

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

Position Code
1. TRAENGEB48R

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) Highway Operations
4. Civil Service Position Code Description TRANSPORTATION ENGINEER-E	10. Division Southwest Region
5. Working Title (What the agency calls the position) Design Engineer	11. Section Development
6. Name and Position Code Description of Direct Supervisor KAMP, AMOS J; ENGINEER MANAGER LICENSED-3	12. Unit Region Design Unit
7. Name and Position Code Description of Second Level Supervisor VALSADIA, DHARMESH; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 1501 E. Kilgore Road, Kalamazoo, MI 49001 / 7:30 a.m.-4:30 p.m. Mon-Fri (hours may vary)

14. General Summary of Function/Purpose of Position

This position performs a variety of professional general engineering assignments. Designs and prepares preliminary and final plans, proposal material, and cost estimating for state trunkline construction projects, utilizing standard design practices and computerized programs (Microstation, OpenRoads Designer, ProjectWise, AASHTOWare Project).

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: 70

Prepares preliminary and final road design plans.

Individual tasks related to the duty:

- Prepares 3-D models and cross-sections to determine grading limits and quantities.
- Designs and prepares contract plans including 2-D plan, profile, typical cross-sections, alignment, drainage, pavement marking, signing, detail grades (including sidewalk curb ramp design), title and note sheets for state trunkline construction projects. Plans must conform to the Michigan Department of Transportation (MDOT) Road Design Manual and MDOT sample plans. This includes the use of design and drafting functions with Microstation and OpenRoads Designer.
- Computes and checks geometric elements both manually and on the Computer-Aided Design (CAD) system. As these checks are done, determine whether the preferred elements meet current MDOT standards. Where those elements do not meet current standards design exceptions will be developed for the existing condition(s).
- Calculates contract quantities and adds those quantities to the plans in conjunction.
- Prepares preliminary and final Right of Way (ROW) plans for the use in acquiring project ROW.
- Identifies utility conflicts and prepares matrix to resolve conflicts with the Transportation Service Center (TSC) and utility companies.
- Performs quality assurance on individually produced work. Peer reviews other designer's quantities and plans.
- Prepares the contract plan package including all plan sheets, detail sheets and special provisions. Assembles these documents in MDOT's current format for submittal during the various stages of development.
- Develops the Reference Information Documents (RID).

Duty 2

General Summary:

Percentage: 10

Prepares cost estimates for MDOT projects. Updates project status for supervisor and project manager.

Individual tasks related to the duty:

- Develops cost estimates utilizing spreadsheets and MDOT's current AASHTOWare program. A cost estimate will be developed and reviewed for all major milestones including scoping, base plans, preliminary plans, Final Plan Coordination (FPC) and final submittal. Major changes in work type or scope will be identified and estimated to update the project team throughout the life of the project.

Duty 3

General Summary:

Percentage: 10

Represents the Region Design Unit at various meetings with other MDOT personnel, representatives of local agencies, the motoring public or other MDOT customers and obtains input for the design and preparation of the final plans.

Individual tasks related to the duty:

- Attends internal and public meetings as assigned by the supervisor.
 - Examples include scope verification, plan review, FPC and pre-construction meetings.
- Develops information and/or exhibits for public review, hearings or informational meetings.
- Prepares written minutes for meetings as required by the supervisor.
- Participates in post-construction reviews to evaluate the design plans.

Duty 4

General Summary:

Percentage: 5

Gathers field information for proposed projects.

Individual tasks related to the duty:

- Ensures that safe measures will be utilized to minimize individual's risks in the field.
- Plans field review prior to going out to the field, by reviewing existing project information.
- While in the field, reviews the existing field information to ensure that the proposed design works with the existing conditions.

Duty 5

General Summary:**Percentage: 5**

Other duties as assigned by the supervisor.

Individual tasks related to the duty:

- Assists the supervisor as needed on various tasks within the unit.
- Stays up-to-date on design standards, drafting standards and computer applications.
- Attends Microstation, OpenRoads Designer, soft skill and design basic training as required by the supervisor.

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

Interpretation of MDOT plans, specifications, and standards. Where issue is clear and does not involve policy. Decisions at this level are very basic. Those based on past precedents, similar situations or past experience.

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

Any decision that involves MDOT policy or is unclear. When interpretation of standards and/or other design guidelines is required. There may be unique situations with no precedent which will require the supervisor's review. Decisions that affect the cost or schedule of a project.

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.

Moving in and around an office setting, including extensive use of a computer. Involves work in inclement weather and performing duties where traffic may be hazardous. Traversing steep slopes and uneven terrain. Position may require availability outside normal working hours based on operational needs. Occasional overnight travel to training classes or conferences.

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.	N Approve work.
N Approve leave requests.	N Review work.
N Approve time and attendance.	N Provide guidance on work methods.
N Orally reprimand.	N 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 performs a variety of professional general engineering assignments. Design and prepare preliminary and final plans, proposal material, and cost estimating for state trunkline construction projects, utilizing standard design practices and computerized programs (Microstation, OpenRoads Designer, ProjectWise, AASHTOWare Project).

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?

To prepare construction plans, specifications and estimates for the Region's highway and other transportation facilities construction program in conformance with federal, state, or local requirements. To ensure the accuracy and completeness of the documents for bidding and construction purposes.

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.

EXPERIENCE:

Transportation Engineer 9

No specific type or amount is required.

Transportation Engineer 10

One year of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer 9.

Transportation Engineer P11

Two years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer 10.

Alternate Education and Experience

Transportation Engineer 9 - 12

Possession of a registered professional engineer license as required by the State of Michigan may be substituted for 6 months of experience at the Transportation Engineer 9-12 levels. This substitution may only be used once for any employee for qualification of appointment or early reclassification.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Engineering principles/practices/techniques used to construct, design, maintain roads and bridges
- Engineering office practices/procedures

Skills:

- Communication skills
- Computer and software skills
- Resourcefulness

Ability to:

- Make mathematical computations
- Design engineering projects
- Use engineering tools including computers, engineering work stations
- Interpret engineering plans/specifications/technical reports
- Maintain records/prepare reports
- Maintain favorable public relations
- Work as a team member
- Use initiative in carrying out an assignment while working independently

**CERTIFICATES, LICENSES,
REGISTRATIONS:**

Possession of a valid driver's license is preferred.

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.

N/A

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

LOGAN BRISTOL

1/28/2026

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