

**AGREEMENT  
FOR  
PROFESSIONAL SERVICES**

**PW122700-12**

This Agreement is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 19\_\_, by and between the City of Rapid City, hereinafter called the **CITY**, and Ferber Engineering Company, a South Dakota Corporation, hereinafter called the **CONSULTANT**.

**WHEREAS**, the **CITY** has determined the need to procure professional engineering services for the **Design and Preparation of Construction Plans and Technical Specifications for SDDOT Project NH 2016(00)66 PCEM 6393** as identified herein; and,

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

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

**PROJECT DESCRIPTION**

**SDDOT Project NH 2016(00)66 PCEM 6393** hereinafter referred to as **PROJECT**. **PROJECT** will consist of the new intersection of 5<sup>th</sup> Street and US 16B in Rapid City, SD. **PROJECT** will include a right turn lane for westbound to northbound traffic, extension of climbing lane from the new intersection west to the existing climbing lane, and a left turn lane for eastbound to northbound traffic – all located on US 16B. The work will involve shoulder widening, asphalt concrete resurfacing, traffic control, pavement marking, drainage, and roadway lighting.

**DESIGN CRITERIA**

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

- South Dakota Department of Transportation, Standard Specifications for Road and Bridge Construction, 1998.
- City of Rapid City, Standard Specifications for Public Works Construction.
- City of Rapid City, Drainage Criteria Manual.

## ARTICLE I SCOPE OF SERVICES

### A. DESIGN DATA ACQUISITION

A.1. **CONSULTANT** will obtain copies of maps and plans of existing utility infrastructure in the **PROJECT** area from US West, Black Hills Power and Light, Montana Dakota Utilities, TCI Cablevision, Black Hills Fibrecom, and West River Electric, and will have utilities mark their existing infrastructure in the field.

A.2. **CONSULTANT** will perform Field Design Survey including:

A.2.1. Survey cross sections along US 16B 2000 feet west and 1000 feet east of the proposed intersection centerline.

A.2.2. Topographic survey the area of the intersection and the major drainage structure east of the intersection.

A.2.3. **CONSULTANT** will download the field survey files, reduce the files on the computer, and create topographic maps.

### B. PRELIMINARY DESIGN

B.1. **CONSULTANT** will subcontract with TranSystems Corp. to evaluate opening day and future traffic demands at the location of the intersection of 5<sup>th</sup> Street and US 16B, and to make recommendations for intersection geometry and signalization that meets SDDOT standards. The sub consultant scope of services will include:

B.1.1. Projection of Future Conditions: TranSystems will utilize the traffic growth projections developed with the 5<sup>th</sup> Street extension project to develop 20-year traffic projections for this intersection. Operational characteristics of the 5<sup>th</sup> Street / US 16B intersection will be assessed under opening day and projected 20-year growth conditions to assess future operational characteristics.

B.1.2. Intersection Geometry: The SDDOT Roadway Design Manual will be utilized as the primary reference for intersection design. TranSystems analysis will consider traffic demands, vehicle type mix, and roadway horizontal and vertical alignment to determine requirements for, and the geometric layout of intersection geometry.

B.1.3. Signalization: TranSystems will assess the need (current and future) for installation of traffic signals at the intersection of 5<sup>th</sup> Street and US 16B, and will provide direction regarding placement of traffic signal poles and ancillary equipment.

B.1.4. Report: The analysis, conclusions and recommendations of this traffic analysis will be included as an Addendum to the Traffic Design Report for the 5<sup>th</sup> Street Extension.

B.2. **CONSULTANT** will subcontract with West Plains Engineering to provide electrical engineering design of the street lighting and signalization improvements to the intersection of Fifth Street with US 16B. Preliminary plans will include:

B.2.1. Layout and spacing of street lights.

B.2.2. Conduit location and type.

B.2.3. Layout of equipment and traffic signals.

B.2.4. Preliminary cost estimate for construction of street lighting and signalization.

B.3. **CONSULTANT** will incorporate the alignment and geometry recommendations from TranSystems Corp. into a preliminary horizontal and vertical design of improvements to US 16B at the intersection of Fifth Street and US 16B (Catron Boulevard). The preliminary design will include:

B.3.1. Horizontal and vertical alignment including lane configuration, radii, medians, islands, auxiliary left-and right-turn lanes, tapers, acceleration and deceleration lanes, and storage lengths.

B.3.2. Signing and striping.

