

# 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: Field Project Technician LIII Position Number: Various Location: Statewide**

**Department: Transportation Division and Bureau: District Engineering**

**Section and Unit: n/a**

**Job Overview:** This position serves as a lead Field Project Technician within the District and is responsible for coordinating, overseeing, and conducting various inspection, sampling, and testing procedures to verify that construction project features and materials conform with standard specifications, Department requirements, and contract agreements. The Field Project Technician III is responsible for coordinating and overseeing individual projects within the District, while the Area Laboratory Supervisor and/or Engineering Project Manager are responsible for overall direction and oversight of multiple projects coordinated by various Field Project Technician IIIs. The position reports to the Area Laboratory Supervisor or Engineering Project Manager and provides Lead Worker supervision and oversight to Project Technicians coordinating or performing inspections, sampling, testing, and surveying procedures.

### **Essential Functions (Major Duties or Responsibilities):**

#### **Field Project Assessments – 55%**

- Determines specific project priorities, personnel assignments, and appropriate equipment required to perform inspection, sampling, and testing procedures. Evaluates project plans and specifications to identify sampling, inspection, and testing procedures and requirements.
- Coordinates with District/Area supervisors and Field Project Technician IIIs involved with other projects to identify and resolve common problems; evaluate and determine resource allocations and priorities, and incorporate Area-wide priorities and equipment into specific field projects.

- Provides technical oversight, quality assurance reviews, and assistance on specific field projects to ensure the quality, efficiency, and cost-effectiveness of work as well as compliance with standards, specifications, and Department requirements.
- Interprets and explains standards, specifications, and other requirements to contractors to ensure consistency and compliance, resolve discrepancies, and ensure that project requirements and objectives are met. Responds to contractor requests for clarification, recommends adjustments and alternatives to prevent or mitigate compliance deficiencies, and resolves problems while maintaining standards and specifications.
- Coordinates and oversees optimum placement, configuration, and calibration of field laboratory facilities and equipment.
- Coordinates and oversees inspections of testing equipment to ensure operability and proper calibration according to defined testing methods and specifications. Oversees equipment calibrations, replacements, and repairs and resolves advanced technical and mechanical problems referred by Field Project staff.
- Coordinates and oversees inspections a range of project features, materials and to ensure compliance with standards and specifications. Determines appropriate measurement and survey tools, inspection methods, and other requirements based upon site-specific features and materials, applicable standards, and project specifications.
- Coordinates and oversees Materials Certificate review and sample collection activities according to specific types of material or feature, site conditions, and the most appropriate sampling methods, techniques, and equipment for each test. Determines or approves adaptations to prescribed sampling methods, justifies additional sampling, and refers significant contractor problems to Area supervisors for resolution.
- Coordinates and oversees sample preparation, labeling, and transportation according to State and federal requirements. Monitors sample preparation, assesses the adequacy of samples, and determines necessary adjustments based on testing methods, equipment, standards, and specifications. Ensures proper labeling and transportation to laboratories.
- Coordinates, oversees, and conducts specialized tests on construction project features and materials to verify specifications and determine the specific nature and cause of deficiencies. Investigates nature and cause of significant or recurring deficiencies and coordinates with other project supervisors and contractors to resolve problems.
- Compiles, calculates, and summarizes test results; compares final results to specifications; and maintains records of testing procedures and results. Reviews and approves test results compiled by Field Project Technicians to ensure accuracy and compliance with standards and specifications.
- Monitors and evaluates contractor compliance with project plans and specifications and coordinates with contractors to identify and resolve deficiencies. Resolves complex or contentious issues referred by Field Project Technicians.

## **Staking and Surveying – 15%**

- Coordinates and conducts field surveying and staking activities to ensure proper locations, calculations, and documentation of information. Documents all location survey information and performs algebraic and geometric calculations to confirm the accuracy of survey data. Identifies and resolves errors and discrepancies and trains Field Project Technicians in the procedures and techniques of plan interpretation, surveying, and related computations.
- Establishes location survey reference points and installs monuments by measuring distance, direction, and elevation from existing monuments and aerial surveys.
- Identifies potential historical sites and artifacts, sensitive natural features, and other characteristics and refers unusual site characteristics to Environmental Services staff or other appropriate personnel for further investigation.
- Locates utilities that may be affected by project plans by ensuring that telephone, gas, electric, cable, or other utility companies are contacted through One-Call, coordinating on-site meetings with utilities representatives, marking sample sites, obtaining and providing legal land descriptions, developing time frames for utilities location, and meeting locators at the site to facilitate location activities.
- Reviews road plans to plan construction staking activities based upon site-specific intervals identified through assessment of design plans and terrain features. Provides ongoing guidance and direction to Field Project Technicians.
- Determines the exact location of highway centerlines, traverse points, property boundaries, and design features by surveying distances and elevations from preconstruction survey references.
- Coordinates and oversees Technicians during survey activities to ensure efficient staking and surveying procedures; appropriate placement of holding pickets, pogo rods, tape, pins, and/or tacks.
- Determines the correct location of stakes to correlate design plans to site-specific terrain. Coordinates and oversees marking of stakes with letters and number codes to provide a description of the point, point name or number, distance from centerline, and other relevant data.
- Reviews raw survey data from inspectors to ensure accuracy, summarizes and records approved data, and determines contractor payments.

