

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.

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| 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 Bridges and Structures |
| 4. Civil Service Position Code Description TRANSPORTATION ENGINEER-A | 10. Division Structure Program Division |
| 5. Working Title (What the agency calls the position) Bridge Inspection Engineer | 11. Section Structure Management Section |
| 6. Name and Position Code Description of Direct Supervisor NADJARIAN, ALLISON M; ENGINEER MANAGER LICENSED-3 | 12. Unit Bridge Inspection Unit |
| 7. Name and Position Code Description of Second Level Supervisor MCMUNN, CREIGHTYN; ENGINEER MANAGER LICENSED-4 | 13. Work Location (City and Address)/Hours of Work 6333 Old Lansing Road, Lansing, MI 48917 / M-F, 8:00am - 5:00pm (hours may vary) |

14. General Summary of Function/Purpose of Position

This position serves as a senior worker Qualified Team Leader (QTL) for the inspection of bridges within the Big Bridge Inventory. Inspections are completed within an assigned area. Inspections are done in accordance with the National Bridge Inspection Standards (NBIS) and other state laws and guidelines. This position provides recommendations to management, regions, and local agencies in matters pertaining to inspection findings in accordance with bridge inspection procedures; and updates MDOT and local agency inspection procedures as needed to improve safety and maintain compliance. This position also administers consultant contracts and performs project management functions throughout the duration of each contract to maintain schedule and budget. This position also is responsible for leading, developing, and/or participating in the bridge safety inspection Quality Assurance/Quality Control (QA/QC) monitoring program and investigating, evaluating, and reporting on the actual condition of structures with requirements outlined in applicable State and Federal regulations and recommending changes to ensure MDOT maintains the highest quality structures.

This position requires possession of a valid driver's license to perform bridge inspections.

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

Functions as a QTL performing bridge inspections with a focus on extensive detail (in-depth inspections) and/or complex structures (movable bridges, trusses, precast segmental box girders, etc.) in accordance with applicable State and Federal regulations.

This duty requires possession of a valid driver's license to perform bridge inspections.

Individual tasks related to the duty:

- Perform inspections in accordance with the NBIS and other state laws and guidelines.
- Evaluate the structural condition of each bridge component, feature, detail and/or NSTM according to NBIS guidelines. Identify any action items and submit Request for Action (RFA) reports to the bridge owners and follow-up for structural, mechanical, and electrical repairs.
- Coordinate with regions, statewide crews, and consultants before performing bridge inspections to coordinate traffic control and access equipment (e.g., Reach-All).
- Complete the required reports and maintain bridge files in compliance with the Federal Highway Administration (FHWA) 23 Metrics.
- Schedule and perform planned and as-needed non-destructive testing on NSTMs in accordance with bridge inspection procedures. Submit an RFA depending on the results of the testing.
- Update MDOT and local agency inspection procedures as needed for improved safety and compliance with the NBIS and to ensure statewide alignment.
- Work with the Bridge Inspection Program Manager and Big Bridge Scoping Engineer to assist in the development of the annual bridge program by identifying needs, prioritizing needs, and recommending potential maintenance, rehabilitation, or replacement activities to meet MDOT's strategies for bridges.
- Monitor, evaluate, and report on the performance of maintenance and rehabilitation activities to ensure quality and the desired objectives.
- Assist region staff with inspections as needed or communicate with regions that inspections need done.
- Coordinate with region and Transportation Service Center (TSC) offices for traffic control needs to perform inspections.

Duty 2

General Summary:

Percentage: 15

Administer consultant contracts for the performance of project related tasks.

Individual tasks related to the duty:

- Develop scope of service as needed for consultant engineering contracts for in-depth inspections of bridges in the Big Bridge Inventory, movable bridge troubleshooting, complex inspections, underwater diving inspections, and as-needed routine and in-depth inspections.
- Perform project management functions for consultant engineering contracts related to the inspection of large deck, movable, NSTM, fatigue sensitive, complex, and unique structures.
- Develop the preparation of the scope of services, the selection process, and the contract for consultant engineering services.
- Monitor and control project engineering costs, contract costs, and project schedules for assigned projects.
- Review payment invoices and progress reports and make recommendations for payment for services completed.
- Compile and maintain all vendor contract records.
- Prepare evaluations of the consultant's project submittals and overall performance on the project.
- Develop communication mechanisms that keep all relevant stakeholders properly informed of all project related information. Stakeholders include, but are not limited to, vendors, project team members, and Department managers/leadership.
- Represent MDOT in building positive working relationships with consultant partners.

