

# 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: Transportation Planner (GIS Analyst/Technician Track)**

**Position Number: 26002, 26035, 26067, 26005, 26070, 05014**

**Location: Helena, MT**

**Department: Transportation**

**Operations Area and Program: Asset Strategy, Operations & Maintenance / Asset Strategy Program**

**Bureau and Section: Data & Analytics Bureau / Geospatial Information Section**

**Job Overview:** This position serves as a professional transportation planner and GIS application expert within the Geospatial Information Section and is responsible for planning and managing statewide GIS data and services, GIS mapping projects including managing the development of official map publications. This includes responsibility for evaluating diverse needs and objectives of various stakeholders; developing production plans and specifications; designing, editing, and coordinating reviews and revisions; overseeing map production; and working with other States, agencies, and interests to maximize the value and utility of map data and designs. The position develops and establishes geospatial data management and mapping methods, procedures, and standards; develops project plans, priorities, and procedures; provides oversight and technical assistance to transportation planners, local government officials, consultants, MDT staff, and others; conducts quality assurance reviews; develops, tests, and implements new information system functions and operations; and provides a variety of related project management services. The position is also responsible for conducting specific GIS road inventory projects, producing and maintaining a variety of specialized interactive and printed maps, while also performing a variety of other duties as assigned. The position reports to the Section Supervisor and does not directly supervise others.

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

### **Planner II (Level 1.1) - GIS Technician**

#### **Mapping and Data Analysis - 50%**

- Assists senior staff in publishing customized map books for federal, state, and public distribution.

- Receives specific information from internal or external customers, then works with senior staff as necessary to create specialized static and interactive maps, GIS datasets, tables, charts and appropriate GIS applications to meet project needs.
- Provides input to senior staff regarding potential new uses for GIS software, tools or applications within the Department to maximize GIS operations to facilitate and streamline various business processes.
- Executes quality assurance/quality control procedures to certify state fuel tax allocation and public road mileage data while working with local governments and other stakeholders.

#### **Field Inventory/Data Creation - 40%**

- Using established processes, conducts the field collection of GIS/GPS data using the most effective methods to obtain the necessary information. These tasks require an in-depth understanding of MCA law and MDT policies to determine whether roads meet established criteria and the operation of various data collection software and equipment.
- Under guidance from senior staff, implements changes to data collection, map design, and geospatial data manipulation processes.
- With direction from senior staff, participates in GIS data creation via digitization of spatial data, integration and conflation of multiple datasets and other various data collection and creation efforts to be utilized in MDT projects and programs.
- Uses information provided by senior staff to verify roadway classifications, locations, conditions, uses, and other characteristics affecting map designs and applications.

#### **Other Duties - 10%**

- Performs technical, administrative and other work as assigned by the direct supervisor or appropriate levels of management.

### **Planner III (Level 1.2) – GIS Technician**

#### **Mapping and Data Analysis - 60%**

- Using established templates and processes, creates customized map books and other printed products for federal, state, and public distribution.
- Identifies and assesses the specific needs of requesting agency or individual and works with senior staff as necessary to create customized maps using compiled information, data and appropriate GIS applications.

- Creates specialized static and interactive tables, charts, maps and applications for MDT, other state agencies, local governments, federal agencies and the general public. These products are created with GIS software programs and must provide specific, relevant information that meets customer needs.
- Implements new processes and uses for GIS software, tools or applications to maximize GIS operations, facilitate and streamline various business functions.
- Monitors quality assurance/quality control procedures used to certify state fuel tax allocation mileages. Identifies issues, problems and efficiencies, and then recommends changes to senior staff.

#### **Field Inventory/Data Creation - 30%**

- Oversees and conducts the collection of field data using independent judgment regarding the most effective methods to obtain the necessary information.
- Identifies and recommends changes to data collection, map design, and GIS data management processes to senior staff for improved efficiencies and workflows.
- Implements necessary changes to data collection, map design, and geospatial data manipulation processes.
- Provides technical assistance to MDT staff, local government officials, consultants, and others to resolve complex problems associated with geospatial data collection, GIS data management and mapping.
- Independently collects and analyzes information provided by federal, state and local governments and others to verify road classifications, locations, conditions, uses, and other characteristics affecting map designs and applications.

