

# Chapter 4

# 2050 Regional Vision



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## Introduction

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Now that we have a pretty good handle on where we are (based on the groundwork discussed in both the existing conditions and environmental section), our next step is to figure out where we want to go.

After we've evaluated our current situation (both what is and is not working well) we need to identify a path forward and a means to get there. This chapter is designed to do just that.

As we Look Ahead to 2050, we need to come to an agreed upon destination. Assisting transportation planners, engineers, and local policymakers in this process is the creation of a transportation vision – answering the question of what we would like to achieve during this planning horizon. These higher-level visionary statements are meant to serve as aspirational goals for the region's transportation network.

Using objectives and strategies, we as a region can then start taking purposeful action steps to execute our goals. Keeping us in check along the way is a series of performance measures which allow us to assess our progress and/or redirect our efforts as needed.

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## Guiding our Goals at the National and State Level

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While the APO does establish their own regional vision (goals), objectives, and strategies as part of the MTP process; these must be consistent with goals established at both the national and state levels. Because the APO is a recipient of Federal and State transportation funding which is used to carry out various programs – including the ultimate expenditure of Federal and/or State transportation funding for infrastructure – it is crucial that this plan's goals, objectives, and strategies are compliant.

# National Transportation Goals

Federal law (as codified in 23 U.S.C. 150(b)) establishes the following national surface transportation goals:

**Safety:** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.



**Infrastructure Condition:** To maintain the highway infrastructure asset system in a state of good repair.



**System Reliability:** To improve the efficiency of the surface transportation system.

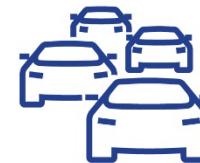


**Environmental Sustainability:** To enhance the performance of the transportation system while protecting and enhancing the natural environment.

**Freight Movement and Economic Vitality:** To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.



**Congestion Reduction:** To achieve a significant reduction in congestion on the National Highway System.



**Reduce Project Delivery Delays:** To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.



Figure 4.1: National surface transportation goals.

# State Transportation Goals

*In addition to the national transportation goals, the State of Minnesota has developed 16 statutory goals as outlined in Minnesota statute 174.01 that MnDOT must comply with:*

1. To minimize fatalities and injuries for transportation users throughout the state.
2. To provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community.
3. To provide a reasonable travel time for commuters.
4. To enhance economic development and provide for the economical, efficient, and safe movement of goods to and from markets by rail, highway, and waterway.
5. To encourage tourism by providing appropriate transportation to Minnesota facilities designed to attract tourists and to enhance the appeal, through transportation investments, of tourist destinations across the state.
6. To provide transit services to all counties in the state to meet the needs of transit users.
7. To promote accountability through systemic management of system performance and productivity through the utilization of technological advancements.
8. To maximize the long-term benefits received for each state transportation investments.
9. To provide for and prioritize funding of transportation investments that ensures that the state's transportation infrastructure is maintained in a state of good repair.
10. To ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state.
11. To promote and increase the use of high-occupancy vehicles and low-emission vehicles.
12. To provide an air transportation system sufficient to encourage economic growth and allow all regions of the state the ability to participate in the global economy.
13. To increase the 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.
14. To promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation.
15. To reduce greenhouse gas emissions from the state's transportation sector.
16. To accomplish these goals with minimal impact on the environment.

**Figure 4.2:** The 16 statutory transportation goals for the State of Minnesota per Minnesota statute 174.01.

### MnDOT Policy Guidance

Over a decade ago the State of Minnesota launched a visioning process to “better align the transportation system with what Minnesotans expect for their quality of life, economy, and natural environment.” Known as Minnesota GO, this 50-year statewide vision established guiding principles regarding the future of transportation for the state by answering the question: “What are we trying to achieve with transportation over the next 50 years?”

In 2011 the state adopted the following vision: “Minnesota’s multimodal transportation system maximizes the health of people, the environment, and our economy.”

### Guiding Principles for the Minnesota GO Vision

- Connecting Minnesota’s primary assets -- the people, natural resources, and businesses within the state -- to each other and to markets and resources outside the state and country.
- Providing safe, convenient, efficient, and effective movement of people and goods.
- To be flexible and nimble enough to adapt to changes in society, technology, the environment, and the economy.
- Recognizing and respecting the importance, significance, and context of place -- not just as destinations, but also where people live, work, learn, play, and access services.
- To be accessible regardless of socio-economic status or individual ability.
- To be designed in such a way that it enhances the community around it and is compatible with natural systems.
- To minimize resource use and pollution.
- To enhance and support Minnesota’s role in a globally competitive economy as well as the international significance and connections of Minnesota’s trade centers.
- Attracting human and financial capital to the state.

