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<http://www.mndot.gov>

**AT A GLANCE**

- Over 142,000 miles of road including trunk highways and local roads
  - 5<sup>th</sup> largest state highway system in the nation
  - Over 4,800 bridges on the state system
  - 155 million miles driven by Minnesotans per day
  - 50% of state highways and 35% of state bridges are more than 50 years old
  - 100% of Twin Cities metro counties have public transit service
  - 98% of non-metro counties have public transit service
  - Truck freight traffic projected to increase 30% by 2030
- We work with our partners to support:
- 4,500 track miles serving 19 railroad companies, Northstar commuter and Amtrak passenger service
  - 4 Lake Superior and 5 Mississippi River ports
  - 135 state-funded airports

**PURPOSE**

The Minnesota Department of Transportation's (MnDOT) vision is a multimodal transportation system which maximizes the health of people, the environment and the economy. Our transportation system is a vital part of keeping Minnesotans connected.

Our mission is to plan, build, operate and maintain a safe, accessible, efficient and reliable multimodal transportation system that connects people to destinations and markets throughout the state, regionally and around the world.

Our core values are safety, excellence, service, integrity, accountability, diversity and inclusion. We continually strive to improve, meet customer needs, get the most from every dollar, and be transparent about progress and use of public funds.

Our funding is organized across four programs with 13 budget activities.

**Multimodal Systems Program**

- Aeronautics
- Transit
- Freight and Commercial Vehicle Operations
- Passenger Rail

**Local Roads Program**

- County State Aid Roads
- Municipal State Aid Roads

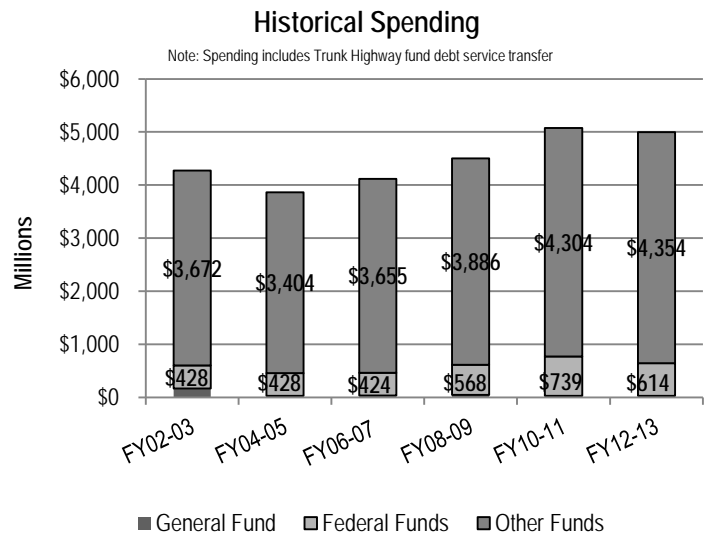
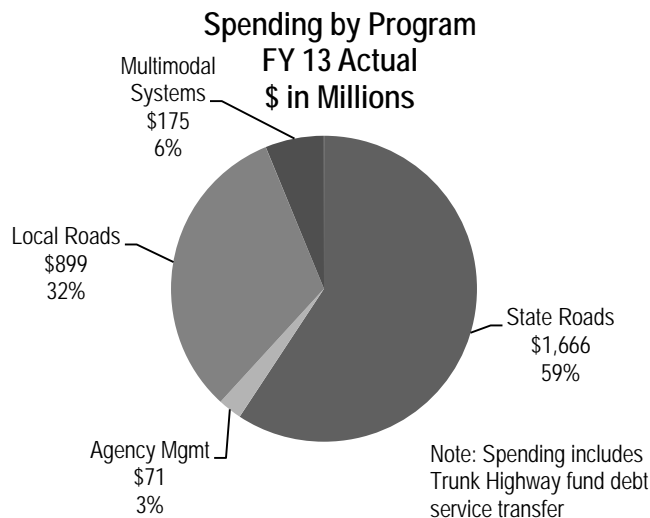
**State Roads Program**

- Program Planning and Delivery
- State Road Construction
- Debt Service
- Operations and Maintenance
- Statewide Radio Communications

**Agency Management Program**

- Agency Services
- Building Services

**BUDGET**



Our primary source of financing is the trunk highway fund, which is supported by motor fuel taxes, motor vehicle registration fees and motor vehicle sales taxes. Other sources include federal, transit assistance, county state aid highway, municipal state aid street, state airport and special revenue funds. Historically, less than 1% of the operating budget is from the general fund.

## STRATEGIES

Enhancing financial effectiveness is our strategic priority. We run the equivalent of a multi-billion dollar project execution and services business to plan, build, operate and maintain our transportation system. Since transportation funding comes from the public through fees and taxes, citizen stakeholders naturally insist on sound financial management systems and practices that ensure those resources are used efficiently for maximum effect and maximum value. This strategic priority, otherwise referred to as our 'Wildly Important Goal' (WIG), is to earn or reinforce stakeholder trust and confidence in us by demonstrating effective and efficient stewardship of public resources.

We will achieve this through the completion of targeted projects in the following strategic focus areas:

- **Financial management:** excellence in how we deploy, account for and report on financial and other resources.
- **Project management:** excellence in improving project schedule management and delivering high quality projects on time and on budget with optimum value on scope.
- **Asset management:** excellence in how we operate and manage transportation assets to a lower lifecycle cost and understanding tradeoffs and risks in investment decisions.
- **Information and outreach:** excellence in how we engage with citizen stakeholders on transportation topics, especially to demonstrate transparency regarding the use of funding, the benefits and limitations of transportation investments.

As stewards of the transportation system, we adhere to the following objectives:

1. **Accountability, Transparency and Communication:** Ensure efficient and effective use of available resources to achieve the most value on transportation investments, including completing projects on time and within budget as well as performing timely and efficient operations and maintenance. <http://www.dot.state.mn.us/getconnected/>
2. **Traveler Safety:** Ensure the safety of all who use the system by partnering with the Minnesota Department of Public Safety and Minnesota Department of Health on Toward Zero Deaths, the state's cornerstone traffic safety initiative. <http://www.minnesotatzd.org/>
3. **Transportation in Context:** Consider context when making transportation decisions. This will lead to projects that are safer, sustainable in scale and tailored to the specific place in which they exist. Also, projects that respect and complement the economy, environment, and integrate land uses and leverage both public and private investments.
4. **Critical Connections:** Connect key regional centers through multiple transportation modes to improve Minnesotans' prosperity and quality of life. While doing this, we strive to maximize return on investment over the lifecycle of any expansion to the system given constrained resources.
5. **Asset Management:** Operate, maintain and upgrade transportation assets in a systematic and cost-effective manner over their lifetime.
6. **System Security:** Maintain the system to provide essential travel needs and safe recovery during times of emergency and disruptive weather.

The Minnesota Department of Transportation requires that the principles of "Complete Streets" are to be considered at all phases of planning and project development in the establishment, development, operation, and maintenance of a comprehensive, integrated, and connected multimodal transportation system. <http://www.dot.state.mn.us/policy/operations/op004.html>

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The Department of Transportation's legal authority comes from:

[Minnesota Constitution, Article XIV, Public Highway System](https://www.revisor.mn.gov/constitution/#article_14) ([https://www.revisor.mn.gov/constitution/#article\\_14](https://www.revisor.mn.gov/constitution/#article_14))

Powers of Road Authorities, [M.S. 160](https://www.revisor.mn.gov/statutes/?id=160) (<https://www.revisor.mn.gov/statutes/?id=160>)

Trunk Highways, [M.S. 161](https://www.revisor.mn.gov/statutes/?id=161) (<https://www.revisor.mn.gov/statutes/?id=161>)

Administration of State Aid Road Systems, [M.S. 162](https://www.revisor.mn.gov/statutes/?id=162) (<https://www.revisor.mn.gov/statutes/?id=162>)

Responsibilities Related to Bridges, [M.S. 165](https://www.revisor.mn.gov/statutes/?id=165) (<https://www.revisor.mn.gov/statutes/?id=165>)

Trunk Highway Bonds, [M.S. 167](https://www.revisor.mn.gov/statutes/?id=167) (<https://www.revisor.mn.gov/statutes/?id=167>)

Traffic Regulation, [M.S. 169](https://www.revisor.mn.gov/statutes/?id=169) (<https://www.revisor.mn.gov/statutes/?id=169>)

Signs and Billboards Along Highways, [M.S. 173](https://www.revisor.mn.gov/statutes/?id=173) (<https://www.revisor.mn.gov/statutes/?id=173>)

Department of Transportation, [M.S. 174](https://www.revisor.mn.gov/statutes/?id=174) (<https://www.revisor.mn.gov/statutes/?id=174>)

Enforcement of Prevailing Wage, M.S. 177.44 (<https://www.revisor.mn.gov/statutes/?id=177.44>)  
Rail Transportation, [M.S. 218 \(https://www.revisor.mn.gov/statutes/?id=218\)](https://www.revisor.mn.gov/statutes/?id=218)  
Railroad Safety, [M.S. 219 \(https://www.revisor.mn.gov/statutes/?id=219\)](https://www.revisor.mn.gov/statutes/?id=219)  
Regulation of Motor Carriers, [M.S. 221 \(https://www.revisor.mn.gov/statutes/?id=221\)](https://www.revisor.mn.gov/statutes/?id=221)  
Rail Service Improvement and Rail Bank, [M.S. 222 \(https://www.revisor.mn.gov/statutes/?id=222\)](https://www.revisor.mn.gov/statutes/?id=222)  
Aeronautics, [M.S. 360 \(https://www.revisor.mn.gov/statutes/?id=360\)](https://www.revisor.mn.gov/statutes/?id=360)

**Program:** Multimodal Systems

**Activity:** Aeronautics

<http://www.dot.state.mn.us/aero/>

#### AT A GLANCE

- 16,528 licensed Minnesota pilots
- 6,901 registered aircraft
- 340 commercial operators perform a variety of services, including agricultural spraying, aircraft maintenance, flight instruction, and emergency response
- 16 airlines served 33.3 million passengers in 2013
- 198,447 tons of air freight were moved through Minneapolis- St Paul Airport
- 70 private and personal use airports, 45 seaplane bases, 80 heliports (including hospitals)
- 135 airports owned by cities, counties and airport commissions are open to the public and eligible for state funding; one is state-owned.
- 97 airports are part of the National Plan of Integrated Airport Systems and are eligible for Federal funding
- 9 airports have scheduled airline service; Minneapolis-St. Paul, Rochester, Duluth, St. Cloud, Brainerd, International Falls, Thief River Falls, Bemidji and Hibbing
- 30 key airports are capable of supporting business jets, airfreight and airlines

#### PURPOSE & CONTEXT

The purpose of the Aeronautics program is to provide for the protection and promotion of safety in aeronautics through:

1. Statewide aviation system planning
2. Registration of aircraft and licensing of aviation businesses
3. Construction, operation and maintenance of ground-based navigation aids and weather observation stations
4. Consolidated management of state and federal grants for construction, improvement, maintenance and operations of public airports
5. Training and education of pilots, airport personnel, aviation professionals and the public
6. Providing resources and technical assistance to local units of government for compliance with state and federal laws/rules and coordination with the Federal Aviation Administration

#### SERVICES PROVIDED

##### Airports

Construction projects and infrastructure improvements ensure continued safety, reliability, and access to the transportation system. We award state construction funds based on a statewide prioritization system that considers the project purpose, airport classification, airport component, and type of project. Generally, projects that provide for safety, essential air navigation, and are on the airfield, will tend to score higher than projects that enhance ground-side services such as fueling and baggage loading equipment. Federal construction funds are awarded based on Airport Improvement Program eligibility (entitlements) and nationwide competition (discretionary).

Minnesota's climate and large size creates unique challenges for pilots and users of this transportation system. We distribute state funds to airports for maintenance and operation activities, such as keeping runways free of snow and ice, equipment purchases, and building upkeep. It distributes these funds based on a formula that considers the area of runway and taxiway, the size of lighting systems and available funding. Each category has a state/local cost share and maximum reimbursement amount. In addition, the state owns, operates, and maintains a system of navigational aids and weather stations that enhance federally owned systems.

##### Aviation Safety, Operations and Regulation

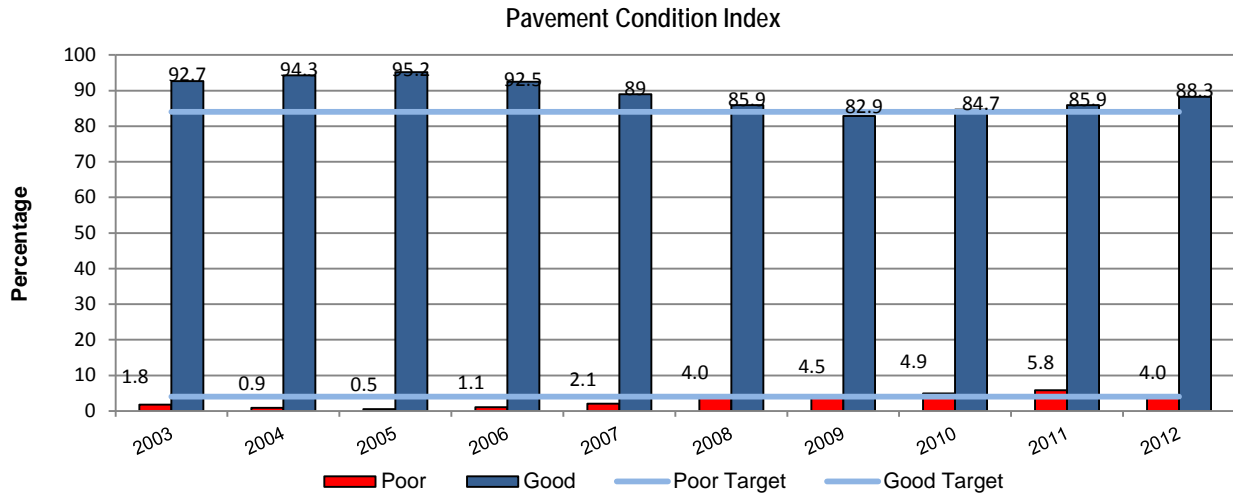
Our office provides statewide aviation system planning. This serves to benchmark the current condition of the airport system, identify performance gaps, quantify needs, promote efficiency in operations, guide investments, and foster transparency in decision-making. The State Aviation System Plan is available at <http://www.dot.state.mn.us/aero/planning/sasp.html>.

We also provide for aviation safety through the inspection and licensing of airports, permitting of tall towers, licensing of commercial operators, registering aircraft and ensuring regulatory compliance. Education and training programs, pilot safety, and information services (such as navigational charts) also enhance the overall safety of the aviation system.

## RESULTS

### Airports

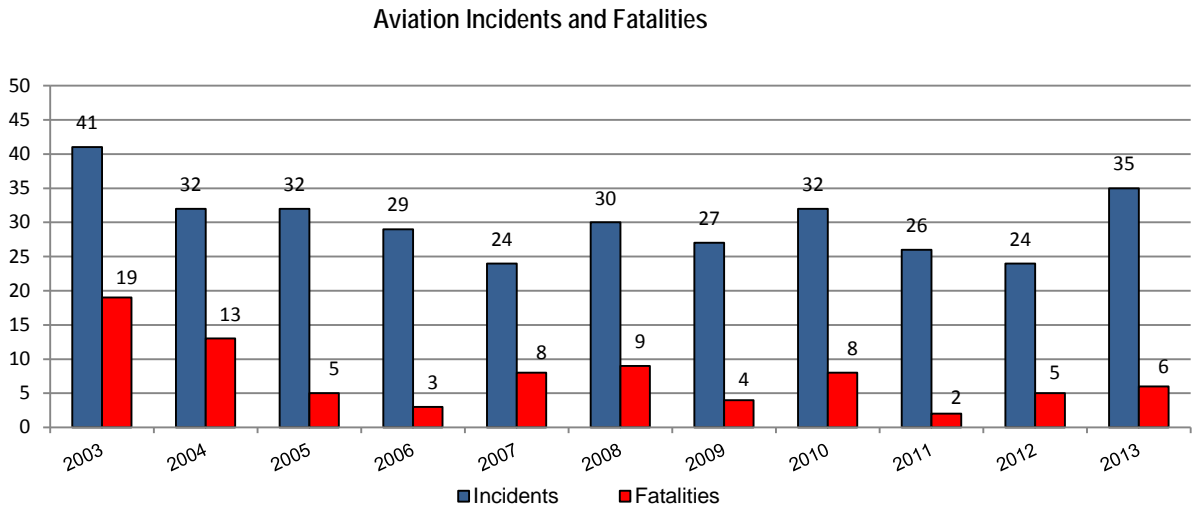
One measure of the quality of the airport system is the Pavement Condition Index. A score between 0 and 100 is assigned based on a physical inspection of runway and parallel taxiway pavement. Zero indicates the worst possible condition, and a score of 100 indicates the best condition. Targets are set with a goal of 84% of pavements in good or better condition and no more than 4% of pavements in poor condition.