#### **Other Duties - 10%**

Performs technical, administrative and other work as assigned by the direct supervisor or appropriate levels of management.

### **Planner IV (Level 2.1) - GIS Analyst**

#### **Mapping, GIS Analysis and Data Management - 60%**

- Creates specialized maps, data and GIS applications for MDT, other state agencies, local governments, federal agencies and the general public.
- Determines print production needs to secure an optimum combination of quality, cost, and efficiency in producing and delivering map publications. Coordinates with print vendors and

monitors progress to ensure quality, conformity, and timeliness of production. Identifies or anticipates production problems and works with appropriate staff to resolve deficiencies and impediments.

- Independently conducts and coordinates efforts and resources in publishing customized map books or other mapping products for federal, state, and public distribution.
- Participates in special GIS mapping projects by analyzing data through statistical, financial, classification, and other empirical and scientific techniques to develop recommendations also, assists in the preparation of planning reports and presentations by compiling data and analyses into written narratives, graphs, charts, maps, and tables.
- Develops and recommends data management and analysis parameters, and other guidelines for geospatial data management and mapping activities. Coordinates with other planners to develop and recommend operational procedures.
- Analyzes and manipulates raw road inventory data collected in the field to create usable data formats for a variety of MDT functions. Provides technical assistance and training to section staff to ensure data is processed and used correctly, and that all user needs are met.

#### **Project Management - 30%**

- Develops project plans to establish priorities, schedules, and strategies for the development and production of maps or other publications.
- Provides ongoing oversight and GIS technical assistance to internal and external staff in resolving problems and applying new system models, methods, and procedures to ensure project delivery.
- Coordinates with stakeholders to explain map design criteria, resolve conflicting interests, and promote public and local government involvement in the map development process.
- Assesses GIS training needs of agency staff and managers and develops and delivers customized training sessions.
- Conducts ongoing research of various resources and technical training to maintain current knowledge of continuously evolving GIS software, systems, and applications. Identifies new processes and system applications that may benefit departmental processes and makes recommendations regarding system modifications and additional GIS uses.

#### **Other Duties - 10%**

- Performs technical, administrative and other work as assigned by the direct supervisor or appropriate levels of management.

## **Transportation Planner 3.0 (Planner V) - GIS Analyst**

### **Program and Project Management - 60%**

- Develops project plans and recommends priorities for statewide GIS road inventory management and mapping projects including the creation, publishing and maintenance of custom and standard map publications.
- Generates and maintains quality assurance/quality control procedures to certify state fuel tax allocation data.
- Creates and maintains technical process documents for use by MDT staff to provide guidance and direction on data collection and analysis parameters, other guidelines and standards for geospatial data management and mapping activities. Provides training in the proper use of these documents and their procedures.
- Oversees and coordinates multiple data management and mapping projects, while anticipating, and resolving problems. Determines and implements corrective actions as necessary. Responsible for creating and maintaining MDT's Geospatial Web Services that provide access to MDT's data for external and internal use.

### **Mapping, GIS Analysis and Data Management - 30%**

- Develops software functions, operations, and other parameters necessary to collect, manipulate, analyze, and apply relevant geospatial data. Creates original scripts, queries, processes and models to meet specific project needs and requirements. Coordinates with MDT's Information Services staff on internal software and application development, testing, and implementation issues.
- Conducts in-depth assessments and analyses of current and upcoming business processes, resolution of existing and potential system problems, and anticipating future uses and needs to maximize GIS operations. Provides input to agency managers and others regarding potential new uses for GIS software within MDT.
- Represents the department on technical research committees, advisory panels, workgroups, and other meetings to provide specialized GIS expertise, recommend solutions to data management and mapping problems, develop standards and procedures, conduct collaborative research, and exchange information. Acts as GIS Contact tasked with coordinating multi-agency projects through facilitation, communication and assessing solutions while upholding MDT's best interests and goals. Frequently leads and coordinates meetings and or presentations to internal and external parties.
- Participates in MDT working groups to determine the future direction of GIS/GPS mapping and data collection for MDT and statewide use. Consults with MDT staff in the implementation of

new, advanced GIS software and other geospatial-related computer functions for use in planning and mapping activities.

