

**AGREEMENT  
FOR  
PROFESSIONAL SERVICES**

This Agreement is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2005, by and between the City of Rapid City, hereinafter called the **OWNER**, and Ferber Engineering Company, Inc., a South Dakota Corporation, hereinafter called the **CONSULTANT**.

**WHEREAS**, the **OWNER** has determined the need to procure professional engineering services for the **Preliminary Study, Design, Preparation of Construction Plans and Specifications, and assistance with Bidding and Construction Phase Services for the Sedivy Lane Reconstruction (Project No. ST04-1063)** as identified herein; and,

**WHEREAS**, the **CONSULTANT** has satisfied the **OWNER** that **CONSULTANT** is capable of providing those services;

**NOW, THEREFORE**, the **OWNER** and **CONSULTANT** in consideration of the payments and agreements herein contained, do hereby agree as follows:

**PROJECT DESCRIPTION**

This **PROJECT** is the reconstruction of approximately 900 lineal feet of Sedivy Lane from E. St. Patrick Street to E. St. Charles Street. The reconstruction project is anticipated to include reconstruction of approximately 900 lineal feet of PVC sanitary sewer, construction of storm sewer and storm inlets, constructing closed conduit for irrigation lateral, PCC/ACC street surfacing and curb and gutter.

Funding for this project is from 8910 Street Improvements, the 8911 Drainage Improvements, the 833 Sewer Improvements and the 933 Water Improvements budgets. Construction is anticipated to be substantially complete by November 1, 2005, depending on the final extent of the design for this **PROJECT**.

**CONSULTANT** will assist the **OWNER** in coordinating with property owners', legal survey, and preparation of documents for ROW and easement acquisition. **CONSULTANT** will assist **OWNER** in bidding the **PROJECT**. **CONSULTANT** will also provide Construction Related Services, including, construction administration and construction observation to the extent agreed upon by the **OWNER** and **CONSULTANT** following completion of the Detailed Design Phase of the **PROJECT**.

## DESIGN CRITERIA

The **PROJECT** will be designed in conformance with the following Design Criteria:

- *City of Rapid City Standard Specifications for Public Works Construction, 2002.*
- *City of Rapid City Drainage Criteria Manual.*
- *City of Rapid City Street Design Criteria Manual*
- *Design Criteria Manual for Water Distribution Systems and Sanitary Sewer Collection Systems for the City of Rapid City (DRAFT).*
- *Recommended Standards for Wastewater Facilities (Ten States Standards)*

## ARTICLE I SCOPE OF SERVICES

### A. DESIGN DATA ACQUISITION

- A.1. **CONSULTANT** will obtain copies of existing street and utility plans for Sedivy Lane and E. St. Patrick Street in addition to the *Perrine Drainage Basin Design Plan*, FMG, Inc.
- A.2. **CONSULTANT** will complete courthouse research to identify property ownership, obtain recorded plats and easements and other information as necessary that is within the **PROJECT** area.
- A.3. **CONSULTANT** will obtain copies of maps and plans of existing utility infrastructure in the **PROJECT** area from Qwest Communications, Golden West Communications, Black Hills Power and Light, Montana Dakota Utilities, Midcontinent Communications, Black Hills Fibercom, and West River Electric. **CONSULTANT** will have utilities mark their existing infrastructure in the field.
- A.4. **CONSULTANT** will work with Qwest Communications, Golden West Communications, Black Hills Power and Light, Montana Dakota Utilities, Midcontinent Communications, Black Hills Fibercom, and West River Electric to coordinate expansion or relocation of their lines.
- A.4.1. The utility companies will be invited to a pre-design meeting to notify them of the scope of the project, and request utility locates. After identifying the preliminary improvements, they will be notified of any apparent utility conflicts.

A.4.2. **CONSULTANT** will consider the location of the existing public and private utilities located within and adjacent to the different rights-of-way.

A.4.3. **CONSULTANT** will work with the utilities and the City to determine the scope of any improvements. This utility coordination will continue through the final design phase to include checking for utility conflicts.

## **B. PRELIMINARY DESIGN PHASE**

B.1. **CONSULTANT** will perform Field Design Survey including:

B.1.1. Topographic survey along approximately 1,250 feet of Sedivy Lane from the Star of the West Softball Complex to the E. St. Patrick Street intersection. **CONSULTANT** will also survey storm inlets, junction boxes and other visible storm sewer transitions from Sedivy Lane to South Valley Drive along the north side of E. St. Patrick Street. Survey will include surveying located utilities and existing cleanout locations and elevations of adjacent properties to be served following completion of this project.

B.1.2. **CONSULTANT** will download the field survey files, reduce the files on the computer, and create topographic maps.

