

**State of Michigan
Civil Service Commission**

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code

1. ELECLICEA87R

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 Electrician Master Licensd-E	10. Division University Region
5. Working Title (What the agency calls the position) Region Electrician	11. Section Development
6. Name and Position Code Description of Direct Supervisor PALMER, STEPHANIE R; ENGINEER MANAGER LICENSED-3	12. Unit Traffic and Safety
7. Name and Position Code Description of Second Level Supervisor SORENSEN, SAMUEL; ENGINEER MANAGER LICENSED- 4	13. Work Location (City and Address)/Hours of Work 4701 W MICHIGAN AVE; JACKSON, MI 49201 / 7:00-4:30 Mon-Fri (hours may vary)

14. General Summary of Function/Purpose of Position

Responsible for the maintenance of all road-way electrical devices and electrical equipment for the University Region. This position is an experienced level that performs work independently or as part of an electrician work group to address the state trunkline electrical needs within the University Region. Responsibilities include installing, upgrading, and performing routine and emergency repair of signals, freeway lighting and related electronic equipment. Inspect the work of contractors hired by MDOT to install signals, freeway lighting to assure that all work conforms to specifications and the electrical code as regulated by the Michigan Department of Licensing and Regulatory Affairs (LARA) and accept contracted work. Inspect preventative maintenance work of contractors and contract agencies.

Operate an aerial bucket truck with a Gross Vehicle Weight Rating (GVWR) of 26,001 pounds or more with occasional towing requirements (i.e. work trailer, arrow board)when installing and/or repairing aerial traffic signal equipment, setting poles and pedestals, installing an/or repairing overhead wires and cables, and installing and/or repairing lighting at Michigan Department of Transportation (MDOT) facilities.

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

As the Region Electrician serves as the licensed electrician on-site to perform maintenance, installation and repair, and inspection of electrical devices including traffic signals, freeway lighting and other electronic traffic control equipment. Pull permits when necessary. Act independently or as part of an electrical work group to address the assigned task. Most repairs and maintenance on electrical devices must be performed while circuits are energized to ensure the safety of motoring public.

Operate an aerial bucket truck and/or aerial lift equipment with a Gross Vehicle Weight Rating (GVWR) of 26,001 pounds or more with occasional towing requirements (i.e. work trailer, arrow board).

Individual tasks related to the duty:

- Troubleshoot, install and/or repair electronical hardware in the field or at MDOT facilities.
- Perform routine maintenance on a continuous basis for all electrical traffic control devices.
- Set up temporary traffic control for motorist safety and to maintain proper closures according to MOOT procedures.
- Obtain required permits as needed.
- Measure, cut, bend, thread, assemble and install electrical conduit, junction switches, outlet boxes and handholes, handholes, signal heads, pedestrian signal assemblies, signal controllers, and signal communications equipment by utilizing hand tools and special equipment such as mechanical drills, cutters, benders and threaders.
- Provide as needed emergency traffic signal maintenance on a 24 hours per day, 7 days a week basis in all weather conditions. Electrical service to pumphouses is included under emergency maintenance.
- Repair and maintain electrical devices while circuits are energized in order to minimize impacts to the motoring public.
- Review preliminary plans for traffic signal work and make recommendations to the Engineer Manager.
- Confer with MDOT engineers, contractors, public utilities, city and county engineering departments, or consultants regarding coordination of traffic signal construction and maintenance activities.

Duty 2

General Summary:

Percentage: 25

Procure materials and/or equipment and maintain accurate records for work on all electrical traffic control equipment and maintenance activities. This includes, but is not limited to, electrician job reports, billing and invoice documentation, emergency repair documentation, timing permits, inventory stores and equipment documentation.

Individual tasks related to the duty:

- Maintain up to date store and equipment documentation. Order and stock materials after obtaining supervisor's approval.
- Perform special requests for temporary and/or permanent traffic control timing changes or improvement as requested by Transportation Service Centers (TSCs), Region, or Lansing Traffic & Safety.
- Perform work on new or modernized traffic control equipment and freeway lighting installations using blueprints, schematics, and written instructions along with knowledge of the principles, electrical codes, and materials of the electrical trade.
- Layout and install complete installations of traffic control equipment and freeway lighting equipment.

Duty 3

General Summary:

Percentage: 10

Communication and coordination of work activities. Inspect the work of MDOT contractors involved in installations and on preventative maintenance on signals, controllers, freeway lighting and related electronic equipment on MDOT trunklines.