## **Project Coordination – 15%**

- Determines and implements minor design alterations to accommodate unusual or unexpected site circumstances while maintaining compliance with project specifications and construction standards.
- Coordinates or provides contacts with affected landowners to secure right-of-entry; identify possible gravel pits, staging areas, etc.; locate irrigation lines, artesian wells, etc.; and

provide information of project plan, scope, and schedule to ensure necessary access, locate material sources, avoid damage to infrastructure, provide proper notification of construction plans, and promote positive relationships with affected landowners throughout each project.

- Monitors traffic control operations on rural and secondary road projects to ensure compliance with MUTCD standards and requirements. Reviews and evaluates traffic control plans and detail drawings to anticipate and resolve problems prior to implementation. Coordinates and oversees traffic control activities of Field Project Technicians as necessary.
- Coordinates and performs ongoing equipment inspections, preventative maintenance, and repairs to maintain functional accuracy and operability, ensure safety and cost-effectiveness, and promote serviceable life.
- Ensures appropriate documentation of all aspects of construction inspection, sampling, testing, and surveying.
- Provides training and technical assistance to Field Project Personnel to ensure competency, promote quality and efficiency in all aspects of work, ensure the safety of personnel and equipment, and introduce new methods and equipment into project operations.
- Oversees final records sampling to verify that roadways have been built according to established design plans and specifications.

### **Lead Worker Supervision – 10%**

- Reviews and revises staff work plans, priorities, and procedures. Monitors progress, disseminates data, and coordinates projects through meetings and consultation.
- Provides input to the Area Laboratory Supervisor or Engineering Project Manager on position descriptions and performance standards. Relays information to managers regarding the staff performance based on observable, measurable appraisal standards. Recommends, implements, and monitors corrective actions.
- Researches and evaluates workflow processes, efficiencies, and problems to identify the most effective use of human and fiscal resources to meet District goals and project objectives. Presents recommendations for improving the work flow and performance.
- Plans and assigns work according to individual job descriptions, needs, and abilities of individual staff.
- Oversees construction, engineering, and intern staff involved in sampling and testing procedures to provide quality assurance and ensure accurate test results.

### **Other Duties – 5%**

The Field Project Technician III may perform a variety of other duties as assigned by Area and District managers.

### **Supervision**

The number of employees supervised is: n/a

The position number for each supervised employee is: n/a

**Physical and Environmental Demands:**

Essential functions involve significant physical demands related to repeated lifting of up to 80 pounds (and occasionally greater weights); carrying survey equipment over rough terrain, climbing and bending to retrieve samples; and operating gas, diesel, and electrically powered equipment. The position involves extensive overnight travel throughout the District in excess of 2,000 miles per month (often on short notice, weekends, and holidays) and working outdoors in all types of weather.

The majority of the work is performed at construction sites or fabrication plants involving traffic and working around heavy machinery. The work also involves and risks associated with working with hazardous materials. The risks of the work are such that extensive training in safety practices and procedures is required. Due to the nature of work elements and hazardous tasks such as work around moving traffic and taking samples from hot plants, there is potential for significant personal injury.

**Knowledge, Skills and Abilities (Behaviors):**

The position requires knowledge of project planning and coordination; inspection and testing procedures, including materials and site features; sampling and laboratory testing protocols and procedures; State, AASHTO, FHWA, and ASTM standards and specifications; and maintenance and calibration of specialized tools and equipment. The position also requires knowledge of surveying and highway construction methods and operations; project design and construction criteria and standards; properties and characteristics of materials components and the impacts of site specific circumstances, highway construction terminology; business English; and basic algebra, geometry, and trigonometry. Lead Worker responsibilities require knowledge of State and Department personnel procedures and policies, program requirements, and personnel management practices and techniques.

The position requires skill in reviewing, interpreting and applying design plans and specifications to site circumstances; acquiring and documenting field data; constructing sets of field notes; interpreting site conditions and communicating effectively with contractors, landowners, and other Department personnel. The position also requires skill in operating specialized sampling and testing equipment and office equipment used to calculate and record data.

**Minimum Qualifications (Education and Experience):**

The required knowledge and skills are typically acquired through a combination of education and experience equivalent to a high school diploma, including coursework in algebra, geometry or trigonometry.

The position requires four (4) years of experience in highway construction or related field (e.g., laboratory testing, transportation design, engineering, etc.), including at least two (2) years in inspection, sampling, testing, and/or surveying.

Certifications, licensure, or other credentials include: n/a

Alternative qualifications include: Any combination of additional related work experience and education equivalent to the minimum qualifications.

**Special Requirements:**

*List any other special required information for this position*

- |  |   |
|--|---|
| <input type="checkbox"/> Fingerprint check | <input type="checkbox"/> Valid driver's license |
| <input type="checkbox"/> Background check  | <input type="checkbox"/> 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.

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<b>Immediate Supervisor</b>	<b>Title</b>	<b>Date</b>
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<b>Administrative Review</b>	<b>Title</b>	<b>Date</b>
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My signature below indicates that I have read this job description.

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<b>Employee</b>	<b>Title</b>	<b>Date</b>
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**Human Resources Review**

**Job Code Title: Civil Engineering Technician 2**

**Job Code Number: D32012**

**Level: 2**

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:**

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**Signature**

**Title**

**Date**