

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

Position Code 1. WELDEREA08R
--

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 Bridges and Structures
4. Civil Service Position Code Description WELDER-E	10. Division Structure Program Division
5. Working Title (What the agency calls the position) Certified Welder	11. Section Structure Preservation Section
6. Name and Position Code Description of Direct Supervisor WAKLEY, MICHAEL P; TRANSPORTATION MAINT SPV-2	12. Unit Statewide Bridge Repair Unit
7. Name and Position Code Description of Second Level Supervisor NIEMI, MATTHEW; TRANSPORTATION MAINT SPV-3	13. Work Location (City and Address)/Hours of Work 7575 Crouner Drive, Lansing, MI 48917 / 7:00am - 5:30pm, Monday-Thursday (hours may vary)
14. General Summary of Function/Purpose of Position	
<p>This position functions as a certified welder assisting in the repair of steel highway bridges which have been damaged by impacts from high load hits or weakened by fatigue or corrosion; installation of steel temporary supports for various structural elements; fabrication of temporary supports and steel plates for bolted repairs; straighten and repair minor dents in the steel beams at trunkline bridges on beam flanges and webs by applying heat at appropriate temperatures and proper locations and sequences; and routine and emergency maintenance of all 13 Michigan Department of Transportation (MDOT) owned moveable bridges. Duties are performed statewide on a twenty-four-hour emergency basis. Welders may assist other emergency special crews as needed.</p> <p>This position operates a vehicle or vehicle/trailer combination with a Gross Vehicle Weight Rating (GVWR) of 26,001 pounds or more (e.g., aerial devices, scissor bed trucks, etc.) when repairing and/or replacing damaged or deteriorated portions of structural steel on interstate bridges, etc.</p>	

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: 40

Participate in repair of damaged or deteriorated portions of structural steel bridges and/or other MDOT structures. Straighten and repair minor dents in the steel beams at trunkline bridges on beam flanges and webs by applying heat at appropriate temperatures and proper locations and sequences.

This duty requires operating a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more.

Individual tasks related to the duty:

- Assist in the removal and repair of damaged and deteriorated portions of steel or aluminum pedestrian bridges.
- Set up equipment, layouts, align structure members and machinery for welding.
- Provide access with aerial trucks and scissor beds for engineers and bridge inspectors. This may require setting up necessary lane closures and traffic control.
- Read blueprints and shop drawings.
- Participate in the fabrication and installation of temporary supports for damaged or deteriorated steel and/or concrete bridges.
- Perform heat straightening of bent or damaged steel beams.
- Fabricate and install bolted steel repairs (angles, plates, stiffeners, etc.). This may involve field drilling, field fabrication of steel repairs, and installing bolts and nuts with proper turn-of-the-nut methods.
- Fabricate, transport, and install timbers for temporary support bases.
- Disassemble, remove, and transport temporary supports and timbers after permanent repairs have been made.
- Perform vertical up weld position 3G, on trunkline bridges when fabricating temporary supports at the site of a damaged bridge.
- Replace corroded bridge bearings which are located on substructure units at the job site. This involves reading blueprints, measuring and flame cutting steel, and removing the existing bearings.

Duty 2

General Summary:

Percentage: 40

Perform routine maintenance and repair of mechanical and hydraulic workings of movable bridges. Repairs may be made under emergency conditions involving bridges which may not open or close properly within navigable waterways.

This duty requires operating a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more.

Individual tasks related to the duty:

- Assist in devising and fabricating supports for drive machinery.
- Assist in fabricating bridge machinery using metal forming and cutting tools such as a milling machine, metal lathe, punches, brakes, pipe benders and threaders, drills, and impact wrenches to bend, shape, and cut metal parts which are to be welded together.
- Check dimensions for conformation with specifications.
- Set up equipment, layouts, align structural bridge parts.
- Read blueprints and drawings, measure and flame cut steel and remove existing bearings.
- Operate mechanism and observe operation to test repaired equipment and diagnose malfunction.
- Perform routine maintenance on 13 moveable bridges including lubricating and cleaning mechanical systems, maintaining hydraulic systems, draining counterweight pits, ensuring bridge sewer and drainage is functioning, assisting electricians with electrical work, repairing bridge gates, and general cleaning of the bridge.
- Maintain knowledge of moveable bridge operations to effectively diagnose and ensure fluid operation of all moveable bridges prior to leaving job site.
- Maintain and rebuild worn gears on movable bridge machinery by depositing weld material on worn gear teeth and shaping the material so it will function as drive gear. This work is usually done at the site with the gears mounted on the driver shaft.
- Assist in detailed bridge inspections of the movable bridges.