Usefulness of the airport system is difficult to measure but one indicator is the proximity of regional trade centers (RTC) to a key airport. A RTC within 30 minutes surface travel time of a level 1 or 2 airport indicates that communities of large population have convenient access to transportation of goods and services that use jet and turboprop aircraft. One hundred percent of the state's primary RTCs and 67% of the secondary RTCs are within a 30-minute drive of a key airport.

### Aviation Safety, Operations, and Regulation

Reductions in the number of aviation accidents and fatalities are an indicator of the safety of the airport system.



Source: MnDOT Office of Aeronautics Aviation Accident Database

One of the most common causes of aviation accidents is continued flight into deteriorating weather conditions. Providing weather stations at several airports creates a reliable network of available weather information along any flight route to enhance the safety of the flight. Our target is 100% of system airports should have weather reporting stations on site, or be within 30 nautical miles of an airport with a weather reporting station. One hundred percent of the state's airports meet the measure.

The Department of Transportation's Aeronautics Office legal authority comes from: M.S. 360.011

<https://www.revisor.mn.gov/statutes/?id=360.011>

**Program:** Multimodal Systems

**Activity:** Transit

<http://www.dot.state.mn.us/transit/>

<http://www.dot.state.mn.us/bike/>

<http://www.dot.state.mn.us/peds/>

#### AT A GLANCE

In 2013, 52 Greater Minnesota public bus systems:

- Provided over 12 million bus rides
- Provided over 1.15 million hours of bus service
- Served 79 of 80 counties in Greater Minnesota

In 2013, MnDOT:

- Funded 52 public bus systems
- Funded 109 wheelchair-accessible buses for public bus systems and private, non-profit organizations
- Funded 37 Safe Routes to Schools projects; since 2011, there has been a 408% increase in students participating
- Began the MnDOT Bicycle System Plan
- Compiled the Minnesota State Bicycle Map
- Partnered in the construction of the Green Line LRT linking the Minneapolis and St. Paul downtown areas
- Minnesota organizations that received grants through the federal Enhanced Mobility of Seniors and Individuals with Disabilities program delivered over 1 million trips and nearly 300,000 hours of service statewide.

#### PURPOSE & CONTEXT

The Transit program includes people and programs supporting alternatives to single occupant motor vehicle transportation. It includes grants and technical assistance to Greater Minnesota public bus systems and to private, non-profit organizations that support mobility services for people who are elderly or disabled. It provides planning and design support for walking and bicycling facilities. It also pays for employees that work closely with the Metropolitan Council on the construction of light rail transit.

MnDOT's transit goals include:

- Providing transit services to all counties in the state to meet the needs of transit users
- Increasing use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost
- Promoting and increasing bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation

#### SERVICES PROVIDED

Our office provides grants to fund:

- Public bus service outside the Twin Cities metropolitan area
- Safe Routes to School projects
- Programs for travel options focused on seniors and persons with disabilities
- Planning in urban areas in outstate Minnesota and in conjunction with the Metropolitan Council in the Twin Cities metro area

In addition, we provide planning for transit, bicycle transportation and pedestrian facilities. We also partner with the Metropolitan Council for the planning, design and construction of light rail transit, and commuter rail.

The Transit program includes programs and services that:

- Provide transportation options for people to reach their destinations
- Fund public bus systems in Greater Minnesota
- Fund wheelchair-accessible buses to replace aging buses or for service expansion
- Monitor publicly funded bus services to ensure compliance with state and federal transit regulations
- Provide administrative support for legislatively created councils and advisory committees
- Promote bicycling as an energy-efficient and healthy transportation alternative
- Provide programs that encourage walking and bicycling as a part of the transportation network (e.g., Share the Road, Safe Routes to Schools, Mississippi River Trail)
- Support walking and biking facilities in road projects through guidance and technical design manuals
- Own and strategically manage the ABC ramps in downtown Minneapolis to encourage carpooling, transit and bicycle commuting.

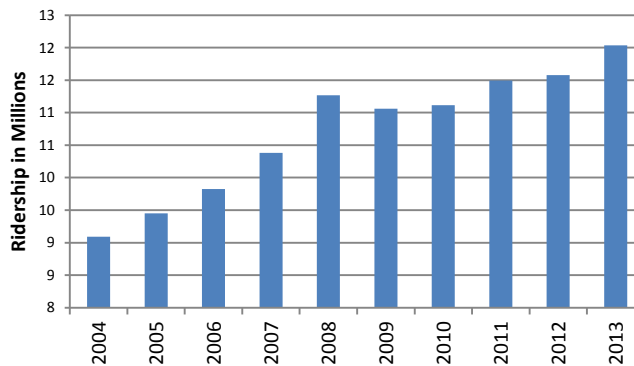
- Assists the Metropolitan Council in the design and construction of large transit projects in the Twin Cities. One of these, the Green Line (Central Corridor) light rail transit, opened in June 2014.

## RESULTS

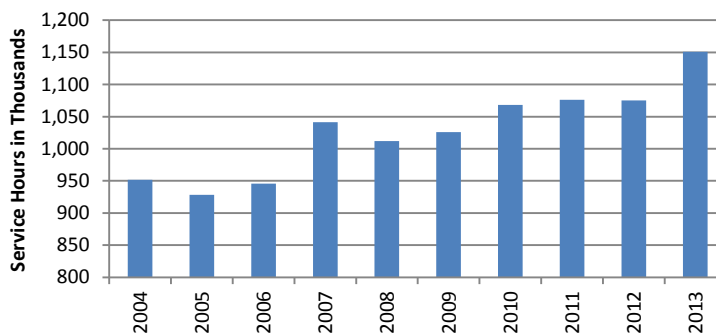
### Public Transit in Greater Minnesota

There are 52 public transit systems serving 79 of the 80 counties in Greater Minnesota. They delivered 12,036,926 trips using 1,150,906 hours of service in 2013. The charts below show the most recent 10 years of those measures.

**Greater Minnesota Public Transit Ridership**



**Greater Minnesota Public Transit Service Hours**



During the last decade, Greater Minnesota public transit ridership has increased 32.4 percent while service hours increased 21 percent. Service has expanded so that every county except Waseca has at least some public bus service. Minnesota statute §174.24, subd. 1a requires us to develop a transit investment plan that contains a goal of meeting at least 80 percent of total transit needs in Greater Minnesota by July 1, 2015 and 90 percent by 2025. In 2013, public transit systems met approximately 63 percent of the estimated total transit need in Greater Minnesota.

### Bicycle and Pedestrian Programs

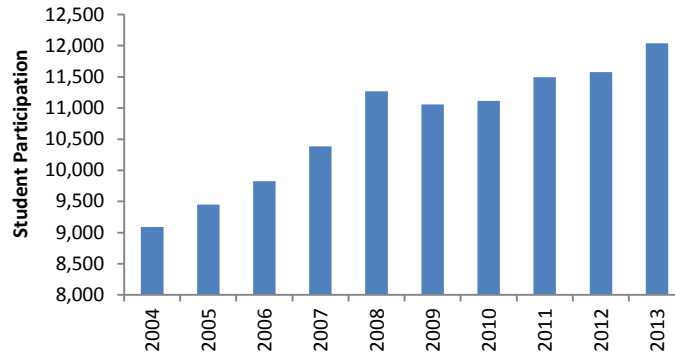
In 2014, Minnesota was named the second most bike-friendly state in the United States by the League of American Cyclists. As bicycling increased, bicycle crashes have remained steady, thereby reducing the rate of crashes.

For pedestrian safety, data shows that participation in walking as a form of transportation has remained flat, with a 2013 decline in crashes involving pedestrians.

Congress created the Safe Routes to School Program in 2005 with the goal of getting more children to walk or bicycle to school safely. In 2012, the Minnesota Legislature created a state-level program with similar goals. Since 2005, we have provided nearly \$16 million in grants to 416 schools across Minnesota for infrastructure improvements, education and planning activities.



### Safe Routes to School Student Participation



The legal authority for the Transit activity comes from:

- 
- Department of Transportation Creation, [M.S. 174.01](https://www.revisor.mn.gov/statutes/?id=174.01) (https://www.revisor.mn.gov/statutes/?id=174.01)
  - Public Transit Participation Program, [M.S. 174.24](https://www.revisor.mn.gov/statutes/?id=174.24) (https://www.revisor.mn.gov/statutes/?id=174.24)
  - Construction of Light Rail, [M.S. 174.35](https://www.revisor.mn.gov/statutes/?id=174.35) (https://www.revisor.mn.gov/statutes/?id=174.35)
  - Transportation Alternatives Projects, [M.S. 174.42](https://www.revisor.mn.gov/statutes/?id=174.42) (https://www.revisor.mn.gov/statutes/?id=174.42)
  - Safe Routes to School Programs, [M.S. 174.40](https://www.revisor.mn.gov/statutes/?id=174.40) (https://www.revisor.mn.gov/statutes/?id=174.40)
  - Minnesota Council on Transportation Access, [M.S. 174.285](https://www.revisor.mn.gov/statutes/?id=174.285) (https://www.revisor.mn.gov/statutes/?id=174.285)
  - Advisory Committee on Non-Motorized Transportation, [M.S. 174.37](https://www.revisor.mn.gov/statutes/?id=174.37) (https://www.revisor.mn.gov/statutes/?id=174.37)
  - Construction of Commuter Rail, [M.S. 174.82](https://www.revisor.mn.gov/statutes/?id=174.82) (https://www.revisor.mn.gov/statutes/?id=174.82)

**Program:** Multimodal Systems

**Activity:** Freight

<http://www.dot.state.mn.us/cvo>

#### AT A GLANCE

In FY14 our office:

- Awarded \$2.75 million Port Development Assistance Grants for public port authority infrastructure improvements
- Completed 35 highway/rail grade crossing improvements
- Completed first Minnesota Ports and Waterways Plan
- Executed 31 rail agreements required for trunk highway construction projects
- Conducted 805 motor carrier safety reviews
- Provided 84 motor carrier safety classes
- Issued 90,000 motor carrier oversize/overweight permits
- Issued 7,500 motor carrier credentials
- Decreased grade crossing incidents to a low of 21 in 2012, from a high of 115 in 1990

#### PURPOSE & CONTEXT

Minnesota's freight industry carries over 600 million tons of freight annually by truck, rail, water and air transportation modes. The system includes hubs, terminals and ports that provide connections between modes, extending availability of freight service for shippers, carriers and citizens. Fuel prices, commodity demand, and competition between modes of transportation all affect the demand for and use of each mode. We work closely with the freight industry, communities and other stakeholders to help meet growing freight demand and to support economic development.

Our office enhances Minnesota's economic competitiveness by improving access to regional, national, and global markets through the safe and efficient movement of goods. The agency also improves transportation safety by enhancing the safety and security of commercial transportation operations and by ensuring compliance with state and federal laws.

#### SERVICES PROVIDED

**Grade Crossing Safety:** We administer installation of active warning devices (lights, gates or a combination of the two) at highway-rail grade crossings to enhance safety. The Federal Highway Administration's Section 130 grade crossing safety program provides approximately \$6 million annually, funding about 25 projects per year. In addition, state general funds and bond funds are used to replace antiquated safety equipment and to construct low-cost safety improvements.

**Rail-Related Trunk Highway Projects:** We execute coordination and construction agreements with railroads in support of trunk highway construction projects affected by rail lines.

**Rail and Port Programs:** We administer the Minnesota Rail Service Improvement Program (loans) and the Port Development Assistance Program (grants) to improve the condition and capacity of rail and port infrastructure. Freight rail projects funded by the Minnesota Rail Service Improvement program address track and rail bridge condition for railroads and extend rail access to rail shippers. The Port Development Assistance Program has committed \$25 million for 37 projects since its inception in 1996. State bond funds primarily support the programs.

**Freight and Rail Planning and Development:** We develop plans and support initiatives that improve Minnesota's freight transportation system. We project that truck freight will increase 30% by 2030. Plans include the Statewide Freight Plan, the Comprehensive Freight and Passenger Rail Plan, and the Ports and Waterways Plan. Our office also evaluates highway-rail grade crossings on oil train routes to identify high-risk sites and appropriates state funds for improvements.

**Rail Safety Inspection:** We inspect rail track and hazardous materials transports to ensure compliance with federal and state regulations. The agency provides oversight and regulation of rail grade crossings and rail worker safety.

**Oversize/Overweight Truck Permits:** We issue single-trip and annual permits authorizing the movement of oversize/overweight trucks on trunk highways and interstates to protect the infrastructure and ensure safety.

**Motor Carrier Safety Evaluation:** We review regulated commercial transportation businesses and shippers to ensure compliance with safety and hazardous materials regulations.

**Motor Carrier Credentials:** We administer credentialing programs for intrastate and interstate motor carrier operations and shippers to ensure that only insured carriers meeting the state's safety requirements operate on Minnesota's roads.

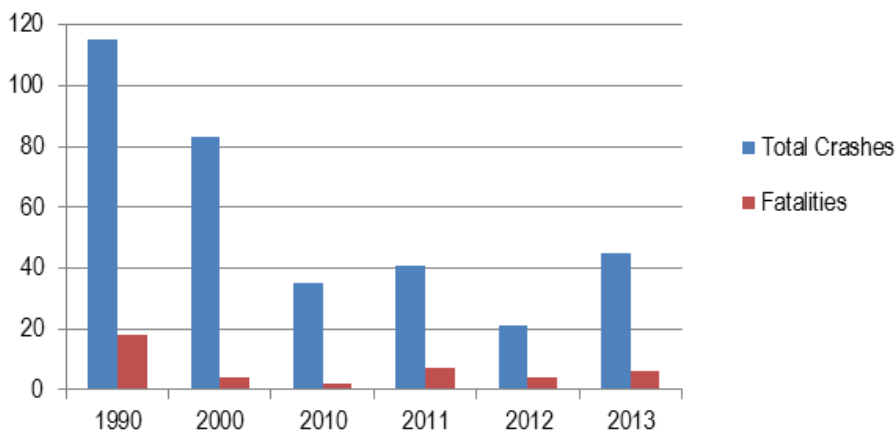
**Motor Carrier Education:** We provide training, technical assistance and educational outreach materials on motor carrier safety regulations to commercial vehicle operators, shippers and other industry groups in order to improve transportation safety, efficiency and productivity. Instruction is provided through live classes and online e-learning programs.

## RESULTS

The purpose of the Highway-Rail Grade Crossing Safety Improvement program is to improve safety for the traveling public at public grade crossings in the state. Through improvements in infrastructure and public education, grade crossing incidents have declined substantially, from 115 in 1990 to a low of 21 in 2012. We evaluate and prioritize grade crossing improvement projects based on accident frequency, safety, and replacement needs.

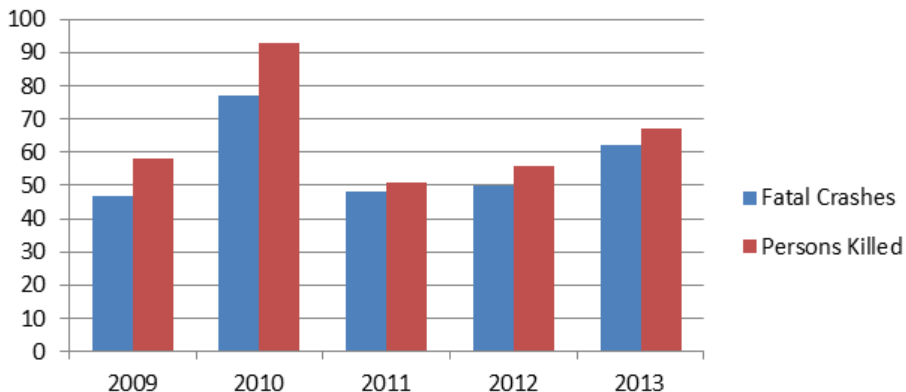
Approximately one-third of Minnesota's 4,200 public road grade crossings have gates and signals (or flashers). Many factors contribute to crashes, but increasing rail traffic may increase the number of crashes. We will continue to monitor for trends and investing in safety improvements.

