement. Some terms are capitalized throughout the Agreement but the use of or failure to use capitals shall have no legal bearing on the interpretation of such terms.

N. SEVERABILITY CLAUSE

Should any provision of this Agreement be determined to be void, invalid unenforceable or illegal for whatever reason, such provisions shall be null and void; provided, however, that the remaining provisions of this Agreement shall be unaffected thereby and shall continue to be valid and enforceable.

O. HAZARDOUS MATERIALS

The Consultant and the Consultant's subconsultants shall have no responsibility for the discovery, presence, handling, removal, or disposal or exposure of persons to hazardous materials in any form at the Project site.

P. AFFIRMATIVE ACTION

The Consultant agrees to comply with the provisions of K.S.A. 44-1030, in the Kansas Acts Against Discrimination, and Section 10-113 eq seq of the Code of the City of Lawrence, Kansas, Affirmative Action in Public Contracts.

Q. EXECUTION OF CONTRACT

The parties hereto have caused this Agreement to be executed in duplicate this

_____ day of _____, _____.

CONSULTANT

By: 

Derek L. Cambridge
Associate Vice President

CITY OF LAWRENCE, KANSAS

By: _____

Thomas M. Markus
City Manager

APPROVED AS TO FORM:

Toni Ramirez Wheeler
City Attorney

**EXHIBIT A
TO
ENGINEERING SERVICES AGREEMENT**

City: City of Lawrence, Kansas
Consultant: Black & Veatch Corporation
Project: Naismith Valley Interceptor Sewer and Abandonment of
Pump Station 8 (City Project Number UT1892CIP)

DESCRIPTION OF SCOPE OF SERVICES

The scope of services for this project includes engineering services in connection with preliminary design of the Naismith Valley Interceptor Sewer and Abandonment of Pump Station 8 Project.

Improvements to be completed under this Agreement are those identified in City of Lawrence, Kansas Request for Proposal R1810, and are summarized as follows:

- Verification of required sewer capacity,
- Alternative relief sewer alignment screening,
- Recommendation of relief sewer alignment,
- Preliminary design report.

The following defines the Scope of Work for this Exhibit A.

PHASE 100 – PROJECT CONTROLS AND ADMINISTRATION

- A. The Project Manager will monitor progress on the project. Reports on work completed, budget status, and adherence to schedule will be provided to the City monthly. The anticipated schedule for Phases 100 and 200 is three (3) months from Notice to Proceed through Preliminary Design Phase Services.
- B. Consultant will prepare agenda for all meetings with City and will provide agenda electronically seven (7) days prior to meetings. Consultant will prepare meeting minutes to document all meetings with City and will provide minutes electronically within seven (7) days of the meeting.
- C. Develop the risk strategy for the project based on a risk register. Perform a risk assessment and prepare a risk register to identify and quantify, in terms of cost and schedule implications, all perceived risks for the underground work. The risk register will be submitted with the preliminary design report.
- D. Consultant will develop project execution documents including a Quality Assurance and Quality Control plan and a Health and Safety Plan.

PHASE 200 – PRELIMINARY DESIGN

A. Kickoff Meeting and Document Review

1. Conduct a Project Kickoff Meeting at the City's facilities to clarify the City's requirements for the Project, review pertinent available data, review Consultant's project staffing and organization, and present an updated project schedule. It is anticipated three (3) professionals will attend.
2. Conduct a review of existing plans, specifications and condition assessment data for the existing Pump Station #8 and Naismith Valley Interceptor Sewer. The task will include, through a subconsultant, a review of Lawrence Parks restoration policies. If information is not available from Engineer's files, an information request will be developed and submitted to the City.

B. Capacity Evaluation

1. Consultant will evaluate the necessary capacity of the relief sanitary sewer to convey flow currently directed to Pump Station #8 and flow currently conveyed through the Naismith Valley Interceptor Sewer. The consultant will review existing information including the 2003 Master Plan, 2006 CIP Project Evaluation, 2012 Wastewater Master Plan, City Design Standards and City provided flow monitoring data to verify pipe size and capacity requirements. City provided data will include flow monitoring, population and planning data.

C. Alternative Alignment Screening

1. Consultant will utilize a GIS based alignment tool to perform an initial screening of potential alignments. The tool will utilize GIS information provided by the City to evaluate utility impacts, construction depth, right-of-way (ROW) needs, and constructability. The Consultant will develop up to four (4) potential alignment alternatives for review with the City at the alignment screening workshop. Potential alignment will be submitted to the City seven (7) days prior to the alignment screening workshop.
2. Consultant will conduct an alignment screening workshop meeting with the City's engineering and operation and maintenance staff to review the four (4) alignments identified in the previous task. It is anticipated the following criteria will be utilized to evaluate and select two (2) alignments for a business case evaluation.
 - Potential risks associated with each alignment,
 - Operation and maintenance concerns,
 - City design and pipe material preferences,
 - Institutional knowledge (utility conflicts or risks),

- Additional desired system modifications (abandon pipe segments),
- Pump Station #8 abandonment,
- Project sequencing concerns,
- Discuss additional ancillary items,

To assist with the alignment review it is anticipated the group will visit the project site to help identify potential risks and conflicts.