B.1.3. Create Digital Terrain Models based upon field survey data.

B.2. Using aerial photogrammetric and topographic information from the City, and survey data, **CONSULTANT** will prepare conceptual horizontal and vertical storm sewer alignment alternatives necessary to tie to an existing storm sewer junction box near E. St. Patrick Street and South Valley Drive. This is necessary in order to properly design and construct the Sedivy Lane storm sewer and will provide guidance for the future reconstruction of the E. St. Patrick Street storm sewer.

B.3. **CONSULTANT** will subcontract with **American Engineering Testing, Inc.** to perform Geotechnical Evaluation for this project.

B.3.1. The scope of the geotechnical investigation will include three (3) bore holes along the Sedivy Lane alignment, soil samples will be collected and analyzed to determine engineering properties of the soils.

B.3.2. Field resistivity tests will be completed at a minimum of two (2) locations.

B.3.3. **American Engineering Testing, Inc.** will provide a report summarizing the results of the field work, laboratory data, and conclusions and recommendations regarding subsurface soil and groundwater information, trench excavation and backfill, use of site soils for backfill and pavement design.

- B.4. **OWNER** will inspect sanitary sewer mains in Sedivy Lane to determine the if sewer main replacement is necessary.
- B.5. **CONSULTANT** will prepare a *Report of Findings* of proposed drainage improvements for both Sedivy Lane and E. St. Patrick Street, irrigation lateral design, utilities, costs, and ability to serve adjacent property.
- B.6. **CONSULTANT** will prepare preliminary estimates of construction costs for anticipated improvements to Sedivy Lane, and separately, the estimated cost of storm sewer main reconstruction for E. St. Patrick Street.
- B.7. **CONSULTANT** will meet with **OWNER** to discuss findings and determine extent of drainage improvements for the Detailed Design Phase and Construction Phase, if different than discussed below.

### **C. DETAILED DESIGN PHASE**

- C.1. **CONSULTANT** will perform Legal Survey services including establishing ties to lot corners and existing right-of-way monuments.

C.1.1. Prepare legal descriptions and exhibits for easement acquisition for permanent and construction easements.

#### **C.2. Irrigation Lateral**

C.2.1. **CONSULTANT** will meet with staff from City Engineering Division and representatives from the Hawthorne Ditch to discuss improvements to Hawthorne Ditch lateral along Sedivy Lane within the project area.

C.2.2. **CONSULTANT** will design a closed conduit gravity lateral replacement for the existing open channel extending from E. St. Charles Street to E. St. Patrick Street .

#### **C.3. Sanitary Sewer**

C.3.1. **CONSULTANT** will design the realignment of the existing 12-inch sanitary sewer main from the manhole on the north side E. St. Patrick Street at the intersection with Sedivy Lane to the E. St. Andrew Street sanitary sewer manhole (approximately 420 feet).

#### **C.4. Water.**

C.4.1. **CONSULTANT** will design the 14-inch PVC bypass of the existing meter pit on the east side of Sedivy Lane north of E. St. Patrick Street (approximately 50 feet).

#### **C.5. Drainage**

C.5.1. **CONSULTANT** will design the horizontal and vertical alignments for the required storm sewer and storm inlets to convey flows conveyed and collected on Sedivy Lane (approximately 900 feet).

C.5.2. **CONSULTANT** will design the horizontal and vertical alignments in the Sedivy Lane/E. St. Patrick Street Intersection for the required storm sewer that will be associated with the future E. St. Patrick Street storm sewer reconstruction (approximately 100 feet).

C.5.3. **CONSULTANT** will verify changes in storm sewer sizes made in the Detailed Design by revising hydraulic model created in the Preliminary Design Phase.

#### C.6. Street

C.6.1. **CONSULTANT** will complete a PCC/ACC pavement section and cost analysis to provide a 20-year pavement life for this project. Selection of Pavement Section will be made in conjunction with Engineering Division.

C.6.2. **CONSULTANT** will design intersections, approaches and curb and gutter.

#### D. Construction Documents Phase

D.1. **CONSULTANT** will produce Final Construction Plans on 22"x 34" mylar drawings at a horizontal scale of 1"= 20' and vertical scale of 1" = 5' to City of Rapid City 2005 Drafting Standards.

D.2. **CONSULTANT** will create a cover sheet showing location and extent of the **PROJECT**.

D.3. **CONSULTANT** will prepare general notes, typical sections and quantity summary sheets.

D.4. **CONSULTANT** will prepare survey data sheets.

