



## **Red River Valley Conservation Service Area**

### **Technical Service Area Engineering Technician**

#### **Position Description**

#### **Position Purpose**

The Red River Valley Conservation Service Area (RRVCSA) Engineering Technician will provide engineering assistance to 9 Soil and Water Conservation Districts (SWCDs) in the Red River Valley of Minnesota including Kittson, Mahanomen, Marshall, Norman, Pennington, East Polk, West Polk, Red Lake, and Roseau.

The engineering technician is responsible for the delivery of technical assistance to implement engineered best management practices that conserve water and soil resources. It requires pre-planning, problem evaluation, problem solving, and application of conservation practices including but not limited to Grade Stabilization Structures, Grassed Waterways, Stream Channel Stabilizations, and Water & Sediment Control Basins.

Essential job duties include regular and timely work attendance, establish, and maintain working relationships with co-workers, agencies, and clients and items under "Duties and Responsibilities" listed below.

#### **Basic Qualification Requirements**

A two-year vocational engineer certification or equivalent post-secondary education, proficient in the use of GPS survey equipment and Computer Aided Drafting (CAD), able to use computers and must possess a valid state issued driver's license. A minimum of 2 years of field experience in soil conservation engineering and design is preferred, along with experience using ArcGIS, AutoCAD, and related design software. Experience in soil conservation engineering and design may be substituted for basic qualification requirements.

#### **Work Environment**

Work is performed in an office setting and outdoors. The lifting requirement is up to 40 pounds on an occasional basis. Types of equipment used include GPS survey, personal computer/keyboard, and small hand tools. Protective equipment includes occasional use of hard hats and safety vest. Exposure to outdoor conditions during fieldwork is common, such as walking cropland fields in all temperatures, humidity, and exposure to construction noise.

#### **Duties and Responsibilities**

##### **1. Provide project engineering support**

- a. Investigate project sites, evaluate feasibility, and prepare preliminary design and cost estimates.
- b. Conduct topographic surveys and data collection needed for feasibility, design, and installation.
- c. Prepare design calculations, develop plan drawings and construction specifications.
- d. Analyze technical problems and formulate effective solutions at a para-professional level.
- e. Provide construction inspection and management assistance to landowners and SWCD staff.
- f. Prepare post-construction documentation.
- g. Supervise field staff when given project responsibility.

## **2. Cooperate effectively with SWCD staff and other agencies**

- a. Attend RRVCSA board meetings and provide reports as necessary
- b. Document current engineering projects and prepares monthly progress report to SWCDs.
- c. Provide training on the survey, design, and installation of conservation practices.
- d. Develop full project timelines and schedule with SWCDs based on seasons and years. For example, survey Fall 2022, design winter 2023, construct spring 2023.
- e. A general understanding of Federal, State, and other financial assistance programs.

## **3. Office and Equipment Management**

- a. Maintain all equipment utilized and provide regular maintenance and cleaning of vehicles used.
- b. Make recommendations for office and field equipment updates.
- c. Maintain a current and accurate library of pertinent technical references.
- d. Organize and maintain office files and reference materials.
- e. Survey equipment shall be kept in good working order.

## **4. Professional Development**

- a. Attend workshops and training sessions to improve overall capabilities.
- b. Communicate regularly with Natural Resource Conservation Service (NRCS), SWCD and RRVCSA Engineers in RRVCSA – TSA 1 for exchange information and ideas.
- c. Work closely with other SWCD and RRVCSA engineering staff in RRVCSA - TSA 1 for design assistance and project signoff.
- d. Acquire and maintain the appropriate Engineering Job Approval Authority (EJAA) through NRCS for the installation of engineered conservation practices.

### **Supervision**

The Engineering Technician is supervised by, and reports directly to, the Manager of the RRVCSA Host District.

### **Performance Evaluation**

Performance Evaluation is the responsibility of the Manager of the RRVCSA Host District and will be reviewed annually by the RRVCSA Board.

**Updated 03/17/2022**