**Highway Rail Grade Crossing  
Crashes and Fatalities**



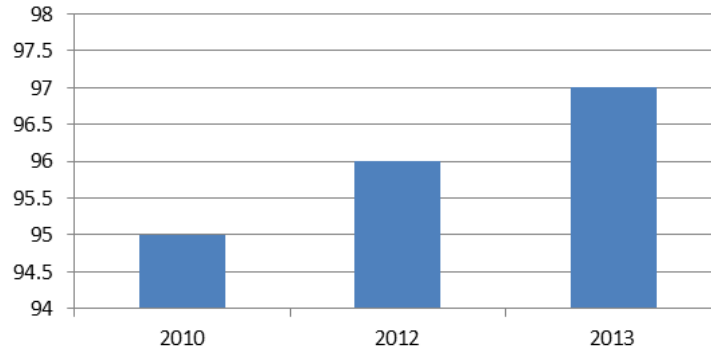
Minnesota, like other states, uses comprehensive safety monitoring and compliance strategies developed by the Federal government. Truck-only trips remain the primary means of shipping goods according to freight value. In 2013, there were 4,741 truck-involved traffic crashes reported to the Department of Public Safety. This represents a 25% increase from the previous year. There were 62 fatal truck crashes, resulting in 67 fatalities. In addition, there were 1,425 people injured in truck-related crashes in Minnesota.

**Truck Crash Summary**



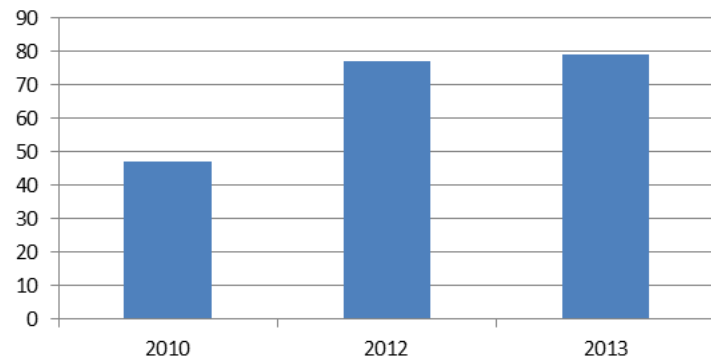
Our goal is to increase the safety performance of passenger carriers, including special transportation service providers, limousine operators, and motor carriers of passengers. In 2013, 97% of all passenger carriers achieved an acceptable safety rating according to Federal safety methodology. Future targets are to continue to have 95% or better of all passenger carriers achieve an acceptable safety rating.

**Passenger Carrier Safety Score  
Percent Acceptable**



We work to provide more efficient and faster customer service by increasing electronic permitting. The percentage of permit transactions conducted over the internet was 79% in 2013. The target was to achieve 50%.

**Online Permit Transactions**




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The legal authority for the Freight and Commercial Vehicle Operations activity comes from:  
 Oversize/overweight permits, [M.S. 169.80 – 169.86](https://www.revisor.mn.gov/statutes/?id=169.80) (https://www.revisor.mn.gov/statutes/?id=169.80)  
 Motor Carrier Credentials, Motor Carrier Education, and Safety Reviews, [M.S. 174.30](https://www.revisor.mn.gov/statutes/?id=174.30) (https://www.revisor.mn.gov/statutes/?id=174.30)  
 and [M.S. 221](https://www.revisor.mn.gov/statutes/?id=221) (https://www.revisor.mn.gov/statutes/?id=221)  
 Port Development Assistance Program, [M.S. 457A](https://www.revisor.mn.gov/statutes/?id=457A) (https://www.revisor.mn.gov/statutes/?id=457A)  
 Minnesota Rail Service Improvement (MRSI) Program and Rail Bank Program, [M.S. 222](https://www.revisor.mn.gov/statutes/?id=222) (https://www.revisor.mn.gov/statutes/?id=222)  
 Railroad Safety (including grade crossing safety), [M.S. 219](https://www.revisor.mn.gov/statutes/?id=219) (https://www.revisor.mn.gov/statutes/?id=219)  
 Plans for Public Travel Facilities, [M.S. 160.28](https://www.revisor.mn.gov/statutes/?id=160.28) (https://www.revisor.mn.gov/statutes/?id=160.28)

**Program:** Multimodal Systems

**Activity:** Passenger Rail

<http://www.dot.state.mn.us/passengerrail/>

#### AT A GLANCE

- \$26 million in G.O. bonds authorized in 2009 to develop passenger rail services as identified in the Statewide Rail Plan
- Completed two Twin Cities area projects with bond funds: St. Paul Union Depot and Target Field Station
- Preparing five rail corridor projects eligible for future federal funding
  - Twin Cities to Milwaukee / Chicago HSR Corridor
  - Duluth to the Twin cities metro (Northern Lights Express)
  - Twin Cities to Rochester (ZIP Rail)
  - Hinckley Loop
  - Union Depot to Target Field

#### PURPOSE & CONTEXT

The 2010 Minnesota Statewide Rail Plan directs our office to lead the development of passenger rail services. This program will improve mobility for Minnesotans and connect state regional centers with passenger rail services. These connections will provide more access to employment, educational opportunities, health care, and commercial services.

We work with local governments, county railroad authorities, host railroads and corridor advocates to develop a system of passenger trains that connect Minnesota communities. Minnesota residents are the primary customers of the service and will benefit through the availability of more choices to meet travel needs in a reliable, sustainable, and environmentally friendly way.

#### SERVICES PROVIDED

The Amtrak Empire Builder is Minnesota's one daily interstate passenger train. We are working with Amtrak and the state of Wisconsin to add a second daily train between Minnesota and Chicago as a first step in building a system of high speed (90 to 100 mph) routes interconnecting the upper Midwest. This rail system will eventually provide additional regional routes (up to six trains daily) to complement Amtrak's national system.

We are currently managing intrastate corridor projects that will connect Duluth to the Twin Cities (the Northern Lights Express, or NLX) and the Twin Cities to Rochester (the ZIP Rail). These are considered phase one projects in the Statewide Rail Plan, meaning they are in the environmental review, preliminary engineering, and design stages respectively.

#### RESULTS

Since adoption of the state rail plan, our office has initiated five corridor planning and development projects, while continuing to manage the two capital projects: St. Paul Union Depot and Target Field Station, which preceded the plan. As a result, more than \$25 million of the \$26 million in authorized bonds from 2009 have already been committed. This state investment also leveraged an additional \$40 million in federal funding. All rail projects in the state rail plan are making progress in the federal development process.

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The legal authority for the Passenger Rail activity comes from the following: [M.S.174.632](https://www.revisor.mn.gov/statutes/?id=174.632) (<https://www.revisor.mn.gov/statutes/?id=174.632>gov/statutes/?id=174.24).

**Program:** State Roads  
**Activity:** Program Planning and Delivery

<http://www.dot.state.mn.us>

#### AT A GLANCE

- Over 540 Construction projects let during calendar years 2012 and 2013.
- \$2 billion in construction projects funded
- 119 research projects started
- Trunk highway system makes up 8.5% of Minnesota's roads, but carries 60% of total traffic
- 2 projects were nationally recognized in 2013 for their innovative solutions and savings in taxpayer dollars

#### PURPOSE & CONTEXT

Cars, trucks, buses, bicycles and pedestrians rely on our trunk highway system. We fund the planning and delivery of all state highway projects. We set performance goals and policy, develop long-range plans, evaluate transportation investments against the specific performance targets, and recommend alternatives. We perform project design and construction project oversight. We develop and manage transportation research to improve transportation projects and practices. Planning, design, construction oversight and research contribute to a highway system that is reliable, effective, efficient and safe.

In the past year, our Commissioner held more than 60 events, including town halls, chamber events, business tours, and media interviews to emphasize the importance of the state highway system for work, play, health care and countless other purposes. We use the state highway system to get from "A to B".

Our primary goal is maximizing the public's return on its transportation investment. We use flexible design and other innovative techniques to tailor our investments to the characteristics of each project. Projects that are appropriately matched to their surroundings can often achieve the benefits of more costly approaches, but sooner and at less cost. These savings are used to plan and build more projects. Two award-winning examples of flexible design are the Highway 169/I-494 interchange and the Highway 610 extension.

#### SERVICES

We work closely with other MnDOT offices to maximize the productivity of our limited resources. Investment changes in one area affect the results in others. For example, more State Road Construction funding requires more funding in Planning and Program Delivery. Similarly, an increase in the State Road Construction budget that increases the size of the system will require additional Operations and Maintenance spending in the future.

#### Planning the Highway System

Highway planning includes assessing statewide infrastructure conditions, estimating future revenues, and determining future modal needs. We make policy and planning decisions that provide the greatest return on transportation system investment. The Statewide Multimodal Transportation Plan is based on the adopted Minnesota GO 50-year Vision for transportation. It provides guidance to help our state achieve this vision and emphasizes building and maintaining a transportation system that ensures a high return-on-investment and meets the unique social, natural and economic features of Minnesota. We plan investments in highways, interchanges, bridges, freight and port facilities, and airports using performance and results. We invest to bring mobility to disabled persons. All of our plans describe an optimum transportation system for the future. They include the State Highway Investment Plan (MnSHIP), the Strategic Highway Safety Plan, the Statewide Freight System Plan, the Transportation Asset Management Plan, and others. Every year, we identify future capital highway investments in the annual Statewide Transportation Improvement Program (STIP).

Without our planning, we would not be able to:

- Manage and integrate current data and best practices for multimodal policy formation and investment decision making.
- Coordinate transportation system plans and policies with other government agencies.
- Prepare updates of the statewide transportation investment plan, which are required by state and federal law every four years. The plan provides trend analysis, policies, performance measures, and guidance for long-range, statewide transportation planning.
- Apply long-range statewide transportation policies and performance measures to district transportation decisions.

- Monitor corridor performance using safety and mobility performance measures and targets, identify problem areas, and determine where additional management or investments are needed.

## Developing Highway Improvement Projects

We are responsible for the success of transportation projects. We define priorities, choose specific projects, refine project scopes, estimate costs, and solicit bids. We monitor construction every step of the way to make sure that projects are on schedule, meet cost estimates and satisfy quality standards. We work with our contractors to solve problems and manage unforeseen events. Project development begins once a project has been selected through the scoping process. We evaluate project scope and consider environmental and social impacts to determine cost-effective solutions. We monitor schedules and costs to keep projects within budget and on schedule.

## Highway Construction Oversight

We monitor construction projects to ensure that the final product meets all specifications. We:

- Manage the overall progress of State Highway projects through construction completion and final project documentation.
- Coordinate the early stages of projected with unique features or procurement methods.
- Oversee quality management, testing, project scheduling and compliance with specifications.
- Provide sound fiscal management, financial tracking and regulatory conformity.

## Project Delivery

We deliver the right projects on schedule and on budget.

- Deliver a high-quality transportation system for Minnesota's road users.
- Report our overall performance in the Annual Minnesota Transportation Performance Report. The most recent report is available online at <http://www.dot.state.mn.us/measures/index.html>.

## Research and Development

We develop and apply new technologies for trunk highway projects, like newer, cost-effective pavement designs, accelerated bridge construction techniques, and methods to improve highway safety. Our Research Services & Library manages a program of research projects. This research complements other federal and local agency research as part of an over \$10 million per year transportation research program. Research Services & Library staff serve as a resource for MnDOT staff as well as city and county engineers, kick-starting research and shepherding projects to completion. At any given time, the staff manages approximately 190 research projects including basic and applied research, and also helps identify opportunities to implement the research results and develop marketing and communications materials.

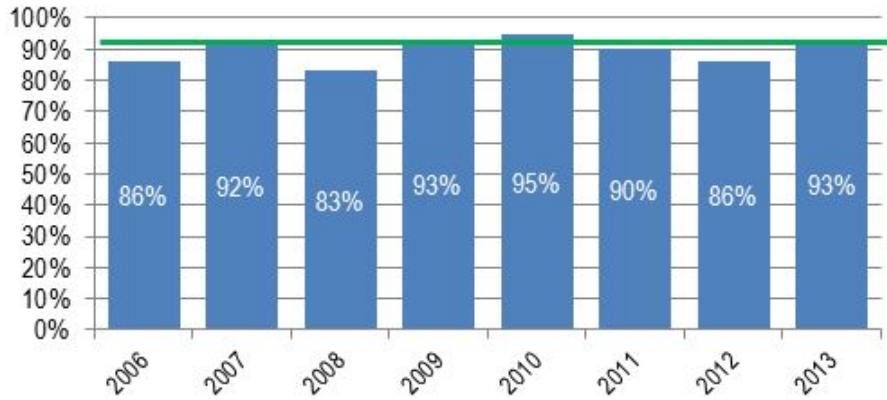
## RESULTS

We deliver services that are improving the transportation system in Minnesota. We are placing greater emphasis on project scheduling and monitoring to ensure projects are delivered within budget and on time. We focus on results during planning so our investments will meet our highest priority needs. Our annual measures include the number of fatalities, the percentage of bridges in poor condition, the percentage of highways with pavement in poor condition, and the percent of the system that is congested.

## Project Delivery

- We have a straightforward project delivery goal: to deliver the right projects on schedule and on budget. We measure the percentage of projects let in the year scheduled. "Letting" is the opening of bid proposals. In FY2013, we let 93% of our projects on schedule – exceeding the target of 90%.

### Percentage of Projects Let in the Year Scheduled



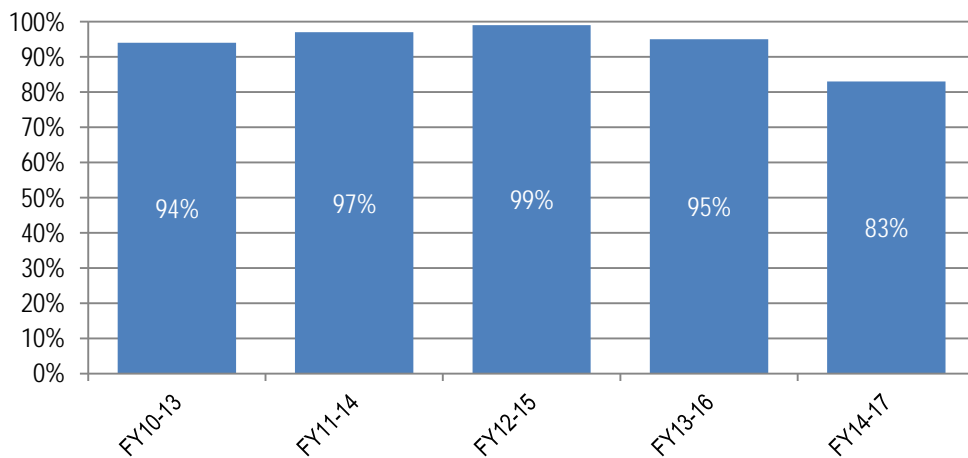
Source: MnDOT Office of Transportation System Management: Data From Program and Project Management System

In FY2013 MnDOT let 93% of its construction program on schedule (\$853.2 million out of \$887.4 million) This result represented a substantial improvement over the FY2012 result, which was negatively impacted by a delay in letting one major project (Dresbach Bridge).

### Project Scoping and Estimating

Cost estimating and cost management are critical parts of project management. We follow project cost estimates. They become more certain as the project nears initiation and project managers sharpen their estimates and reduce project contingencies. We will have more certain material costs, we will have mitigated many identified risks, and we will be working with detailed specifications. Every MnDOT project should have an approved Total Project Cost Estimate (TPCE) and an approved scoping report prior to the project entering the Statewide Transportation Improvement Plan (STIP). Since the statewide comprehensive scoping process was implemented in 2008. This process is closely followed by MnDOT's districts

### MnDOT Projects in the STIP with an approved scoping report



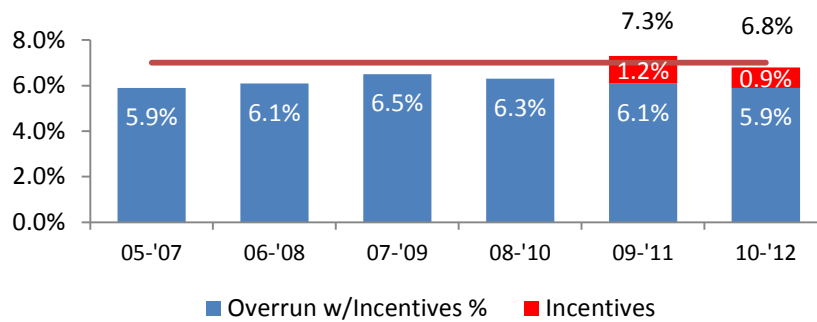
Source: MnDOT Office of Transportation System Management: Data From Program and Project Management System

### Cost Overruns (three-year average)

We evaluate program planning and delivery performance by tracking cost overruns as a share of total project cost. A cost overrun is the additional cost incurred after the original award of a construction contract. Between 2010 and 2012, contract overruns totaled \$130 million minus incentives; cost overruns totaled \$113 million. The incentives data is available for the last two reporting periods.