3. Consultant will perform a business case evaluation on the two (2) alignment alternatives selected during the initial Alternative Alignment Screening workshop. The following tasks will be completed to assist with the business case evaluation:

- a) Consultant, through a subcontractor, will stake the two (2) alignments identified during the Alternative Alignment Screening workshop.
- b) Consultant, through a subcontractor, will consolidate available quick score condition assessment data to assist with the business case evaluation.
- c) Consultant, through a subcontractor, will coordinate a meeting with City utility staff and the Lawrence Parks Department to initiate discussions of potential restoration and park improvements along the project corridor.
- d) Consultant will develop proposed criteria and weighting for the business case analysis and submit to the City seven (7) days prior to conducting the business case evaluation workshop.
- e) Consultant will conduct a workshop and site visit with the City to verify business case criteria, develop weighting and scoring. It is anticipated the following criteria will be used as part of the business case evaluations:

- Capital cost
- Project risk (geotechnical and environmental)
- Operation and maintenance
- Land requirements
- Hydraulics
- Topography
- Utility impacts/conflicts
- Constructability and construction access
- Community impacts
- Traffic disruption (input will be provided by Subconsultant)
- Stakeholder input

4. Consultant will develop an opinion of probable construction cost for the two (2) alignment alternatives selected during the initial Alternative Alignment Screening task.

All opinions of probable construction costs developed will follow the recommendations of the Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 18R with regard to methodology and accuracy. Since Engineer has no control over the cost of labor, material, or equipment furnished by others not under contract to Engineer, Engineer's opinion of probable cost for construction of the work will be made on the basis of experience and qualifications as an Engineer. Engineer does not guarantee or warranty that proposals, bids, or actual project costs will not vary from Engineer's opinions of probable cost. The cost opinion level of accuracy presented by Engineer will be in accordance with accepted industry guidelines and as defined by AACE. The cost opinion will be of Class 4 accuracy for the opinions based on the preliminary design.

5. Prepare a preliminary design memorandum summarizing the recommended alignment and pump station # 8 modifications to be designed. The preliminary design memorandum will include the following evaluations:
 - Alignment recommendation
 - Pipe material review
 - GIS based plan and profile drawings
 - Results of capacity evaluation
 - Opinion of probable construction cost
 - Environmental data review
 - Utility coordination

One (1) electronic PDF of the preliminary design memorandum will be delivered via e-mail to City for review.

6. Attend one review meeting with City to discuss review comments. It is anticipated that three (3) professionals will attend the Design Memorandum review meeting. Revise Preliminary Design Memorandum and provide one (1) electronic PDF of the final design memorandum to City via e-mail.

PHASE 300 – FIELD INVESTIGATIONS

Scope and costs for performing survey and geotechnical field investigations will be defined later by Supplemental Agreement.

PHASE 400 – CONTRACTOR CONSTRUCTABILITY REVIEW

Scope and costs to complete a contractor constructability review will be defined later by Supplemental Agreement.

PHASE 500 – DETAILED DESIGN

Scope and costs for performing detailed design will be defined later by Supplemental Agreement.

PHASE 600 – BIDDING PHASE

Scope and costs to assist with bidding phase services will be defined later by Supplemental Agreement.

PHASE 610 – CONSTRUCTION PHASE SERVICES

Scope and costs for performing project administration services during construction will be defined later by Supplemental Agreement.

PHASE 620 – RESIDENT SERVICES DURING CONSTRUCTION

Scope and costs for providing a Resident Project Representative during construction will be defined later by Supplemental Agreement.

PHASE 700 – PROJECT CONTINGENCY

Scope and costs for project contingency will be defined later by Supplemental Agreement.

PHASE 800 – ADDITIONAL SERVICES

- A. Any work requested by City that is not included in one of the items listed in any other phase will be classified as additional services.
- B. Additional services shall include, but are not limited to:
 - 1. Detailed design of utility, roadway, sidewalk or park improvements not included in the selected project corridor or above scope of services.
 - 2. Condition assessment of the existing sanitary sewer to confirm or supplement data previously collected by the City.
 - 3. Additional meetings with local, State, or Federal agencies to discuss the project.
 - 4. Appearances at public hearings or before special boards.
 - 5. Special consultants or independent professional associates requested or authorized by City.
 - 6. Assistance with bid protests and rebidding.
 - 7. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions in connection with bid protests, change orders, or construction incidents.

CITY'S RESPONSIBILITIES

The City will furnish, as required by the work and not at the expense of the Consultant, the following items:

- 1. All maps, drawings, reports, records, audits, annual reports, and other data that are available in the files of the City and which may be useful in the work involved under this contract.
- 2. Coordination of other City agencies.
- 3. Conduct legal advertisement, distribution of plans/specifications, bidding, and award of the project.
- 4. Inspection of materials, laboratory and field testing, field sampling services.
- 5. Flow monitoring data for the capacity evaluation of the gravity interceptor sewer.

