

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

Position Code 1. TRALSPL2B33R

POSITION DESCRIPTION

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.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency TRANSPORTATION CENTRAL OFFICE
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) Bureau of Development
4. Civil Service Position Code Description TRANSPORTATION ENG LIC SPL 2	10. Division Design Division
5. Working Title (What the agency calls the position) Drainage & Utilities Specialist Engineer	11. Section Design Services Section
6. Name and Position Code Description of Direct Supervisor BERG, KARL R; ENGINEER MANAGER LICENSED-3	12. Unit Engineering Support Unit
7. Name and Position Code Description of Second Level Supervisor BLOCK, ANDREW M; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 425 W. Ottawa Street, Lansing, MI 48933 / M-F, 7:30 a.m. - 4:30 p.m. (hours may vary)

14. General Summary of Function/Purpose of Position

This position serves as the Michigan Department of Transportation's (MDOT's) statewide specialist to support the Department's drainage and utilities software programs. This position is in charge of components and templates for custom drainage and utilities design libraries and the coordination and development of drainage and utilities software training programs for staff and engineering consultant organizations.

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: 50

Serve as the statewide specialist to support the Department's drainage and utilities software programs. Troubleshoot software issues or problems that can stall the design process. Responsible for development and delivery of software training programs for MDOT staff statewide and engineering consultant organizations.

Individual tasks related to the duty:

- Develop and implement workflows and workspace configuration resources for drainage and utilities software programs (e.g., Bentley Open Roads Designer drainage and utilities software, or any replacement program).
- Develop and maintain standards, procedures, and system documentation. Assist with MDOT sample plans, development guide, and drainage design guidance documents to ensure statewide consistency and alignment for drainage and utilities design procedures.
- Coordinate and partner with the Hydraulic Unit of the Environmental Services Section on standards, procedures, and software configurations for drainage design.
- Manage and provide statewide technical support for MDOT's drainage and utilities software programs.
- Answer questions and solve problems for users of drainage and utilities software. Provide effective and timely support to customers statewide, both internal and external.
- Provide drainage and utilities software training to MDOT employees and consultants statewide.
- Develop and deliver training for MDOT employees and consultant partners on Bentley Open Roads Designer software.
- Develop and maintain training manuals and/or training materials for drainage and utilities software.
- Develop training videos and web/SharePoint content to supplement training guidance documents
- Provide one on one training for software users with specific or highly advanced training needs.
- Present information/training at conferences.
- Offer support and troubleshooting expertise to assist software users with solving problems. This includes helping consultants with the use and understanding of MDOT data and software applications.
- Serve as a technical consultant and liaison to the MDOT drainage and utilities software user community in regard to training and user documentation for design software.

Duty 2

General Summary:

Percentage: 30

Serve as the statewide specialist responsible for evaluating, testing, and improving drainage and utilities software. Develop workflows to enable information management for MDOT's drainage systems and subsurface utilities.

Individual tasks related to the duty:

- Determine and document the guidance and procedures for drainage and utilities design practices using the drainage and utilities software. Guidance and procedures should evaluate opportunities for downstream use of digital project data related to Building Information Modeling (BIM) and Geographic Information Systems (GIS).
- Develop and manage frequently asked questions and software enhancement requests and communicate enhancements and issues with software vendor(s) and the MDOT drainage and utilities software user community.
- Make recommendations to supervisor and software vendor(s) in areas of expertise with use of drainage and utilities software. Coordinate, test, and implement statewide enhancements and new releases of the drainage and utilities software with vendors and the Department of Technology, Management, and Budget (DTMB) Agency Services. Act as a liaison to division/bureau personnel for consultation on drainage and utilities software problems and enhancements.
- Meet with vendors and engineering software providers to review/assess products. Review and evaluate available software/hardware systems to determine potential benefits as it applies to drainage and utilities software applications. Identify methods to further automate drainage and utilities engineering design activities. Assist unit members with configuration of the drainage and utilities software to meet MDOT business needs.
- Serve as a technical consultant and liaison to the MDOT drainage and utilities software user community. Gather feedback for future improvement to MDOT's drainage and utilities software and collaborate with software vendor to correct defects or add enhancements.
- Maintain records and prepare reports and communicate policy for MDOT's drainage and utilities software programs.

Duty 3

General Summary:

Percentage: 10

Serve as the statewide specialist in charge of cells, components, and feature definitions for MDOT's custom drainage and utilities design libraries. Responsible for ensuring design codes and safety standards are incorporated into software programs correctly.

Individual tasks related to the duty:

- Prepare and maintain MDOT's feature definitions, cells, and components as needed for drainage and utilities design libraries.
- Develop new cells and components as needed in order to accommodate software users' needs.