D.4.1. Survey information will be provided including Station Offset for PC's, PI's and PT's; curve data and station/offsets for all items requiring field staking. Survey control and vertical benchmark information will also be provided in the Plans.

D.5. **CONSULTANT** will provide project layout plan including lot lines and addresses of all properties adjacent to the **PROJECT**.

D.6. **CONSULTANT** will prepare construction details and construction notes.

D.7. **CONSULTANT** will work with **OWNER** and property owners to identify and detail future service connections.

D.8. **CONSULTANT** will prepare plan/profile sheets, as necessary, for items considered ancillary to the **PROJECT**, but that will be constructed as part of the project.

**D.9. Construction Traffic Control Plans**

- D.9.1. **CONSULTANT** will review sequence of construction operations.
- D.9.2. **CONSULTANT** will prepare detailed Construction Traffic Control Plans.

**D.10. Contract Documents**

- D.10.1. **CONSULTANT** will work with **OWNER** to prepare **CONTRACT DOCUMENTS** based upon the City of Rapid City Standard Specifications for Public Works Construction.
- D.10.2. **CONSULTANT** will prepare a final estimate of probable construction cost.
- D.10.3. **CONSULTANT** will prepare final bidder's proposal.

**D.11. Project Deliverables**

- D.11.1. Construction Plans on 22-inch x 34-inch Mylar and 20 blue print copies.
- D.11.2. Two-Dimensional construction plans on CD in ACAD 2000 format.
- D.11.3. All topographic, control and design points in .dwg file and in tabular format both on CD and in hard copy.
- D.11.4. Complete supplemental (detailed) specifications on CD in Microsoft Word format.
- D.11.5. A unit price cost estimate on CD in Microsoft Excel format based upon City of Rapid City Microsoft Excel "Engineer's Estimate".

**E. BIDDING PHASE SERVICES**

- E.1. **OWNER** will print and distribute **CONSTRUCTION PLANS** and **CONTRACT DOCUMENTS**, and will maintain a list of **BIDDERS** holding copies of the **CONTRACT DOCUMENTS**.
- E.2. **CONSULTANT** will attend pre-bid conference, make presentation, and answer bidder questions.
- E.3. **CONSULTANT** will conduct a pre-bid site visit to answer bidder questions.
- E.4. **CONSULTANT** will issue Addenda as required.
- E.5. **CONSULTANT** will assist **OWNER** in evaluating the bids.

## **F. CONSTRUCTION RELATED SERVICES**

The construction of the **PROJECT** is anticipated for Fall 2005. **OWNER** chooses to engage **CONSULTANT** to perform various **CONSTRUCTION RELATED SERVICES** for the **PROJECT**. These services shall include the following types of services. **CONSULTANT** and **OWNER** will negotiate separately the scope and cost of **CONSTRUCTION RELATED SERVICES** at the completion of **FINAL DESIGN**.

### **F.1. CONTRACT ADMINISTRATION**

F.1.1. **CONSULTANT** shall assist the **OWNER** in assembling the Contract Documents for execution by the **CONTRACTOR**. **CONSULTANT** will conduct a pre-construction conference with representatives of the **CONTRACTOR**, the **OWNER** and affected utilities.

F.1.2. **CONSULTANT** shall prepare contract change orders and field modifications for **OWNER** execution and perform other construction administration during the project. **CONSULTANT** shall process pay applications submitted by the **CONTRACTOR** and forward to **OWNER** for execution with recommendations for approval and payment.

F.1.3. Following notice from **CONTRACTOR** that the entire work is ready for its intended use, **CONSULTANT** shall conduct a final inspection. **CONSULTANT** will recommend, in writing, final payment.

### **F.2. CONSTRUCTION OBSERVATION**

F.2.1. **CONSULTANT** shall provide a **PROJECT** Representative during the construction to observe the work during the construction period and record construction progress. The Representative's efforts as an experienced and qualified design professional will endeavor to provide for **OWNER** a greater degree of confidence that the completed work of the **CONTRACTOR** conforms in general to the Contract Documents and that the integrity of the design concept as indicated in the Contract Documents has been implemented and preserved by the **CONTRACTOR**.

### **F.3. CONSTRUCTION STAKING**

F.3.1. **CONSULTANT** may provide the line and grade stakes for all sanitary sewer improvements necessary for the construction of the **PROJECT**.

## **G. MEETINGS AND SUBMITTALS**

**CONSULTANT** will attend the following project meetings:



- G.1. Project kickoff meeting.
- G.2. Utility coordination meeting.
- G.3. *Report of Findings* presentation and discussion.
- G.4. 95% plans review submittal and meeting.
- G.5. 100% plans review submittal and meeting.

