

# REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: 05/16/2014

**Project Name & Number:** Jackson Springs Transmission Mains CRS, Project Number 1836

**CIP #:** 50780

**Project Description:** As part of the settlement between Highmark, Inc. and the City of Rapid City, the City will design an impressed current cathodic protection system and Highmark, Inc. will construct the same. Ferber Engineering Company and subconsultant will prepare plans and specifications for the cathodic protection system, will provide construction related services during completion of the project and final system adjustment after construction.

**Consultant:** Ferber Engineering Company, Inc.

**Original Contract Amount:** \$2,73,830.00

**Original Contract Date:** 11/17/2009

**Original Completion Date:** 12/31/2010

**Addendum No:** 2

**Amendment Description:**

**Current Contract Amount:** \$357,784.44

**Current Completion Date:** May 20, 2013

**Change Requested:** \$73,240.00


**New Contract Amount:** \$431,024.44


**New Completion Date:** December 31, 2016

**Funding Source This Request:**


Amount	Dept.	Line Item	Fund	Comments
\$73,240.00	933-604	4223	604-933	Water Replacement / Improvements
<b>Total</b>				

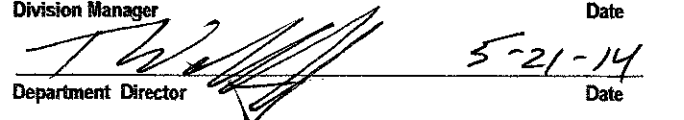
### Agreement Review & Approvals

  
**Project Manager** \_\_\_\_\_ **Date** 5/16/14

  
**Compliance Specialist** \_\_\_\_\_ **Date** 5/20/14

\_\_\_\_\_  
**City Attorney** \_\_\_\_\_ **Date**

  
**Division Manager** \_\_\_\_\_ **Date** 5-21-14

  
**Department Director** \_\_\_\_\_ **Date** 5-21-14

**ROUTING INSTRUCTIONS**

Route two originals of the Agreement for review and signatures.  
 Finance Office - Retain one original  
 Project Manager - Retain second original for delivery to Consultant  
 cc: Public Works  
 Engineering  
 Project Manager

**FINANCE OFFICE USE ONLY**

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

	Date	Initials	Approved
Appropriation	5/20/14	DR	<input checked="" type="radio"/> Y <input type="radio"/> N
Cash Flow			<input checked="" type="radio"/> Y <input type="radio"/> N

**AMENDMENT NO. 2 TO AGREEMENT**

**Project:** Jackson Springs Water Transmission Mains CRS  
Project No. WTP09-1836 / CIP No. 50780

**Background Data:** Effective Date of Agreement: November 17, 2009  
Owner: City of Rapid City  
Engineer: Ferber Engineering Company, Inc.

**Nature of Amendment:** As part of the settlement between Highmark, Inc. and the City of Rapid City, the City will design an impressed current cathodic protection system and Highmark, Inc. will construct the same. Ferber Engineering Company and subconsultant will prepare plans and specifications for the cathodic protection system, will provide construction related services during completion of the project and final system adjustment after construction. The scope of work for this Amendment is attached as Amendment 2 – Exhibit A.

**Current Contract Amount:** \$357,784.44

**Change Requested:** \$73,240.00

**New Contract Amount:** \$431,024.44

Owner and Engineer hereby agree to modify the above referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The effective date of this Amendment is:

\_\_\_\_\_.



CITY OF RAPID CITY:

ENGINEER:

By: \_\_\_\_\_  
Mayor

By: \_\_\_\_\_  
Dave Muck, Ferber Engineering  
Company, Inc

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

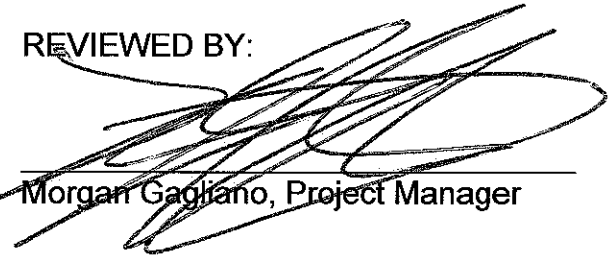
Date Signed: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_  
Finance Officer

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

REVIEWED BY:

  
\_\_\_\_\_  
Morgan Gagliano, Project Manager



**JACKSON SPRINGS WATER TRANSMISSION MAINS  
PROJECT NO. WTP09-1836 / CIP 50780**

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**AMENDMENT 2 - EXHIBIT A**

The City has determined the need to procure professional services including Preliminary Design Services, Final Design Services, Bidding Services, Basic Construction Services, and Expanded Construction Services for the Jackson Springs Water Mains Cathodic Protection System (CPS) Construction. The overall project includes professional services for design, construction administration and final adjustment of a deep anode ground bed and rectifier for the cathodic protection of the Jackson Springs 20-inch steel water transmission mains extending from Park Drive to the Jackson Springs Water Treatment Plant (JSWTP) constructed under City Project WTP09-1836 / CIP 50780.