LOOKING  
AHEAD  
2050

**Figure 4.3:** A list of the guiding principles for the Minnesota GO Vision.

To assist in executing the policy portion of the vision, MnDOT has developed its [Statewide Multimodal Transportation Plan \(SMTP\)](https://tinyurl.com/m5bb5ud9) (<https://tinyurl.com/m5bb5ud9>). The SMTP is Minnesota’s highest level policy plan for transportation and provides direction to move the state’s transportation system forward.

With the latest update to the SMTP, the state has prioritized six key areas to focus their efforts.

1. **Transportation Safety:** Safeguard transportation users as well as the communities the system travels through. Apply proven strategies to reduce fatalities and serious injuries for all modes. Foster a culture of transportation safety in Minnesota.
2. **System Stewardship:** Strategically build, maintain, operate, and adapt the transportation system based on data, performance, and community needs. Ensure effective and efficient use of resources.
3. **Climate Action:** Advance a sustainable and resilient transportation system. Enhance transportation options and technology to reduce greenhouse gas emissions. Adapt Minnesota’s transportation system to a changing climate.
4. **Critical Connections:** Maintain and improve multimodal transportation connections essential for Minnesotans’ prosperity and quality of life. Strategically consider new connections that help meet performance targets and maximize social, economic and environmental benefits.
5. **Healthy Equitable Communities:** Foster healthy and vibrant places that reduce disparities and promote healthy outcomes for people, the environment, and our economy.
6. **Open Decision Making:** Make equitable transportation decisions through inclusive and collaborative processes that are supported by data and analysis.

Each of these focus areas has a series of objective statements as well as strategies and actions to support the achievement of these focus areas and that will ultimately contribute to the success of the Minnesota GO Vision.

As stated earlier, the APO’s MTP must be consistent with the policies laid out by MnDOT including the ones established in the SMTP.

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## The Looking Ahead 2050 Visioning Process

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Soon after the development of the 2045 MTP, APO staff sought to facilitate a community-wide visioning process to assist in the development of this long-range plan – Looking Ahead 2050. Utilizing a variety of public engagement tools and strategies, APO staff sought to understand the issues and priorities residents of the Saint Cloud MPA have regarding the regional transportation network.

During this visioning process, approximately 2,000 responses were collected and reviewed. Each of these responses were recorded and subsequently categorized into six themes in which the public believes the region should strive to achieve by planning horizon 2050. Those themes are:

- **System and Environmental Stewardship:** Protecting and preserving our existing infrastructure and environmental assets.
- **Multimodal Connections:** Providing a safe and equitable multimodal transportation network affordable for people of all ages and abilities to travel using their preferred modal choice.



- **Congestion Management:** Mindfully planning, developing, and operating an innovative transportation network to minimize unnecessary travel delays.
- **Transportation Safety:** Reducing fatalities and serious injuries by planning, designing, and building safe infrastructure and improving driving behavior.
- **Interregional Connections:** Supporting an economically vibrant region through developing and preserving vital connections to other state, national, and global centers of commerce.
- **Technological Advancements:** Understanding and planning for future innovative transportation technologies and encouraging their presence and incorporation into the region’s existing transportation network.

These visioning statements/themes serve as the foundational goals for the overall direction of the Looking Ahead 2050 MTP. In addition, these statements will serve as the guiding direction for the APO’s planning efforts and ultimate the implementation of various infrastructure projects and/or policies for the region.

Appendix M provides a detailed overview of the APO’s visioning process.

In the sections that follow, each of these visioning statements/goals will be further addressed through the identification of objectives and strategies to be implemented by the APO and/or its planning partners.

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### **System and Environmental Stewardship**

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Transportation infrastructure is a significant public investment. And as such, care should be taken to preserve and protect that investment. According to the Federal Highway Administration (FHWA), delaying maintenance and repair of pavement until it has gone beyond its effective service life will be significantly more expensive than regularly scheduled preservation treatments. As stated in the article [“Pavement Preservation: Preserving Our Investment in Highways”](https://tinyurl.com/muacwrr8) (https://tinyurl.com/muacwrr8), authors Robert Davies and Jim Sorenson state that while pavement will not last forever, preservation activities reduce the rate of deterioration. Being proactive in preservation treatments – i.e., applying treatment to pavement when it is still in relatively good condition with no structural damage – results in an “extension of the service life of the original pavement, and extending the service life instead of having to rehabilitate the pavement translates into a savings in funds and a better overall ride quality.”