## ARTICLE II OWNERS RESPONSIBILITY

Except as otherwise provided herein, **OWNER** shall do the following in a timely manner so as not to delay the services of **CONSULTANT**, and shall bear all costs incident thereto:

- 2.1 Designate a person to act as **OWNER'S** representative with respect to the services to be performed or furnished by **CONSULTANT** under this Agreement.
- 2.2 Provide all criteria and full information as to **OWNER'S** requirements for the **PROJECT**, including design objectives and constraints, capacity and performance requirements, and any budgetary limitations.
- 2.3 Assist **CONSULTANT** by placing at **CONSULTANT'S** disposal all available information pertinent to the **PROJECT** including previous design reports and any other data relative to design or construction of the **PROJECT**.
- 2.4 Assist **CONSULTANT** by furnishing for **CONSULTANT'S** use Digital Files of Topographic Base Maps and Digital Terrain Models for the **PROJECT** area.
- 2.5 Arrange for access to and make all provisions for **CONSULTANT** to enter upon public and private property as required for **CONSULTANT** to perform services under this Agreement.

## ARTICLE III TIMES FOR RENDERING SERVICES

**CONSULTANT'S** services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the **PROJECT**. Unless specific periods of time or specific dates for providing services are specified in this Agreement, **CONSULTANT'S** obligation to render services hereunder will extend for a period which may reasonably be required for the preparation of the Plans and Bidding Documents, including extra work and required extensions thereto.



- 3.1 The **CONSULTANT** will begin work upon receipt of a signed Notice to Proceed on or about May 17, 2005.
- 3.2 *Report of Findings* will be submitted within 21 Calendar Days after Notice to Proceed.
- 3.3 **CONSULTANT** will complete Final Design immediately after Review Comments are provided to Ferber Engineering Company, Inc., by the City Engineering Division. Final plans and specifications will be completed by July 29, 2005, unless **PROJECT** scope increases.
- 3.4 The **CONSULTANT** will retain copies of all payroll and expense records for a period of three (3) years after completion of the **PROJECT**.

#### **ARTICLE IV PAYMENTS TO CONSULTANT FOR SERVICES**

- 4.1 **OWNER** shall pay to **CONSULTANT** for services performed in accordance with **ARTICLE I** on a per-diem basis in accordance with the attached Exhibit A, the **CONSULTANTS** hourly rates.
- 4.2 In addition to payments provided for in paragraph 4.1, **OWNER** shall pay **CONSULTANT** for Reimbursable Expenses incurred by **CONSULTANT** including mileage at the rates identified in Exhibit A.
- 4.3 The **CONSULTANT** will invoice the **OWNER** monthly for the services provided. Net payment for these services is due within thirty (30) days. The maximum estimated fee for Preliminary, Final Design, and Bidding Phase Services, Article I, Items A-E, is \$38,640.50. The **CONSULTANT** will not exceed this amount without prior authorization by the **OWNER**.
- 4.4 The maximum estimated fee for Construction Related Services, Article I, Item F will be negotiated at the completion of design.

#### **ARTICLE V ADDITIONAL SERVICES**

If additional services beyond those contained in the scope of services must be performed, this agreement will be amended to identify the change in scope and the compensation due to the **CONSULTANT**.

**ARTICLE VI OPINIONS OF COST**

6.1 **CONSULTANT'S** opinions of probable Construction Cost provided for herein are to be made on the basis of **CONSULTANT'S** experience and qualifications and represent **CONSULTANT'S** best judgment as an experienced and qualified professional engineer generally familiar with the construction industry. However, since **CONSULTANT** has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractors methods of determining prices or over competitive bidding or market conditions, **CONSULTANT** cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost prepared by **CONSULTANT**.

**ARTICLE VII GENERAL TERMS AND CONDITIONS**

7.1 All services will be performed in accordance with the **CONSULTANT'S GENERAL TERMS AND CONDITIONS-RAPID CITY**, dated April 29, 2002 which are attached hereto and incorporated into this agreement by reference.

This Agreement represents the entire and integrated agreement between the **OWNER** and the **CONSULTANT** covering the services set forth herein and supersedes any prior negotiations, representations, or agreements therefore, either written or oral. This Agreement may be amended only by written instrument signed by both the **OWNER** and the **CONSULTANT**.

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


THE CITY OF RAPID CITY, SOUTH DAKOTA

\_\_\_\_\_  
Jim Shaw, Mayor

ATTEST:

\_\_\_\_\_  
Date: \_\_\_\_\_  
James F. Preston  
Finance Officer

FERBER ENGINEERING COMPANY

BY:   
\_\_\_\_\_  
Dan P. Ferber, President

Date: 4-27-05