The project generally includes a CPS that will presumably consist of a single semi-deep anode ground bed consisting of two vertically drilled anode beds of approximately 125 to 150 feet in depth. Specialty low-voltage electrical systems will be constructed with the ground bed. The professional services will include topographic survey, preliminary and final site plans, preliminary and final plans and specification development, preparation of a construction change order and construction observation with functional testing. In addition, the work within this amendment includes initial energizing and testing of the CPS. It also includes final adjustment of the CPS, including an interrupted cathodic protection survey, interference testing and operation and maintenance training of the CPS with City Utility Maintenance personnel. Warranty inspection and testing will occur approximately two years following completion of the functional testing.

**TASK 1 - PRELIMINARY DESIGN SERVICES:**

- 1.1 Kick-off Conference, project administration and general project coordination with NACE-certified cathodic protection specialist.
- 1.2 Coordinate ground bed and rectifier location with necessary City Departments and attend design review meetings.
- 1.3 Gather and review background information necessary to site the proposed CPS system away from public and private utilities. Gather well drilling logs and other available lithographic information to assist in siting the ground beds.
  - 1.3.1 Coordinate with local private utilities to determine type, size and location of their facilities.
- 1.4 Perform site topographic surveys sufficient for design plan preparation. The route and topography survey shall be tied to at least two City of Rapid City Monument Control system monuments utilizing State Plane coordinates.
  - 1.4.1 Detailed topographic survey information will be collected at two sites selected as potentially suitable for installation of a minimum of two semi-deep anode ground bed wells.
  - 1.4.2 Detailed topographic survey information will be collected along two probable cathodic cable/control wire corridors to the proposed rectifier location.
- 1.5 Engineer will prepare a technical memorandum outlining well sites investigated, positives and negatives of each site and the recommended site.
- 1.6 Engineer will prepare an opinion of probable construction cost.
- 1.7 Engineer will attend a review meeting with appropriate City Departments.

**JACKSON SPRINGS WATER TRANSMISSION MAINS  
PROJECT NO. WTP09-1836 / CIP 50780**

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**TASK 2 - FINAL DESIGN SERVICES:**

- 2.1 Prepare final design and construction plans for the project.
  - 2.1.1 Complete detailed design for the semi-deep anode ground bed for the CPS.
  - 2.1.2 Complete detailed layout for cathodic cable/control wires and rectifier for the CPS.
  - 2.1.3 Prepare plan sheets for the project in accordance with the RCIDCM and City Drafting Standards to include, but not be limited to:
    - 2.1.3.1 Title Sheet
    - 2.1.3.2 General Construction Notes and Quantities
    - 2.1.3.3 Survey Control Sheet
    - 2.1.3.4 Project Layout Sheet including sufficient staking information
    - 2.1.3.5 Stormwater Pollution Prevention Plan and associated Erosion and Sediment Control Sheets
    - 2.1.3.6 Specific Project Construction Details
    - 2.1.3.7 Standard Construction Details
    - 2.1.3.8 Prepare design exceptions as necessary and as dictated by the recommended CPS location.
- 2.2 Prepare detailed specifications for the construction of the CPS, which will include, but may not be limited to:
  - 2.2.1 Listing of prequalified CPS contractors and specifics regarding subcontractor bids
  - 2.2.2 Submittals
  - 2.2.3 Record Documents
  - 2.2.4 Cathodic Protection System
  - 2.2.5 Supplemental Specifications and appendices, if necessary
- 2.3 Prepare City Floodplain Development Permit Application for temporary construction activities. All other permits will be required to be obtained by the contractor.
- 2.4 Prepare engineer's opinion of probable construction cost.
- 2.5 Prepare final technical memorandum inclusive of preliminary memorandum revisions as well as information determined during the final design process.
- 2.6 Engineer will attend review meeting with appropriate City Departments and finalize plans with suggested revisions.
- 2.7 Identify permits that will be required for the Contractor. Identify permit costs and indicate if any permit costs are paid for directly by the Owner or if it is a Contractor cost.
- 2.8 Prepare final Engineer's Opinions of Probable Construction cost for the project.
- 2.9 Engineer shall deliver the following to the City Project Manager (unless otherwise stipulated):
  - Provide a PDF format digital copy of the construction documents including complete plans and specifications for each of the plan sets described above.
  - Print and distribute five (5) copies of 11"x17" plans to the City of Rapid City for use by construction services personnel.
- 2.10 All submittals (drawings and specifications) believed by the Engineer of Record to be final, shall contain a Certification Statement of Conformance with City Standards which shall