In addition to preserving transportation assets such as roadways and bridges, it is important transportation planners understand the role this sector plays in terms of our region’s natural resources. As stated in Chapter 3, transportation has both a direct (i.e., greenhouse gas emissions) and indirect (i.e., water quality and wildlife habitat) impact on the natural environment. As a contributing factor in climate change, the [U.S. Department of Transportation](https://tinyurl.com/22z9cmtn) (https://tinyurl.com/22z9cmtn) has outlined the responsibility the transportation sector has in finding a solution to the climate crisis. At the state level, MnDOT’s SMTP outlines the importance of the state’s natural resources and a commitment to minimizing harm to the environment.



**Figure 4.4:** Cracking pavement along Graniteview Road in Waite Park taken in 2019.  
Photo courtesy Saint Cloud APO.

### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the System and Environmental Stewardship Visioning Theme.

- "We need to be sure that we maintain our roads as needed, we have some roads that need attention."
- "Improve the condition of our roads and highways."
- "Repair bad roads and keep up with them."
- "Resurface the many streets that are REALLY rough – bad on drivers and passengers."
- "Better roads and sidewalks would be the best way to improve transportation. Right now they are broken and dangerous."

- “Some of the roads need to be retarred. Over by the Technical Community College especially, on the north side and all roads over there. The roads are so bumpy and cracked it makes the ride uncomfortable.”
- “Finding ways that are ‘greener’ to save our environment.”
- “Decrease carbon footprint.”
- “Reverse the effects of global warming.”
- “We need to develop e-car charging stations that are environmentally friendly (solar), accessible throughout the community and affordable.”
- “More availability of eco-friendly transportation.”

### How to Address This Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Prioritize the maintenance and preservation of the existing transportation network.
  - a. The APO shall maintain and regularly update its pavement condition database to help identify areas in need of repair.
  - b. The APO shall develop and maintain a planning and programming process that prioritizes funding for bridges with a “poor” condition rating and roadways with a “poor” International Roughness Index (IRI) rating more highly than other bridges or roadways.
  - c. APO staff shall maintain and regularly update its shared use path pavement condition database to help identify areas in need of repair.
2. Invest in cost-effective transportation solutions.
  - a. The APO jurisdictional members shall use life-cycle cost estimates when evaluating the cost-effectiveness of potential changes to the transportation system.
3. Efficiently manage the transportation system.
  - a. APO staff will develop and regularly report on performance measures aimed at evaluating how efficiently and effectively the transportation systems are being operated/managed.
  - b. APO jurisdictional members shall regularly monitor and adjust traffic signal timings to improve traffic flow.
4. Protect the environment through the promotion of climate resilient transportation practices.
  - a. APO staff will monitor air and water quality to help ensure compliance with national and state quality standards.
  - b. The APO will work to support and promote transportation options with the smallest net environmental impact.
  - c. The APO staff and jurisdictional members shall integrate and encourage the integration of climate change considerations into transportation decision making and evaluate opportunities to mitigate risks.
5. Prevent and/or minimize disproportionate adverse impacts to communities containing a high level of low-income households and/or areas with high concentrations of Black, Indigenous, and People of Color (BIPOC) populations.
  - a. APO staff will monitor and regularly report on transportation impacts to neighborhoods with higher percentages of low-income households and/or areas with high concentrations of BIPOC populations.

## Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the System and Environmental Stewardship Visionary Statement.

- \*Interstate System Pavement Conditions.
- \*Non-Interstate National Highway System (NHS) Pavement Conditions.
- Functionally Classified Roadway Pavement Conditions.
- \*National Highway System (NHS) Bridge Conditions.
- Systemwide Bridge Conditions.
- Annual Air Quality.

Note, the performance measures denoted with an "\*" are federally-required performance measures. For details on how each performance measure is calculated, please see Appendix N.

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## Multimodal Connections

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As stated in Chapter 2, not everyone in the Saint Cloud MPA has or wants to rely on a motor vehicle to complete every trip.