**Other Duties - 10%**

- Performs technical, administrative and other work as assigned by the direct supervisor or appropriate levels of management.

**Planner VI (Level 3.1)**

**Program/Project Development, Management, and Enhancement - 70%**

- Analyzes transportation related specialty projects to ensure the plans and projects coincide with agency mission and goals.
- Facilitates and solicits input from other agency staff and continually monitor state, federal and MDT processes and requirements to identify and make recommendations to management staff on necessary program or procedural changes to ensure compliance with state and federal regulations.
- Manages transportation projects or programs, which include making project specific decisions, providing project oversight and direction to lower-level staff consistent with project and agency goals.
- Manages and facilitates MDT participation in multi-jurisdiction interaction for both internal and externally initiated planning, environmental, and permitting processes.
- Represents, communicates, and defends MDT positions/policies in various settings. Moderates and resolves conflicts while negotiating consensus among different interests, objectives, and points of view.
- Directs and reviews work of consultants and/or other MDT staff (e.g., lower-level staff) to determine the adequacy of technical aspects, methodology, forecasting techniques, gross assumptions, and documentation.

**Mentorship - 20%**

- Mentors lower-level team members in complex transportation process/policy or funding issues and to direct their efforts for achieving their desired level in the relevant career ladder.

**Other Duties - 10%**

- Performs technical, administrative and other work as assigned by the direct supervisor or appropriate levels of management.

## **Supervision**

The number of employees supervised is: 0

The position number for each supervised employee is: N/A

## **Physical and Environmental Demands:**

- Lifting (less than 25 lbs.).
- Remaining seated for extended periods of time, with occasional walking, standing, and bending.
- Travel within the state.
- Communicate in writing, in person, and over the phone.
- Operating a personal computer.
- Operating a motor vehicle.

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

- Sound oral and written communication skills.
- Establish productive, collaborative working relationships with co-workers, management, and customers.
- Align behavior with the needs and goals of the department.
- Visible, positive role model for others.
- Proactively engage in training and discussions to expand awareness of how the position supports the department's mission.
- Exercise sound judgment and request guidance from senior planners and supervisor.
- Understand and adhere to policies, procedures, rules, and laws that govern daily work activities.
- Self-accountability for activities, decisions, successes, and failures.
- Creative and forward-thinking problem solver.
- Detail-oriented, flexible, reliable, and punctual.
- Able to coordinate several activities at once.

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

**Planner II – Level 1.1:** Associate degree in one of the following areas: Planning, Computer Information Systems, Business, or a related field and one (1) year of related work experience.

**Planner III – Level 1.2:** Associate degree in one of the areas mentioned above, or a related field, and two (2) years of related work experience.

**Planner IV – Level 2.1:** BA/BS in one of the areas mentioned above, or a related field and one (1) year of related work experience.

**Planner V – Level 3.0:** BA/BS in one of the areas mentioned above, or a related field, and two (2) years of related work experience.

**Planner VI – Level 3.1:** BA/BS in one of the areas mentioned above, or a related field, and five (5) year of related work experience.

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

**Special Requirements:**

- ☐ Fingerprint check
- ☐ Background check
- MFPE Union Code 035
- ☒ Valid driver’s license
- ☐ Other; Describe
- ☐ 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 SupervisorTitleDate

Administrative ReviewTitleDate

My signature below indicates that I have read this job description.

EmployeeTitleDate

**Human Resources Review**

**Job Code Title:** Transportation Planner II, III, IV, V, VI   **Job Code Number:** E39011, E39012, E39013

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

- |                                                             |                                                            |
|-------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> FLSA Exempt                        | <input checked="" type="checkbox"/> FLSA Non-Exempt        |
| <input type="checkbox"/> Telework Available                 | <input checked="" type="checkbox"/> Telework Not Available |
| <input checked="" type="checkbox"/> Classification Complete | <input type="checkbox"/> Organizational Chart attached     |

**Human Resources:**

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|                  |              |             |
|------------------|--------------|-------------|
| <b>Signature</b> | <b>Title</b> | <b>Date</b> |
|------------------|--------------|-------------|