Agreement Between City of Rapid City and FMG Engineering, Inc., for Professional Services for Elk Vale Reservoir Water Level Investigation, Project No. 19-2511/CIP No. 51238

AGREEMENT made __________________________, 20____, between the City of Rapid City, SD (City) and FMG Engineering, Inc., (Engineer), located at 3700 Sturgis Road, Rapid City, SD 57702. The City intends to obtain services for Elk Vale Reservoir Water Level Investigation, Project No.19-2511/CIP No. 51238. The scope of services is as described within this document and as further described in Exhibits A, B and C (attached).

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project and as further defined in Exhibits A, B and C (attached), serve as the City’s professional engineering representative for the Project, and give professional engineering consultation and advice to the City while performing its services.

Section 1—Basic Services of Engineer

1.1 General

1.1.1 The Engineer shall perform professional services described in this agreement, which include customary engineering services. The Engineer intends to serve as the City’s professional representative for those services as defined in this agreement and to provide advice and consultation to the City as a professional. Any opinions of probable project cost, approvals, and other decisions provided by Engineer for the City are rendered on the basis of experience and qualifications and represent Engineer’s professional judgment.

1.1.2 All work shall be performed by or under the direct supervision of a professional Engineer licensed to practice in South Dakota.

1.1.3 All documents including Drawings and Specifications provided or furnished by Engineer pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership therein. Reuse of any documents pertaining to this project by the City on extensions of this project or on any other project shall be at the City’s risk. The City agrees to defend, indemnify, and hold harmless Engineer from all claims, damages, and expenses including attorney’s fees arising out of such reuse of the documents by the City or by others acting through the City.

1.1.4 The contract will be based on an hourly rate and reimbursable fee schedule with a maximum not-to-exceed amount.
1.2 **Scope of Work**

The Engineer shall:

1.2.1 Consult with the City, other agencies, groups, consultants, and/or individuals to clarify and define requirements for the Project and review available data.

1.2.2 Perform the tasks described in the Scope of Services. (See Exhibit A and B.)

1.2.3 Conduct a location survey of the Project to the extent deemed necessary to provide adequate site information.

1.2.4 Prepare a report presenting the results of the study as outlined in the scope of services.

**Section 2—Information Provided by City**

The City will provide any information in its possession for the project at no cost to the Engineer.

**Section 3—Notice to Proceed**

The City will issue a written notification to the Engineer to proceed with the work. The Engineer shall not start work prior to receipt of the written notice. The Engineer shall not be paid for any work performed prior to receiving the Notice to Proceed.

**Section 4—Mutual Covenants**

4.1 **General**

4.1.1 The Engineer shall not sublet or assign any part of the work under this Agreement without written authority from the City.

4.1.2 The City and the Engineer each binds itself and partners, successors, executors, administrators, assigns, and legal representatives to the other party to this agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, regarding all covenants, agreements, and obligations of this agreement.

4.1.3 Nothing in this agreement shall give any rights or benefits to anyone other than the City and the Engineer.
4.1.4 This agreement constitutes the entire agreement between the City and the Engineer and supersedes all prior written or oral understandings. This agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

4.1.5 The Engineer shall make such revisions in plans which may already have been completed, approved, and accepted by the City, as are necessary to correct Engineer's errors or omissions in the plans, when requested to do so by the City, without extra compensation therefore.

4.1.6 If the City requests that previously satisfactorily completed and accepted plans or parts thereof be revised, the Engineer shall make the revisions requested by the City. This work shall be paid for as extra work.

4.1.7 If the City changes the location from the one furnished to the Engineer, or changes the basic design requiring a new survey for the portions so changed, the redesign will be paid for as extra work.

4.1.8 The City may at any time by written order make changes within the general scope of this Agreement in the work and services to be performed by the Engineer. Any changes which materially increase or reduce the cost of or the time required for the performance of the Agreement shall be deemed a change in the scope of work for which an adjustment shall be made in the Agreement price or of the time for performance, or both, and the Agreement shall be modified in writing accordingly. Additional work necessary due to the extension of project limits shall be paid for as extra work.

4.1.9 Extra work, as authorized by the City, will be paid for separately and be in addition to the consideration of this Section.

