

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

Position Code 1. TRAENGEE27R
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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) Highways
4. Civil Service Position Code Description TRANSPORTATION ENGINEER-E	10. Division Transportation North Region
5. Working Title (What the agency calls the position) Bridge Inspection Engineer	11. Section North Region Operations
6. Name and Position Code Description of Direct Supervisor BOATMAN, BRANDON T; ENGINEER MANAGER LICENSED-3	12. Unit North & Superior Region Bridge Unit
7. Name and Position Code Description of Second Level Supervisor WAHL, WILLIAM E; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work TBD within North Region / 7:30 a.m. - 4:30 pm / Mon - Fri / Hours May Vary

14. General Summary of Function/Purpose of Position

The position is responsible for assisting with or performing independent field investigations of bridges within the Region, and if necessary, assistance to other Regions, as assigned to ensure the safety and reliability of Michigan Department of Transportation (MDOT) trunkline bridges. This position also responds to emergencies caused by vehicles hitting a structure, provides technical assistance to region and statewide field personnel regarding what type of repairs are to be made, and recommends priorities for structure maintenance programs, as well as annual and long-range Bridge Replacement and Preservation programs. Considerable independent field judgments are made to evaluate critical conditions, causes of deterioration and/or emergency repairs. In addition, the position's responsibilities will include assisting with bridge scoping, bridge project estimating, field verification for the Statewide Bridge Load Rating group, strategy development, and assistance in the annual Call for Projects.

This position requires possession of a valid driver's license to perform field work.

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

Perform bridge and culvert inspections and prepare the necessary documentation for bridge files.

This duty requires possession of a valid driver's license to perform field work.

Individual tasks related to the duty:

- Inspect assigned structures, separately evaluate, and numerically rate each component of the structure.
- Inspect higher risk structures more frequently to chart and evaluate the progress of deterioration of structural components.
- Prepare and approve bridge inspection reports as required by the Federal Highway Association (FHWA).
- Evaluate repairs made by contract or region bridge crews that have been recommended on a previous inspection report.
- Collect and record streambed cross sections.
- Provide Quality Control (QC)/Quality Assurance (QA) bridge inspections and documentation reviews.
- Attend the National Highway Institute (NHI) Safety Inspection of In-Service Bridges training course and other training as required.

Duty 2

General Summary:

Percentage: 10

Assist in the development and implementation of the Region's Bridge Preservation Strategy, including assembly of annual Region Bridge Maintenance work program.

Individual tasks related to the duty:

- Prepare recommendations for the maintenance, repair, and rehabilitation of bridge structures in keeping with the MDOT strategy for bridges.
- Coordinate recommendations for the Bridge Program with the region's project development staff to minimize conflicts between the Road and Bridge Rehabilitation Programs.
- Prepare bridge scoping reports by documenting structure deficiencies, providing work recommendations, and preparing cost estimates for repair.
- Prepare bridge maintenance recommendations.
- Share expertise and advice with Area Maintenance staff to improve the quality of guidance given to maintenance crew personnel.

Duty 3

General Summary:

Percentage: 10

Assist Region Bridge Engineer with as-needed tasks associated with bridge design plan reviews, emergency situations, special reports, bridge construction assistance and consultant contracts.

This position requires possession of a valid driver's license to perform field work.

Individual tasks related to the duty:

- Prepare Requests for Action (RFAs) on bridges damaged by high loads, ships, washouts or severe deterioration.
- Identify repairs that require a routine or emergency contract based on the scope and nature of the work.
- Assist in preparing and reviewing of contract documents and scopes of work.
- Attend Scope Verification, Base Plan, Plan Review, FPC, and OEC meetings to ensure the designers have all necessary bridge condition information.
- Review bridge design packages for plan review or OEC milestone, including Region QA reviews.
- Provide bridge construction assistance as necessary.
- Other duties assigned by supervisor.

Duty 4

General Summary:

Percentage: 10

Perform bridge inspection QC/QA file and field reviews.

This position requires possession of a valid driver's license to perform field work.

Individual tasks related to the duty:

- Participate in the Region's bridge safety inspection QC/QA monitoring program.
- Participate in the Statewide bridge safety inspection QC/QA monitoring program.
- Attend necessary training to work toward Qualified Team Leader status.
- Review database for accuracy and revise data, if necessary.
- Upload field information to regional and statewide database systems.
- Participate in the annual inspection calibration meeting, as well as region inspection team meetings to incorporate the latest standards, techniques, and maintain a working knowledge of the inspection program.

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

Make decisions regarding necessary equipment, scheduling of inspections, and other methods necessary to perform inspections. Independently identify and perform detailed inspections on structures as necessary to ensure structural integrity and public safety. Independently perform routine inspections within FHWA guidelines to ensure public safety. Document repair recommendations and follow up on recommendations as necessary to promote public safety.

Determine the extent of bridge damage caused by vehicles, extent of scour during a storm event, and/or structural stability due to corrosion, and the course of action for each event.

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

When existing policy is unclear, or when changes or variances from existing MDOT policy, guidelines, or procedures are needed.

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 heights of up to 200 feet requiring the use of aerial equipment, scaffolding or safety harnesses under or alongside the structure while performing bridge maintenance activities, the usage of ladders, and operation of boats. Ability to traverse all types of terrain and various highway and bridge structures, wading in water to probe footings, working near heavy traffic, and being exposed to unfavorable weather conditions. This position requires possession of a valid driver's license to perform field work. 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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|---|------------------------------------|---|-----------------------------------|
| 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?

The position is responsible for assisting with or performing independent field investigations of bridges within the Region, and if necessary, assistance to other Regions, as assigned to ensure the safety and reliability of Michigan Department of Transportation (MDOT) trunkline bridges. This position also responds to emergencies caused by vehicles hitting a structure, provides technical assistance to region and statewide field personnel regarding what type of repairs are to be made, and recommends priorities for structure maintenance programs, as well as annual and long-range Bridge Replacement and Preservation programs. Considerable independent field judgments are made to evaluate critical conditions, causes of deterioration and/or emergency repairs. In addition, the position's responsibilities will include assisting with bridge scoping, bridge project estimating, field verification for the Statewide Bridge Load Rating group, strategy development, and assistance in the annual Call for Projects.

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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 function of the work area is to inspect the bridges and culverts within an assigned geographical area to ensure structural integrity and public safety. This requires the inspection and recording of information to be used for assessing existing conditions and identifying future maintenance and construction work. This position is responsible for performing the physical field inspections on those structures and maintaining the region's bridge condition database.

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 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:

- Elements of bridge and culvert design
- Mathematics for measuring and computing information

Skill in:

- Organizing information
- Resourcefulness

Ability to:

- Make decisions regarding structural integrity
- Communicate effectively
- Work effectively with others
- Determine priorities
- Maintain favorable public relations
- Use initiative in carrying out assignments while working independently

CERTIFICATES, LICENSES, REGISTRATIONS:

- Possession of a valid driver's license is required and must maintain throughout employment in the position.
- Successful completion of the following within 12 months of the date of hire into the position:
 - National Highway Institute (NHI)-130055 Safety Inspection of In-Service Bridges course.
- Preferred: possess status as a Qualified Team Leader which includes:
 - Successful completion of NHI-130055 Safety Inspection of In-Service Bridges course.
 - Successful completion of 18 hours of approved bridge inspection recurrent training over the last 5 years.
 - Successful completion of the Field Proficiency Exam in the last 2 years.

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.

KELSEA COLE

3/4/2026

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