

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

Position Code 1. EQIPTCHEA03R

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) Transportation Planning
4. Civil Service Position Code Description EQUIPMENT TECHNICIAN-E	10. Division Data inventory and Integration
5. Working Title (What the agency calls the position) Equipment Technician	11. Section Data Collection and Reporting
6. Name and Position Code Description of Direct Supervisor POTTER, EDWARD K; TRANSPORTATION PLANNING MGR-3	12. Unit Travel Information Unit
7. Name and Position Code Description of Second Level Supervisor HUNDT, CHRISTOPHER M; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 7575 CROWNER DR; LANSING, MI 48917 / 6/4pm M-Thursday

14. General Summary of Function/Purpose of Position

This position is responsible for diagnosing, repairing, maintaining, modifying, testing, fabricating, and programing equipment used in the acquisition of highway traffic data (traffic volumes, vehicle speeds, vehicle classifications, vehicle weights). This position provides assistance in daily computer operations within the Lansing shop. Assists in the installation and maintenance of field permanent traffic recorder stations, including site preparation, such as loop installation and repair, pedestal and cabinet installation, cellular communications equipment and power drops, and loop lead-in cables. Assists during the annual calibration of weigh-in-motion sites, as well as provides support with welcome center monitoring equipment.

This position operates a Vehicle or vehicle/trailer combination with a Gross Weight Rating (GVWR) of 26,001 pounds or more to transport equipment to job sites and in performance of weigh-in-motion site calibrations.

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: 50

Performs maintenance of electronic equipment used to collect and process traffic data. Performs field reviews of permanent traffic recorder (PTR) equipment and in the shop reviews of portable equipment.

Individual tasks related to the duty:

- Reviews the nightly PTR error list. Travels to a PTR location and diagnoses the problem using appropriate knowledge and use of diagnostic equipment.
- Makes the appropriate repair to restore the site to operational status or documents the problem and the necessary repair needed if the repair cannot be made at that time.
- Receives and logs in portable counters and diagnoses any problem. Makes the appropriate repair decision.
- Makes appropriate repairs to welcome center monitoring equipment.

Duty 2

General Summary:

Percentage: 30

Performs installation of appropriate PTR sensors and equipment for new locations, repairs, and PTR location upgrades.

This duty requires operating a vehicle or vehicle/trailer combination with a Gross Weight Rating (GVWR) of 26,001 pounds or more.

Individual tasks related to the duty:

- New locations: Installs data acquisition systems at sites to be monitored as part of the department's traffic data telemetry system. This work includes installation of vehicle sensors, wiring equipment cabinets, and installation and calibration of the monitoring and telemetry equipment. This requires the operation of light construction equipment, such as target arrows, concrete saws, compressors, trenchers, and electric generators.
- Repairs: Visits the malfunctioning site and makes the appropriate repair, which may involve replacing bad vehicle sensors or count recording equipment. This may require the operation of light construction equipment, such as target arrows, concrete saws, compressors, trenchers, and electric generators.
- Upgrades: Removes the old equipment and installs the new data acquisition systems so the site collects the correct traffic information. This may require the operation of light construction equipment, such as target arrows, concrete saws, compressors, trenchers and electric generators,
- In all instances, utilizes necessary traffic control procedures. This may include transporting portable signs.

Duty 3

General Summary:

Percentage: 10

Calibrates automatic vehicle classifier (AVC) and weigh-in-motion (WIM) sensors.

This duty requires operating a vehicle or vehicle/trailer combination with a Gross Weight Rating (GVWR) of 26,001 pounds or more to calibrate WIM locations.

Individual tasks related to the duty:

- Works with the Motor Carrier Division of the State Police, assuring they are utilizing the wireless WIM data monitoring technology correctly.
- Assures accuracy of AVC sites by observation and comparison of collected data to viewed data. This may be accomplished by using wireless communication at selected sites.
- Participates in the WIM calibration process. This involves interpreting recorded weight errors from a known weight and applying corrections to obtain correct weight data collection.

