





Aeronautics

MnDOT's *Office of Aeronautics* is the state-level regulator for all aircraft in Minnesota, including large airplanes and drones.

Drones are considered aircraft and are highly regulated, even the ones you might have at home. MnDOT uses drones to inspect bridges, view remote plots of land and show aerial views of construction projects. Minnesota has 135 publicly-owned airports and 15 sea plane bases.

- Drone specialist
- Aviation licensing
- Aviation safety
- Pilot







Bicycle and Pedestrian Transportation

MnDOT oversees a statewide transportation system which also *includes people who walk and ride bicycles*.

We build and maintain trail systems around the state that support regional and local needs and provides safe and comfortable facilities for people of all ages and abilities. Can you help us reach our goal by increasing the number of trips you take by bicycle?

- Pedestrian and bicycle coordinator
- Urban planning







Construction Inspector

Construction inspectors ensure that all parts of a project are done *correctly and safely*. Work zone safety inspectors make sure that the construction site is safe for workers and other people who might come on the site. State inspectors must sign off on all aspects of a project before it is complete to ensure public safety. Minnesota's bridges are inspected regularly by bridge engineers who often use drones to assist them in seeing the underside of bridges.

- Bridge engineer
- Project safety manager
- Construction inspector









Disadvantaged Business Enterprise Program

MnDOT's *Disadvantaged Business Enterprise (DBE) Program* in the Office of Civil Rights was established by the federal government to remedy past and present discrimination in federally funded highway projects. The primary goal is to level the playing field by providing small businesses owned by socially and economically disadvantaged individuals a fair opportunity to compete for federally funded transportation contracts.

- DBE specialist
- Communications
- Outreach coordinator







Engineering

MnDOT engineers design and build Minnesota's multimodal transportation system. Civil, mechanical, geotechnical and electrical engineers are all popular within the industry. At MnDOT, you'll find engineers who specialize in the following:

- Aviation
- Bicycle and pedestrian infrastructure
- Bridges

- Connected and automated vehicles
- Safety
- StructuresTraffic
- · ITallic

- Engineer
- Engineering specialist
- Bridge and architectural drafters









Freight

MnDOT is dedicated to the safe and efficient *movement of freight and commodities* within Minnesota. Ports on Lake Superior and the Mississippi River provide access to national and international markets. Rail lines move goods throughout the state and beyond. Trucks transport goods to the stores where we shop. MnDOT's Office of Freight and Commercial Vehicle Operations oversees and plans for the safe and efficient movement of freight in the State.

- Freight and rail planners
- · Permit technicians
- Vehicle inspector









Government Affairs

MnDOT is a state agency that works with the *federal and local governments*. MnDOT Government Affairs staff work with the Governor's Office, state legislature, Congress, tribal governments, and interest groups to develop and support policies that will improve transportation operations and services, assist with transportation-related decisions, and respond to inquiries from constituents.

- Federal affairs manager
- Tribal affairs manager
- Policy analyst
- Lawyer





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Historic Bridges

MnDOT preserves historic bridges throughout the state. The MnDOT Historic Bridge program was created as a result of this act to preserve Minnesota's historic bridges and preserve our engineering heritage.

Perhaps you have walked across the Stone Arch Bridge in Minneapolis or watched the lift bridge go up in Stillwater or walked under the covered bridge in Zumbrota, MN. Those are all examples of bridges being preserved by MnDOT.

- Program historian
- Historic bridge program coordinator



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Intelligent Transportation Systems

The Intelligent Transportation Systems (ITS) unit focuses on new technologies and systems for Minnesota's transportation system. They work to achieve a safer, more accessible, efficient and reliable multimodal transportation system throughout the state, regionally and around the world. MnDOT traffic engineers research, demonstrate and operate test activities focused on technology-based transportation solutions.

- Traffic engineer
- · Traffic researcher
- Project manager





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Jobs Recruiter

MnDOT recruiters are driven to *find talented and innovative employees* for Minnesota's nationally recognized transportation system. Recruiters actively partner with hiring managers, supervisors, human resources team members. They understand business needs and create strategic recruitment plans for MnDOT's workforce.

They work to build the best team of diverse experts in the transportation industry to ensure that Minnesota thrives.

- Recruitment specialist
- Staffing representatives









Know Your Route

MnDOT invests a lot of time and money into making sure that people are aware of construction and weather-related road conditions on Minnesota roads. You can *stay up-to-date on construction projects* that may impact your travel route by signing up for email alerts, calling 511, visiting 511mn.org.

Don't drive yet? Tell your parents so that you're not late to your next soccer tournament or stuck in traffic on the way to a friend's house.

- Communications
- Data analyst
- Traffic management



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Land Management

MnDOT's *Office of Land Management* acquires right of way (strip of land used for transportation-related purposes) for construction projects and provides a wide range of real estate services. They work to:

- Coordinate utility agreements and permits
- Provide accurate maps and land surveys
- Ensure precise GPS positioning
- Create property and right-of-way maps
- Collect aerial photography and photogrammetric maps to support planning and design of MnDOT projects

- GIS Technician
- Land surveyor
- Photogrammetrics specialist
- · Real estate specialist









Mapping

The *Geographic Information & Mapping (GIM) unit* is responsible for preparing and maintaining MnDOT's mapping data. The data is used to develop and maintain Minnesota's official maps. MnDOT produces the following maps:

- Official State Highway Map
- Maps for Minnesota's 87 counties and 853 cities
- Maps for 1,782 townships, and Street maps for the metro area and other regions in the State

- Bicycle mapping
- GIS support
- Research analyst
- State mapping









Natural Resources

MnDOT's Office of Environmental Stewardship protects and preserves the quality of our environment, supports healthy communities, conserves natural resources and encourages economic growth.