Active (i.e., walking and biking) and public transportation are important components of the transportation network. However, according to author Todd Litman with the Victoria Transport Policy Institute, over the last century these forms of transportation have often taken a backseat to the automobile. As a result, Litman writes, such focus has essentially ignored the needs of non-vehicle travel demands.

In his paper titled "[Introduction to Multi-Modal Transportation Planning: Principles and Practices](https://tinyurl.com/2s42nrd2)" (<https://tinyurl.com/2s42nrd2>), Litman states, "Of course, not everybody uses all travel options, but most communities include people who need each one."

Multimodal options are critical components needed to develop an equitable transportation network for all users. Transportation – and in particular reliable and safe access to it – can be a barrier for some individuals including those in the BIPOC community, people with disabilities, people with low incomes, and people with limited English proficiency for example. Using the 2009 National Household Travel Survey, Litman concluded a typical community in the U.S. has approximately 20-40% of its total population unable to drive due to disability, economics, age constraints, or vehicle failures. Low to minimal cost alternatives to owning and/or maintaining a vehicle can provide individuals who rely on active or public forms of transportation the opportunity to be connected to employment, education, recreation, goods, and services.



**Figure 4.5:** Students and parents crossing the street outside of Pleasantview Elementary School in Sauk Rapids.  
Photo courtesy Saint Cloud APO.

### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Multimodal Connections Visioning Theme.

- "Better care of our sidewalks. In particular, sidewalks should be cleared and salted by city workers during winter months to ensure that mobility challenged citizens are able to move safely and freely around the city at any time of the year."
- "Transportation policies and practices that prioritize people, not cars."
- "Make pedal biking and walking more accessible. I.e.: Make more bike lanes and walking paths or make some areas safer to bike/walk. Thanks!"
- "I live in St. Joe and I don't need a public bus. In the future if I need to, I would like to get public service from St. Joseph into St. Cloud."
- "Expanded paratransit and disability services."
- "I also think increasing the size of the bus network and its frequency of trips will be beneficial as currently many routes are quite long or require waiting for long intervals to arrive."

- “I do think those who can not drive or have a disability need public transportation so it’s a toss up to have it support itself and to be tax funded.”
- “It would be beneficial to have access to public transportation out here. We don’t have access to Tri-CAP or Dial A Ride. With a developmentally delayed adult son in my home, those transportation opportunities would be so helpful. On weeks I work 3-4 shifts, we spend over \$50/day in taxis to get him to and from work.”
- “Car dependence is convenient but prohibitively expensive.”
- “Transportation needs to be cheaper and more affordable to all.”

### How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Identify and maintain viable non-motorized transportation options.
  - a. APO staff will identify, map, and monitor the use of bicycle and pedestrian routes and facilities to determine gaps in the network and opportunities for improvements.
  - b. APO staff and jurisdictional members will work cooperatively to maintain and implement the regional active transportation plan.
  - c. APO staff will continue to coordinate with MnDOT regarding where regional and statewide bicycle facilities enter the Saint Cloud metro area and where they intersect with other local and regional facilities.
  - d. APO staff and Metro Bus will work cooperatively to ensure achievement and maintenance of a state of good repair for public transit assets.
2. Increase the accessibility and efficient mobility of people.
  - a. APO staff and jurisdictional members will encourage and support, to the extent possible, collaborative efforts with public and private transportation providers to ensure coordination of services, optimal sure of resources, and filling of service gaps.
  - b. APO staff and jurisdictional members will encourage and support transportation facilities that are compliant with the Americans with Disabilities Act (ADA) and meet Title VI, Title II, and other environmental justice requirements.
3. Enhance connectivity across and between modes of transportation.
  - a. APO staff shall complete a feasibility study on possible micromobility options for the region and their potential to augment, supplement, or replace other transportation options for residents.
  - b. The APO staff and Metro Bus will work cooperatively to regularly evaluate bus stops, bus shelter locations, condition, and auxiliary amenities to help ensure the needs of the traveling public are being met. Such an evaluation shall also include an evaluation of ADA-compliant access to stop locations.
  - c. APO staff and Metro Bus will work cooperatively to regularly evaluate urban public transit routes and services to help ensure efficient operations and optimal ridership.

## Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Multimodal Connections Visionary Statement.

- \*TRANSIT: State of Good Repair for Equipment, Facilities, and Rolling Stock.
- TRANSIT: Passengers Per Revenue Hour.
- TRANSIT: Number of Annual Transit Riders.
- \*TRANSIT: Total Number and Rate of Reportable Events Per Total Vehicle Revenue Miles by Mode.