**JACKSON SPRINGS WATER TRANSMISSION MAINS  
PROJECT NO. WTP09-1836 / CIP 50780**

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read, "I (insert Engineer of Record's name) Certify that I have read and understand the provisions contained in the City of Rapid City Standard Specifications for Public Works Construction, current edition and the City of Rapid City's adopted Design Criteria Manuals. The drawings and specifications contained here within, to the best of my knowledge, were prepared in accordance with these documents or a properly executed exception to the Standard Specifications and/or Infrastructure Design Criteria Manual has been secured." This statement shall appear on the title sheet of the drawings and on the first page of specifications after the cover sheet. The "Certification Statement of Conformance with City Specifications" shall be signed and dated by the Engineer of Record.

- 2.11 The City will submit plans and specifications to the Department of Environment and Natural Resources for approval. The Engineer will address comments or corrections required.

**TASK 3 – CONSTRUCTION CHANGE ORDER:**

- 3.1 Assist contractor in evaluating bids received from prequalified CPS subcontractors.  
3.2 Prepare a construction change order for the project based upon the lowest, responsible CPS subcontractor bid plus other costs the contractor estimates will be encountered to complete the project in general conformance with the plans and specifications.

**TASK 4 – BASIC CONSTRUCTION RELATED SERVICES:**

- 4.1 Coordinate, attend and conduct a preconstruction meeting with the Contractor, its subcontractor(s) and relevant City personnel. Record meeting minutes and distribute.  
4.2 Review shop drawings, material submittals, etc.  
4.3 Process quantities and submit information to City for completion of pay requests.  
4.4 Provide written clarification of drawings and specifications.  
4.5 Provide written recommendations for resolution of site conditions different from expected.  
4.6 Prepare as-constructed drawings.

**TASK 5 – EXPANDED CONSTRUCTION RELATED SERVICES:**

- 5.1 Provide four (4) hours per day construction observation during completion of trenching, electrical work, surface restoration, etc.  
5.1.1 Provide full time observation during installation of ground bed and rectifier.  
5.1.2 Ground bed and rectifier installation observation will be completed by a NACE-certified cathodic protection specialist.  
5.2 Coordinate, attend and conduct four (4) progress meetings during completion of the project. Record meeting minutes and distribute.  
5.3 Prepare daily reports. A daily record of activity will be maintained by the inspector including weather conditions, construction progress, deviations from the plans and specifications, work performed, quantities installed and any other pertinent information. Such information shall be neatly and concisely entered into the City of Rapid City Project Inspector's Diary and Inspection quantity book. Submit detachable copies to Engineering Services on a weekly basis.

**JACKSON SPRINGS WATER TRANSMISSION MAINS  
PROJECT NO. WTP09-1836 / CIP 50780**

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- 5.4 Perform stormwater inspections, prepare reports, and keep the erosion and sediment control plans current as required by the ordinance regulating construction site runoff control, Chapter 8.46, and the Stormwater Quality Manual.
- 5.5 Complete Functional Testing. Prepare and submit project completion punch list items to the Contractor and Engineering Services and oversee its completion.
- 5.6 Complete initial energizing and adjustment of CPS. Prepare and submit to City a letter report with draft field data summary.
- 5.7 Prepare letter of certification of project completion verifying compliance with plans and specifications and start of warranty period.
- 5.8 Ensure Contractor's two-year warranty surety is provided to the City of Rapid City either within the performance bond or as a separate bond.
- 5.9 Complete Final CPS adjustment with interrupted CP survey, interference testing and complete City field training for the CPS. Prepare and submit to City a final letter report with final field data summary.
- 5.10 Assist the City in addressing and communicating warranty items with the Contractor that may arise during the City's two year warranty period.
  - 5.10.1 Complete two year warranty inspection and testing. Prepare and submit to City a letter report of findings.

**PROJECT TEAM, MEETINGS, AND SUBMITTALS**

Project team members will include:

- Ferber Engineering Company, Inc.
  - RUSTNOT Corrosion Control Services
- City Engineering Services staff
  - Operations Division staff
  - Utility Maintenance Division (Service area and O&M related issues)
  - Water Division
- Parks Division

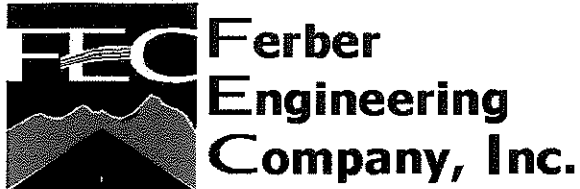
The Engineer will allow 10 working days for City review of the initial CPS siting recommendation memorandum, 10 working days for City review of the preliminary plans and 10 working days for review of the final plans and specifications submittal.

