

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

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| Position Code 1. TRAENGE99R |
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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) Office of Rail |
| 4. Civil Service Position Code Description TRANSPORTATION ENGINEER-E | 10. Division Office of Rail |
| 5. Working Title (What the agency calls the position) Railroad Track Engineer | 11. Section Railroad Infrastructure |
| 6. Name and Position Code Description of Direct Supervisor DLAMATER, JAMES L; ENGINEER MANAGER LICENSED-3 | 12. Unit Development |
| 7. Name and Position Code Description of Second Level Supervisor LIPPERT, ROBERT J; ENGINEER MANAGER LICENSED-4 | 13. Work Location (City and Address)/Hours of Work 425 W. Ottawa St, Lansing, MI / M-F 7:00 a.m. - 3:30 p.m., (hours may vary) |

14. General Summary of Function/Purpose of Position

Assist supervisor with design, estimating, maintenance, and permitting of railroad infrastructure projects located on the State of Michigan owned rail lines, which are operated by Great Lakes Central RR, Huron and Eastern Rwy, Lake State Rwy, the Indiana Northeastern RR and Amtrak. Position will assist other engineers in unit who are involved with the maintenance, inspection, and design of bridge and culverts, track infrastructure, engineering reviews of right of entry permits, right-of-way encroachments and grade crossing closures. Position will also be involved with the review of road projects that involve railroad grade separation and grade crossings to ensure standards and guidelines have been met, provide assistance on contracts and agreements with railroad companies and consultants, will be involved with programming projects and administering MDOT project tracking software, and provide assistance to the Railroad Infrastructure-Delivery Unit.

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**

Assist manager with the design, maintenance, and construction of State owned track infrastructure.

Individual tasks related to the duty:

- Prepare design plans, special provisions, and estimates for planning, bid letting and force account work for track infrastructure related projects. Projects include tie and rail replacement projects, new or extension of sidings, yard re-alignments, at-grade crossing designs and right-of-way maintenance.
- Prepare design plans in CADD, special provisions, and estimates for bid letting and force account work. Enter bid package files in Projectwise.
- Provide construction assistance for work on railroad projects and right-of-way.
- Maintain MDOT project tracking software and reports.
- Assist in maintaining railroad specifications, recommend and implement new specifications.
- Conduct field measurements when needed.
- Compile project estimates in PreCon.

Duty 2

General Summary: **Percentage: 25**

Assist manager with the design, maintenance, and construction of State owned bridges and culverts, inspections, and FRA Bridge Management program.

Individual tasks related to the duty:

- Assist in yearly inspections of bridges and culverts and provide maintenance recommendations if needed.
- Assist in updating FRA required Bridge Management Program manual.
- Assist in review of Drain Commission projects.
- Maintain MDOT project tracking software and reports.
- Review consultant proposals and reports.
- Conduct field measurements when needed.

Duty 3

General Summary: **Percentage: 15**

Assist in monitoring and approving permits for activities and facilities within State owned railroad right-of-way.

Individual tasks related to the duty:

- Review and approve construction plans for right-of-entry permits.
- Assist in reporting, investigating and resolving right-of-way encroachment issues with MDOT Real Estate, Office of Rail, and operating railroads staff.
- Assist Office of Rail and Real Estate staff with real estate sales, purchases, lease of space, and grade crossing closures.

Duty 4

General Summary: **Percentage: 10**

Report, enter, and utilize Asset Management information and software to analyze and recommend future capital program budgets and development of long range capital program.

Individual tasks related to the duty:

- Compile, report, and update to asset management data inventory to MDOT applicable databases such as ArcGIS.
- Work with railroads to obtain their annual maintenance upgrade work report.
- Utilize Asset Management database and software to make recommendations of future capital projects as part of five-year plan.
- Prepare railroad estimates for future capital projects with the assistance of Asset Management database.

Duty 5

General Summary: **Percentage: 5**

Assist Trunkline Grade Crossing and Railroad Grade Separation engineers regarding road projects that involve railroad at-grade crossings and grade separations.