Duty 3

General Summary:

Percentage: 15

Shop fabrication and equipment maintenance.

Individual tasks related to the duty:

- Shop fabricate structural elements using heavy machinery, such as forklifts and cranes, welding equipment, lathe equipment, shear punches, etc. Must maintain knowledge of machinery operation and all safety responsibilities associated with various equipment.
- Keep shop in safe and working order. Clean floors of debris and conduct routine maintenance on machinery as needed.
- Maintain equipment and supplies in utility trucks, semi-trailer, and shop as required. Replace worn or broken equipment with supervisor's approval.

Duty 4

General Summary:

Percentage: 5

Other duties as assigned.

Individual tasks related to the duty:

- 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.

Make decisions related to the welding and field repair of structures per plans provided by the engineer.

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

Decisions related to deviation from the work order or engineer's plan. Decisions regarding MDOT's policy related to travel and equipment/vehicle usage. Decisions related to the procurement of materials and/or equipment.

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.

Work is performed on heavily traveled highway bridges, working from heights up to 125 feet above water and roadways requiring the use of aerial equipment/scaffolding and safety harnesses. Ability to work around high-tension electrical components, in confined spaces, and in inclement weather. This position requires statewide travel with extended overnight travel. Position requires the ability to perform assigned repairs, transport up to 125 pounds, and work around hazardous materials. Must be able to wear respirators. Be available outside normal working hours for maintenance/emergency operations, in all weather conditions. This position is required to operate a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more.

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"/> 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.		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 functions as a certified welder assisting in the repair of steel highway bridges which have been damaged by impacts from high load hits or weakened by fatigue or corrosion; installation of steel temporary supports for various structural elements; fabrication of temporary supports and steel plates for bolted repairs; straighten and repair minor dents in the steel beams at trunkline bridges on beam flanges and webs by applying heat at appropriate temperatures and proper locations and sequences; and routine and emergency maintenance of all 13 MDOT owned moveable bridges. Duties are performed statewide on a twenty-four-hour emergency basis. Welders may assist other emergency special crews as needed.

This position operates a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more (e.g., aerial devices, scissor bed trucks, etc.) when repairing and/or replacing damaged or deteriorated portions of structural steel on interstate bridges, etc.

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 Statewide Bridge Repair Unit responds to emergencies involving high load bridge hits, as well as, responsible for maintaining and keeping in operation 13 moveable bridges. This also includes repairing major damage to steel bridges and devising and fabricating parts for structures. The unit also assists other maintenance crews when steel fabrications or repairs are required. This position participates in all related activities. The crew responds to emergencies 24/7, often working extended hours to ensure public safety.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Education typically acquired through completion of high school.

EXPERIENCE:

Welder 7

No specific type or amount is required.

Welder 8

Two years of experience as a combination welder using arc and gas welding equipment.

Welder E9

Four years of experience as a combination welder using arc and gas welding equipment, including one year equivalent to a Welder 8.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Mechanical equipment.
- Safety precautions.
- Electric motors and other machinery found at movable bridges.

Ability to:

- Communicate effectively with co-workers.
- Work within a team.
- Operate computers.
- Perform mechanical maintenance.

**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.
- Possession of a Commercial Learner’s Permit upon appointment to the position. Continuing employment requires possession of a Commercial Driver’s License (CDL) Group A with either an N or X endorsement and no air brake restrictions which must be obtained within 12 months of the date of hire into the position and must maintain throughout employment in the position.
- Must be a certified welder per article 707.03. D. 8 from the 2012 MDOT Standard Specifications for Construction, and satisfactorily pass test position 3G, vertical up weld or obtain within six months from date of appointment and must maintain throughout employment in the position.
- Knuckle boom crane certification is required within twelve months of the date of hire into this position and must maintain throughout employment in this position.

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

4/28/2026

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