4.1.10 For those projects involving conceptual or process development services, activities often cannot be fully defined during the initial planning. As the project does progress, facts and conditions uncovered may reveal a change in direction that may alter the scope of services. Engineer will promptly inform the City in writing of such situations so that changes in this agreement can be renegotiated.

4.1.11 This Agreement may be terminated (a) by the City with or without cause upon seven days' written notice to the Engineer and (b) by the Engineer for cause upon seven days' written notice to the City. If the City terminates the agreement without cause, the Engineer will be
paid for all services rendered and all reimbursable expenses incurred prior to the date of termination.

If termination is due to the failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete it. In such case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer's action.

4.1.12 The City or its duly authorized representatives may examine any books, documents, papers, and records of the Engineer involving transactions related to this agreement for three years after final payment. All examinations will be performed at reasonable times, with proper notice. Engineer's documentation will be in a format consistent with general accounting procedures.

4.1.13 The City shall designate a representative authorized to act on the City's behalf with respect to the Project. The City or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Engineer in order to avoid unreasonable delay in the orderly and sequential progress of the Engineer's services.

4.1.14 Costs and schedule commitments shall be subject to renegotiation for delays caused by the City's failure to provide specified facilities or information or for delays caused by other parties, excluding sub-contractors and sub-consultants, unpredictable occurrences including without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God, or the public enemy, or acts of regulations of any governmental agency or any other conditions or circumstances beyond the control of the City or Engineer. Temporary delays of services caused by any of the above which results in additional costs beyond those outlined may require renegotiation of this agreement.

4.1.15 The City will give prompt written notice to the Engineer if the City becomes aware of any fault or defect in the Project or nonconformance with the Project Documents.

4.1.16 Unless otherwise provided in this Agreement, the Engineer and the Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos products, polychlorinated biphenyl (PCB), or other toxic substances.
4.1.17 In the event asbestos or toxic materials are encountered at the jobsite, or should it become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of Engineer’s services, Engineer may, at their option and without liability for consequential or any other damages, suspend performance of services on the project until the City retains appropriate specialist CONSULTANT(S) or contractor(s) to identify, abate, and/or remove the asbestos or hazardous or toxic materials.

4.1.18 This agreement, unless explicitly indicated in writing, shall not be construed as giving Engineer the responsibility or authority to direct or supervise construction means, methods, techniques, sequences, or procedures of construction selected by any contractors or subcontractors or the safety precautions and programs incident to the work of any contractors or subcontractors.

4.1.19 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalies, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants.

4.1.20 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the specification or recommendation of asbestos, in any form, or any claims based upon use of a product containing asbestos.

4.1.21 Engineer hereby represents and warrants that it does not fail or refuse to collect or remit South Dakota or City sales or use tax for transactions which are taxable under the laws of the State of South Dakota.

4.2 City of Rapid City Non Discrimination Policy Statement

In compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination act of 1975, the Americans with Disabilities Act of 1990, and other nondiscrimination authorities it is the policy of the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701-5035, to provide benefits, services, and employment to all persons without regard to race, color, national origin, sex, disabilities/handicaps, age, or income status. No distinction is made among any persons in eligibility for the reception of benefits and services provided by or through the auspices of the City of Rapid City.

Engineer will permit access to any and all records pertaining to hiring and employment and to other pertinent data and records for the purpose of enabling the Commission, its agencies or representatives, to ascertain compliance with the above provisions.
This section shall be binding on all subcontractors or suppliers.

Section 5—Payments to the Engineer

5.1 Schedule of Pay Rates

The City will pay the Engineer for services rendered or authorized extra work according to the Engineer's hourly and reimbursable rate schedule described in Exhibit C.

5.2 Fee

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed $41,254.00 unless the scope of the project is changed as outlined in Section 4. If expenses exceed the maximum amount, the Engineer shall complete the design as agreed upon here without any additional compensation. Sub task dollar amounts may be reallocated to other tasks as long as the total fee is not exceeded. Prime consultant may not mark up sub-consultant or sub-contractor services.