Duty 3

General Summary:

Percentage: 15

Responsible for leading, developing, and/or participating in the bridge safety inspection Quality Assurance/Quality Control (QA/QC) monitoring program and investigating, evaluating, and reporting on the actual condition of structures with

requirements outlined in applicable State and Federal regulations and recommending changes to ensure MDOT maintains the highest quality structures.

Individual tasks related to the duty:

- Participate in the development of Quality Control plans for MDOT Regions and Local Agencies.
- Perform MDOT Quality Control reviews.
- Complete Quality Assurance reviews and provide follow up to bridge owners and/or inspectors on deficiencies identified during the review.
- Ensure critical findings are properly documented in MiBRIDGE and perform field reviews as directed.

Duty 4

General Summary:

Percentage: 10

Other duties as assigned.

Individual tasks related to the duty:

- Provide recommendations for improvements and presentation of best practices for NBIS bridge inspection methods.
- Train inspectors as needed.
- Attend bridge inspection training and maintain QTL status.
- 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.

Must be able to assess the condition of a bridge according to NBIS guidelines. Must be able to plan, coordinate, and implement bridge inspections. Determine needed inspection, equipment, and traffic control. Make safety decisions at the bridge.

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

Changing or setting statewide bridge inspection policies. Structural-related decisions involving safety (that do not require immediate decisions at the bridge). Decisions involving network management and strategic direction.

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.

Performing inspections in the field includes traversing irregular terrain and slopes, moving under bridges, over water, wading in water to probe footings, and continually working near heavy traffic as well as working in adverse weather conditions. Requires good physical condition and agility. Must be able to travel statewide for extended periods of time which requires possession of a valid driver's license. Must be able to work from an aerial device or man-lift at considerable height off the ground and over water. 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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|----------------------------|------------------------------------|----------------------------|---------------|
| <input type="checkbox"/> N | Complete and sign service ratings. | <input type="checkbox"/> N | Assign work. |
| <input type="checkbox"/> N | Provide formal written counseling. | <input type="checkbox"/> 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 serves as a senior worker Qualified Team Leader (QTL) for the inspection of bridges within the Big Bridge Inventory. Inspections are completed within an assigned area. Inspections are done in accordance with the National Bridge Inspection Standards (NBIS) and other state laws and guidelines. This position provides recommendations to management, regions, and local agencies in matters pertaining to inspection findings in accordance with bridge inspection procedures; and updates MDOT and local agency inspection procedures as needed to improve safety and maintain compliance. This position also administers consultant contracts and performs project management functions throughout the duration of each contract to maintain schedule and budget. This position also is responsible for leading, developing, and/or participating in the bridge safety inspection Quality Assurance/Quality Control (QA/QC) monitoring program and investigating, evaluating, and reporting on the actual condition of structures with requirements outlined in applicable State and Federal regulations and recommending changes to ensure MDOT maintains the highest quality structures.

This position requires possession of a valid driver's license to perform bridge inspections.

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 the management and oversight of the state's bridge inspection program. The Bridge Inspection Unit is responsible for inspecting the department's designated bridges with NSTMs and fatigue sensitive details and provides technical expertise in the more complex aspects of bridge inspection, management, and construction. The Unit supports and acts as a technical resource to the MDOT regions and local agencies regarding management, inspection, and construction of bridges and facilitates the federal inspection program with the local agencies. This position serves as a QTL bridge inspector.

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 Engineering 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.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Structural engineering.
- Relevant specifications, Department policies, and technical reports for NSTM inspection and management of complex bridges.
- Bridge inspections.
- Consultant project management.

Ability to:

- Work outside, in aerial device or man-lift at considerable height off the ground and over water.

- Communicate effectively.

**CERTIFICATES, LICENSES,
REGISTRATIONS:**

- Possession of a valid driver's license is required and must maintain throughout employment in this position.
- 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 five years.
 - Successful completion of the Field Proficiency Exam in the last two years.
- Successful completion of NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges.

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

2/25/2025

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