### Three-Year Moving Average of Construction Cost Overruns\*

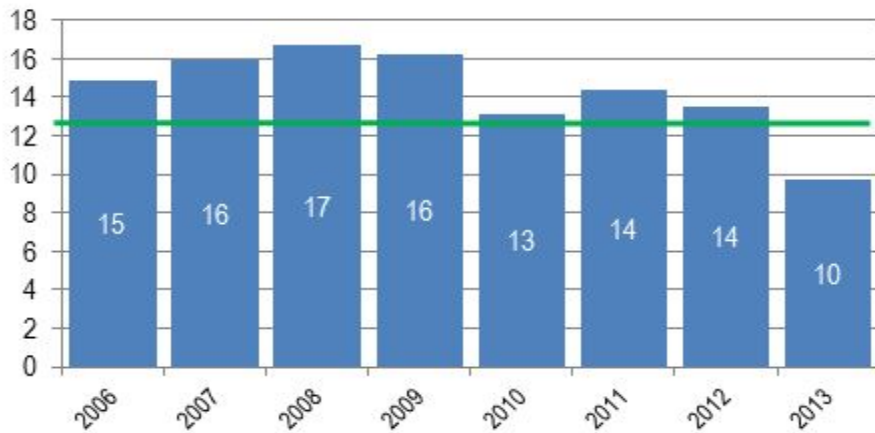


\* Reflects non-emergency contracts at least 95% complete

### Average Number of Months to process Right of Way

We track the average right of way process time in months, measured from the time when the amount of new right-of-way needed is known ("construction limits complete/footprint delineated" milestone date) to the time when the right-of-way is available for MnDOT to let the construction contract ("ROW available" milestone date). Our target right of way process time is 14 months on average.

### Average Number of Months to Process Right of Way\*



Source: MnDOT Office of Transportation System Management; Data From Office of Land Management

\* Excludes design build projects and projects for which funding is not identified (i.e. shelf projects)

The Department of Transportation's Program Planning and Delivery legal authority comes from:  
 Roads General Provisions [M.S.160](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)  
 Trunk Highway [M.S.161](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)

**Program:** State Roads

**Activity:** State Road Construction

<http://www.dot.state.mn.us/planning/program/stip.html>

<http://www.dot.state.mn.us/minnesotago/index.html>

<http://www.dot.state.mn.us/planning/mnship/>

#### AT A GLANCE

- 12,000 trunk highway miles including the interstates
- 33,000 trunk highway lane miles
- 4,846 bridges on trunk highway routes (including rail road, pedestrian and other bridge structures)
- 10 Travel Information Centers, 3 Regional Welcome Centers, and 257 waysides and rest areas
- 255,000 acres of highway right of way (including wetland and ponds)
- 6 Fixed scale sites

#### PURPOSE & CONTEXT

The state road and bridge construction program funds construction, reconstruction and improvement of trunk highways, including design-build contracts and consultant usage to support these activities occur. It includes payments to landowners for highway right of way, payment to lessees, interest subsidies and relocation expenses. We follow the priorities and policies in the 20-year Statewide Multimodal Transportation Plan (Minnesota GO), and the Minnesota State Highway Investment Plan: 2014-2033 (MnSHIP).

This program benefits the travelling public, freight and commercial transportation businesses, as well as the engineering consultants and construction contractors employed to design and build state projects

#### SERVICES PROVIDED

We select, design and manage construction projects to provide sustainable options to safely move people, goods and services on the trunk highway system. These investments in preservation, safety, mobility and regional priorities are prioritized in the [Minnesota State Highway Investment Plan](http://www.dot.state.mn.us/planning/mnship/) (<http://www.dot.state.mn.us/planning/mnship/>).

##### Trunk Highway System Preservation

- We improve pavement and bridge conditions through reconstruction and repair.

##### Trunk Highway System Expansion

We expand the transportation system by adding capacity with new lanes and interchanges. We also make the roadway safer with new turn lanes and roundabouts.

- We also expand the system through special legislation and bonding programs, like the Corridors of Commerce. These are not always identified in the agency's performance plans, but improve Minnesota's quality of life.

##### Other Trunk Highway System Improvements

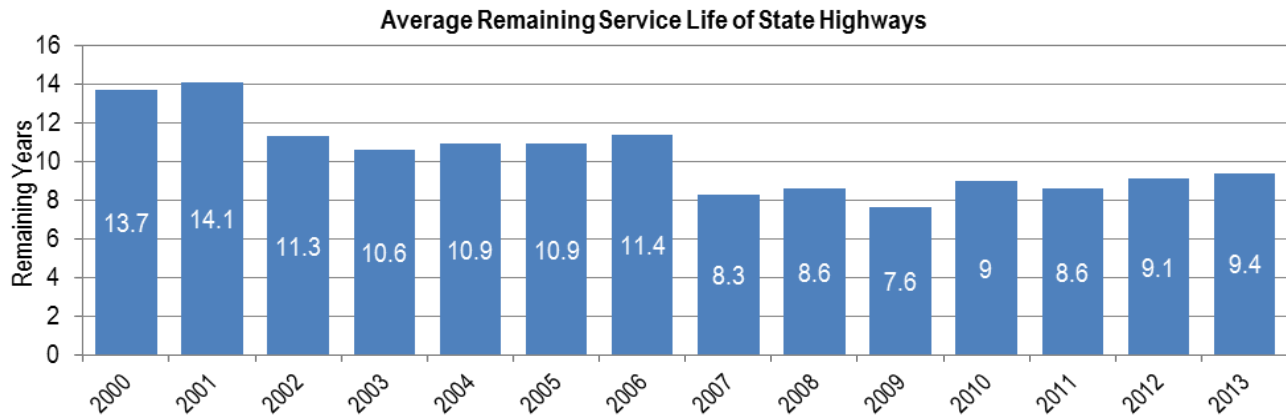
- We also manage construction projects outside of the traditional highway footprint, including:
- Multimodal investments like bike paths and pedestrian bridges
- Intelligent Traffic Systems
- Fixed scale sites
- Travel center and safety rest areas

## RESULTS

Transportation performance measures include safety, pavement and bridge condition, and congestion and travel speeds. Since system needs exceed available funding, we prioritize these measures through an extensive planning and public outreach effort.

### Performance Indicators

- Remaining Service Life – RSL is the time, in years, until the roughness of a pavement section is predicted to reach the point where travelers feel the road surface is somewhat uncomfortable to drive over. An RSL of zero does not mean that the road cannot be driven; rather, it indicates that some sort of rehabilitation is warranted. The RSL is calculated annually for each section of state highway. The average RSL has dropped considerably since 2000.



### MnSHIP First 10 Years (2014 to 2023) – Outcomes

MnDOT will make progress toward goals in all investment areas:

- Asset Management: Conditions of roads, bridges and roadside infrastructure remain stable on National Highway System (NHS) routes (45 percent of the system). Known and anticipated federal and state performance requirements are met. Conditions of roads, bridges, and roadside infrastructure decline for non-NHS Trunk Highways (55 percent of the system).
- Traveler Safety: We will continue to focus on lower cost, proactive treatments that prevent fatalities and serious injuries.
- Critical Connections: We will improve conditions for pedestrians and bicyclists at priority locations. The agency will make modest investments to improve vehicular system capacity and economic vitality. The number and scope of system capacity improvements will decrease.
- Regional and Community Improvement Priorities: We will continue to address local concerns through partnerships, modifying projects to meet local needs. The agency will deliver a few stand-alone projects to support economic competitiveness and quality of life for Minnesotans.

### State Transportation Improvement Program – Established System Condition and Performance Indicators

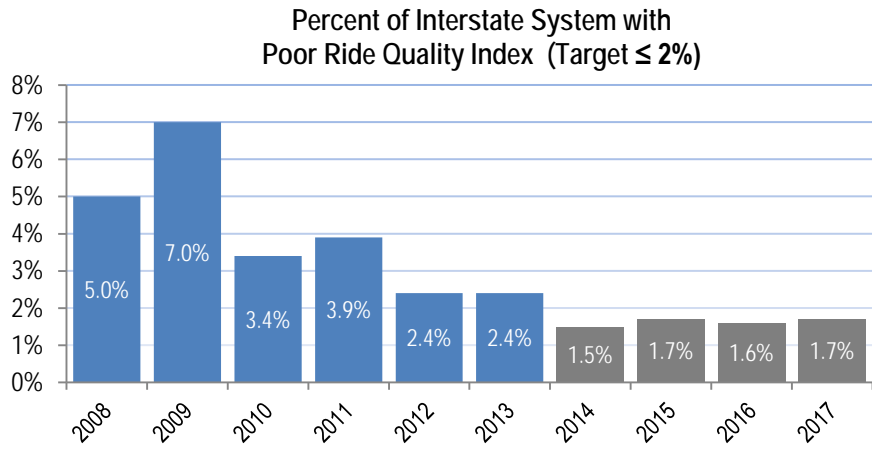
We track the performance of the Trunk Highway system with a number of different performance measures, many of which are published in the Annual Transportation Performance Report. A few of the key measures include the following.

- Pavement condition is measured by the percent of the miles of highway that are in poor condition. The three graphs below depict the condition of the interstate system, the non-interstate National Highway System, and the rest of the Trunk Highway system. While we are maintaining the interstate at less than 2% poor, the rest of the system is declining.
- Bridge condition is measured by percent of bridge deck area in poor condition. The next graph illustrates that bridges on the National Highway System are being held in a stable condition around 3-4% and are projected to improve.

Mobility is measured by the speed that users can travel on Metro freeways and Greater Minnesota Interregional Corridors. The performance level has been maintained with current levels of investment, although the percentage not meeting target is expected to increase in the future

Pavement Condition – Percent of the Interstate System with “Poor” Customer Ride Quality Index (RQI)

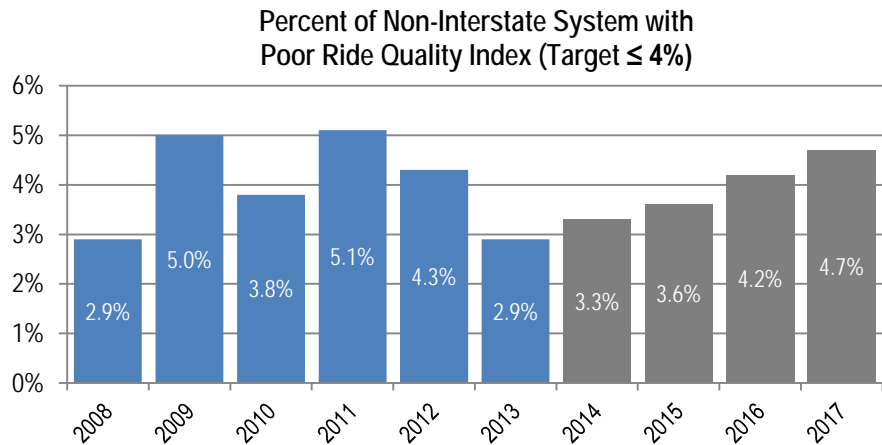
Improving towards target (2008-2013) then declining (2014-2017)



Source: MnDOT Materials Office

Pavement Condition – Percent of the Non-Interstate System National Highway System (NHS) with “Poor” Customer RQI

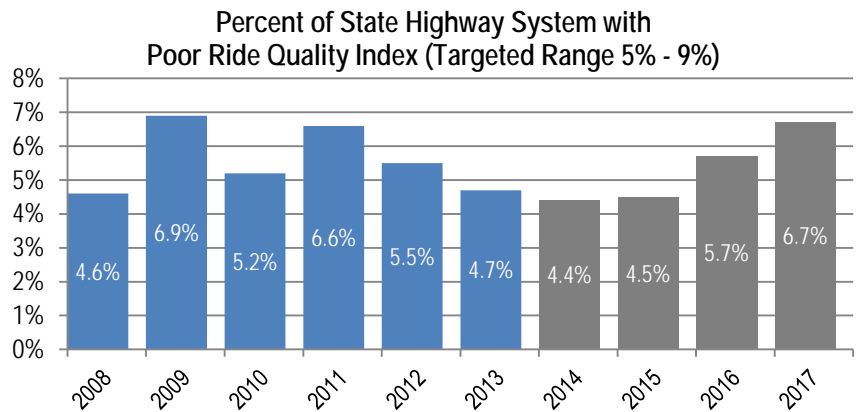
Meeting target but decline (2014-2017)



Source: MnDOT Materials Office

Percent of state highway system with “Poor” Customer RQI

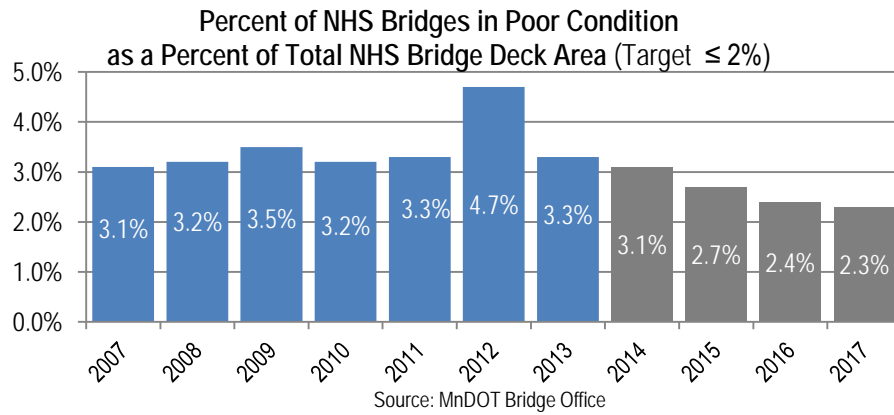
Meeting target but with continual decline (2008-2017)



Source: MnDOT Materials Office

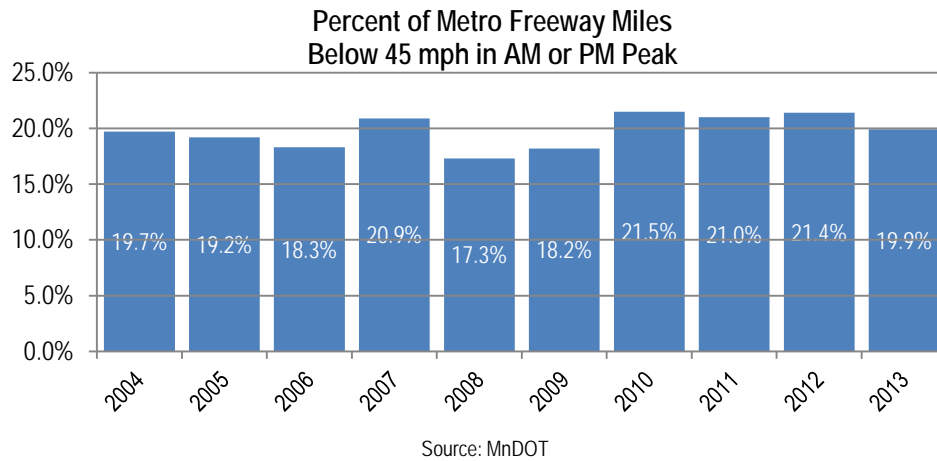
Structural Condition of Bridges  
 – NHS bridges in “Poor”  
 condition as a percent of total  
 NHS bridge deck area

Near target and improving  
 (2013-2017)



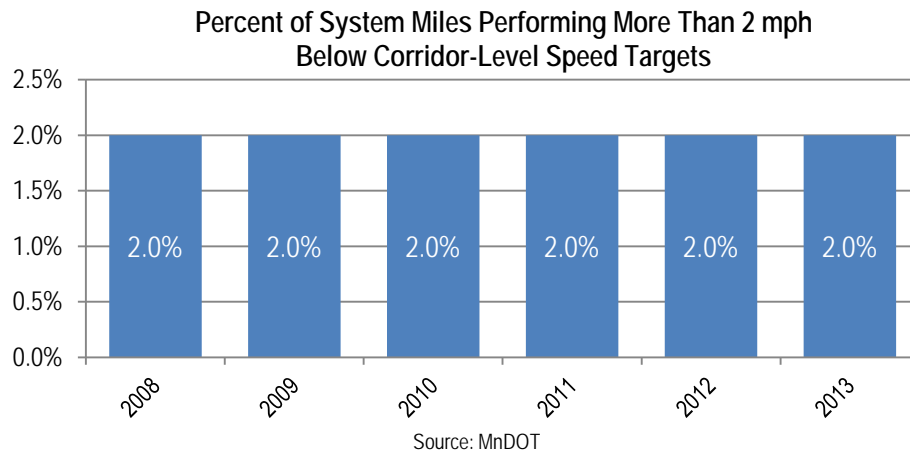
Twin Cities Urban Freeway  
 System Congestion – Percent  
 of metro-area freeway miles  
 below 45 mph in AM or PM  
 peak

Stable (2010-2013)



Greater Minnesota  
 Interregional Corridor (IRC)  
 Mobility (Greater MN Mobility)  
 – Percent of Miles +/- 2 mph of  
 Target Speed or Faster

Stable (2008-2013)



The Department of Transportation’s State Road Construction legal authority comes from:  
 Roads, General Provisions [M.S.160](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)  
 Trunk Highways [M.S.161](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)

Program: State Roads  
 Activity: Debt Service

<http://www.dot.state.mn.us/policy/financial/fm007.html>

**AT A GLANCE**

Trunk Highway Fund Bonds

- \$2.829 billion authorized since 2000
- \$2.092 billion sold since 2000
- \$234 million three-year average cost of bond-funded projects
- 19% average growth per year in debt service payments
- \$1.972 billion in remaining debt service payments on current bond authorizations

**PURPOSE & CONTEXT**

The state of Minnesota is authorized to issue general obligation bonds for trunk highway purposes under Article XIV, section 11 of the constitution. Bonds are purchased to advance construction projects beyond what the State Road Construction and Federal funding programs can support in a given period. We are also authorized to enter into loan agreements using the transportation revolving loan fund and to enter into local government advance agreements. The debt service activity is funded by a direct appropriation from the Trunk Highway Fund. The Trunk Highway Fund, rather than the State's general fund, pays all of the debt service for Trunk Highway bonds.