Some programs include roadside vegetation management, environmental modeling and testing, scenic byways, air, noise, soil and water quality testing, erosion control and storm water management.

- Archaeologist
- · Erosion control specialist
- Historian
- Hydrologist
- Landscape architect









Ombudsman

An *Ombudsman* is a neutral, informal and independent resource to help the public and MnDOT resolve issues that they have been unable to resolve through normal procedures.

Let's say that you and your neighbors oppose a traffic change that MnDOT is planning. An Ombudsman can work with you and MnDOT staff to ensure both sides are heard and creative problem-solving takes place.

- Ombudsman
- Customer response coordinator









Planning and Programming

MnDOT plans for *all the ways people and goods move throughout Minnesota*—individually for each transportation mode and together as a multimodal transportation system. The Planning and Programming unit is reponsible for a variety of activities including writing plans, conducting data analysis, reviewing performance outcomes and managing the capital program.

MnDOT Careers:

 Planners and analysts of transportation performance, risk, investment and data







Quality Electrical Services

Electrical Services manages trafficrelated electrical systems on MnDOT's roads. Electricians work on lighting systems, traffic signals, and electrical poles. Dispatchers receive trouble calls and send technicians to make repairs. Transportation generalists operate trenchers, fork lifts, aerial trucks, cranes and more. Locators find and mark underground electrical assets. Integrators set up and manage traffic cameras.

- Electrician
- Dispatcher
- Integrator









Regional Transportation Management Center

The Regional Transportation
Management Center is where the
State Patrol, MnDOT Maintenance,
and MnDOT Freeway Operations
work together to quickly respond
to crashes, stalls and other freeway
incidents. MnDOT staff watch images
of the freeways in the control room.
When they see an incident, they
zoom in to see how best to help. The
Freeway Incident Response Safety
Team (FIRST) and State Patrol are
dispatched depending on the need.

- RTMC dispatcher
- Highway maintenance









Safe Routes to School

Safe Routes to School is a partnership between the state, nonprofit organizations, educators, health professionals, statewide agencies and local governments to provide the resources necessary to support walking and bicycling to school. The vision for Minnesota is that we become a state where all students can walk and bicycle on routes that are safe, comfortable and convenient. The initiative evaluates the underlying issues and barriers that need to be addressed.

MnDOT Careers:

Safe Routes to School coordinator



is for...





Training and Development

Training & Development Specialists are responsible for assessing training needs, and for developing and coordinating employee training.

Video Production Specialists are responsible for video production to assist with employee and public training and communication efforts as well as provide technical event support such as streaming live video.

- Training and development specialist
- Video production specialist







DEPARTMENT OF TRANSPORTATION

Utility Coordination

Utilities such as water, gas, electric and internet run below and above ground along our streets and highways. When construction crews do road work, they coordinate with all of the utilities to ensure minimal service disruptions. When major projects occur, MnDOT collaborates with utilities and local governments to incorporate upgrades to their infrastructure into the project to reduce redundancies and save tax payers money.

- · Permit writer
- Utilities engineer
- Utility transmission route coordinator









Vehicle Fleet and Maintenance

MnDOT owns and maintains *a fleet of vehicles* around the state:

- Automated road and pavement condition survey vans
 - Bulldozers
 - Cranes
- Dump trucks
- Excavators
- Loaders

- Pickup trucks
- Snoopers

 (used to inspect the under-side of bridges)
 - Snow plows
 - Street sweepers
- Tractors
- Trailers

- Fleet services manager
- Heavy equipment operator
- Mechanic
- Welder





DEPARTMENT OF TRANSPORTATION

Water Quality

MnDOT conducts *water quality sampling and monitoring* tests around the state and along our highways. They use a variety of methods:

- Automated stormwater sampling to provide data for stormwater runoff analysis
- Ground water well sampling to test for contamination
- Lake/pond monitoring to determine water depths
- Wetland monitoring
- Sediment sampling

- · Air and noise specialist
- Environmental monitoring specialist
- Scientist









Railroad "X-ings"

MnDOT's Office of Freight and Commercial Vehicle Operations oversees the 4,000+ railroad grade crossings (or x-ings) on all roadways in Minnesota. The safety of road users at railroad grade crossings has improved, but motorists, especially young drivers, are encouraged to "Stop! Trains Can't". In the early 1990s, there were more than 100 automotive crashes at rail crossings per year. Currently, the state records about 45 crashes per year. Be safe!

- Rail safety inspector
- Ports and waterways manager
- Track safety manager









Youth Engagement STEM and Intern Programs

MnDOT's **STEM Education and Outreach program** partners with organizations and educators to provide high quality activities and tools that promote science, technology, engineering and mathematics to students of all ages.

MnDOT offers the Phoenix High School Internship Program, the SEEDS Student Worker Program, and a Graduate Engineer and Land Surveyor Program.

- Communications
- Program managers and coordinators
- · Public engagement



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Work Zone Safety

The MnDOT Work Zone Safety
Awareness Program (WZSAP) is a
public education program promoting
safe driving in winter and summer
highway work zones. Work zones
are areas where you see workers,
flaggers and surveyors in bright
yellow-green or orange vests.

MnDOT provides training materials to guide motorists on what they should do around snowplows, work zones and other new and unfamiliar driving situations.

- Communications
- Training coordinator