Individual tasks related to the duty:

- Contact and coordinate activities with MDOT Lansing Traffic and Safety and Maintenance, Bay Region staff, TSC's, private and public utilities, local agencies, contract agencies, emergency dispatch, Region answering service, and other groups or agencies involved with the work of the electrician.
- Provide direction on placement of detectors and verify location in the field.
Inspects newly installed signals, ITS and freeway lighting work which has been performed by contractors. Inspection may be done by visual observation and/or by use of testing equipment to assure that work has been performed in conformance with the state electrical code. Issue written notice of code violation, as necessary, which requires corrective action and includes gathering evidence and the preparation of necessary reports.
- Review all preventative maintenance performed by contractors on MOOT trunkline. This includes reviewing quality of work, compliance with contract and making recommendations for payment.

Duty 4

General Summary:

Percentage: 5

Perform other work related to the position as assigned.

Individual tasks related to the duty:

- Document all work on traffic signals for appropriate billing to local agencies.
- Keep a maintenance record for all electrical traffic control device locations.
- Complete time entry, travel expense vouchers, vehicle time reporting, maintenance job reports and entry, procurement card purchases, and material charges.
- Develop plans and estimates for electrical projects including labor, equipment, and material costs.
- Review plans and proposals and provide comments on signals and/or electrical related projects.
- Assist with maintenance of navigational devices and electrical repairs on bascule bridges and pump houses as requested by Region or Lansing staff.
- 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.

In performing regular maintenance activities, a complete inspection is made of the entire electrical system. If any deficiencies are found, a decision is made as to the importance and whether it needs immediate repair or schedule for repair at a later date. Scheduling repairs is very important because, if a traffic control device malfunctions or is inoperable, the safety of the motoring public may be jeopardized. When trouble shooting an electrical problem, decisions are made as to materials, manpower and equipment needed. Whenever possible, identify, recommend, and implement improvements in the work methods and materials utilized in the position.

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

On unclear issues and items that affect personnel, budget, policy changes and traffic impacts.

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.

The ability to work in all types of weather conditions and a willingness to work non-standard hours in emergency situations. Ability to transport up to 100 lbs, twist, bend and stoop, remain stationary for long periods of time, work in a confined space, work in and around heavy and fast-moving traffic, ability to operate heavy equipment and work from aerial towers and ladders. Manual labor such as digging, installing conduit, and use of other common hand tools and equipment used in electrical construction. Hazards of working around primary electrical lines and working with secondary voltages in adverse weather conditions. 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):

- | | | | |
|---|------------------------------------|---|-----------------------------------|
| 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?

Responsible for the maintenance of all road-way electrical devices and electrical equipment for the University Region. This position is an experienced level that performs work independently or as part of an electrician work group to address the state trunkline electrical needs within the University Region. Responsibilities include installing, upgrading, and performing routine and emergency repair of signals, freeway lighting and related electronic equipment. Inspect the work of contractors hired by MDOT to install signals, freeway lighting to assure that all work conforms to specifications and the electrical code as regulated by the Michigan Department of Licensing and Regulatory Affairs (LARA) and accept contracted work. Inspect preventative maintenance work of contractors and contract agencies.

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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?

Responsible for the maintenance of all road-way electrical devices and electrical equipment in the University Region area. This position is an experienced level that performs work independently or as part of an electrician work group to address the state trunkline electrical needs within the University Region.

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:

Electrician Master Licensed E10

No specific type or amount is required beyond that required for licensure.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Applicable federal, state, and local codes including electrical codes and standards.
- Special circuits, equipment, their operation, timing, and software as related to traffic control signals.

Skilled in:

- Use of tools of electrical trade, installation of electrical devices, diagnosing cause of electrical breakdowns and repairing and adjusting electrical devices.

Ability to:

- Work from electrical diagrams, wiring schematics, set up traffic control schemes, operate some construction equipment.
- Maintain favorable public relations and effective working relationships.
- Perform essential functions of the job.
- Interpret and apply blueprints, schematics, maintenance manuals and assembly instructions.
- Comprehend new technologies, make mathematical computations, organize and prioritize work.

CERTIFICATES, LICENSES, REGISTRATIONS:

Possession of a Master Electrician's License issued by the State of Michigan.

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.

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.

CHRISTINA TIJERINA

Appointing Authority

1/28/2026

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

Employee Date