Note, the performance measures denoted with an "\*" are federally-required performance measures. For details on how each performance measure is calculated, please see Appendix N.

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## Congestion Management

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Slow moving vehicles. Stop and go traffic. An increase in travel time. All signs of a common traffic problem known as congestion. Author James Brasuell describes congestion as a supply and demand imbalance – with more cars on the road than the space on the road allows. In his article, "[Planning and the Complicated Causes and Effects of Congestion](https://tinyurl.com/y2xrkvz)" (<https://tinyurl.com/y2xrkvz>), Brasuell writes: "Depending on the time of day, and the surrounding population and workforce densities, and the conditions of the road and its intersections, demand for the roadway can increase up to and beyond the point of saturation – when the volume of cars using the road is greater than the capacity of the road."

While we have an understanding of the effects of congestion – i.e., slower speeds, increases in travel delay, increases in fuel consumption – the causes of congestion are multifaceted and are often acting alongside each other. The Federal Highway Administration (FHWA) has outlined seven root causes of congestion according to the report "[Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation](https://tinyurl.com/23mjwzr3)" (<https://tinyurl.com/23mjwzr3>):

1. Traffic Incidents.
2. Work Zones.
3. Weather.
4. Fluctuations in Normal Traffic.
5. Special Events.
6. Traffic Control Devices.
7. Physical Bottlenecks.



**Figure 4.6:** Intersection of MN 15 at Veterans Drive/Eighth Street N in Saint Cloud.  
Photo courtesy of Saint Cloud APO.

As the FHWA report indicates, "The problem is that with the exception of the physical bottlenecks, the sources of congestion occur with maddening irregularity – nothing is ever the same from one day to the next."

There is no one solution to eliminating congestion within a certain region. However, several tactics employed strategically can improve (or manage) the effects of congestion on our roadways.



### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Congestion Management Visioning Theme.

- “Too many cars on same roads at peak travel times.”
- “St. Cloud division is too congested.”
- “I try to avoid traveling through St. Cloud because of all the traffic lights/congestion.”
- “Upgrade traffic lanes to accommodate volume of cars.”
- “Getting anywhere in this city requires going through SEVERAL stoplights. Although I believe there are plans for a ‘loop’ why are the main highways controlled by traffic lights? Highway 15, Highway 10, Highway 23 all inundated by stoplights.”
- “Another contributing factor is the length of stoplights. Crossing any of the major roads takes an eternity and God forbid an emergency vehicle needs to go through and resets the cycle. The lights to cross the major roads in Saint Cloud need to be more frequent. The amount of gas and time that is wasted just sitting at traffic lights is ridiculous.”
- “I would rather drive anywhere in the Twin Cities than Division Street in St. Cloud.”
- “Area needs a ring road or a bypass circling the St Cloud metropolitan area.”
- “Find a way around the St. Cloud city. It sucks having to drive thru the city to get from west to east. Need a roadway that goes around the city.”
- “We need a closer look at the traffic on Division Street. There are huge trucks that use that route during rush hours. Can this be restricted? Can we offer an alternative route for trade vehicles?”
- “There needs to be a truck bypass rather than truck traffic clogging our city.”

### How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Increase mobility of people and freight.
  - a. APO staff will continue to collect and analyze data related to travel time reliability, level of service, and vehicle miles traveled to identify areas for congestion mitigation measures.
  - b. The APO jurisdictional members will, to the extent possible, take measure to ensure appropriate densities and mixing of appropriate land uses to help reduce commute distances, encourage non-motorized options, and maximize the efficient delivery of public services to residents.
  - c. The APO will continue to explore the feasibility, costs, and potential benefits of an urban beltline corridor for longer distance and through movements around the MPA.

## Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Congestion Management Visionary Statement.

- \*Annual Percent of Person-Miles Traveled on the Interstate that are Reliable.
- \*Annual Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable.
- Annual Vehicle Miles Traveled.

Note, the performance measures denoted with an "\*" are federally-required performance measures. For details on how each performance measure is calculated, please see Appendix N.

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## Transportation Safety

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Safety is of the utmost importance when it comes to the transportation network.

As the SMTP points out, "ensuring transportation user safety applies to all people who use the transportation system regardless of their mode of travel, as well as transportation workers."

