

State of Michigan  
Civil Service Commission

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

Position Code

1. TRNSTCHEA79R

## 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.

<b>2. Employee's Name (Last, First, M.I.)</b>	<b>8. Department/Agency</b> TRANSPORTATION CENTRAL OFFICE
<b>3. Employee Identification Number</b>	<b>9. Bureau (Institution, Board, or Commission)</b> Bureau of Field Services (BFS)
<b>4. Civil Service Position Code Description</b> TRANSPORTATION TECHNICIAN-E	<b>10. Division</b> Construction Field Services (CFS)
<b>5. Working Title (What the agency calls the position)</b> Laboratory Technician	<b>11. Section</b> Pavement Operations
<b>6. Name and Position Code Description of Direct Supervisor</b> OUDSEMA, ERIC L; CIVIL TECHNICIAN SUPERVISOR-1	<b>12. Unit</b> Hot Mixed Asphalt (HMA) Laboratory Services
<b>7. Name and Position Code Description of Second Level Supervisor</b> MAACK, NATHAN; ENGINEER MANAGER LICENSED-4	<b>13. Work Location (City and Address)/Hours of Work</b> 8885 Ricks Road, Lansing, MI 48917 / Monday-Friday, 6:00 am.-2:30 pm. (hours may vary)

**14. General Summary of Function/Purpose of Position**

This position functions as a Laboratory Technician supporting Performance Graded Asphalt Binder, Asphalt Emulsion, and Asphaltic materials testing. Assist and conduct laboratory testing of asphalt materials for initial certification of sources to supply to the State of Michigan. Assist and conduct laboratory testing to monitor asphalt material sources for continuing compliance with federal standards and Michigan Department of Transportation (MDOT) specifications. Conduct informational testing for Quality Assurance programs. Assist in the maintenance and calibrations of testing equipment and the training seasonal employees. Assist in demonstrating test methods, equipment, and procedures during laboratory inspections and in-lab instruction to MDOT employees and industry personnel. Support intern development by explaining and demonstrating assigned technical tasks.

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: 35**

Assist in laboratory testing of Performance Graded Asphalt Binders for initial certification and certification verification of sources supplying asphalt to the State of Michigan.

**Individual tasks related to the duty:**

- Assist in receiving and logging in of Asphalt Binder samples.
- Assist in laboratory testing of Asphalt Binder samples by following American Association of State Highway and Transportation Officials (AASHTO)/American Society for Testing and Materials (ASTM) testing procedures, tests may include Dynamic Shear Rheometer (DSR), Rolling Thin Film Oven (RTFO), Pressure Aging Vessel (PAV), Bending Beam Rheometer (BBR), Forced Ductility, Elastic Recovery, Softening Point, Flash Point, and Rotational Viscosity (RV) as requested or if needed due to standard test findings.
- Assist in the demonstration of test methods, equipment, records, and procedures during AASHTO Laboratory Accreditation Inspections.
- Perform related calculations, review test results for accuracy, and database entry. Watch for trends between different manufacturers on the same piece of testing equipment to help determine if the equipment needs to be calibrated/repared sooner than required.
- Continuously monitor and keep abreast of technical changes relating to specifications, testing procedures, equipment operation and material properties relating to the Strategic Highway Research Program (SHRP) Superpave Performance Graded Asphalt Binder specifications.

**Duty 2****General Summary:****Percentage: 35**

Assist in laboratory testing of Asphalt Emulsions for initial certification and certification verification of sources supplying Asphalt Emulsion to the State of Michigan.

**Individual tasks related to the duty:**

- Assist in receiving and logging in of Asphalt Emulsion samples.
- Assist in laboratory testing of Asphalt Emulsion samples by following AASHTO/ASTM testing procedures, tests may include Distillation, Penetration, Saybolt Viscosity, Storage Stability, Sieve Test, Particle Charge, Demulsibility, Bond, Elastic Recovery, Toughness & Tenacity, Specific Gravity, Solubility, Ash, and Ductility.
- Assist in the demonstration of test methods, equipment, records, and procedures during AASHTO Laboratory Accreditation Inspections.
- Perform related calculations, review test results for accuracy, and database entry. Watch for trends between different manufacturers on the same piece of testing equipment to help determine if the equipment needs to be calibrated/repared sooner than required.
- Continuously monitor and keep abreast on technical changes relating to specifications, testing procedures, equipment operation and material properties relating to Asphalt Emulsion specifications.

**Duty 3****General Summary:****Percentage: 10**

Assist in informational testing, initial certification, or tested stock testing of other Asphaltic materials, including Hot Poured Joint Sealant, RC-250, Cold-Applied Pipe Joint Sealant, and Overband Joint Sealants for Quality Assurance.

**Individual tasks related to the duty:**

- Assist in the receiving and logging in of Asphaltic material samples.
- Assist in laboratory testing of Asphaltic material samples by following AASHTO/ASTM/Michigan Test Methods (MTM) testing procedures, tests may include Cone Penetration, Kinematic Viscosity, Absolute Viscosity, Bond, Flow, and Specific Gravity by Hydrometer.
- Perform related calculations, review test results for accuracy, and database entry.
- Continuously monitor and keep abreast on technical changes relating to specifications, testing procedures, equipment operation and material properties relating to Asphaltic material's specifications.