5.3 Progress Payments

Monthly progress payments shall be processed by the City upon receipt of the claim as computed by the Engineer based on work completed during the month per the hourly rates and allowable reimbursable as established in Section 5.1 and approved by the City.

Net payment to the Engineer shall be due within forty-five (45) days of receipt by the City.

Section 6—Completion of Services

The Engineer shall complete services on or before December 31, 2019 based on a notice to proceed on or before May 21, 2019.

Section 7—Insurance Requirements

7.1 Insurance Required

The Engineer shall secure the insurance specified below. The insurance shall be issued by insurance company(s) acceptable to the City and may be in a policy or policies of insurance, primary or excess. Certificates of all required insurance including any policy endorsements shall be provided to the City prior to or upon the execution of this Agreement.
7.2 Cancellation

The Engineer will provide the City with at least 30 days' written notice of an insurer's intent to cancel or not renew any of the insurance coverage. The Contractor agrees to hold the City harmless from any liability, including additional premium due because of the Contractor's failure to maintain the coverage limits required.

7.3 City Acceptance of Proof

The City's approval or acceptance of certificates of insurance does not constitute City assumption of responsibility for the validity of any insurance policies nor does the City represent that the coverages and limits described in this agreement are adequate to protect the Engineer, its consultants or subcontractors interests, and assumes no liability therefore. The Engineer will hold the City harmless from any liability, including additional premium due, because of the Engineer's failure to maintain the coverage limits required.

7.4 Specific Requirements

7.4.1 Workers' compensation insurance with statutory limits required by South Dakota law. Coverage B-Employer's Liability coverage of not less than $500,000 each accident, $500,000 disease-policy limit, and $500,000 disease-each employee.

7.4.2 Commercial general liability insurance providing occurrence form contractual, personal injury, bodily injury and property damage liability coverage with limits of not less than $1,000,000 per occurrence, $2,000,000 general aggregate, and $2,000,000 aggregate products and completed operations. If the occurrence form is not available, claims-made coverage shall be maintained for three years after completion of the terms of this agreement. The policy shall name the City and its representatives as an additional insured.

7.4.3 Automobile liability insurance covering all owned, nonowned, and hired automobiles, trucks, and trailers. The coverage shall be at least as broad as that found in the standard comprehensive automobile liability policy with limits of not less than $1,000,000 combined single limit each occurrence. The required limit may include excess liability (umbrella) coverage.

7.4.4 Professional liability insurance providing claims-made coverage for claims arising from the negligent acts, errors or omissions of the Engineer or its consultants, of not less than $1,000,000 each occurrence and not less than $1,000,000 annual aggregate.
Coverage shall be maintained for at least three years after final completion of the services.

Section 8—Hold Harmless

The Engineer hereby agrees to hold the City harmless from any and all claims or liability including attorneys' fees arising out of the professional services furnished under this Agreement, and for bodily injury or property damage arising out of services furnished under this Agreement, providing that such claims or liability are the result of a negligent act, error or omission of the Engineer and/or its employees/agents arising out of the professional services described in the Agreement.

Section 9—Independent Business

The parties agree that the Engineer operates an independent business and is contracting to do work according to his own methods, without being subject to the control of the City, except as to the product or the result of the work. The relationship between the City and the Engineer shall be that as between an independent contractor and the City and not as an employer-employee relationship. The payment to the Engineer is inclusive of any use, excise, income or any other tax arising out of this agreement.

Section 10—Indemnification

If this project involves construction and Engineer does not provide consulting services during construction including, but not limited to, onsite monitoring, site visits, site observation, shop drawing review and/or design clarifications, City agrees to indemnify and hold harmless Engineer from any liability arising from the construction activities undertaken for this project, except to the extent such liability is caused by Engineer's negligence.

