

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

Position Code 1. TRAENGAE90R
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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-A	10. Division Grand Region
5. Working Title (What the agency calls the position) Region Bridge Program and Inspection Engineer	11. Section Development
6. Name and Position Code Description of Direct Supervisor WILSON, MICHAEL L; ENGINEER MANAGER LICENSED-3	12. Unit Bridge
7. Name and Position Code Description of Second Level Supervisor ROZEMA, SUSAN; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 1420 Front Ave. NW, Grand Rapids, MI 49504 / M-F, 7:30am-4:30pm (hours may vary)

14. General Summary of Function/Purpose of Position

This position functions as the recognized resource Region Bridge Program Engineer responsible for making independent engineering judgements in Programming Bridge Projects, Bridge Program Development, Call for Projects (CFP), Bridge Network Asset Management (BNAM) and Quality Assurance/Quality Control (QA/QC) needs. The position is responsible for assisting in the implementation of the regionwide program strategy for preserving and improving the regionwide bridge network. In general, the position responsibilities include bridge project estimating, bridge design (by monitoring Michigan Department of Transportation (MDOT) contract designs), assistance in the annual call for projects (CFP), strategic planning, bridge design plan review, bridge plan (project) QA/QC, bridge scoping, field inspection, network monitoring, and data administration.

The duties of this position require the incumbent to operate a vehicle and/or vehicle trailer combination (e.g., aerial lift truck and 3/4 ton pickup with boat trailer) with a Gross Vehicle Weight Rating (GVWR) of between 10,001 and 26,000 pounds when performing hands-on inspection of beam ends, deck bottom, etc. and when performing inspections on bridges over water.

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: 55

As the recognized resource Region Bridge Program Engineer, work with the Region Bridge Engineer in the identification of bridge needs, prioritization of needs and recommendation of potential maintenance, rehabilitation or replacement activities in the Region for CFP submittal to meet statewide/Region strategies. Programming selected Grand Region bridge projects and by initiating project phases as required.

Individual tasks related to the duty:

- Identify needs in consultation with Lansing Central Office, Region, and Transportation Service Center (TSC) staff based on inspection and maintenance needs as well as developing an action plan (e.g., preventative maintenance, plan productions, design etc.).
- Coordinate consultant contracts for bridge scoping by preparing contract packages, reviewing proposals, making selection recommendations, and reviewing and evaluating consultant work product.
- Use MiBridge and other tools to assist in the development of a region network level strategy with preservation, modernization, and maintenance components that is consistent with the Strategic Investment Plan for Trunkline Bridges.
- Evaluate Bridge Safety Inspection Report (BSIR) findings to analyze the safety condition of the structures in accordance with applicable State and Federal regulations and develop the extensive Bridge Scoping Package using risk-based decision making and coordinating with other assets including utilities and environmental impacts.
- Identify the primary goals of the projects based on the BSIR and determine appropriate repairs/replacement and cost estimates based on the condition of the Bridge.
- Work with Lansing Central Office, Region, and Transportation Service Center (TSC) staff to produce scoping documents consistent with the current Michigan Department of Transportation (MDOT) format for bridge scoping.
- Assist with maintaining a prioritized bridge maintenance list, communication with region bridge crews, and resolving issues encountered during maintenance work.
- Assist with the coordination of maintenance work activities with TSC, Region, and Statewide personnel.
- Work with Region Development Staff in preparing and implementing a coordinated trunkline improvement program.
- Obtain job numbers and enter all data into JobNet for Grand Region bridge projects.
- Review and analyze submitted project Draft Jobs or auxiliary data from scoping documents or other sources. Determine if submitted project concepts meet criteria for selection, make corrections or additions to concepts and make recommendations to the Region Bridge Engineer.
- Review program change requests (e.g., scheduling, funding, etc.) for all bridge projects as assigned by project manager. Incorporate into the overall project plan.
- Coordinate all job adds and changes with Region and TSC staff.
- Prepare and analyze financial reports as necessary to assist in financial monitoring including increases or decreases in budgets and make recommendations to region bridge engineer for action.
- Represent region development staff at Scope Verification and Plan Review Meetings as necessary and as assigned.

