

**State of Michigan  
Civil Service Commission**  
Capitol Commons Center, P.O. Box 30002  
Lansing, MI 48909

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| <b>Position Code</b><br>1. TRPLNREB03R |
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## POSITION DESCRIPTION

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|--|---|
| This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.   |   |
| <b>2. Employee's Name (Last, First, M.I.)</b>  | <b>8. Department/Agency</b><br>TRANSPORTATION CENTRAL OFFICE  |
| <b>3. Employee Identification Number</b>   | <b>9. Bureau (Institution, Board, or Commission)</b><br>Bureau of Field Services  |
| <b>4. Civil Service Position Code Description</b><br>Transportation Planner-E  | <b>10. Division</b>   |
| <b>5. Working Title (What the agency calls the position)</b><br>Transportation/GIS Developer   | <b>11. Section</b>  |
| <b>6. Name and Position Code Description of Direct Supervisor</b><br>GUTTING, JASON; SENIOR MANAGEMENT EXECUTIVE   | <b>12. Unit</b>   |
| <b>7. Name and Position Code Description of Second Level Supervisor</b><br>BRUNNER, GREGG D; SENIOR DEPUTY DIRECTOR  | <b>13. Work Location (City and Address)/Hours of Work</b><br>8885 Ricks Rd., Lansing, MI 48917 / M-F, 7:30am-4:30pm<br>(hours may vary) |
| <b>14. General Summary of Function/Purpose of Position</b><br><br>This position researches, develops, and implements Geographic Information Systems (GIS) technology to support Bureau of Field Services (BFS) staff in a variety of ways including, but not limited to, creating thematic maps, building dynamic mapping and information services using ArcGIS software technology, and providing GIS troubleshooting and maintenance. The position coordinates with other GIS developers statewide utilizing compatible methods and techniques required to complete projects that involve BFS input. This position is responsible for completing a variety of professional assignments using specific technical tools and applications including, but not limited to, GIS, Computer-aided Design (CAD), and field data collection equipment to document and analyze assets supported by BFS staff. This includes producing GIS models for developing, analyzing, and managing asset performance. |   |

**15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.**

**List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.**

**Duty 1**

**General Summary:**

**Percentage: 60**

Coordinate and provide statewide asset management (e.g., guardrail, cable barrier, pavement markings, signs, pavement cross sections and materials, traffic signals, etc.), data management of records associated with maintenance, operations, construction, research, and security (e.g., winter operations/level of service routes; automated vehicle location in conjunction with maintenance decision support systems; evacuation routes surrounding nuclear plants highlighting known areas of concern; closure responder maps, and alternate traffic routes including temporary traffic control measures for high-risk bridges), and ArcGIS software services platform decision support mapping and planning services to the bureau. These services are needed to assist BFS in analyzing and managing system performance including asset conditions, maintenance plans, traffic and safety, etc.

**Individual tasks related to the duty:**

- Use economic, population, land use, asset condition, and traffic data that is collected during surveys, created during design, collected during construction, etc. and ArcGIS software projections to substantiate transportation recommendations for BFS. These recommendations may pertain to asset conditions, maintenance plans, traffic and safety, and other areas.
- Compile and manage all BFS GIS data and data management systems. This includes GIS aggregating data from various sources into GIS models to represent it in geospatial reference and using standard data management systems so the data is available for future reference.
- Analyze and prepare specific needs and data for asset management, maintenance, operations, construction, research, and security and impacts to department strategic investments.
- Develop, test, and implement asset condition forecasting visualization tools, among other tools, for comparing current and future asset conditions which is used to identify investments in transportation plans for maintenance and replacement.
- Prepare thematic maps and data sets for analysis, decision making by management, and publication in MDOT documents.
- Develop, test, review, and implement geospatial data and technology originating from contracted research studies and provide recommendations for adaption into MDOT GIS data sets and technologies. Prepare GIS Story Maps for Research Administration to communicate the results of research projects.
- Participate in the development of transportation emergency response plans and reporting to substantiate emergency management recommendations and emergency responses. This includes, but is not limited to, development of mapping and decision support tools for evacuation routes, alternate traffic routes including temporary traffic control measures, high-risk flood zones, data associated with exercise planning, and mapping of safety concerns for MDOT property.
- Develop recommendations for revisions, improvements, and future phases of asset management in the areas of data collection methods, equipment, processes, data storage, or quality assurance/quality control processes.

**Duty 2**

**General Summary:**

**Percentage: 35**

Provide GIS support for the BFS staff.

**Individual tasks related to the duty:**

- Provide GIS support/user assistance to BFS field staff regarding the use and application of GIS tools based on the project.
- Develop GIS maps and tools to support Transportation Systems Management and Operations (TSMO) decisions related to winter operations; maintenance decision support systems; maintenance, ITS, and traffic safety assets; locations of high crash frequency, severity, and/or risk; and other related operational activities.
- Use data and ArcGIS software to support Construction Field Services division including, but not limited to, projects associated with pavement such as pavement condition, aggregate and materials resources, emerging technology projects, surface friction data, and pavement types; and construction data sets such as zone traffic management plans and devices with real time tracking, and construction inspection and management data for use in planning, monitoring asset condition, planning maintenance, and recording as-built information.
- Attend meetings and project conferences; discuss BFS GIS operations, proposals, and methods and resolve related problems.
- Direct and manage field data collection for GIS mapping.
- Develop and coordinate ArcGIS online collection tools.
- Represent BFS on technical committees involving comprehensive transportation GIS planning and asset management.
- Support BFS staff in analysis and updating of long range and short-range asset management plans.