**Duty 4****General Summary:****Percentage: 10**

Assist in the maintenance and calibration of testing equipment, assist in trichlorethylene recycling and cleanup.

**Individual tasks related to the duty:**

- Conduct maintenance of testing equipment for Asphalt Binders, Asphalt Emulsions, and Hot Poured Joint Sealants per laboratory protocols and manufacturer requirements.
- Assist in the calibration of testing equipment per AASHTO/ASTM requirements.
- Clean and maintain trichlorethylene cleaning/recycling system.

**Duty 5****General Summary:****Percentage: 10**

Assist in providing service and support to MDOT, Industry, and Local Agency personnel.

**Individual tasks related to the duty:**

- Assist in the training or demonstration of test methods to MDOT Region, Industry, or Local Agency personnel.
- Assist in troubleshooting testing differences with suppliers and consultants on Asphalt materials.
- Assist in the Hot Mix Asphalt (HMA) Dispute and HMA Mix Design Areas when needed.
- 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.**

All testing procedures are defined by ASTM, AASHTO, or MTM specifications. When test data does not make sense, identify the reason and recommend to the supervisor or HMA Engineer an appropriate corrective action.

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

Long term testing priorities. Proposed testing on equipment modification. Requests for overtime and travel. Requests for seasonal help.

**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.**

Exposure to Asphalt Binders and equipment that are maintained at 250F to 325F during testing. Repetitive moving of samples weighing up to 10,000 grams (22lbs). Repetitive loading and unloading hot ovens. Handling of Hazardous Solvents during testing and clean up. 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):**

- |                                                             |                                                            |
|-------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work.                      |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> Approve work.                     |
| <input type="checkbox"/> Approve leave requests.            | <input type="checkbox"/> Review work.                      |
| <input type="checkbox"/> Approve time and attendance.       | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand.                  | <input type="checkbox"/> 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 Laboratory Technician supporting Performance Graded Asphalt Binder, Asphalt Emulsion, and Asphaltic materials testing. Assist and conduct laboratory testing of asphalt materials for initial certification of sources to supply to the State of Michigan. Assist and conduct laboratory testing to monitor asphalt material sources for continuing compliance with federal standards and Michigan Department of Transportation (MDOT) specifications. Conduct informational testing for Quality Assurance programs. Assist in the maintenance and calibrations of testing equipment and the training seasonal employees. Assist in demonstrating test methods, equipment, and procedures during laboratory inspections and in-lab instruction to MDOT employees and industry personnel. Support intern development by explaining and demonstrating assigned technical tasks.

**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?**

To provide quality control and quality assurance of bituminous construction throughout the State. This is accomplished by testing, design, inspection, investigations, and promulgating specifications and standards for bituminous construction and materials and advising administrators, engineers and others.

This position assists in quality assurance control testing of asphalt materials to ensure they meet all of MDOT's specifications. To add knowledgeable solutions in decision making, and in the training of MDOT and industry employees.

**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 concrete technology, civil technology, construction technology, surveying technology, construction management, mathematics, or computer science.

**EXPERIENCE:**

**Transportation Technician 8**

No specific type or amount is required.

**Transportation Technician 9**

One year of experience equivalent to a Transportation Technician 8.

**Transportation Technician E10**

Two years of experience equivalent to a Transportation Technician, including one year equivalent to a Transportation Technician 9.

**Alternate Education and Experience**

**Transportation Technician 8 - 12**

Possession of a Bachelor's degree or higher in an Applied Science or Science with 16 semester hours (24 term) credits in job specific or related course work qualifies for the Transportation Technician E10 level.

OR

Completion of 60 semester (90 term) credits including 24 semester (36 term) credits in any combination of course work in the following areas: structures, materials, soils, hydrology, surveying, design, drafting, bituminous, concrete, aggregate, chemistry, physics, geology, environmental science, computer science, highway or traffic technology, construction management, engineering, or mathematics may be substituted for the associate's degree.

OR

Four years of technician level experience consisting of quality control inspections, drafting, materials and testing, surveying, or traffic may be substituted for the Associate's degree.

OR

Current certification in bituminous (hot mix), concrete, density testing, or aggregate gradation and one year of technician level field experience may be substituted for the associate's degree.

OR

Current certification in bituminous (hot mix), concrete, density testing, or aggregate gradation and three years experience equivalent to a Transportation Maintenance Worker 9 may be substituted for the associate's degree.

OR

Current certification in bituminous (hot mix), concrete, density testing, or aggregate gradation and two years experience equivalent to an Engineering Assistant may be substituted for the associate's degree.

OR

Current certification in bituminous (hot mix), concrete, density testing, or aggregate gradation and completion of 16 semester (24 term) credits in any combination of course work in the following areas: structures, materials, soils, hydrology, surveying, design, drafting, bituminous, concrete, aggregate, chemistry, physics, geology, environmental science, computer science, highway or traffic technology, construction management, engineering, or mathematics may be substituted for the Associate's degree.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of:

- Algebra and mathematics for testing application.

Ability to:

- Comprehend and follow instructions.
- Operate and maintain testing equipment, knowledge of tools and basic maintenance.
- Communicate effectively on the telephone and in person.
- Work closely with others in a team environment.

**CERTIFICATES, LICENSES, REGISTRATIONS:**

Possession of a valid driver's license is preferred.

**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

3/31/2026

\_\_\_\_\_  
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