Duty 2

General Summary:

Percentage: 25

As the recognized resource Region Bridge Program Engineer, work with the Region Bridge Engineer in the determination of needed work on future highway projects and prepare detailed cost materials for the annual CFP.

This duty requires operating a vehicle or vehicle/trailer combination with a GVWR of between 10,001 and 26,000 pounds.

Individual tasks related to the duty:

- Research old plans and field conditions to determine existing situations and future needs.
- Assist in preparing preliminary CFP list based on strategic pavement plan.
- Coordinate all necessary field reviews and surveys as needed and directed by the region bridge engineer. This could be due to a bridge hit, program need, etc.
- Estimate construction costs and prepare Draft Jobs.
- Program projects in JobNet, coordinate project schedules in Planisware, and utilize other Departmental Project Management software.
- In coordination with Region/TSC staff, prepare preliminary quality and cost estimates for the annual CFP process using the Engineer's Estimate System.
- Prepare and/or check various cost estimates utilizing contract pay quantities and average unit prices.

- Prepare construction estimates for Economic Development Fund (EDF) projects, enhancement projects, and Early Preliminary Engineering (EPE) projects. Coordinate development of such projects with Region, TSC, Bureau of Planning, Design Division, and local agencies.
- Assist with detailed bridge inspections and field investigations under the direction of a Qualified Team Leader (QTL), if required, of proposed projects.
- Document and archive complex data collected during field inspections.
- Assist the QTL or Region Bridge Engineer in the development of the monthly inspection schedule and organize the necessary equipment for those inspections.
- Conduct research on bridge maintenance issues, take notes on the condition of structures, and gather information for bridge inspection reports.
- Assist in the evaluation of the existing condition of bridges and culverts in accordance with the National Bridge Inspection Standards and MDOT bridge inspection policies.
- Document field observations reflecting the existing bridge condition on electronic and paper forms such as detailed inspection reports, BSIR, Culvert Safety Inspection Report (CSIR) Element Inspection Data, and the Structure Inventory & Appraisal form.
- After construction or maintenance is performed on a structure, conduct an inventory inspection.
- Monitor, evaluate, and report on the performance of maintenance and rehabilitation activities to ensure quality and the desired objectives.
- Utilize department computer programs such as MiBridge, JobNet, Statewide Monitoring and Reporting Tool (SMART) and others to input inspections and manage the region bridge inventory.

Duty 3

General Summary:

Percentage: 15

Assist the Associate Region Engineer - Development and the Region Bridge Engineer in ensuring the quality of the Grand Region's design process for bridge projects. Assist in coordinating with all Region, Lansing, and TSC staff to ensure that all designs and contract documents are complete and accurate on all projects within the Region. Assistance to all Region Design staff is required to ensure that the design review process for all projects is followed and design plans are complete when packaged for letting.

Individual tasks related to the duty:

- Assist in ensuring that all projects within the Grand Region are processed through the Region Office for QA/QC. This includes all templates such as Road, Bridge, Traffic & Safety, Capital Preventative Maintenance (CPM), etc.
- Assist with monitoring/reviewing/checking of projects during stages of Scoping, Scope Verification, Base Plan Review, Plan Review, Final Project Coordination meeting/submittal, and Final Turn In.
- Monitor and review projects during the design process for scope, cost, and schedule.
- Prepare and/or check cost estimates that are completed during various stages of design process.
- Ensure the design process follows MDOT standards and specifications for all plans developed by providing consistency reviews and quality assurance on all design plans within the Grand Region.
- Resolve traffic and safety issues related to assigned projects in conformity with published standards.
- Review Geometrics related to all projects for consistency of use and consistency for all TSC's within the Region.
- Coordinate and work with Lansing Traffic & Safety and Geometric Unit to resolve these issues.
- Assist in preparing and reviewing contract documents for assigned projects.
- Assist in preparing and reviewing documents necessary to hire design consultants, (e.g., faxed fee sheets, person hour estimates, etc.).
- Review payment invoices, monitor and keep project manager informed of project progress and consultant's overall performance on the project.
- Assist in preparing evaluations of the consultant's project submittals and overall performance on the project.
- Assist in negotiating contracts with consultants.