- Coordinate with other GIS planners statewide and Lansing specialists to maintain statewide alignment and utilize compatible methods and techniques required to complete planning projects that involve BFS input.
- Research new information technology and imagery processes and programs and coordinate data management in specific planning areas; input, maintain, and retrieve data from GIS databases.
- Maintain records, prepare reports, and correspondence related to the work.

**Duty 3**

**General Summary:**

**Percentage: 5**

Other duties assigned.

**Individual tasks related to the duty:**

- Support testing and evaluation of mobile technology in support of GIS hardware and software to determine if it meets BFS's needs and best practices.
- Coordinate and provide clarity to statewide GIS efforts with parties external to BFS, including the MDOT Office of Statewide Planning, MDOT regions, MDOT transportation service center garages, and county and municipal planning officials.
- Other duties assigned.

**16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.**

Decisions on the use of appropriate tools to complete assignments and how to approach problem solving related to a particular project. Identifying data set quality concerns and informing business areas responsible for the data quality.

**17. Describe the types of decisions that require the supervisor's review.**

Decisions that require a supervisor's review are those that require a re-evaluation of a departmental policy or commission policy, are contrary to a stated department objective, or deviate from MDOT's business plan.

**18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.**

Ability to traverse over uneven terrain and be exposed to hazards of moving traffic. Must be able to research and respond to reports, memorandums, letters, and other written materials. Frequent statewide travel and occasional overnight and extended work hours to attend meetings, project locations, and/or other work-related activities. Position may require availability outside normal working hours based on operational needs.

**19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.**

**Additional Subordinates**

**20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):**

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|---|--|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work.                      |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> Approve work.                     |
| <input type="checkbox"/> Approve leave requests.            | <input type="checkbox"/> Review work.                      |
| <input type="checkbox"/> Approve time and attendance.       | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand.                  | <input type="checkbox"/> Train employees in the work.      |

**22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?**

Yes.

**23. What are the essential functions of this position?**

This position researches, develops, and implements GIS technology to support BFS staff in a variety of ways including, but not limited to, creating thematic maps, building dynamic mapping and information services using ArcGIS software technology, and providing GIS troubleshooting and maintenance. The position coordinates with other GIS developers statewide utilizing compatible methods and techniques required to complete projects that involve BFS input. This position is responsible for completing a variety of professional assignments using specific technical tools and applications including, but not limited to, GIS, CAD, and field data collection equipment to document and analyze assets supported by BFS staff. This includes producing GIS models for developing, analyzing, and managing asset performance.

**24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.**

New position.

**25. What is the function of the work area and how does this position fit into that function?**

The BFS is responsible for a variety of field support functions as well as serving as centers of excellence for construction, pavements and materials, maintenance, TSMO, research, and safety/security. This position performs duties relating to development and implementation of GIS technology on a bureau-wide basis to provide services. This position will support BFS staff in a variety of ways including creating thematic maps, building dynamic mapping and information services using ArcGIS software technology, and providing GIS troubleshooting and maintenance. The position coordinates with other GIS developers statewide utilizing compatible methods and techniques required to complete projects that involve BFS input.

**26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.**

**EDUCATION:**

Possession of a bachelor's degree in any major with at least 30 semester (45 term) credits in one or a combination of the following: planning (city, community, environmental, regional, and/or urban), environmental studies and/or sustainability, engineering, statistics, mathematics, geography, geographic/geospatial information systems, logistics and/or supply chain management, or economics.

**EXPERIENCE:**

**Transportation Planner 9**

No specific type or amount is required.

**Transportation Planner 10**

One year of professional experience in the planning and assessment of transportation planner systems equivalent to a Transportation Planner 9.

**Transportation Planner P11**

Two years of professional experience in the planning and assessment of transportation planner systems equivalent to a Transportation Planner, including one year equivalent to a Transportation Planner 10.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Ability to:

- Communicate effectively.
- Balance a variety of competing work tasks.
- Surface issues and build consensus.
- Deal effectively with a diverse group of people with varied backgrounds.
- Effectively use various software and databases to organize, manipulate, report, and map transportation related data.
- Develop GIS methods and procedures for collection, verification, and compilation of data.
- Use computer and data analysis to oversee technical interaction stakeholders and prepare special reports.

Knowledge of:

- Planning practices and principals.

- GIS principles and practices used in the collection, organization, analysis, and reporting of transportation related data.

**CERTIFICATES, LICENSES,  
REGISTRATIONS:**

Possession of a valid driver's license is required.

*NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.*

*I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.*

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date

**TO BE FILLED OUT BY APPOINTING AUTHORITY**

Indicate any exceptions or additions to the statements of employee or supervisors.

None

*I certify that the entries on these pages are accurate and complete.*

KELSEA COLE

6/25/2024

\_\_\_\_\_  
Appointing Authority

\_\_\_\_\_  
Date

*I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.*

\_\_\_\_\_  
Employee

\_\_\_\_\_  
Date