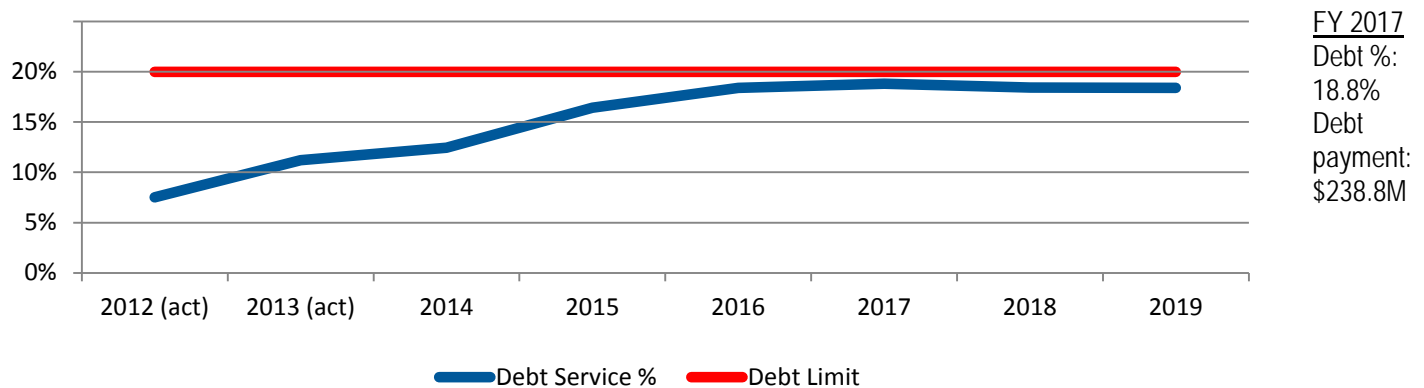
**SERVICES PROVIDED**

This activity encompasses repayment of all debt related to the Trunk Highway System. This includes the required annual payment of the principal and interest on trunk highway bonds to the state debt service fund from the Trunk Highway Fund, as well as payments to the transportation revolving loan fund for trunk highway loan agreements, and repayments of advances from local governments. We work closely with Minnesota Management and Budget to coordinate activities related to selling bonds and forecasting both the debt cash flow and the debt service payments.

**RESULTS**

Minnesota's goals for the transportation system are established in the Minnesota State Highway Investment Plan (MnSHIP). Bond debt, particularly when interest rates are low, is an important strategy for funding transportation projects. The key goal for the debt service activity is to balance the needs of the transportation system by maximizing the funding resources available within a financially sound debt management policy. Our policy states that debt service cannot exceed 20% of annual projected state revenues to the Trunk Highway Fund. The graph below depicts the debt service estimates compared with the policy limit.

**Debt Summary as of 2014 End of Session**



The Department of Transportation's Debt Service activity legal authority comes from:

[Minnesota Constitution Article XIV, Section 6 and 11](https://www.revisor.leg.state.mn.us/constitution/#article_14) (https://www.revisor.leg.state.mn.us/constitution/#article\_14)

Trunk Highway Revolving Loan Account, [M.S. 161.04, Subd. 3 and 4](https://www.revisor.leg.state.mn.us/statutes/?id=161.04) (https://www.revisor.leg.state.mn.us/statutes/?id=161.04)

Advance Funding for Trunk Highway Projects, [M.S. 161.361](https://www.revisor.leg.state.mn.us/statutes/?id=161.361) (https://www.revisor.leg.state.mn.us/statutes/?id=161.361)

Program: State Roads

Activity: Operations and Maintenance

<http://www.dot.state.mn.us/>

#### AT A GLANCE

We maintain:

- 12,000 state highway miles (33,000 lane miles), including the interstate
- 3,300 traffic management systems (signals, ramp meters, changeable message signs and others)
- 390 miles of cable median barrier
- 28,000 highway lighting fixtures
- 4,846 bridges on trunk highway routes (including rail road, pedestrian and other structures)
- 254,880 acres of highway right of way (including wetlands and ponds)
- 800 snowplows

#### PURPOSE & CONTEXT

We operate and maintain the state highways and interstate for safe and efficient travel. Crews clear, repair and improve highways, bridges, shoulders, safety equipment and traffic management systems. They maintain the fleet, equipment and buildings necessary to perform these tasks. This activity also includes striping, signage, roadway lighting structures and utility payments.

The state highway system makes up only 8.5% of Minnesota's roads, but carries 60% of total traffic. Each day, travelers drive 90 million vehicle miles on the state highway system. Minnesotans rely on the highway system to drive to school, work, shopping centers, hospitals and other destinations. Highways carry goods to store shelves; raw materials to manufacturers; and agricultural products to processors and markets.

MnDOT maintains 74% of Minnesota's public assets. Operations and Maintenance activities preserve and optimize existing assets while delivering faster, smoother and more reliable trips. The agency responds to emergencies 24 hours per day, 365 days per year and performs its jobs regardless of snow, rain, floods, construction or emergencies.

This activity is funded by a direct appropriation from the Trunk Highway Fund.

#### SERVICES PROVIDED

- **Snow and Ice:** We provide anti-icing treatment before storms, snow plowing and ice removal during storms and clean-up to keep roads safe and clear of snow and ice after the storm has passed. Crews perform high priority services first. During years with harsh winters, we may redirect money to snow plowing from other functions like drainage, roadside maintenance and pothole patching. We use a flexible workforce to fight winter storms. Nearly 15% of the state's snow plow drivers work in other areas of the department and are reassigned to plow snow during winter snowfalls. When MnDOT adds interchanges, ramps and traffic lanes to the system, additional operations and maintenance resources are needed to keep them free of snow. Snow plowing on Minnesota's 12,000 miles of roads is expensive and labor intensive. [Winter Work Zone Safety](http://www.dot.state.mn.us/workzone/facts.html) (<http://www.dot.state.mn.us/workzone/facts.html>).
- **Bridge Inspection:** MnDOT does routine and in-depth inspection of its 4,846 state highway bridges according to state and federal requirements. It also inspects bridges whenever an unforeseen event requires it. Federal rules require that all bridges are inspected on a one- or two-year cycle. Learn about [bridge inspection](http://www.dot.state.mn.us/bridge/inspection.html) (<http://www.dot.state.mn.us/bridge/inspection.html>).
- **Bridge Maintenance:** MnDOT performs preventative maintenance to extend the service life of state highway system bridges and reduce the frequency and extent of future repairs. Bridge maintenance activities protect assets from exposure to moisture and corrosive agents like salt. Preventative maintenance includes seal coats, joint seals, thin overlays and lubrication of expansion bearings. More routine maintenance includes flushing a bridge deck and superstructure with water to remove winter residue. MnDOT also does reactive maintenance when a vehicle damages a bridge or when unexpected deterioration is discovered during a site visit. Reactive maintenance is classified as high, medium or low priority. High priority includes deficiencies that could affect safe functioning or cause deterioration to a critical condition. MnDOT's goal is to perform all high priority reactive maintenance within one year of the need being identified. It has substantially met this goal the last two years. [Learn about Bridge Construction and Maintenance](http://www.dot.state.mn.us/bridge/maintenance.html) (<http://www.dot.state.mn.us/bridge/maintenance.html>).
- **Emergency Response:** Our employees respond to a variety of emergencies to reduce damage to life and property and restore the safe operation of the transportation system. Emergencies range from serious flooding to bridge hits. Other

examples include emergency sinkhole and pothole repair and removal of fallen trees or other debris from the highway. Whatever the problem, the agency responds quickly and competently to restore safe travel. Minnesota's Toward Zero Deaths initiative has helped reduce the number of highway fatalities significantly. TZD is an example of the power of partnerships—MnDOT works alongside the Minnesota Department of Public Safety, Minnesota Department of Health, law enforcement, safety advocates, schools and local governments.

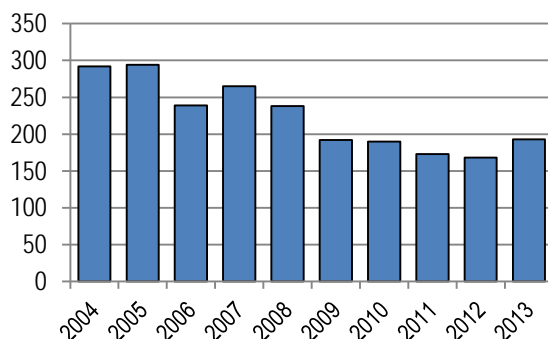
- **Patching Roads:** We patch potholes, seal cracks, pave roads, remove debris (including the Adopt-a-Highway program), repair or replace culverts, and maintain roadway shoulders. We also measure highway smoothness and remaining pavement life to inform and prioritize our work. This information helps us make timely investments to prolong the life of good pavements. In 2013 we initiated the "Better Patching for Better Roads" program in an effort to target additional patching funds for key, high-need roadways. [Learn about MnDOT Pavement Management \(http://www.dot.state.mn.us/materials/pvmtgmt.html\)](http://www.dot.state.mn.us/materials/pvmtgmt.html).
- **Traffic Management:** We install and repair signs and lights; operate and maintain traffic signals; stripe roads; install and repair guardrails; and maintain 390 miles of cable median barriers to prevent cross-median crashes on freeways. We also operate the Twin Cities Regional Transportation Management Center, the Freeway Incident Response Safety Team, and the Greater Minnesota Traffic Operations Communications Centers to increase freeway efficiency, reduce crashes and provide travelers with the information they need for a safe journey. We provide travelers with travel times and critical roadway information, including Amber Alerts, using changeable message signs, the Internet, and telephones. [Learn about traffic engineering at MnDOT \(http://www.dot.state.mn.us/trafficeng/\)](http://www.dot.state.mn.us/trafficeng/).
- **Roadside Management:** The state owns more than 254,000 acres of right of way. We mow, control noxious weeds, remove trees and brush, identify safe routes for over-size commercial trucks; issue permits for public roadway activities like utility work, and maintain rest areas and weigh stations. [Learn about roadway vegetation management \(http://www.dot.state.mn.us/roadsides/vegetation/index.html\)](http://www.dot.state.mn.us/roadsides/vegetation/index.html).
- **Asset Management:** We are completing a *Transportation Asset Management Plan (TAMP)* that will help us meet the service goals established for each asset and each asset's condition. The TAMP includes an assessment of asset risks and data on condition, inspection frequency and deterioration rates. Depending on the characteristics, probability and consequences of the risks, we plan to reduce or eliminate the risk's likelihood or harm. Asset risks include unexpected structural failure, uncertain deterioration rates, or unanticipated changes in labor or material costs. Identifying and mitigating risks at multiple phases during an asset's life reduces that asset's lifecycle cost. We will integrate capital investment and maintenance strategies in order to allocate resources more efficiently.

## RESULTS

### Safety

**Fatalities — all state and local roads:** We help reduce injuries and deaths on the highway as a partner in the Toward Zero Deaths Initiative. We also produce a Highway Safety Improvement Program to plan safety investments throughout the state.

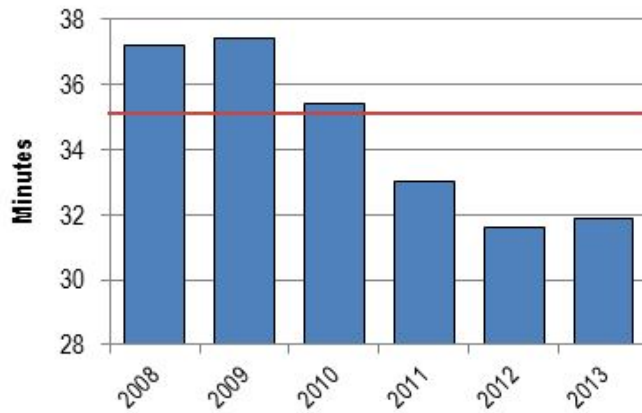
Annual Highway Fatalities



**Incident Clearance Time:** Traffic incidents, like crashes, cause major congestion on the Twin Cities Metro area freeway system. We measure incident clearance time on the system between 6 a.m. and 7 p.m. on weekdays. The target is incident clearance within 35 minutes to minimize delay. We are meeting this target.



**Average Incident Clearance Time for Twin Cities Urban Freeway Incidents**  
(three year rolling average)

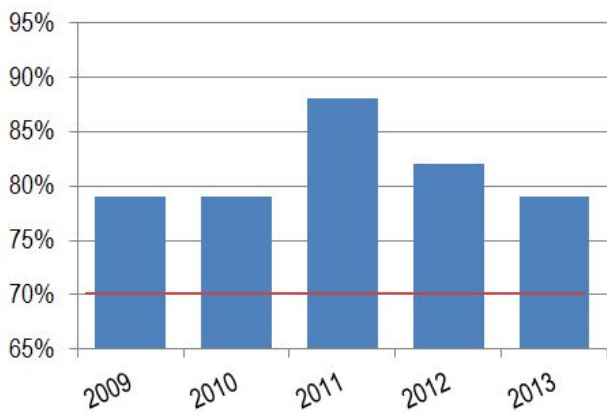


Source: Regional Transportation Management Center

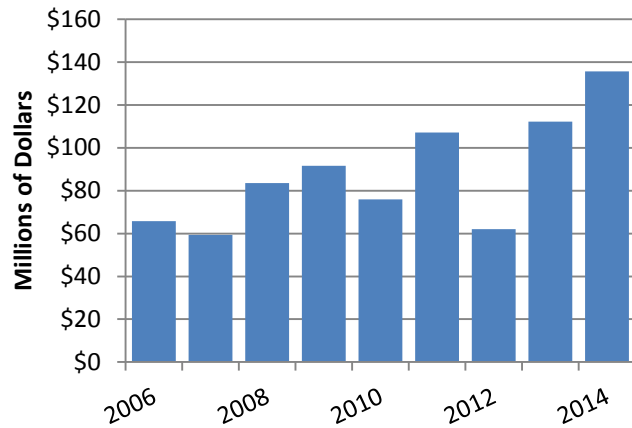
**Snow Plowing Performance:** To assess plowing performance, MnDOT evaluates each snow plow route after each snowstorm. The goal is returning the road to an acceptable driving condition in a prescribed amount of time (the time varies by the amount of traffic on the road). Our goal is to meet the clearance targets for each type of roadway 70% of the time in a season. We have met this goal in nine of the last 10 seasons.

Winter weather severity varies significantly from year to year, and from region to region. The following three graphs show annual snow plowing performance, total snow plowing costs and the cost of salt.

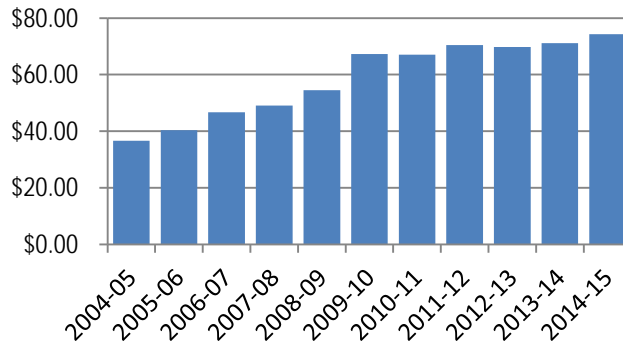
**Snow Plowing Performance**  
Frequency of Meeting Plowing Goal of 70%



**Snow Plowing Cost**



Salt Cost: \$ per Ton

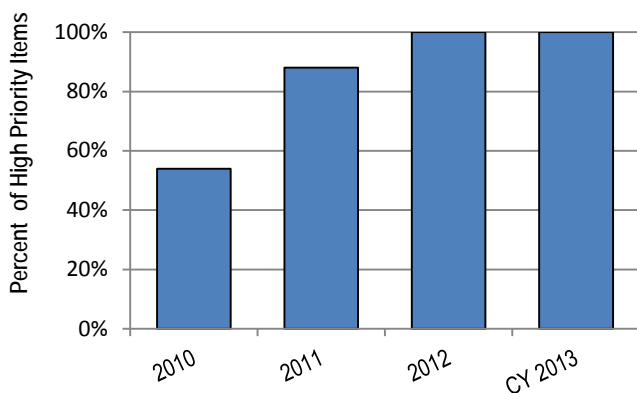


Note: Salt Contracts for 2009-11 through 2011-12 had revised terms that did not significantly change the agency's salt costs.

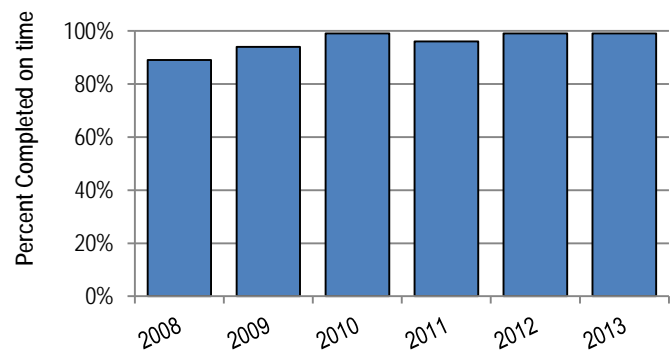
**Bridges:** These two graphs show the timeliness of bridge inspections and our ability to complete high-priority items within one year. The bridge inspection goal is 100% of inspections on time. This exceeds the 95% target established in the National Bridge Inspection Standards. MnDOT's inspection performance improved in 2012 after a slight decrease in 2011 due to the state government shutdown. If a bridge suffers structural damage or unexpected deterioration, we close it or reduce traffic on it, and make emergency repairs. Minnesota ties with one other state for the fifth lowest percentage of Interstate and state-owned bridges rated structurally deficient or functionally obsolete, according to 2013 rankings by Better Roads magazine. In Minnesota, when we talk about the structural condition of our bridges, we look at the condition ratings of good, satisfactory, fair and poor, and in comparing to other states we focus on the percent in poor condition which are considered Structurally Deficient. The Functionally Obsolete bridges, although considered "deficient" bridges by federal definition, aren't necessarily bridges in poor condition. They were likely built to the standards at the time of construction, but due to changes through time, now may have low vertical clearance, narrow shoulders, etc. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. A bridge classified as "structurally deficient" has a general condition rating for the deck, superstructure, substructure or culvert as 4 or less (indicating it is time to plan an investment into the bridge) or if the road approaches regularly overtop due to flooding. The fact that a bridge is structurally deficient does not imply that it is unsafe.

The condition of Minnesota's major state highway assets has improved or remained constant since 2009 due to a series of one-time increases in preservation investment. These increases – the Chapter 152 Trunk Highway Bridge Improvement Program (2009 - 2018), the 2009 American Recovery and Reinvestment Act (Federal funds), and the Better Roads for a Better Minnesota initiative (2012-2015) – have enabled us to keep pace with preservation needs even as Interstate-era assets age and a growing number of roads and bridges require significant repair or replacement. At existing funding levels, the state expects bridge condition to resume its long-term decline by the end of the decade.

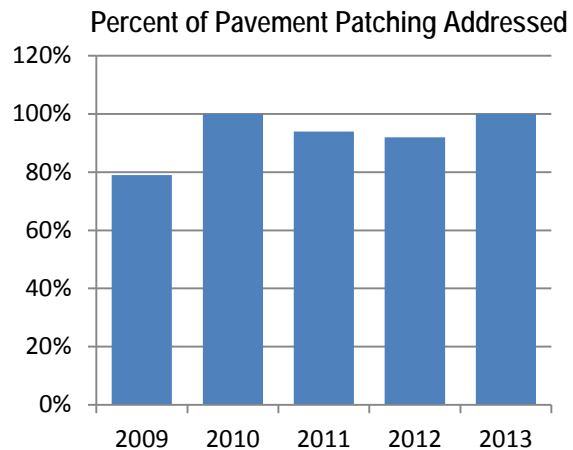
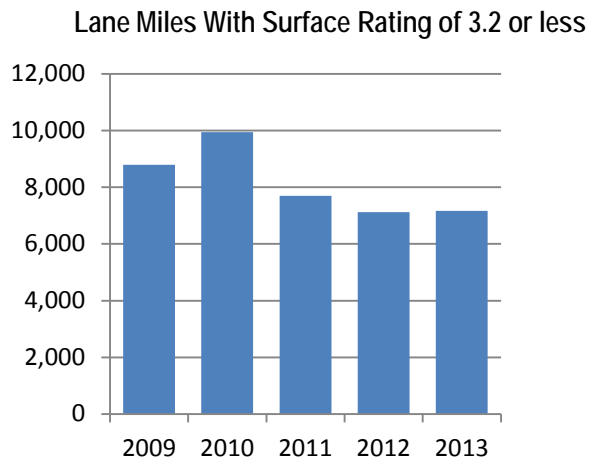
**Bridge Reactive Maintenance**  
Percent of High Priority Items completed within 12 Months



**Routine Bridge Inspection**  
Percent Completed on Time



**Smooth Roads:** We recently developed a Better Patching for Better Roads program that funded the purchase of better materials and surface repair equipment that use new technology that allows it to install longer lasting patches.



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The Department of Transportation's Maintenance and Operations activity legal authority comes from:  
Roads General Provisions [M.S.160](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)  
Trunk Highway [M.S.161](http://ihub.dot.state.mn.us/) (<http://ihub.dot.state.mn.us/>)

**Program:** State Roads

**Activity:** Statewide Radio Communications

<http://www.dot.state.mn.us/oec>

### AT A GLANCE

- 491 tower sites across the state for all agencies
- 385 tower leases with partners
- 80,000 subscribers to the ARMER system
- 9,900 radios maintained for state agencies
- 3,708 base stations maintained for state agencies
- 17 repair facilities statewide
- 1,096 preventative (maintenance) inspections performed this year

### PURPOSE & CONTEXT

Statewide Radio Communications builds, maintains, owns and operates the Allied Radio Matrix for Emergency Response (ARMER) backbone. This is Minnesota's shared public safety radio communication system that provides 24/7/365 interoperable radio communication service to multiple state and local agencies.

ARMER serves the day-to-day and emergency communication needs of MnDOT, the Department of Public Safety (DPS) and other state agencies, as well as the majority of local and regional law enforcement agencies. This includes fire, emergency medical and public works services.

The system backbone is a network of radio towers, equipment shelters and radio transmission equipment. This trunked backbone is shared by network users throughout the state. This is identified in the statewide radio communication plan maintained by the Statewide Emergency Communications Board (SECB).

### SERVICES PROVIDED

As a part of our Statewide Radio Communications investment and planning function, we provide the overall electrical engineering direction for the strategic and tactical planning of wireless, voice and data systems for ARMER and other public safety or transportation applications. This includes electronic communication system engineering, design and construction expertise to other offices and districts, and other state and local agencies. We also act as public safety radio spectrum frequency advisor for the state of Minnesota.

Management of the system requires us to repair, replace and upgrade the radio communications infrastructure, facilities, base stations and mobile and portable radios. The agency also provides maintenance for electronic equipment, such as road weather information systems, traffic weighing scales, etc. we manage the lease for renting space on towers for antenna use, with private and public entities, statewide.

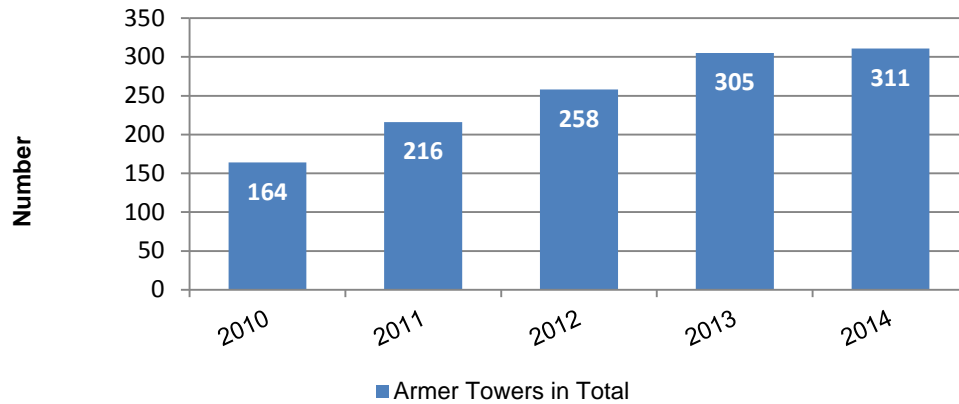
We also provide emergency service response for public safety electronic communications systems. We work with other state and local agencies, including the Department of Public Safety (DPS), the Department of Natural Resources (DNR) and the National Weather Service to provide shared expertise and technical services. Ultimately, we provide Minnesota with the infrastructure and resources to allow its emergency responders to communicate with each other at any time regardless of the nature or scope of an event.

We receive funding from a direct appropriation from the Trunk Highway Fund, a transfer from DPS from the 911 Fees (for ARMER operations and maintenance) and lease receipts authorized in MS 174.70.

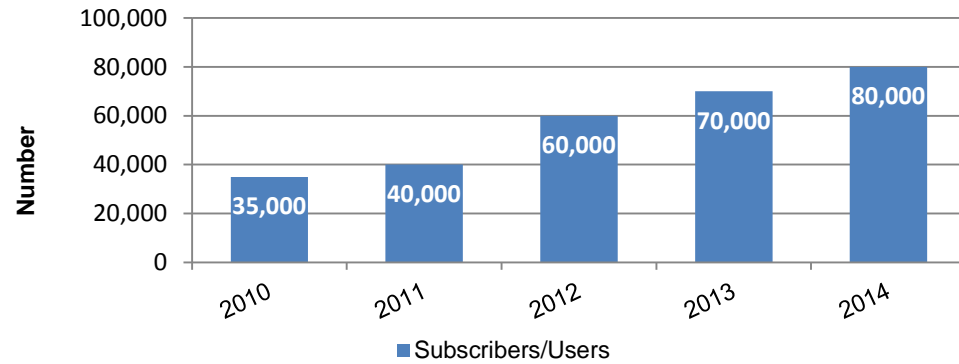
Currently, the ARMER system build-out is on schedule and on budget. There are approximately 327 towers planned and scheduled for completion by 2016, to provide for 95 percent mobile-level coverage by county. Land acquisition for a handful of sites is proving challenging to acquire.

## RESULTS

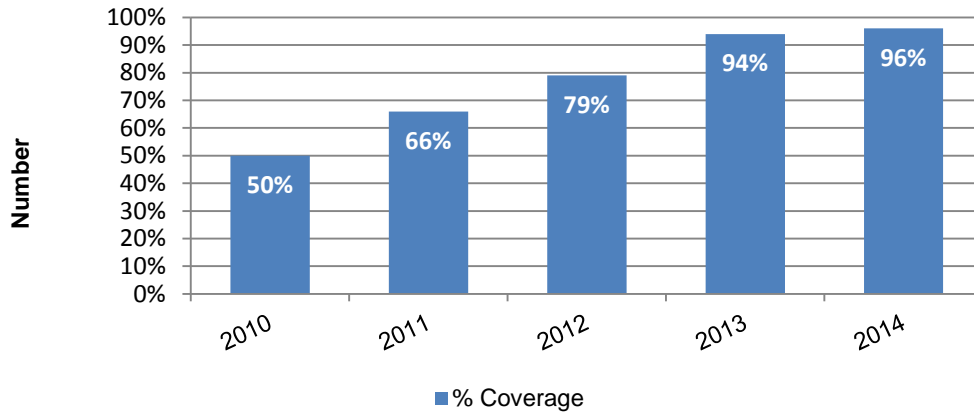
### ARMER towers constructed and operational



### ARMER subscribers/users on the system



### ARMER- % of State Covered by Interoperable System



The legal authority for the Statewide Radio Communications activity comes from:  
Public Safety Radio Communications, [M.S. 174.70](https://www.revisor.mn.gov/statutes/?id=174.70) (<https://www.revisor.mn.gov/statutes/?id=174.70>)

**Program:** Local Roads

**Activity:** County State Aid Roads

<http://www.dot.state.mn.us/stateaid/>

#### AT A GLANCE

- 87 counties
- 30,621 miles of County State Aid Highways (CSAH) make up approximately 20% of the statewide system
- 5,388 bridges on the CSAH system
- 55,306 miles of townships roads eligible for town road funding
- 5,592 township bridges eligible for town bridge funding
- 456 CSAH projects approved per year, on average
- 194 Federal aid projects approved per year, on average
- 81 Local Road Improvement Program projects approved since 2008
- 77 bridge bond projects approved per year, on average
- 48 township bridge projects approved per year, on average

#### PURPOSE & CONTEXT

State Aid for Local Transportation oversees funding provided to Minnesota counties through annual allotments from the Highway User Tax Distribution (HUTD) Fund, general fund bonding for local bridges and road improvements, and Federal highway administration funds.

Funds from the HUTD are for construction and system maintenance on the County State Aid Highways system, with a small portion available to townships for maintenance and bridge replacement. The other funding sources are primarily for construction on the CSAH system.

Counties select construction projects and perform maintenance activities within their jurisdictions. Our office reviews and approves individual construction plans for compliance with standards and rules.

#### SERVICES PROVIDED

We work closely with the county highway departments to promote a safe, reliable and sustainable local transportation system. This system is vital for moving people and freight throughout the state. The state administers local bridge and road improvement bond funds on a priority basis to supplement costly bridge replacement and improve safety on local roads.

We provide counties with technical advice and materials, like crash record data. Our financial unit processes payments for construction and maintenance and responds to financial questions. The agency also provides support through meetings that bring counties together on common issues.

We review and approve construction plans and project funding requests to ensure consistency with the rules for State Aid Operation. We also work with all counties on their construction, maintenance and project delivery costs, as well as project activities to get the best value for limited resources. Part of the HUTD funding also supports a research board made up of a mix of county engineers and state aid employees. This board researches innovative and economical methods and materials for maintenance and construction.

We also act as an agent for the local authorities in the administration of their federal construction contracts and fulfill the state's obligations for federal oversight of all local federal aid projects. We assist agencies in completing the requirements for federal aid, including public involvement and documentation to comply with environmental and historic preservation requirements.

We also administer state park road funds for counties. These projects are selected by the Department of Natural Resources to provide access to state parks and recreational areas. The town road account is distributed to township governments for maintenance of township roads through the counties and the town bridge account is distributed to counties for the replacement of deficient township bridges.