Nationwide, safety has generally improved on the country's roadways over the last 40 years with fewer deaths and serious injuries reported annually. However, according to [MnDOT's 2022 General Transportation Safety Trend Analysis report](https://tinyurl.com/52htaz3s) (https://tinyurl.com/52htaz3s), trends in fatalities and serious injuries among motorcyclists, bicyclists, and pedestrians have been on the rise.

At the state level, MnDOT's approach to transportation safety includes embracing the six principles of Safe Systems. Those principles include:

1. Death/serious injury is unacceptable.
2. People make mistakes.
3. Humans are vulnerable.
4. Responsibility is shared.
5. Safety is proactive.
6. Redundancy is crucial.

Taken together, the Safe System Approach establishes the groundwork toward building a culture of safety rooted in a people-centered way. Through initiatives like Toward Zero Deaths (TZD) and Safe Routes to School (SRTS), the state is working toward reducing the number of fatalities and serious injuries on Minnesota roadways.

### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Transportation Safety Visioning Theme.

- "Driving scares me. Especially in St. Cloud. I try my hardest to avoid it. Too many accidents. People on their phones and not paying attention."
- "More education for drivers to look out for bikers and pedestrians."
- "Stop the speeding and impatient drivers."
- "Slower speed limits and/or more stop signs may be beneficial on side roads as people tend to drive recklessly, and there are kids, bicycles, and people walking dogs, etc."
- "More enforcement on the roads."
- "Saint Cloud highway complex is the number 1 and number 2 worst in the state of Minnesota, it's the worst for accidents."
- "Fifth Avenue and University roundabout is called 'the wheel of death.'"
- "More roundabouts. They seem to be much safer than traffic lights."
- "We need safer roads – people do not understand how to use roundabouts or how to stop at stop signs and red lights."
- "Also, when I am riding in a car we need to enforce people rolling into stop signs and people running stop signs. It is something that I see all of the time at least twice a day and it needs to be fixed."
- "With the increase of cell phone use and driver distraction, I no longer feel safe biking on rural

roadways trusting that a motorist will see me and give me safe passage."



**Figure 4.7:** Vehicle crash on North Benton Drive in the City of Sauk Rapids.  
Photo courtesy of Saint Cloud APO.

## How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Build and maintain roadways that include appropriate safety infrastructure to help prevent crashes.
  - a. The APO jurisdictional members will, to the extent possible, implement appropriate traffic safety infrastructure based on roadway context to minimize fatal and serious injury crashes.
2. Identify and prioritize high-crash locations for investment and/or mitigation activities, as warranted.
  - a. APO staff will continue to monitor crash rates on the Federal-Aid roadway system to help identify high-crash locations and potential causes of crashes.
3. Reduce the regional rates of bicycle and pedestrian fatalities and serious injuries.
  - a. APO staff will collect and evaluate bicycle and pedestrian crash data to help determine the most common causes of fatalities and serious injuries and to identify action steps for the mitigation of crashes.
  - b. APO staff will continue to work with organizations and government agencies on multimodal transportation projects and programs that enhance access to schools through MnDOT's Safe Routes to School program.
  - c. APO staff and jurisdictional members will, to the extent possible, integrate active transportation safety measures into transportation infrastructure projects.
4. Support, to the extent practical, efforts by outside agencies and stakeholders to improve driving behavior.
  - a. APO staff will continue their participation in the East Central Minnesota Toward Zero Deaths program.
  - b. APO staff will maintain and regularly update a comprehensive regional traffic safety action plan.
5. Support, to the extent practical, a safe transit system.
  - a. APO staff, in cooperation with Metro Bus staff, will monitor and report on transit safety performance.

## Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Transportation Safety Visionary Statement.

- \*Number of Fatalities – Five Year Rolling Average.
- \*Rate of Fatalities – Five Year Rolling Average.
- \*Number of Serious Injuries – Five Year Rolling Average.
- \*Rate of Serious Injuries -- Five Year Rolling Average.
- \*Number of Non-Motorized Fatalities and Serious Injuries – Five Year Rolling Average.
- Number and Percent of Crashes, Fatalities, and Serious Injuries that Involved Chemical Impairment – Five Year Rolling Average.

- Number and Percent of Crashes, Fatalities, and Serious Injuries that Involved Distracted Driving – Five Year Rolling Average.
- \*TRANSIT: Number and Rate of Fatalities – Annual.
- \*TRANSIT: Number and Rate of Injuries – Annual.
- \*TRANSIT: Number and Rate of Safety Events – Annual.