Section 11—Controlling Law and Venue

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

Section 12—Severability

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.
Section 13—Funds Appropriation

If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this agreement, this agreement shall impose no obligation on the City for payment. This agreement is null and void except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, and no right of action or damage shall accrue to the benefit of the Engineer, its successors or assignees, for any further payments. For future phases of this or any project, project components not identified within this contract shall not constitute an obligation by the City until funding for that component has been appropriated.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

City of Rapid City:  

STEVE ALLENDER, MAYOR  

DATE:  

ATTEST:  

FINANCE OFFICER  

Reviewed By:  

MORGAN FALCONE, P.E., PROJECT MANAGER  

DATE:  

CITY’S DESIGNATED PROJECT REPRESENTATIVE  

ENGINEERING FIRM’S DESIGNATED PROJECT REPRESENTATIVE  

NAME  MORGAN FALCONE, P.E.  
PHONE 605-394-4154  
EMAIL morgan.falcone@rcgov.org  

NAME JASON PETTYJOHN, P.E.  
PHONE 605-342-4105  
EMAIL jpettyjohn@fmengineering.com
SCOPE OF SERVICES

FOR

ELK VALE RESERVOIR
WATER LEVEL INVESTIGATION
PROJECT NO. 19-2511 / CIP 51238

The City of Rapid City has determined the need to procure professional services for an investigation and report regarding the water level fluctuations at the Elk Vale Reservoir. This is an investigative project only and no design or construction project has been identified.

The Elk Vale Reservoir was constructed to “float” at a hydraulic elevation equal to that of the other Low Level Zone reservoirs at Signal Hill. Control valves were also added at Signal Hill to accomplish the water level equivalency. Since construction was completed some 10-years ago, it has been difficult to maintain the water level at Elk Vale. The issue was not initially concerning as it was determined that the position of the control valves needed to be adjusted based on varying operational conditions and that may take time to understand the optimal valve position to make the water levels equalize.

Unfortunately, the control valves have not been successfully adjusted to accomplish the desired water level equivalency. The City has informally investigated other system variables, such as closed valves in the distribution system, but has not been able to identify a cause for the consistently lower water levels at the Elk Vale Reservoir.

This investigation will formally examine likely contributors to the water level issue and will attempt to provide a solution to make the system perform as desired.

FMG has been tracking this issue with the City through our involvement on past projects including the Ellsworth Air Force Base (EAFB) Water Meter Facility, Disk Drive & Haines Avenue Intersection Reconstruction, and the ongoing Water Utility System Master Plan. Those projects have provided a knowledge base that will allow expedited execution of the investigation.

The City had previously formed a panel of staff from Operations, Maintenance, and Engineering to investigate the water level issue. That panel theorized that there were 4 likely causes of the issue.

FMG will approach the investigation under this agreement as a detailed analysis of the causes identified by the City panel. Each cause will attempt to be “proved” by a combination of field testing and computer water modeling.

The potential causes identified by the City to be analyzed by this investigation includes, but is not limited to;

1. Improper control valve position and/or closure speed.
2. Closed distribution system valve.
3. High demand or leak in the system.
4. No issue. System is reacting to normal conditions.

FMG Engineering will coordinate all investigation related tasks, but will require City Operations and Maintenance staff to operate various pump stations and valves during field testing. FMG will prepare a skeletonized water model to allow nimble scenario manipulation in the field during live testing to help
"prove" results and direct slight modifications to field operations during testing. FMG will also work with City staff to run the water model being created as part of the Water Facility Master Plan to corroborate the skeletonized model results.

The findings of the investigation will be summarized in a report complete with recommendations on proper system operation to maintain reservoir water levels and any new equipment needs.

**TASK 1 - INVESTIGATIVE SERVICES:**

This task consists of all services necessary to review, analyze, test, and report the results of the investigation.

1.1 Kick-off Conference: The consultant shall meet with City staff to detail project concept and scope. The consultant shall prepare an agenda, take minutes, and distribute minutes.

1.2 Review background information and any other resources as necessary. A key element in this review will be the Design Report for the Elk Vale Reservoir. A summary of the original design assumptions and expected operating conditions will be included in the Investigative Summary Report.

1.3 Field Investigation of low water level causes. Each of the previously identified causes will be analyzed in the following manner. Additional causes or slight variations of each cause will be fully investigated as more information is generated.

   A. FMG will prepare a field investigation and testing plan for each possible cause to be reviewed by the City Project Manager and applicable staff.

   B. Once each field testing plan has been established, a strategy meeting will be held with field personnel to assign responsibilities and outline communication protocols during the test.