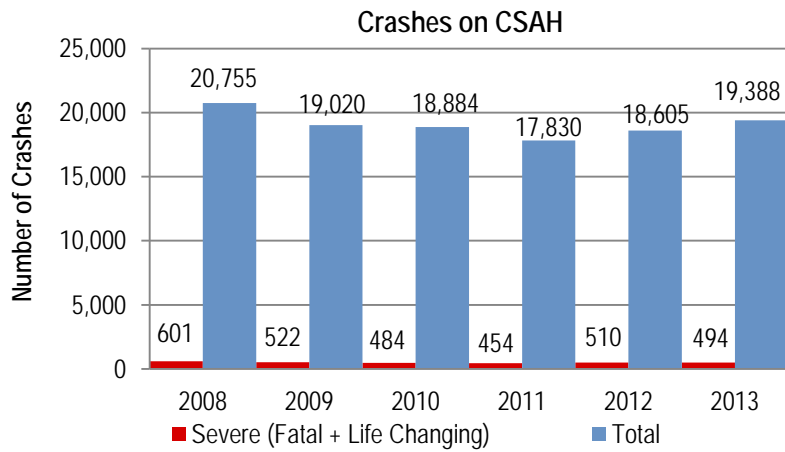
#### RESULTS

Even though the counties select the projects and maintenance programs that are funded, we provide oversight and guidance for the continued improvement of the county state aid system

## Safety

Safety on the CSAH system is measured in both the number of serious crashes (fatalities and life changing crashes) and the total number of crashes that occur.

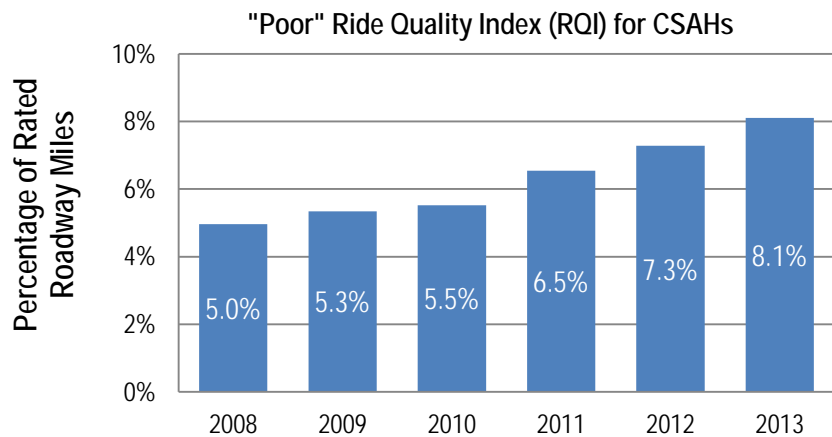
Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)



## Pavement Condition

Pavement Condition – Ride Quality Index (RQI). Over the past six years, there has been an upward trend in the percentage of pavement on the CSAH system that is rated in “Poor” condition based on the RQI.

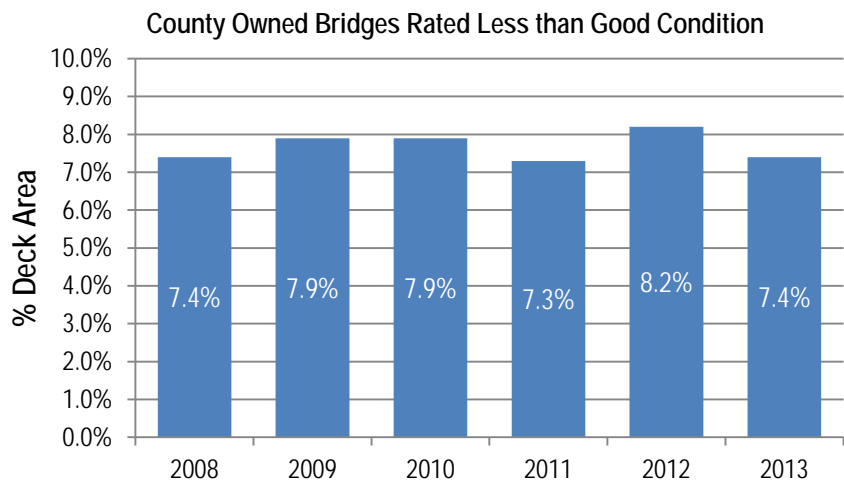
Source: Office of Materials and Road Research, Pavement Management Unit



## Bridge Condition

Over the past six years, the percentage of bridges rated in “Poor” condition has been relatively flat

Source: MnDOT Bridge Office - Bridge Assessment Data Management Unit



The legal authority for the County State Aid Highways activity comes from: Distribution of state aid funds to counties and cities, [Constitution of MN, Article XIV](https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf) (<https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf>)  
 Legal authority for the state aid system, [M.S. 162](https://www.revisor.mn.gov/statutes/?id=162) (<https://www.revisor.mn.gov/statutes/?id=162>)

**Program:** Local Roads  
**Activity:** Municipal State Aid Roads

<http://www.dot.state.mn.us/stateaid/>

**AT A GLANCE**

- 147 cities with a population greater than 5,000
- 3,598 miles of Municipal State Aid Streets (MSAS)
- 450 bridges on the MSAS system
- 190 MSAS projects approved per year, on average
- 81 Local Road Improvement Program projects approved since 2008
- 77 bridge bond projects approved per year, on average

**PURPOSE & CONTEXT**

This activity oversees funding for Minnesota cities with populations greater than 5,000 through annual allotments from the Highway User Tax Distribution (HUTD) Fund. We also distribute general bond proceeds for local bridges, and Federal highway administration funds.

Funds from the HUTD are for construction and system maintenance on the municipal street system.

Cities select construction projects and perform maintenance activities. We review and approve individual construction plans for compliance with state and federal standards and rules.

**SERVICES PROVIDED**

We work closely with municipalities to promote a safe, reliable and sustainable local transportation system. This system is vital for moving people and freight throughout the state. The state administers local bridge bond funds on a priority basis to supplement costly bridge replacement on local roads.

We provide cities with technical advice and data. Our financial unit processes payments for construction and maintenance, and responds to financial questions. The agency also hosts meetings for cities on common transportation issues.

We oversee, review, and approve construction plans and project funding requests to ensure consistency. The agency works with cities on their construction, maintenance and project delivery costs to help them identify innovative and economical methods and materials for construction and maintenance.

We also act as an agent for the local authorities in the administration of their federal construction contracts and fulfill the state's obligations for federal oversight of all local federal aid projects. Our office assists agencies in completing the requirements for federal aid, including public involvement and documentation to comply with environmental and historic preservation requirements.

**RESULTS**

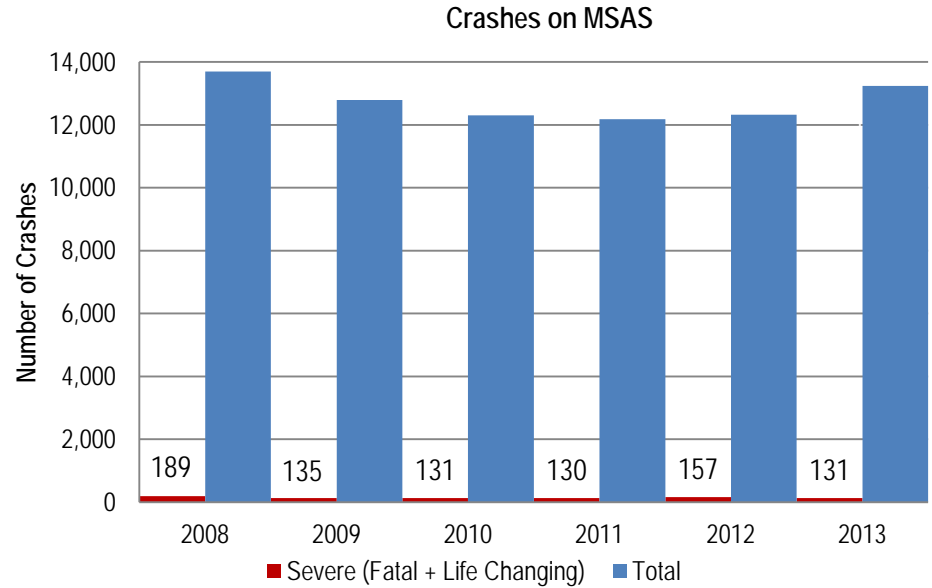
Even though cities select their construction projects and maintenance programs, we provide oversight and guidance for the continued improvement of the municipal state aid system.



## Safety

Safety on the MSAS system is measured in both the number of serious crashes (fatalities and life changing crashes) and the total number of crashes that occur.

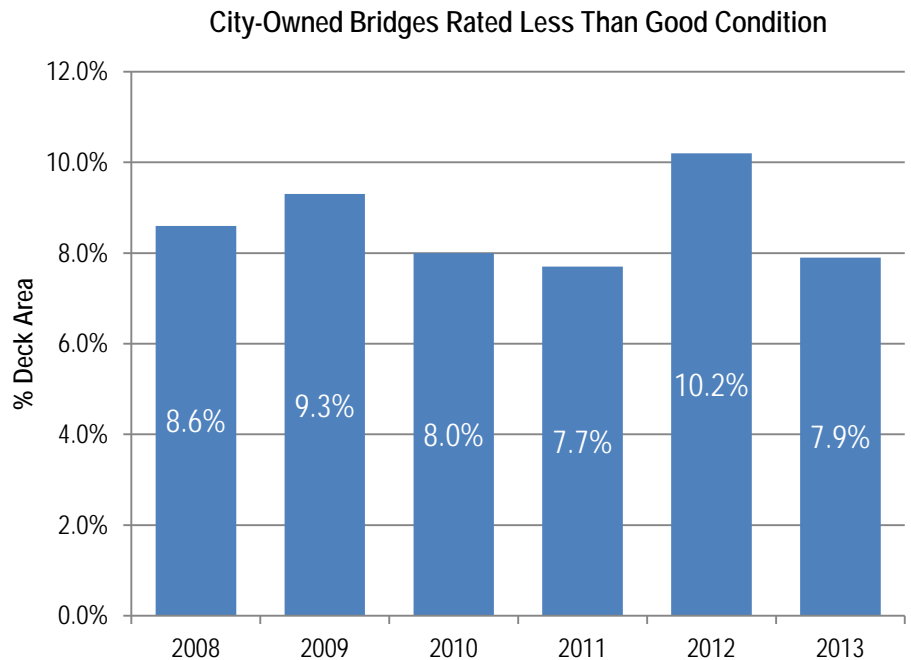
Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)



## Bridges

Over the past six years, the percentage of bridges rated in "Poor" condition has varied only slightly.

Source: Office of Materials and Road Research, Pavement Management Unit



The legal authority for the Municipal State Aid Streets activity comes from:

Distribution of state aid funds to counties and cities, [Constitution of MN, Article XIV](https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf)  
(<https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf>)

Legal authority for the state aid system, M.S. 162 (<https://www.revisor.mn.gov/statutes/?id=162>)

**Program:** Agency Management

**Activity:** Agency Services

<http://www.dot.state.mn.us/funding/index.html>

<http://www.dot.state.mn.us/about/index.html>

<http://www.dot.state.mn.us/jobs/students.html>

#### AT A GLANCE

- 2% of operating budget is directed to agency services
- 126,000 payments to vendors were processed in FY14
- Over 7,100 Construction & Right of Way payments totaling over \$1 billion were processed in FY14
- \$93 million in State Aid to Local Transportation payments were processed in FY14
- 84% of 4,700 employees would recommend us as an employer
- 197 data practice requests completed in 2013
- 3,400 contracts administered in FY 14
- 259 contracts totaling \$78 million audited in FY14
- 300 cases resolved by the Ombudsman's Office since the office was established in 2008
- 17 million unique visitors to the MnDOT website in FY14 and 30,000 email subscribers
- 14,450 Facebook and 13,100 Twitter followers
- 800 Minnesotans participate in the Omnibus Annual Survey and 400 provide weekly input by participating in MnDOT's online community

#### PURPOSE & CONTEXT

Agency Services provide executive leadership and management, policy and goal setting, strategic planning, and integration efforts to ensure the Minnesota Department of Transportation (MnDOT) delivers a safe and effective multimodal transportation system that maximizes the health of people, the environment, and the economy.

Agency Services direct the department's administrative, financial, human, and capital resources by providing agency wide support and services for the effective and efficient delivery of the transportation system. Agency services ensure that agency budgets are based on sound fiscal policy, federal and state compliance measures are in place, and proper fiscal accounting procedures are used in handling federal, state and local funds. This activity also includes all aspects of employing and servicing a diverse and talented workforce of 4,969 full time equivalent employees.

#### SERVICES PROVIDED

**Affirmative Action and Diversity & Inclusion** services include guidance on equal opportunity, coordination of statewide compliance with ADA requirements, investigation of complaints of discrimination, facilitation of employee resource groups, and making recommendations to ensure the diversity of our workforce reflects that of the state.

**Audit** ensures costs are paid in compliance with laws, rules and regulations, and that contracts are administered properly and efficiently. This includes internal auditing of our operations and external auditing of contracts.

**Communications** services include strategic communications planning and consultation that help us manage media relations to enhance public understanding of transportation objectives. The agency provides reliable transportation information to the public, updates travelers on travel options and traffic conditions, and communicates with employees so they can perform their jobs more effectively.

**Customer Relations** services include market research, marketing planning and program guidance, and public engagement and customer response management. This work helps translate state taxpayer expectations into program development and investment planning by bringing customer data into our decision-making process, and by aligning, integrating and communicating agency progress with partners, customers and stakeholders.

**Financial** services include statewide financial planning, accounting, payroll services, forecasting, analysis, budgeting and management of federal, state and bond funds. Financial services also include management of our internal control program, Safeguarding MnDOT, as well as, project and innovative finance initiatives.

**General Administrative Support** incorporates a range of services including materials management, purchasing, employee services, security, mail and document services, administrative business rules, emergency management and continuity of operations, occupational safety and health services, and workers compensation administration.

**Government Affairs** facilitates communication between the department and elected officials, ensuring policy changes and legal authority are enacted to enable efficient operation of the department and the transportation system. This also includes close coordination with tribal governments and training for state officials in tribal/state relations.

**Human Resources/Workforce Development** services provide the full range of human resource management and staffing services, workforce planning, recruitment, development and retention, labor relations, employee and policy development, and oversight of human resources services.

**Legal** services provide legal counsel to the commissioner, legal assistance to our other offices and districts, and coordination of legal support from the Office of the Attorney General. This area also manages agency compliance with the data practices act, produces documents for litigation, and reviews and approves our contracts.

**Ombudsman** services provide a neutral, informal and independent resource to help the public and MnDOT resolve issues by focusing on interests, generating options, and making recommendations for resolution.

**Technology Investment Management** provides leadership and management of agency wide information technology plans, resources and investments, in addition to assuring collaboration with the Chief Information Officer of MN.IT@DOT.

## RESULTS

Department leadership has implemented an agency-wide goal of "enhancing financial effectiveness". As a part of this initiative, MnDOT has identified four strategic focus areas:

- **Financial Management:** excellence in how we deploy, account for and report on financial and other resources.
- **Project Management:** excellence in project scheduling, schedule management and project delivery that is high quality, on time, and on budget.
- **Asset Management:** excellence in how we manage transportation assets for lowest lifecycle cost given tradeoffs and risks in investment decisions.
- **Information and Outreach:** excellence in communicating the agency's progress in answering key customer/stakeholder questions, and demonstrating the efficient and effective use of public funds.

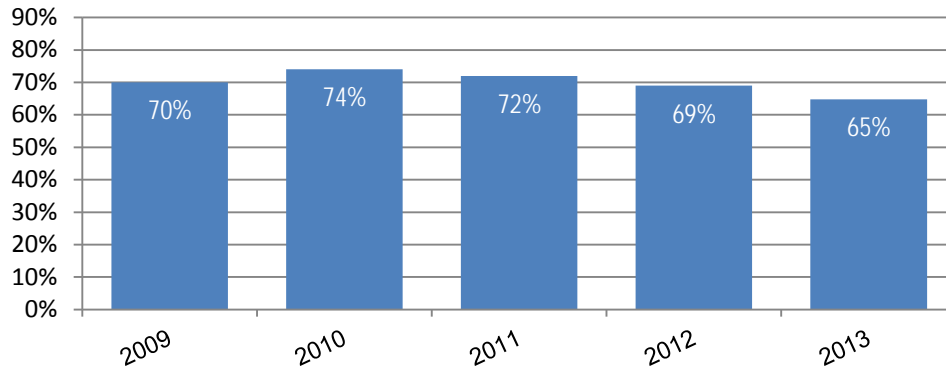
In our efforts to more effectively demonstrate the sources and uses of transportation funding, we have developed a new streamlined product and service grid that is focused on describing to external stakeholders what services we provide to the public.