**EXHIBIT B
TO
ENGINEERING SERVICES AGREEMENT**

City: City of Lawrence, Kansas; "City"
 Consultant: Black & Veatch Corporation; "Consultant"
 Project: Naismith Valley Interceptor Sewer and Abandonment of
 Pump Station 8

FEE SCHEDULE

1. For services as described in Exhibit A - Scope of Work, an amount equal to the Engineer's salary billings plus reimbursable expenses and subcontract billings at cost. The maximum billed for these services shall not exceed **\$118,425.00** without further authorization.
2. Compensation for personnel used in the performance of engineering services shall be in accordance with the following hourly rates.

| Black & Veatch Job Classification | 2018 Hourly Billing Rate |
|--|---------------------------------|
| Project Director | \$235 |
| Project Manager | \$210 |
| Project Control Specialist | \$126 |
| Project Secretary | \$80 |
| Engineering Manager | \$165 |
| Civil Engineer Level 6 | \$194 |
| Civil Engineer Level 5 | \$170 |
| Civil Engineer Level 4 | \$148 |
| Civil Engineer Level 3 | \$134 |
| Civil Engineer Level 2 | \$122 |
| Civil Designer | \$113 |
| Graphic Technician, Senior | \$142 |
| Graphic Technician | \$112 |
| Tunnel Design Specialist | \$230 |
| Tunnel Design Engineer | \$165 |
| Senior Geotechnical Engineer | \$195 |
| Geotechnical Engineer | \$168 |
| Permitting/Wetlands Specialist | \$145 |
| Estimator | \$150 |
| Constructability/Quality Control | \$214 |
| Resident Engineer | \$150 |

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

| Expense Item | Unit Cost |
|--|------------------|
| Travel, Subsistence, Relocation, and Incident Expenses | Net Cost |
| Automobile/Motor Vehicles – Local Mileage | Net Cost |
| Automobile/Motor Vehicles – Rental | Net Cost |
| Telephone and Telegraph Costs | * |
| Day to Day Reproduction of Reports and Drawings | * |
| Postage & Shipping Charges of Job-Related Materials | * |
| Computer Services | * |
| Photograph and Video Reproductions | Net Cost |
| Major Reproduction for Submittals & Bidding | Net Cost |
| Sub-Consultant Fees | Net Cost |

* Applied to expense rate of \$8.75 per hour of salary billings.

4. The Schedule of Hourly Billing Rates and Charges indicated herein is effective as of April 5, 2018. The schedule of Hourly Billing Rates and Charges will be revised and re-issued each April 5th for each subsequent year.

**EXHIBIT C
TO
ENGINEERING SERVICES AGREEMENT**

City: City of Lawrence, Kansas; "City"
Consultant: Black & Veatch Corporation; "Consultant"
Project: Naismith Valley Interceptor Sewer and Abandonment of
Pump Station 8

PROGRESS REPORT

**Monthly Naismith Valley Interceptor Sewer and Abandonment of Pump Station 8
 Project Progress Report
 Lawrence, Kansas**

Date: _____

| Completed Tasks through [Previous Month] | Anticipated Tasks for [Next Month] |
|--|------------------------------------|
| | |
| <u>Actions/Issues</u> | <u>Budget Status</u> |
| <u>Decisions Needed</u> | |

EXHIBIT C

**EXHIBIT D
TO
AGREEMENT FOR ENGINEERING SERVICES**

City: City of Lawrence, Kansas; "City"
Consultant: Black & Veatch Corporation; "Consultant"
Project: Naismith Valley Interceptor Sewer and Abandonment of
Pump Station 8

TARGET SCHEDULE

Exhibit D Target Schedule

Owner: City of Lawrence, KS

Project: Naismith Valley Interceptor Sewer and Pump Station #8 Abandonment

| | September | October | November | December | January |
|--|-----------|---------|----------|----------|---------|
| Phase 100 - Project Controls and Administration | | | | | |
| A-C Project Controls & Administration | ■ | ■ | ■ | ■ | ■ |
| Phase 200 - Preliminary Design | | | | | |
| A.1 Kickoff Meeting | | ■ | | | |
| A.2 Document Review | ■ | ■ | | | |
| B.1 Capacity Evaluation | | ■ | ■ | | |
| C.1 Alternative Alignment Layout | | | ■ | ■ | |
| C.2 Alternative Alignment Screening Workshop | | | ■ | | |
| C.3 Business Case Evaluation | | | ■ | ■ | |
| C.4 OPCC for two alignments | | | ■ | ■ | |
| C.5 Preliminary Design Memo | | | ■ | ■ | |
| C.6 Preliminary Design Workshop | | | | ■ | ■ |