Note, the performance measures denoted with an “\*” are federally-required performance measures. For details on how each performance measure is calculated, please see Appendix N.

## Interregional Connections

Regional economic development experts agree transportation plays an integral role in furthering the prosperity of an area. Authors Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom argue in their book *The Geography of Transport Systems* (<https://tinyurl.com/8e9c8vt2>) that economic activities cannot take place without an infrastructure base. Efficient and interconnected transportation, they state, provides numerous economic and social opportunities such as better accessibility to markets and employment. “A poor transport service level can negatively affect the competitiveness of regions and their economic activities and thus impair the regional added value, economic opportunities, and employment.”

“This is even more so in a global economy where economic opportunities have been increasingly related to the mobility of people and freight, including information and communication technologies. A relation between the quantity and quality of transport infrastructure and the level of economic development is apparent. High-density transport infrastructure and highly connected networks are commonly associated with high levels of development.”

*Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom*

**Figure 4.8:** Excerpt from *The Geography of Transport Systems* by authors Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom.

The Saint Cloud MPA is not a self-sustaining economy. As stated in Chapter 2, thousands of individuals both enter and leave the MPA for employment. Vital freight networks such as I-94, US 10, MN 15, and MN 23 run throughout the region transporting goods to market. This is on top of the region’s airport and railway network. Connections not only within the MPA but outside of the MPA to areas like the Twin Cities, greater Minnesota, and even nationally/internationally are critical to sustaining the economic vibrancy of the MPA. Focus on preserving and protecting key roadway corridors not only helps facilitate interregional travel, but also puts our region on the “radar” of firms interested in locating to or staying within the planning area.

### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Interregional Connections Visioning Theme.

- “Better connections between Twin Cities and Sauk Rapids MN area.”
- “I believe there needs to be a transportation system linking St. Cloud to Minneapolis/St. Paul to connect to opportunities there.”
- “More options to travel to Minneapolis airports.”
- “We need ways to get to the Twin Cities besides driving on I-94 and Highway 10.”
- “Improved options for commuters for mass transit to the Twin Cities from St. Cloud.”
- “Improve transportation means for long distance traveling, like railways, buses, etc. not just flights.”
- “Easier travel to/from the cities.”
- “Competitively priced transport to Minneapolis airport.”
- “I also would like the St. Cloud airport to be utilized more as if I need to fly somewhere I look there first.”
- “Get the rail to St. Cloud.”
- “Commuter rail that reaches all the way to St. Cloud. I would use it way more often than. I drive now to visit family in the Twin Cities area.
- “Trains from Minneapolis to St. Cloud, Duluth, Rochester.”
- “We also need the light rail to finish its track to St. Cloud. People I know who do not have transportation are very rarely able to go to the cities. We could have much greater tourism and economic benefit long term if the two urban areas were linked by train.”

### How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Promote the efficient movement of people.
  - a. The APO, to the extent possible, will coordinate with jurisdictional and agency partners to identify, preserve, and enhance long-distance commuter connections, including, but not limited to, the extension of the Northstar Commuter Rail to the Saint Cloud metro.
  - b. The APO will support, as appropriate, further integration of the Saint Cloud Regional Airport into the regional transportation network, including, but not limited to, the desire for additional commercial passenger services.
  - c. The APO will support, as appropriate, multimodal connections to interregional transportation options such as Jefferson Lines, Amtrak, Tri-CAP, Northstar Commuter Rail, the Saint Cloud Regional Airport, etc.
2. Promote the efficient movement of goods and freight.
  - a. APO staff shall keep abreast of economic development patterns and will promote consistency between economic development plans and transportation plans.

- b. APO staff and jurisdictional members will explore and implement, as prudent, freight movement performance data collection and analysis for all freight network tiers.

### Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Interregional Connections Visionary Statement.

- \*Truck Travel Time Reliability Index for Tier 1 Freight Network.
- Work Trip Commute Time and Distance for Jobs Located in the MPA.

Note, the performance measures denoted with an "\*" are federally-required performance measures. For details on how each performance measure is calculated, please see Appendix N.

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### Technological Advancements

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It comes as no surprise that technology has and continues to evolve. This is incredibly apparent in the transportation sector where over the past decade, innovations within the industry have exploded.