Individual tasks related to the duty:

- Prepare and distribute special provisions and coordination clauses to MDOT Region, TSC, and Local Agency staff for inclusion with road bid let projects.
- Prepare and distribute special provisions and coordination clauses to MDOT Region, TSC, and Local Agency staff for inclusion with road bid let projects.
- Review plans.
- Update special provisions, notice to bidders, and coordination clauses as needed.
- Program projects in JobNet.
- Review railroad estimates and enter into PreCon.
- Issue railroad force account authorizations.
- Attend DSTR meetings as needed.
- Assist in preparing FHWA Annual Report of safety effectiveness of past funded projects.
- Monitor Planisware networks.

Duty 6

General Summary:

Percentage: 5

Other duties as assigned by the supervisor. Represent the Office of Rail at various meetings with other MDOT personnel, FRA, railroad companies, local agencies, drain commissions, monitoring public or other MDOT customers. Examples of these meetings would be design reviews, public meetings, construction meetings, DSTRs, etc.

Individual tasks related to the duty:

- Assist the supervisor, as needed, for various tasks done within the Office of Rail.
- Attend meetings and participate on committees and studies as assigned by the supervisor.
- Assist in the preparation of PowerPoint presentations.
- Provide assistance with State owned Michigan line (high speed rail corridor) as needed.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Personal judgment based on prior experience and educational background. 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.

- When there is a need for interpretation of Department guidelines, policies, or procedures.
- When existing policy is unclear.
- When a decision may be required from the executive level, personnel matters, assistance in mitigating controversies, revision of program schedule.

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.

Travel to railroad projects statewide. Walking on uneven terrain including climbing up and down roadway slopes. Lifting up to 25 pounds. Moving in and out of traffic on foot. Climbing under bridges, over water, wading in water, and continually working near heavy traffic occurs almost daily and requires good physical condition and agility. Moving in and around an office setting, including sitting at a computer for long periods of time. Occasional overnight travel.

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"/> 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. |

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?

Assist supervisor with design, estimating, maintenance, and permitting of railroad infrastructure projects located on the State of Michigan owned rail lines, which are operated by Great Lakes Central RR, Huron and Eastern Rwy, Lake State Rwy, the Indiana Northeastern RR and Amtrak. Position will assist other engineers in unit who are involved with the maintenance, inspection, and design of bridge and culverts, track infrastructure, engineering reviews of right of entry permits, right-of-way encroachments and grade crossing closures. Position will also be involved with the review of road projects that involve railroad grade separation and grade crossings to ensure standards and guidelines have been met, provide assistance on contracts and agreements with railroad companies and consultants, will be involved with programming projects and administering MDOT project tracking software, and provide assistance to the Railroad Infrastructure-Delivery Unit.

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 function of the work area is to provide assistance to the supervisor and other engineers regarding design, maintenance, and delivery of railroad infrastructure projects of the State owned rail lines.

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. Preference may be given to civil engineering.

EXPERIENCE:

A background in structures and/or railroad track infrastructure is encouraged. Knowledge of FRA, FHWA, and AREMA standards.

Transportation Engineer 9

No specific type or amount is required.

Transportation Engineer 10

One year of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer 9.

Transportation Engineer P11

Two years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer 10.

Alternate Education and Experience

Transportation Engineer 9 - 12

Possession of a registered professional engineer license as required by the State of Michigan may be substituted for 6 months of experience at the Transportation Engineer 9-12 levels. This substitution may only be used once for any employee for qualification of appointment or early reclassification.

A background in structures and/or railroad track infrastructure is preferred, as well as knowledge of FRA, FHWA, and AREMA standards.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of railroad and/or structures engineering, construction and operation methods. Need to possess personal initiative, motivation, and tact. Ability to be resourceful, work independently, cooperatively, and effectively with people is essential. Ability to speak and write effectively, work as a team member, oversee, and lead before groups, and give presentations. Ability to apply engineering principles to construction and design problems. Understanding of surveying procedures and record keeping. Computer experience using Excel, Word, Adobe, Powerpoint and Microstation CADD. Additional knowledge of MDOT systems such as JobNet, PI, Projectwise, PreCon, ArcGIS and Planisware is a benefit.

CERTIFICATES, LICENSES, REGISTRATIONS:

Valid Driver's License.

Continuous training as required or requested.

FE desirable and working toward P.E. registration is encouraged.

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.

None

I certify that the entries on these pages are accurate and complete.

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