Duty 4

General Summary:

Percentage: 5

Monitors PTR polling program for completion and producing error reports.

Individual tasks related to the duty:

- Periodically, makes certain the polling program finished correctly, and the error reports are printed.
- Makes necessary corrections if there is a problem with the polling application.

Duty 5

General Summary:**Percentage: 5**

Other activities as assigned.

Individual tasks related to the duty:

- Investigates data quality by reviewing data through the Transportation Database Management System (TDMS).
- Reviews literature relative to new counting equipment, and improvement to equipment.
- Tests new types of traffic counts and documents usability.
- Trains data collection staff in using new equipment.
- Assists with data collection.
- 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.

The scope of this unit's tasks often requires that the individual use personal judgment in responding to equipment repair in the "shop" and daily maintenance of equipment in the field without the benefit of being able to consult with supervisor.

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

Identifying new PTR locations, sites to be upgraded, or where the type of data collected is changed. Setting priorities for WIM calibration is a team decision.

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.

Field work involves a lot of physical labor, i.e., the use of concrete saws, the use of trencher/backhoe and other construction equipment, and moving loads up to 50 pounds while crossing or working in traffic. The position also involves working outside year-round in most weather conditions. Since all PTRs are located along state trunklines, staff are exposed to all kinds of traffic and traffic conditions. Digging is required to install vehicle loops and axle switches. Traversing over fences and ditches is necessary to reach electrical service disconnects located outside the right-of-way. The position is required to operate a vehicle or a vehicle/trailer combination with a GVWR of 26,001 pounds or more. 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):

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

This position is responsible for diagnosing, repairing, maintaining, modifying, testing, fabricating, and programming equipment used in the acquisition of highway traffic data (traffic volumes, vehicle speeds, vehicle classifications, vehicle weights). This position provides assistance in daily computer operations within the Lansing shop. Assists in the installation and maintenance of field permanent traffic recorder stations, including site preparation, such as loop installation and repair, pedestal and cabinet installation, cellular communications equipment and power drops, and loop lead-in cables. Assists during the annual calibration of weigh-in-motion sites, as well as provides support with welcome center monitoring equipment.

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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?

Acquires and maintains all standard and specialized equipment utilized in the field to collect traffic data, such as: permanent and portable traffic recorders; mini and micro computers; and permanent and portable speed monitoring equipment, including radar speed meters and WIM equipment. Installs and operates the department's permanent traffic recorder/speed and WIM monitoring data telemetry system and maintains vehicle counting equipment for the department's tourist and information section, the state police motor carrier enforcement divisions, and weigh stations. This position supports all of the above activities that are required by traffic data collection activities

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

EDUCATION:

Possession of an associate's degree in electrical, electromechanical, electronics engineering, or electronics technology.

EXPERIENCE:

Equipment Technician 8

No specific type or amount is required.

Equipment Technician 9

One year of experience in the installation, maintenance, troubleshooting, and repair of electrical and electronic equipment equivalent to an Equipment Technician 8.

Equipment Technician E10

Two years of experience in the installation, maintenance, troubleshooting and repair of electrical and electronic equipment equivalent to an Equipment Technician, including one year equivalent to an Equipment Technician 9.

Alternate Education and Experience

Equipment Technician E10

Possession of a bachelor's degree or higher with 16 semester (24 term) credits in job specific or related course work qualifies for the Equipment Technician 10 level.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Mechanical systems.

Skills:

- Manual dexterity.
- Prototype equipment fabrication
- Two years specialized technical experience in digital logic systems.

Ability to:

- Physically able to operate and handle light construction equipment.
- Isolate problems independently.
- Work in the field.

**CERTIFICATES, LICENSES,
REGISTRATIONS:**

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 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.

LOGAN BRISTOL

6/24/2025

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