Duty 4

General Summary:

Percentage: 5

Other duties as assigned.

Individual tasks related to the duty:

- Attend necessary training to maintain qualifications.
- Respond to bridge emergencies.
- Attend meetings as necessary.
- Perform other duties as assigned.

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

Evaluation and interpretation of project program data and recommendations on new project concepts. Decisions to apply bridge design standards, practices, or procedures that affect the design or construction of a project.

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

Decisions that would restrict or limit vehicle travel across a bridge or culvert. When accepted policies or procedures are not applicable to current design requirements. Allocation of funding or personnel resources. Conflicts in policy, procedures, goals, objectives, project selection and scopes, project schedules, budgets, and changes. Decisions that modify bridge network strategies, change schedule, scope, or budgets of the Grand Region Bridge Program.

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.

This position requires region wide travel and occasional statewide travel. The job also requires working from aerial buckets, ladders, and boats; the ability to work at heights up to 200 feet requiring the use of a bucket truck and/or scaffolding (rarely) or safety harnesses under or alongside the structure while performing bridge maintenance activities; and the ability to climb under bridges, over water, wading in water to probe footings, and continually working near heavy traffic. Must be able to transport up to 100 pounds, which occurs daily. Ability to sustain long periods in confined spaces; wear adequate personal protective equipment; and sustain extensive and repetitive twisting, bending, climbing, lifting, and squatting. Ability to traverse rough terrain and be exposed to outdoor weather elements. Exposure to hazardous materials. Operation of heavy equipment and tools needed to perform highway, roadside, and bridge maintenance. The duties of this position require the incumbent to operate a vehicle and/or vehicle trailer combination with a GVWR of between 10,001 and 26,000 pounds. 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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| ☐ Complete and sign service ratings. | ☐ Assign work. |
| ☐ Provide formal written counseling. | ☐ Approve work. |
| ☐ Approve leave requests. | ☐ Review work. |
| ☐ Approve time and attendance. | ☐ Provide guidance on work methods. |
| ☐ Orally reprimand. | ☐ 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 functions as the recognized resource Region Bridge Program Engineer responsible for making independent engineering judgements in Programming Bridge Projects, Bridge Program Development, Call for Projects (CFP), Bridge Network Asset Management (BNAM) and Quality Assurance/Quality Control (QA/QC) needs. The position is responsible for assisting in the implementation of the regionwide program strategy for preserving and improving the regionwide bridge network. In general, the position responsibilities include bridge project estimating, bridge design (by monitoring Michigan Department of Transportation (MDOT) contract designs), assistance in the annual call for projects (CFP), strategic planning, bridge design plan review, bridge plan (project) QA/QC, bridge scoping, field inspection, network monitoring, and data administration.

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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 work area is responsible for assisting in the development of bridge related projects in the region and monitoring of existing bridge projects in the development phase. This includes all pre-construction activities, planning, project selection, project scoping, surveys, design, real estate, and general program monitoring. Through Program Management Systems this position provides critical programming support, analysis, and input to determine where our precious financial and personnel resources should be applied and prioritized to maintain and improve our transportation infrastructure.

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 12

Three years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer P11.

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:

- transportation engineering principles and practices utilized in bridge inspection
- methods and techniques used in the maintenance of bridges and culverts
- spreadsheet and database software and computerized management systems

Ability to:

- communicate effectively
- use initiative in carrying out an assignment while working independently
- make mathematical computations
- maintain records and prepare reports
- coordinate interdependent work activities
- schedule and coordinate work activities effectively

**CERTIFICATES, LICENSES,
REGISTRATIONS:**

- This position is a Test-Designated Position. The employee is subject to random drug and alcohol testing while employed in this position.
- Subclass Code: CMVOSSP – A safety-sensitive position in which the employee is required to operate a commercial motor vehicle with a GVWR of between 10,001 and 26,000 pounds.
- Possession of a valid driver's license is required and must be maintained throughout employment in the position.
- Professional Engineer's license is desirable, however not required.
- FHWA-NHI-130055 Safety Inspection of In-Service Bridges certification is desirable, however not 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.

N/A

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

JENNIFER HADDON

Appointing Authority

7/24/2026

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