Author Paul Lewis states in his article ["Transportation is being changed by technology. But what about our transportation policies?"](https://tinyurl.com/3zdb2xac) (https://tinyurl.com/3zdb2xac) the last real fundamental changes made to the nation's surface transportation system was during the 1960s and 1970s with the "massive build-out" of highways and transit systems. "While most of our transportation system has been funded and structured around moving vehicles, the widespread use of individualized technology has forced the transportation sector to focus on the customer," Lewis writes.

For consumers, this includes a network that is smarter, faster, safer, and most importantly convenient.

On a national level, the U.S. Department of Transportation has developed a program aimed at using computers and communication infrastructure to do just that. Known as Intelligent Transportation Systems (ITS), traffic engineers have utilized electronics to make improvements to a variety of transportation infrastructure such as traffic signals (including vehicle presence detection and transit signal priority), road weather information systems, and dynamic messaging signs.

In addition, changes to vehicle technology – both from the public and private sector – have led to the very real possibility of the presence of connected and automated vehicles (CAVs) on our roadways. Changes are already being felt in the industry with the growing interest in electric vehicles and the increasing number of electric vehicle charging stations across the Saint Cloud metro.

## What are Connected and Automated Vehicles?

Connected and automated vehicle (CAV) technology has sensors and systems that analyze road conditions and scan for driving hazards.

**Connected** vehicles use technology to communicate with each other, connect with traffic signals, signs, and other road items, or obtain data from cloud technology.



**Automated** vehicles use technology to steer, accelerate, and brake with little to no human input. Some vehicles still require a human to monitor the roadway, while others require no human intervention.



Data courtesy of MnDOT CAV-X (<https://tinyurl.com/2ucx2z9e>)

LOOKING  
AHEAD  
2050

**Figure 4.9:** Differences between connected and automated vehicles.

Technological improvements are not going away. As such, close attention to the latest advancements in transportation technology will only help set our region up for future success in an ever-changing world.

### What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Technological Advancements Visioning Theme.

- "Infrastructure for electric vehicles has to be expanded with solar or carbon neutral options."
- "Better infrastructure for electric cars so they can become more common."
- "I look forward to a day when a little electric vehicle self-driving, will come to my door and bring me where I need to go."
- "Our transportation system is in sort of transition as we work to modernize and adapt it to address the needs of all users. We need to be strategic in how, where, and when we make these improvements."
- "Prepare for autonomous transportation – autonomous taxi service."



- “I think the stoplights need to be improved as far as intelligence/timing. This is especially true on Second Street as well as Highway 15 (Division too, though maybe not as badly). Driving through cities like Omaha and Sioux Falls where I have lived before, I notice I hit green on a lot more lights because the lights seem to be working in conjunction with each other so you rarely need to stop when driving on a main road. This is a major issue here, because driving down Second Street, I hit red on every light pretty often. It doesn’t have to be this way if money was invested in more intelligent stoplights/intersections.”
- “The stop light system is severely outdated. Metro wide it should be updated with better more dynamic systems with smart AI rather than timing and some sensors. Surveys should be done automatically and consistently ensure traffic timing is accounted properly.”
- “Automated vehicles would be beneficial if affordable.”



**Figure 4.10:** University of Minnesota CAV vehicle.  
Photo courtesy of Saint Cloud APO.

### How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Promote the development and deployment of innovative transportation technology improvements.
  - a. APO staff will continue to monitor the development and likely impacts of driverless vehicles.
  - b. The APO will support, to the extent possible, the expansion of dynamic traffic signals and the active management of them to improve system efficiency and operation.
  - c. APO staff and jurisdictional members will, to the extent possible, promote alternative fuel technology, including but not limited to, electric vehicle infrastructure.

### Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Technological Advancements Visionary Statement.

- Annual Number of Registered Vehicles Using Alternative Fuels.

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### Next Steps

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As we conclude this portion of the transportation planning process, we begin the transition from understanding current conditions to planning for our future needs.

As we turn our attention to 2050, we will be considering the following:

- What is our system forecasted to look like in 2050?
- Approximately how much money can we reasonably expect there to be to address our future problems?
- What sorts of improvements can we make to the system to help us achieve our goals?
- What's next for our region's transportation system?

In short, we will be considering the implementation of transportation infrastructure projects and/or future planning efforts that will guide us to our desired future. Using the objectives and strategies identified in this chapter, the implementation of projects, plans, and/or policies outlined in the remaining sections of the plan will help us work toward achieving our visions/goals. What we want our end destination to look like is clear – how we will carry out the work to get us there will be the topic for the remainder of this plan.