

MINNESOTA DEPARTMENT OF TRANSPORTATION

Class Specification



Class code:

003677

Bargaining unit(s):

AFSCME 207

Classification title:

Transportation Specialist

Functional area:

Bridge Maintenance

Kind of work:

Senior technical and/or specialized work.

Nature & purpose:

Under limited supervision an employee in this class provides ongoing, daily work direction to a bridge crew and performs work in the repair and maintenance of bridges and building structures to preserve structural soundness; performs related work as required.

This position is different from the Transportation Generalist Senior in that at the Transportation Specialist level, employees plan and organize work based on deadlines, procedures and standards. An employee determines what shall be done and how it will be done and continually improves work processes. At this level, an employee provides technical expertise and information, in a specialized field, to others.

An employee resolves most problems using theoretical principles and concepts of a specialized field as well as knowledge of and impact on the department's programs. An employee is considered the technical expert in a specialized area and provides technical support and expertise to others. An employee is responsible for completing or leading multiple complex projects and/or work activities and has a substantial degree of authority in planning, organizing and completing work. Some employees at this level may perform as lead worker having considerable freedom to organize human, equipment, material, and other resources as well as prioritize, schedule, assign, direct, guide, and report on the work activities of other state employees.

Examples of work:

A position may not include all the work examples given, nor does the list include all that may be assigned.

- * Has an ongoing and daily responsibility to organize human, equipment, material and other resources; and to prioritize, schedule, assign, direct, guide and report on the work activities of other state employees so that the work is completed in an efficient and effective manner.
- * Performs and maintains the necessary repairs and installations in the area of steel fabrication and erection for bridges and structures so that structural integrity is maintained at the lowest safety risk and inconvenience to the public.
- * Performs concrete work for the construction/ repair of bridges and structures so that concrete will be correctly placed, consolidated, finished, and properly cured in accordance to the specifications.
- * Performs carpentry duties related to bridges, buildings and structures to ensure proper construction, remodeling, and forming is completed in a safe and efficient manner in accordance with standards and relevant codes.
- * Cleans and prepares bridges, buildings, and structure surfaces for painting so that the aesthetic and structural value is maintained in a timely manner in accordance with standards.

- * Maintains work orders and completion reports.
- * Participates in safety inspections on bridges and structures to ensure structural integrity is maintained according to Federal and State requirements.
- * Develops traffic control plans and makes field adjustments in accordance with the Traffic Control Field Manual to ensure maximum safety of projects for employees and the traveling public.
- * Transfers and operates the full range of heavy equipment used by MnDOT so that work is accomplished as scheduled by the appropriate certified personnel.

Knowledge, skills and abilities:

Knowledge of:

- * Principles, practices, procedures and materials used in bridge maintenance, structural steel painting, concrete and building and form construction.
- * Principles and practices of masonry, concrete finishing, carpentry, and/or welding.
- * Bridge safety inspection programs.
- * MN Manual of Uniform Traffic Control Devices.
- * Working knowledge of English sufficient to read, write, speak and understand oral and written information; communicate with employees and the general public in-person or via two-way radio and other electronic devices; and to maintain routine written logs and simple records.

Skill in:

- * Use of basic hand tools to handle materials (transporting, stockpiling, and mixing).

Ability to:

Equipment - Perform routine scheduled maintenance; calibrate, set up and adjust equipment; and drive and operate mobile and specialized equipment.

Information Technology – Operate a personal computer and various software applications. Complete simple data entry, enter time into timesheet and database programs, enter messages into equipment such as programmable message boards, take reading from electronic equipment such as mapping grade GPS, Dicky-John or similar unit.

Interpersonal - Work cooperatively with peers. Able to receive verbal instruction and direction. Interact with customers and stakeholders.

Leadership - Take responsibility for quality and timeliness of work, respond to unplanned requests, complete assigned tasks and report progress. Demonstrate behavior consistent with department direction. Lead crews. Look for opportunities to improve processes.

Math - Add, subtract, multiply, and divide whole numbers and all units of measure including fractions, decimals, and percentages. Do pre-algebra problems. Perform operations with monomials. Calculate ratios and proportions.

Oral Communication - Articulate job-related questions and comprehend answers. Communicate in a team setting. Deliver pre-planned informational presentations to groups. Answer questions from the public in one-on-one situations, either in the field or by phone.

Problem Solving - Able to follow verbal instructions, can work under the direction of others, work independently, and solve routine technical, process, or people-related problems. Determine when an issue warrants a creative departure from normally followed processes, practices, or guidelines. Teach others. Function as a certified/degreed "expert" from a recognized educational, vocational or professional organization. Serve as an "expert" who can answer questions related to unique or rarely seen circumstances or issues.

Reading - Comprehend notes, letters, memos, electronic mail (Outlook), white papers, proposals, departmental forms, instructional manuals, and highway plans.

Written Communication - Generate notes, letters, memos and departmental forms using Outlook and other computer applications. Generate white papers and proposals.

Technical – Coordinate and plan projects, personnel and other resources. Rig and work from high scaffolds and other hazardous locations. Perform carpentry, concrete, welding, and other skilled trades work. Perform bridge safety inspections. Develop work zone plans and makes field adjustments using the Traffic Control Field Manual.

Licenses, certifications:

Some positions may require a driver's license, as well as endorsements, specific to positions demands and/or equipment required to perform the job within the work area posted.

Technical certifications may be required specific to position demands and will be documented on the posting as to the justification of why specific certifications are necessary.

- * Class A Commercial Driver's License with no Air Brake restriction.
- * All positions need the NHI Course: Engineering Concepts for Bridge Inspectors.
- * Some positions may need the NHI Course: Safety Inspection of In-Service Bridges.

Minimum qualifications:

Includes years of experience, education, and training required at the time of application to be considered eligible for the vacancy. The level of experience to perform this job at the Transportation Specialist level can be achieved with:

- * Four years of experience performing bridge maintenance activities (e.g., bridge construction, repair and maintenance);
OR
- * Three years of experience performing bridge maintenance activities and one year of experience performing carpentry OR concrete OR iron work OR a combination of one or more of these activities.

Some examples of carpentry may include: building construction; building repairs; or framing.

Some examples of concrete work may include: grading; bridge construction, repair and maintenance; or forming, placing and finishing concrete.

Some examples of iron work may include: structural steel erection; setting anchor bolts and inserts; gusset plate installation; placement of reinforcing steel or rebar; or rebar replacement.

- * Note: A two year technical trades training or degree (e.g., carpentry, concrete/ masonry, etc.) may substitute for one year of experience listed above (in order for education to be considered in lieu of work experience, you must submit a copy of your transcript.)
- * Working knowledge of English sufficient to read, write, speak and understand oral and written information; communicate with employees and the general public in-person or via two-way radio and other electronic devices; and to maintain routine written logs and simple records.
- * Successful completion of the NHI Course: Engineering Concepts for Bridge Inspectors.

Physical capabilities and environmental work conditions:

The physical demands of this job will vary, but typically requires lifting up to 100 pounds with frequent lifting and/or carrying of objects and/or tools weighing 50-pounds. This job also may require walking or standing to a significant degree on rough terrain or may involve sitting with pushing and pulling of arm and/or leg controls. This job will require strenuous manual labor including but not limited to digging, shoveling, hauling, crawling, bending, pushing, pulling and climbing.

Weather elements:

May require frequent exposure to weather elements (cold) on a daily basis.

Hay rating:

KH: DI2 152; PS: D3 (29) 43; AC: D1C 50 = 245

Rev: 10-6-15 Added iron work to minimum qualifications; deleted welding.

T.C.:

Former title(s):

N/A