**JACKSON SPRINGS WATER TRANSMISSION MAINS -  
PROJECT NO. 16-2099 / CIP 50904**

**AMENDMENT 2 - EXHIBIT B**

<b>Subtask #</b>	<b>Description</b>	<b>Subtask Total</b>
1.1	<i>Kickoff Conference, project administration and project coordination</i>	\$870.00
1.2	<i>Coordinate anode bed location with City Departments</i>	\$480.00
1.3	<i>Initial CPS Field Eval and Location Selection / Background Data Gathering</i>	\$7,320.00
1.4	<i>Perform site topographic survey of 2 potential sites</i>	\$440.00
1.5	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
1.6	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
1.7	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
	<b>TASK 1 TOTAL</b>	<b>\$9,110.00</b>
2.1	<i>Complete detailed design of CPS system and prepare plans</i>	\$1,430.00
2.2	<i>Prepare detailed specifications for construction of the CPS</i>	\$3,280.00
2.3	<i>Prepare Floodplain Development Permit Application</i>	\$240.00
2.4	<i>Prepare Engineer's Opinion of Probable Construction Cost</i>	\$400.00
2.5	<i>Prepare Technical Memorandum of Design</i>	\$2,380.00
	<b>TASK 2 TOTAL</b>	<b>\$7,730.00</b>
3.1	<i>Assist contractor in evaluating bids received from prequalified CPS subs</i>	\$1,560.00
3.2	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
	<b>TASK 3 TOTAL</b>	<b>\$1,560.00</b>
4.1	<i>Coordinate, attend and conduct Preconstruction Meeting</i>	\$560.00
4.2	<i>Review shop drawings, material submittals, etc</i>	\$2,120.00
4.3	<i>Process quantities for City completion of pay requests</i>	\$240.00
4.4	<i>Provide written clarifications of drawings/specs and encountered site issues</i>	\$320.00
4.5	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
4.6	<i>Prepare as-constructed drawings and observation reports for submittal</i>	\$1,580.00
	<b>TASK 4 TOTAL</b>	<b>\$4,820.00</b>
5.1	<i>Provide field observation for the installation of CPS and appurtenant facilities</i>	\$23,000.00
5.2	<i>Attend and conduct progress meetings</i>	\$1,120.00
5.3	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
5.4	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
5.5	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
5.6	<i>Complete initial CPS energizing and adjustment</i>	\$8,980.00
5.7	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
5.8	<i>NOT ESTIMATED - Costs included within other items</i>	\$0.00
5.9	<i>Complete Final CPS adjustment / Final Testing / Field Training of City Staff</i>	\$9,980.00
5.10	<i>Warranty inspection and Letter Report of Findings</i>	\$6,940.00
	<b>TASK 5 TOTAL</b>	<b>\$50,020.00</b>
	<b>CONTRACT TOTAL FOR TASKS 1 - 5</b>	<b>\$73,240.00</b>





Civil Engineering • Water Resources • Transportation • Land Surveying  
 729 East Watertown St, Rapid City, SD 57701 ~ Phone: (605) 343-3311

## AMENDMENT 2 - EXHIBIT C

### 2014 SCHEDULE OF CHARGES

#### FERBER ENGINEERING COMPANY, INC.

<u>EMPLOYEE CLASSIFICATION</u>	<u>HOURLY RATE</u>
Principal Professional Engineer	\$120.00
Principal Professional Engineer/Registered Land Surveyor	\$120.00
GIS Professional	\$90.00
Professional Engineer III	\$90.00
Professional Engineer II	\$85.00
Professional Engineer I	\$80.00
Graduate Engineer II	\$75.00
Graduate Engineer I	\$65.00
Senior Technician	\$80.00
Technician II	\$65.00
Technician I	\$55.00
Drafter II	\$65.00
Drafter I	\$55.00
Clerical	\$65.00
Mileage	\$ 0.57

#### RUSTNOT Corrosion Control Services (Corrosion Protection)

<u>EMPLOYEE CLASSIFICATION</u>	<u>RATE</u>
NACE CP Specialist	\$130.00 / hr
Office Administrator	\$ 50.00 / hr
Daily Per Diem	\$135.00 / day
Special Field Equipment Rental	\$ 40.00/ day
Travel – Vehicle	\$1.00 / mi
Travel – Air	Direct Reimbursement