Safeguarding MnDOT, the agency's internal control program, ensures agency goals are achieved while avoiding fraud, waste and abuse of resources. Minnesota Management and Budget has approved our internal control certification annually since FY10.

We continue to work on strategic staffing and workforce development plans to identify skills and competencies to match our future needs. According to an internal survey, 84% of 4,700 employees would recommend us as an employer. We have a 4.4% turnover rate for fulltime employees. The workforce development plan includes internships and student worker positions to build a more diverse workforce. In the last three years, we have hired 20 new students through the Phoenix program, which provides paid jobs and internships for high school students enrolled in science, technology, engineering or mathematics. The Seeds program, established in 1993, provides paid college-level student worker positions to highly motivated minority or economically disadvantaged college students, veterans and students with disabilities. In the last three years, 77% of Seeds graduates were placed in positions with us.

The Office of Customer Relations manages an annual tracking study surveying 800 Minnesotans. Some measures, like satisfaction with snow plowing, have been queried for nearly 20 years. In 2009, we added six trust-based questions to this survey to assess the public's perception of trust in MnDOT. The agency garnered between 69-86% agreement with these trust-measures. In the past two years, we have given special attention to communicating how we are using public resources to improve the score of 65% agreement with the statement "MnDOT acts in a financially responsible manner." It is important that the public understand how its tax dollars are being used. We are striving to increase scores in this area through added public engagement and communications. Our new [GetConnected](http://www.dot.state.mn.us/getconnected/) website (<http://www.dot.state.mn.us/getconnected/>), created with this goal in mind, answers questions posed by the public.

## Trust in MnDOT's Financially Responsible Actions

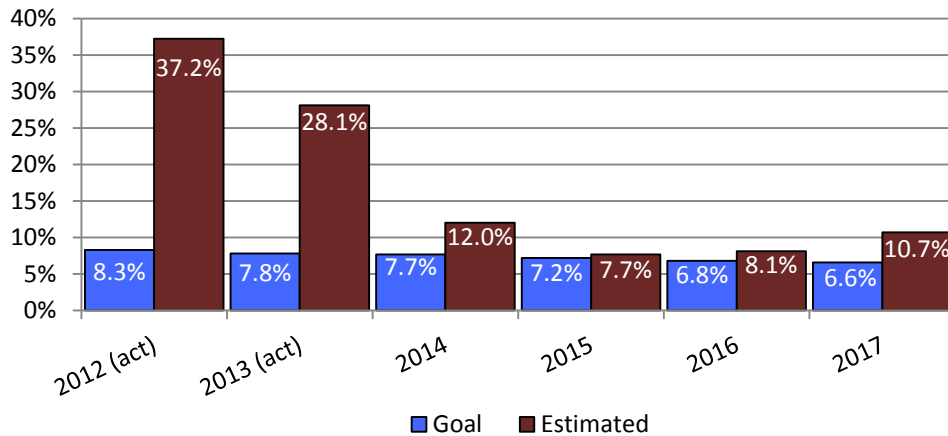


One of the ways we build public trust and confidence is through sound financial management practices. Our Office of Financial Management ensures adherence to legislatively approved budget and internal policies that promote effective stewardship of transportation dollars. These policies relate to the use of advance construction, the Trunk Highway Fund balance and cash balance, and the amount of money we spend each year on debt service.

The Trunk Highway Fund balance policy states the 'Trunk Highway Fund balance should be maintained at not less than the sum of:

- 6% reserve against annual projected state revenues to the Trunk Highway Fund, plus
- 2% reserve against authorized but unissued debt, plus
- Reserve to cover future debt service funding shortfalls.'

## Fund Balance



The legal authority for the Agency Services activity comes from:

Article XIV of the Minnesota Constitution, [https://www.revisor.leg.state.mn.us/constitution/#article\\_14](https://www.revisor.leg.state.mn.us/constitution/#article_14)

Duties of Commissioner, M.S. 174.03 (<https://www.revisor.mn.gov/statutes/?id=174.03>)

Commissioner's Powers and Duties, M.S. 174.02, subd. 2a (<https://www.revisor.mn.gov/statutes/?id=174.02>)

Internal Controls and Internal Auditing, M.S. 16A.057 (<https://www.revisor.mn.gov/statutes/?id=16A.057>)

Contract Management; Validity and Review, M.S. 16C.05, subd 5 (<https://www.revisor.mn.gov/statutes/?id=16C.05>)

**Program:** Agency Management

**Activity:** Building Services

<http://www.dot.state.mn.us/maintenance/facilities.html>

#### AT A GLANCE

MnDOT owns and operates 1,064 buildings with a total of 6,489,309 square feet, including:

- 137 truck stations
- 18 regional headquarters and maintenance sites
- 5 special service sites: MnROAD Research Facility, Arden Hills Training Center, Central Shop, Maplewood Materials Lab and the Aeronautics building
- 173 salt and sand delivery sites
- 68 rest area buildings

#### PURPOSE & CONTEXT

MnDOT's Building Services activity provides prompt and efficient response to the travelling public by planning, designing, building and maintaining the structures that house our personnel, equipment and supplies. This includes leased space and facilities shared with other state agencies and political subdivisions.

We plan, design and build our buildings and also perform or arrange facility repair, operation and maintenance.

#### SERVICES PROVIDED

Building Services provides the following services to our districts:

1. Scheduling new projects
2. Building program planning and management of emergency building repairs
3. Manage and track building energy use
4. Provide program and pre-design services for new and renovated buildings and sites
5. Hire and coordinate consultants for large capital and specialty projects
6. Manage construction documents, bid letting and construction administration
7. Provide essential services: architectural, structural, mechanical, electrical, building automation systems, plumbing and labor contract compliance
8. Maintain building data to track building conditions and deferred maintenance

Our buildings are funded by a direct appropriation from the trunk highway fund and by trunk highway bonds. Trunk highway direct operating dollars are often used to fund small capital projects under a certain threshold (typically \$1.5 to \$2 million in total cost). This minimizes the need to request numerous small projects in capital bonding bills. We have a staff of 22 people who deliver approximately 120-150 projects and manage approximately 50 consultant contracts per year. The agency's facilities are in strategic locations to promptly respond to customer needs; snow and ice operations and system emergencies. They provide space for vehicle storage and repairs, ancillary and installed supporting equipment such as hoists (portable and fixed), wash bay equipment, mowers, trailers, inventory, etc. and for State Patrol staff and vehicles.

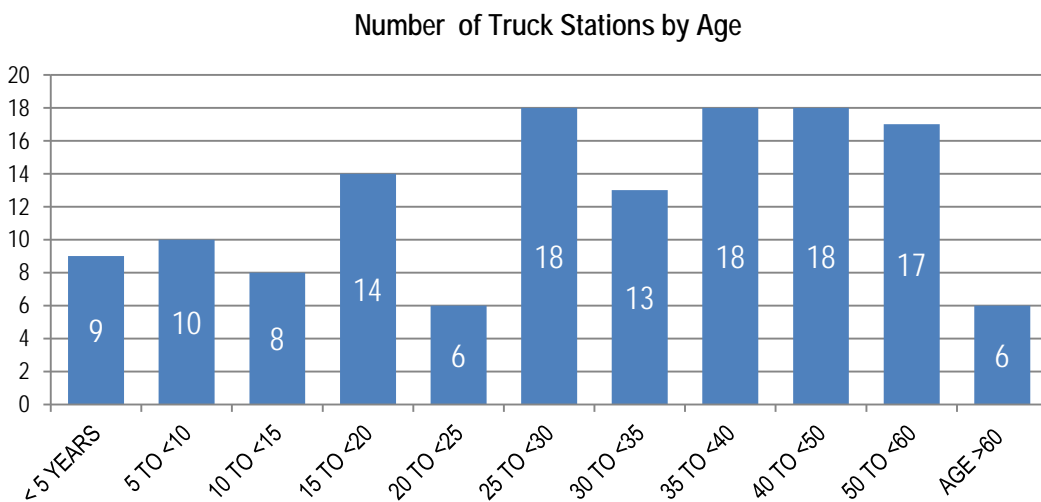
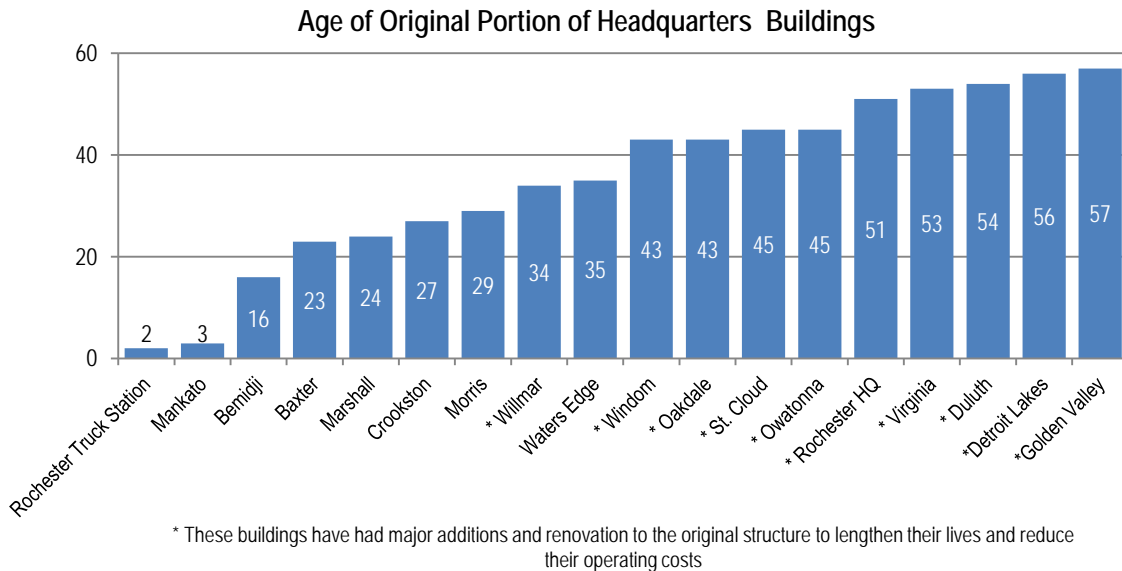
We have two product and service lines:

1. **Facilities Investment and Planning:** We provide planning, programming, budget development, design and construction administration. During the annual building budget process we review and plan future building space requirements. In the past this resulted in a six-year construction plan. In the future, four, ten and twenty year plans will be used to align with highway planning. This process identifies annual maintenance and repair projects that require plans and specifications to be developed by licensed architects and engineers. Whenever possible, we partner with other state agencies and local government subdivisions to take advantage of opportunities to save on costs by sharing buildings. Our buildings section is adopting the same project scheduling tool that our project teams use to manage bridge and highway projects. With better planning, we will let projects at more favorable times of the year and begin construction as soon as weather permits. This tool will help us better inform the districts about project start dates and schedules.

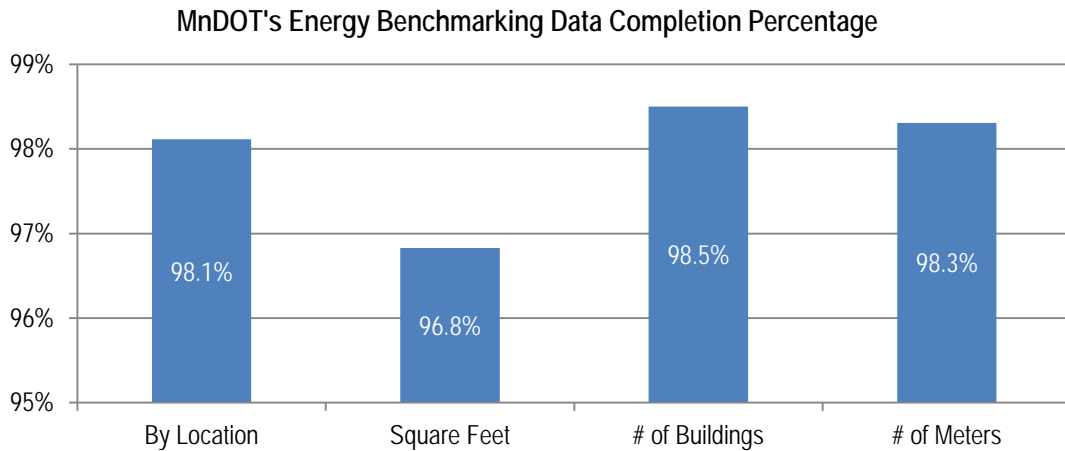
- Facilities Operations and Maintenance:** We maintain buildings including development and enforcement of facility standards, building codes, and other regulatory requirements and partnership agreements with political subdivisions. This includes the administrative functions associated with custodial work, supplies and services, and telecommunications support.

## RESULTS

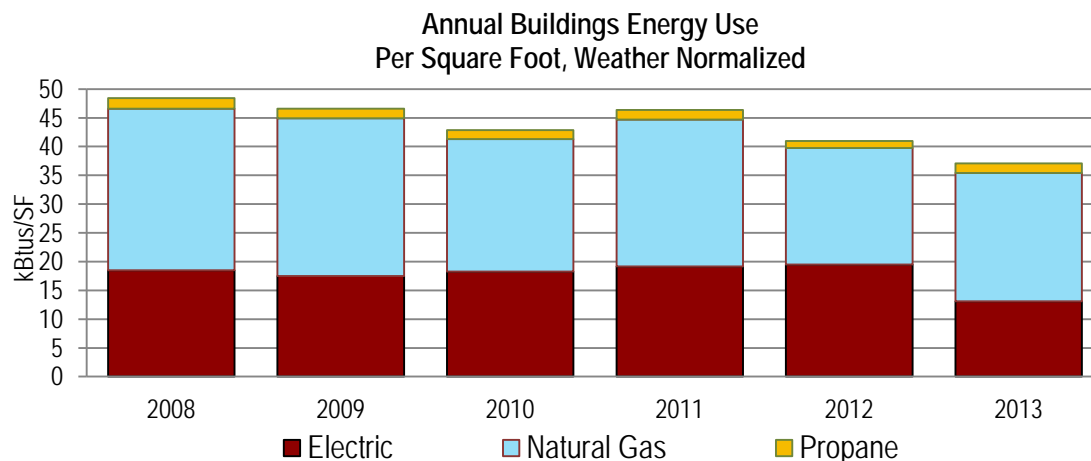
We are one of 19 state agencies implementing the new Enterprise Real Property Facilities Condition Assessment. This assessment is underway and the consultant will have evaluated every MnDOT facility by the end of FY14. This will establish a baseline of building conditions. Our staff will be trained to use the new process will conduct future assessments. When fully implemented, this tool will monitor more than 6.4 million square feet of space in over 1,000 buildings. This assessment will generate a Facility Condition Index. We will use this data, along with operational functionality assessments of the buildings and sites, to develop future plans and make informed investment decisions. As the graphs below indicate, a significant number of our buildings are more than 30 years old. Many new projects will be initiated based on the detailed assessments.



We are also implementing the State's B3 Energy Benchmarking Tool. As seen in the graph below, the tool contains data from 260 of 265 buildings. The agency migrated data from a previous database and our district staff are updating current energy use. We are analyzing this data, which has helped it use energy more efficiently as well as meet Executive Order (EO) 11-12. This is a link to the B3 benchmarking information: [www.mn.b3benchmarking.com](http://www.mn.b3benchmarking.com).



Our energy program seeks to enhance financial effectiveness by using data collected by web-connected building automation systems. This allows the agency's energy engineer to monitor facility operational trends to identify improvement opportunities and adjust statewide mechanical systems on-line from the Central Office. We have instituted a Guaranteed Energy Savings Program, already underway in District 1/Duluth. This program was mandated by EO 11-12 and allows state agencies to finance facility energy efficiency projects through the energy savings. We also evaluate projects for potential use of geothermal systems and have evaluated several projects for photovoltaic (PV) systems. A large rooftop PV system has been designed and will be installed as part of the new Rochester Headquarters renovation. We are constantly updating building systems through careful monitoring of equipment and other building components. The graph below shows the trend in improvements to energy usage using weather normalization (which allows year to year comparisons) between 2008 and 2013.




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The legal authority for the Buildings Services activity comes from:  
 Duties of Commissioner, Other duties, Construct and maintain transportation facilities, [M.S 174.03](http://www.revisor.mn.gov/statutes/?id=174.03)  
 (<https://www.revisor.mn.gov/statutes/?id=174.03>)  
 General Powers of the Commissioner, [M.S. 161.20](http://www.revisor.mn.gov/statutes/?id=161.20) (<https://www.revisor.mn.gov/statutes/?id=161.20>)