

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

Position Code 1. TRAENGEC81R
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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) Bureau of Highways
4. Civil Service Position Code Description TRANSPORTATION ENGINEER-E	10. Division Metro Region
5. Working Title (What the agency calls the position) Bridge Inspector	11. Section Development
6. Name and Position Code Description of Direct Supervisor LEMIEUX, TYLER C; ENGINEER MANAGER LICENSED-3	12. Unit Region Bridge Unit
7. Name and Position Code Description of Second Level Supervisor ZABEL, MARJORIE E; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 18101 West Nine Mile Road, Southfield, Michigan / M-F 7:00 - 4:30 (hours may vary)
14. General Summary of Function/Purpose of Position This position is part of the Region Bridge Unit and works with other Transportation Engineers and Transportation Maintenance Workers to conduct field inspections of in-service (routine safety inspections) bridges and culverts, detailed inspections in conjunction with Bridge Unit Engineers/Management, prepare inspection reports, participate in bridge scoping, Call for Projects, Quality Control (QC) and Quality Assurance (QA), and Bridge Network Asset Management. This position is required to respond to emergencies.	

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

Responsible for performing bridge and culvert inspections under the direction of a Qualified Team Leader (QTL) and conducts research on bridge maintenance issues, takes notes on the condition of structures, and gathers information for bridge inspection reports for National Bridge Inventory structures.

Individual tasks related to the duty:

- Perform bridge and culvert inspections under the direction of a QTL.
- Assist the Transportation Engineer 12/Licensed 12 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.
- Based on visual observations, evaluate 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, CSIR, Element Inspection Data, and the Structure Inventory & Appraisal form.
- Provide, to the Bridge Engineer, maintenance work crew recommendations as identified on the Bridge Inspection 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, SMART and others to input inspections and manage the region bridge inventory.

Duty 2

General Summary:

Percentage: 10

Responsible for gathering inspection data and assisting with determining the proposed scope of work for bridges and culverts as part of the Call for Projects.

Individual tasks related to the duty:

- Assist in analyzing the Bridge Safety Inspection Report findings to analyze the safety condition of structures in accordance with applicable State and Federal regulations and prepare recommendations.
- Assist with producing scoping documents consistent with the current MDOT format for bridge scoping.
- As part of a team, gather inspection data and assist with determining the proposed scope of work for bridges and culverts in the network.
- Work with Lansing, Region, and Transportation Service Center (TSC) staff to assist with producing scoping documents for all projects referenced in the Call for Projects, consistent with the current MDOT format for bridge scoping.
- Assist with the creation and submittal of project concept statements to reflect accepted repair procedures.
- During the conceptual and scoping phases of a project, work with TSC, region, and central office staff including the lead project manager, systems managers, systems specialists, and functional areas' specialists to help determine project scope, costs, and schedule.

Duty 3

General Summary:

Percentage: 10

Responsible for participating in the Region's bridge safety inspection QC/QA Monitoring Program and assisting with evaluating structures in accordance with applicable State and Federal Regulations.

Individual tasks related to the duty:

- Participate in the region's bridge safety inspection QC monitoring program by reviewing inspections performed by other QTLs and evaluating structures in accordance with applicable State and Federal regulations.
- Participate in the statewide bridge safety inspection QC/QA monitoring program.
- Conduct data quality checks on the Regions bridges.

Duty 4

General Summary:

Percentage: 10

Responsible for gathering inspection data and assisting with determining the proposed scope of work for bridges and culverts in accordance with asset management principles and goals.

Individual tasks related to the duty:

- Gather inspection data and assist with determining the proposed scope of work for bridges and culverts in accordance with asset management principles and goals.
- Prepare recommendations for the maintenance, repair, and rehabilitation of bridge structures in keeping with the MDOT strategy for bridges.
- Assist in the development of bridge scoping reports to determine scopes of work using risk-based decision making and coordinating with other assets including utilities and environmental impacts.
- Collect information and perform analysis in the implementation of the region's Capital Scheduled Maintenance program and in the development of the annual bridge crews' maintenance work plan.
- Collect information and perform analysis for the Region bridge program based on changing funding, schedule, or corridor needs.
- Document and archive complex data collected during the field inspections.
- Review database for accuracy and revise data, if necessary.
- Upload field information to regional and statewide database systems.
- Generate standard reports and create specialized reports for the region engineer, region bridge engineer, etc.

Duty 5

General Summary:

Percentage: 10

Perform other duties as assigned.

Individual tasks related to the duty:

- Attend necessary training to obtain bridge inspection qualifications.
- 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.

Most decisions are made in conjunction with a QTL.

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

When changes in policy are required. When issues are found in the QC process. When immediate follow up is necessary.

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 lift and carry up to 100 pounds, which occurs daily and requires good physical conditioning and agility. 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. 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):

<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 is part of the Region Bridge Unit and works with other Transportation Engineers and Transportation Maintenance Workers to conduct field inspections of in-service (routine safety inspections) bridges and culverts, detailed inspections in conjunction with Bridge Unit Engineers/Management, prepare inspection reports, participate in bridge scoping, Call for Projects, QC and QA, and Bridge Network Asset Management. This position is required to respond to emergencies.

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 function of the work area is to inspect bridges and culverts within a geographical area to manage and ensure structural integrity. This requires the inspection and recording of the information to be used for assessing existing condition and identifying future maintenance and construction work. This position is responsible for performing the physical field inspections on bridges and culverts, determining the proposed scope of work as part of the Call for Projects, participating in the Region's bridge safety inspection QC/QA Monitoring Program and in Bridge Network Asset Management.

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:

- Bridge and culvert elements.
- Good written and oral communication skills.
- Mathematical skills for measuring and computing information.
- Organization skills.

Ability to:

- Make decisions regarding structural integrity necessary to promote the safety of the motoring public and fellow employees.
- Work effectively with others as a team.
- Use computers/various software applications.
- Determine priorities and maintain favorable public relations.
- Serve as an expert witness in court.

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.

ASHLEY PARSONS

12/30/2024

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