   C. Perform field testing. Each testing plan will be executed, often with multiple variations. Multiple City staff will be utilized to operate valves, monitor pressures, and manipulate other water system components through the City SCADA system.

   D. Perform water modeling. A skeletonized water model scenario(s) will be created for each field investigation. The model will be used in the office and in the field to both develop and "prove" the testing.

1.4 Validation of Field Investigation Results. Select field test data representing large pipes with high confidence of existing model accuracy will be consolidated and input into the City water model with the assistance of City staff to corroborate results identified in the skeletonized model. Complex flow scenarios with low confidence of existing model accuracy may require third party modeling.

1.5 Third-party Water Modeling. The ongoing Water Utility System Master Plan being completed by Black & Veatch is updating the current city water model. New facilities and demand scenarios are being generated, but are not yet complete. Additional modeling using the updated model may be requested to be completed by Black & Veatch to support the field investigation validations and/or recommendations made by this project.
1.6 Investigative Summary Report. A written summary of all field tests, results, and likely contributors to the issue that may be causing the low water levels at Elk Vale Reservoir will be compiled into a report for review. Standard operating procedures will be established for logical control of the valves at Signal Hill to maintain adequate water levels in all Low Level Reservoirs. The procedures will consider current seasonal demand conditions and required storage needs for fire and emergency conditions. Future demand conditions will not be evaluated by this report as they are expected to be included in the Water Utility System Master Plan. The report may outline future projects or additional equipment needs to correct any current condition issues beyond simple manipulation of the existing control valves. Any recommended future projects will include a conceptual cost estimate for budgeting purposes. No design of any future improvements will be included in the report.

Submit three (3) copies and a PDF version of the Draft and Final Investigative Summary Report to City of Rapid City’s project manager for review and comment.

Developed Model(s) shall be submitted to City with final deliverable.

SOP information and any pertinent modeling information shall be transmitted to the consultant for the Water Utility System Master Plan.

1.7 Attend submittal review meeting with City staff, if necessary.

1.8 Reimbursables including, Printing, Supplies, Mileage, Expendables for Investigative Services.

**SCHEDULE:**

- Notice to Proceed: May 21, 2019
- Field Testing: July - August 2019
- Draft Investigative Report Submittal: September 30, 2019
- Final Investigative Report Submittal: November 18, 2019

End of Exhibit A
## TASK SCHEDULE AND FEES

FOR

ELK VALE RESERVOIR
WATER LEVEL INVESTIGATION
PROJECT NO. 19-2511 / CIP 51238

<table>
<thead>
<tr>
<th>TASK 1 - INVESTIGATIVE SERVICES</th>
<th>Cost</th>
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<tbody>
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<td>1.1 Kickoff Meeting</td>
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<td>1.2 Collect and Review Background Information</td>
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<td>1.3 Field Investigation</td>
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<td>1.4 Verify Field Investigation Results</td>
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<td>1.5 Third Party Modeling</td>
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<td>1.6 Investigative Summary Report</td>
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<td>1.7 Attend Submittal Review Meeting with City Staff</td>
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<tr>
<td>1.8 Reimbursables, Printing, Mileage, Expendables</td>
<td>$ 150.00</td>
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**TOTAL FOR TASK 1 - INVESTIGATIVE SERVICES** | **$ 41,254.00**
RATE SCHEDULE

FOR

ELK VALE RESERVOIR
WATER LEVEL INVESTIGATION
PROJECT NO. X / CIP X

FMG ENGINEERING

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<tr>
<th>PERSONNEL</th>
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<td>Principal Civil Engineer</td>
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VEHICLES & EXPENSES

Mobilization (support vehicle)        $0.70/mile
Travel Costs - air, lodging, transport, meals, etc. cost
Document/Plans Reproduction           cost
CITY ATTORNEY'S OFFICE TRACKING SHEET

DOCUMENT TRACKING

PROLAW ITEM # 1021-1406

ASSIGNED TO:
Joel _____
Wade _____
Carla X
Jessica _____
Kinsley _____

DATE RECEIVED: 5/3/19

PERSON/DEPARTMENT: Kelly/Cassie

DATE RETURNED: 5/10/19

NOTES: