

STATE OF MONTANA

JOB DESCRIPTION

Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Title: Design Technician I

Position Number: 54136017

Location: Helena

Department: MDT

Division and Bureau: Engineering/Traffic and Safety Bureau

Section and Unit: Traffic Design Section / Signing Design Unit

Job Overview: This is an entry level drafter position located in the MDT Headquarters office within the Traffic Design Section. Duties consist primarily of using CADD software to prepare contract documents (summary, specification, plan sheets, details, and other engineering sheets) used for the construction of highway projects. Performs a variety of technical and pre-professional field, office, and administrative duties in support of ongoing design projects. This entry level position will receive extensive training and experience in signing design.

Essential Functions (Major Duties or Responsibilities):

Develops Documentation, Plan Sheets, and Details - 40%

- Prepares signing and engineering sheets in accordance with industry practice, departmental, and bureau standards for technical drawings.
- Develops signing sheets from interpreting engineering design calculations and hand-drafted sketches in sufficient detail so that contractors and inspectors alike are aware of the design intent.
- Assists and prepares with the development of engineering calculations and required documentation to produce bid quantities for incorporation into MDT Contract Documents. Prepares calculations for sign design, pavement markings, and other miscellaneous features necessary for project construction. Assists in compiling and preparing cost estimates. Writes and/or checks special provisions.

Reviews and Revises Calculations, Plan Sheets, Details - 30%

- Reviews and revises as a consequence of checking, plan sheets, and details prepared by self or others.
- Reviews details and engineering design calculations for accuracy.

- Checks calculations and design documentation developed by others.

Develops Sign Design Calculations and Details from Design Guides, Manuals, Notes, and Other Data/References - 30%

- Analyzes sign needs and layout and prepares sign design calculations and details for sign fabrication for MDT projects and Maintenance.
- Coordinates miscellaneous sign design input from other sources to develop sign design.
- Assists with developing and develops routine bid quantities from sign design calculations and other design data prepared by self or others.

Supervision

The number of employees supervised is: 0

Physical and Environmental Demands:

- Work is performed in a controlled, comfortable office setting.
- Lifting objects (such as files or as-built plans) up to 20 pounds.
- Remaining seated for extended periods of time, with occasional walking, standing, and bending.
- Short travel for training, meetings, field reviews, and conferences.
- Lifting documentation files or plans and filing correspondence in files

Knowledge, Skills and Abilities (Behaviors):

- Knowledge of the principles and methods of CADD drafting is usually obtained with a High School level CADD class of at least one semester.
- Knowledge of engineering mathematics, especially trigonometry and geometry.
- Skill in the use of engineering office instruments, computers, and CADD software.
- Skills in analyzing survey data and other design input data.
- Skills in communicating effectively in both oral and written communications.
- Ability to multi-task.
- Ability to operate a computer, calculator, and other office equipment.
- Ability to meet deadlines.
- Ability and skills in comparing data.
- Ability to copy and/or transcribe data.
- Ability to computing arithmetic, geometric, and trigonometric operations.
- Ability to compile information and organize it into a logical format.

Minimum Qualifications (Education and Experience):

The required knowledge and skill are typically acquired through a High School Diploma or equivalent. That includes a class or classes that address CADD, Trigonometry, and Geometry. Engineering experience, drafting experience, or applicable MDT experience can be substituted for

education on a one for one basis.

Prior engineering experience and/or prior MDT experience is preferred.

Special Requirements:

List any other special required information for this position

☐

Fingerprint check

☒

Valid driver's license

☐

Background check

☐

Other; Describe

Union Code

Safety Responsibilities

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

Signatures

My signature below indicates the statements in the job description are accurate and complete.

Immediate Supervisor

Title

Date

Administrative Review

Title

Date

Employee

Title

Date

Human Resources Review

Job Code Title: Design Technician 1

Job Code Number: D31021

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

☐ FLSA Exempt

☒ FLSA Non-Exempt

☐ Telework Available

☐ Telework Not Available

☒ Classification Complete

☐ Organizational Chart attached

Human Resources:

Travis House

HR Generalist

4/13/23

Signature

Title

Date