B.3.3. Construction traffic control.

B.3.4. Storm drainage improvements.

B.4. **CONSULTANT** will prepare a drainage analysis of the 5th Street and US 16B intersection identifying tributary runoff areas, evaluating flows, and determining structure size and location for US 16B.

#### B.5. **PRELIMINARY DESIGN REPORT**

B.5.1. **CONSULTANT** will prepare a Preliminary Design Report that will include:

B.5.1.1. Plans and profile at a scale of 1"=20' for US 16B (Catron Boulevard).

B.5.1.2. Drainage analysis and recommendations.

B.5.1.3. Traffic design report from TranSystems Corp.

B.5.1.4. Preliminary Electrical Plans including street lighting and signalization.

B.5.1.5. Layout plans showing land ownership, easement and right-of-way acquisition for streets, utilities, and storm drainage facilities.

B.5.1.6. The Preliminary Design will include preliminary engineers estimates of probable construction costs for all recommended improvements to the streets, traffic control, and storm drainage facilities.

## **C. FINAL DESIGN**

### **C.1. Streets**

- C.1.1. **CONSULTANT** will make any revisions to the plan and profile sheets identified during **CITY** review or landowner negotiations.
- C.1.2. **CONSULTANT** will add construction details and construction notes.
- C.1.3. **CONSULTANT** will create general notes, typical sections and summary sheets.
- C.1.4. **CONSULTANT** will create intersection layout sheets.
- C.1.5. **CONSULTANT** will create pavement marking and signage sheets.
- C.1.6. **CONSULTANT** will create survey data sheets.
- C.1.7. **CONSULTANT** will create final cross section sheets.

### **C.2. Electrical Plans**

- C.2.1. **CONSULTANT** will make any revisions identified during **CITY** review.
- C.2.2. **CONSULTANT** will check conflicts between electrical conduits and other utilities.
- C.2.3. **CONSULTANT** will add construction details and construction notes.

### **C.3. Construction Traffic Control Plans**

- C.3.1. **CONSULTANT** will review sequence of construction operations.
- C.3.2. **CONSULTANT** will prepare detailed Construction Traffic Control Plans.

### **C.4. Contract Documents**

- C.4.1. **CONSULTANT** will prepare detailed supplemental technical specifications based upon the City of Rapid City Standard Specifications for Public Works Construction.
- C.4.2. **CONSULTANT** will prepare a final estimate of probable construction cost.
- C.4.3. **CONSULTANT** will prepare final bidders proposal.

## **D. BIDDING PHASE SERVICES**

- D.1.1. **CONSULTANT** will attend pre-bid conference, make presentation, and answer bidder questions.
- D.1.2. **CONSULTANT** will conduct a pre-bid site visit to answer bidder questions.
- D.1.3. **CONSULTANT** will issue Addenda as required
- D.1.4. **CONSULTANT** will assist **CITY** in evaluating the bids.

## **E. MEETINGS AND SUBMITTALS**

E.1. **CONSULTANT** will attend the following project meetings.

E.1.1. Project kickoff meeting.

E.1.2. Preliminary design report presentation and discussion.

E.1.3. 65% plans review submittal and meeting

E.1.4. 95% plans review submittal and meeting.

## **ARTICLE II CITYS RESPONSIBILITY**

Except as otherwise provided herein, **CITY** 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 **CITYS** 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 **CITYS** 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 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 Basin Design Plan for the Basin, including extra work and required extensions thereto.

3.1 The **CONSULTANT** will begin work upon receipt of a signed copy of this Agreement.

3.2 Preliminary Design Report Submittal will be January 2, 2001.

3.3 Final Design will begin upon receiving notice to proceed from CITY. Final plans will require 75 calendar days from notice to proceed.

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 CITY 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, CITY 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 CITY monthly for the services provided. Net payment for these services is due within thirty (30) days. The maximum estimated fee for these services is \$44,273.00. The CONSULTANT will not exceed this amount without prior authorization by the CITY.

#### **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 **CONSULTANTS GENERAL TERMS AND CONDITIONS-RAPID CITY**, dated January 3, 1995 which are attached hereto and incorporated into this agreement by reference.

This Agreement represents the entire and integrated agreement between the **CITY** 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 **CITY** 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

BY: \_\_\_\_\_

Jim Shaw, Mayor

ATTEST:

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

FERBER ENGINEERING COMPANY

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

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