- Revise existing components, feature definitions, and cells as needed in order to improve automation capabilities or reflect changes to MDOT standards.
- Serve as the expert responsible for support and training of the drainage and utilities design libraries.
- Serve as the expert responsible for incorporating and/or testing and analyzing all design codes and safety standards to ensure codes and standards are reflected properly within the drainage and subsurface utility software programs.
- Provide guidance to designers on which drainage and utilities cells and components to use on their projects.
- Make recommendations to supervisor and software vendor in regard to design data and libraries. Continuously partner with the consultant community to receive feedback and input.
- Maintain records/reports and communicate changes to the custom libraries to the drainage and utilities software user community.

Duty 4

General Summary:

Percentage: 10

Provide general engineering support and back-up coverage for the Engineering Support Unit.

Individual tasks related to the duty:

- Provide support for additional design applications (e.g., MicroStation, Bentley Open Roads Designer, Bluebeam Revu, ProjectWise, Excel, SharePoint, etc.).
- Provide as needed back-up coverage and assistance for Engineering Support Unit staff.
- Attend meetings, conferences, and/or serve on committees on behalf of the Engineering Support Unit as requested. May include travel with overnight stay.
- Perform reporting, written correspondence, and documentation as necessary.
- Miscellaneous duties as required by immediate supervisor.

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

All decisions relating to the testing, implementation, and maintenance of drainage and utilities software used throughout MDOT. How to assist users with support questions and resolve issues in a professional and efficient manner. Determine training needs, prepare materials, and conduct training. This position is the sole source for critical decisions on software use, documentation, and for training of the software statewide. This position provides assistance to engineers and technicians with questions and difficulties encountered when working with Bentley Open Roads Designer drainage and utilities. Solutions and best practices developed and tested by this employee enhance delivery of automated design consistent with the technology available in today's modern software, which leads to expedited delivery of high-quality design information. This position applies the procedures for designing drainage and utilities to automated processes to ensure the department meets state and federal safety design standards with the technology it employs. Success in this position results in enhanced project quality, design economy, and ensures continued safety of the motoring public. Whenever possible, identify, recommend, and implement improvements in the work methods and materials utilized in this position.

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

Decisions impacting Division/Department goals, policies, and procedures.

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.

Typical duties associated with an office environment include extensive use of a computer and remaining in a stationary position for extended periods of time. 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):

N	Complete and sign service ratings.	N	Assign work.
N	Provide formal written counseling.	Y	Approve work.
N	Approve leave requests.	Y	Review work.
N	Approve time and attendance.	Y	Provide guidance on work methods.
N	Orally reprimand.	Y	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 serves as MDOT's statewide specialist to support the Department's drainage and utilities software programs. This position is in charge of components and templates for custom drainage and utilities design libraries and the coordination and development of drainage and utilities software training programs for staff and engineering consultant organizations.

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

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

The area is responsible for support, research, implementation, and training of automated systems within the Design Division and Region/Transportation Service Center (TSC) Design Units. This area monitors, maintains, and looks to enhance existing systems. This position trains engineers and technicians on software for drainage and utilities design, and how to apply subsurface utility engineering to their design projects to help improve statewide efficiency in the design of projects. This position also supports engineers and technicians with issues and questions they may encounter on their projects to help ensure users do not have down time or delays. This position also determines the procedures for using software to design underground utilities and drainage systems which must meet state and federal safety design standards. This position coordinates those efforts to ensure users do not have down time and that MDOT is using the most efficient drainage and utilities software to achieve business needs.

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

EDUCATION:

Possession of a bachelor of science degree in engineering.

Possession of a bachelor of science degree in civil engineering, preferred.

EXPERIENCE:

Transportation Engineering Licensed Specialist 13

Four years of professional experience equivalent to a Transportation Engineer, including two years equivalent to a Transportation Engineer P11 or one year equivalent to a Transportation Engineer 12 or Transportation Engineer Licensed 12.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- The operational and technical problems involved in the administration of a specialized program.
- The assigned program specialty.
- Methods of planning, developing, and administering programs.
- Engineering principles and practices of transportation engineering.
- Terminology and symbols used in engineering, drafting and design.

- Engineering office practices.
- Training techniques.

Ability to:

- Formulate policies and procedures relevant to program areas based on information of a conceptual nature from varied and complex sources.
- Communicate effectively.
- Instruct others.
- Read, interpret, and prepare engineering plans, specifications, and technical reports.
- Organize, evaluate, and present information effectively.
- Promote and maintain favorable public relations.
- Apply knowledge of computer systems, utilities and drainage design software programs, enhancements, design standards, techniques, specifications, and policy.

**CERTIFICATES, LICENSES,
REGISTRATIONS:**

Possession of a registered professional engineering license as required by the State of Michigan.

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.

ASHLEY PARSONS

12/17/2025

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