Chapter 8

Key Takeaways

Months of research, analysis, public engagement, and discussion contributed to the creation of MTP 2050. This plan examines community characteristics, current travel facilities, and the actions needed to maintain a safe, efficient, and resilient transportation system accessible to all residents and visitors.

Several key themes became evident during this effort that must continue to guide ROCOG through not only the implementation of this plan, but in all future transportation planning projects. This chapter will highlight these key takeaways, provide supporting data and public engagement insights, and make recommendations for future plans and projects.

This chapter will also note which ROCOG goals, as described in Chapter 2, are being addressed. The following is a key to the icons that symbolize these goals. Icons that are nearly transparent indicate the goal is not a focus of that takeaway.

Promote safe and sustainable community development.

Coordinate infrastructure investment with land use decisions and community needs.

Manage the transportation system in a fiscally responsible manner.

Improve travel options for residents and visitors.

1. Safety

MnDOT's crash data indicate high-risk locations and intersections in the ROCOG planning area. Excessive speeds, failure-to-yield, and operator inattention are key contributing factors in the severity of crashing for both motorized and non-motorized users.

Goals met: 

Supporting data

- The ROCOG planning area experienced a decrease in total number of fatal crashes in 2019-2023 yet experienced an increase in serious injury crashes over this same time period.
- Between 2019-2023, reported crashes involving vehicles and non-motorized roadway users represented 15% all crashes. However, trends continue to reveal disproportionately higher rates of severe or fatal outcomes for these users.
- In 2023, MnDOT conducted a vulnerable road user safety assessment and developed a statewide vulnerable road user high injury network based on bicycling and pedestrian crashes in both rural and urban areas. High-injury corridors include Highway 14 in Byron (vehicle-pedestrian conflicts), Highway 14 East, South Broadway Ave, and 20th Street SE in Rochester.

Engagement insights

- According to the MTP 2050 Community Survey, the most significant transportation challenge experienced by respondents pertain to safety concerns (e.g., crashes, poor lighting, lack of crosswalks, etc.).
- 51% of online survey respondents reported only being neutral or satisfied with the level of safety they experience traveling on streets and at intersections.
- Representatives from the greater Olmsted County cities identified safety concerns for high volume roadways that are central elements of their communities.

Recommendations

- Develop and monitor a Safe Streets for All Action Plan (SS4A).
- Local jurisdictions should conduct safety studies to identify streets, corridors, and intersections posing the highest risk to roadway users, particularly non-motorized travelers. Competitive safety funds facilitated through MnDOT (Highway Safety Improvement Program, Safe Routes to School, etc.) and the FHWA are available to address high-risk streets and high-injury corridors.
- Jurisdictions should continue to work with local school districts to develop and maintain Safe Routes to School plans and programs for every school.
- Use a complete streets approach at all stages of project planning, design, construction, and maintenance, centering on safe access for all roadway users.

2. Natural constraints and resilience

To foster a safe and efficient transportation system, ROCOG must assess natural constraints, threats, and hazards that affect our network. This helps ROCOG and its partner agencies adopt fiscally responsible transportation policies that avoid repetitive infrastructure repairs and enable our community to withstand and rapidly recover from natural disasters and system disruptions.

Goals met:



Supporting data

- Federal hazard mitigation research shows that every $1 spent on mitigation can save $6 in future disaster costs (Multi-Hazard Mitigation Council, 2019).
- Local floodplain, shorelands, and wetlands ordinances regulate infrastructure construction, in part to reduce safety risks and repeated repairs due to damage from flooding and unstable soils.
- The MnDOT Geotechnical Manual describes physical properties, engineering classifications, and management concerns that

determine soil suitability for road construction.

- MnDOT's 2019 statewide slope vulnerability assessment found that 3,089 acres of highway corridors in Olmsted County are at moderate/high risk for slope failure; over half of Olmsted County cities/townships are susceptible to landslides.
- Minnesota's Natural Heritage Information System (NHIS) and other databases help guide transportation network development by avoiding negative impacts on rare ecosystems and identifying necessary land purchases.
- MnDOT's 2024 Resilience Improvement Plan (RIP) notes that extreme precipitation events result in flooding, slope failures, damaged roads and bridges, and unsafe driving conditions. The 2024 Olmsted County Hazard Mitigation Plan Update (HMP) evaluated and prioritized the major natural hazards affecting the county based on frequency of the event, economic impact, deaths, and injuries.
- Olmsted County and the City of Rochester have adopted Emergency Operations Plans that focus on the immediate actions needed to protect lives and property during response and recovery, including evacuation routes.
- According to MnDOT, the transportation sector is Minnesota's largest source of carbon emissions. In 2023, the Minnesota Legislature created new requirements to ensure transportation projects that expand the highway system offset carbon impacts.

Engagement insights

- MTP 2050 Community Survey results stated the 3rd largest impact of the future is climate change (flooding and extreme weather); 12% of respondents placed this as the top impact.
- A survey comment noted the need to protect nature. "Once neighborhoods and buildings are built, it is hard to go back."
- 65% of the Community Survey respondents said it's "very important" to reduce greenhouse gas emissions from transportation; 14% said it's "somewhat important".
- The Business and Economic Development focus group said sustainability and emissions reduction should be central to long-term planning.

Recommendations

ROCOG and its partners should:

- Continue to work with relevant state and local agencies regarding land use, natural resources, and historic preservation to develop transportation plans and resiliency strategies at the regional and local levels.
- Use innovative design strategies to avoid construction in areas prone to damage caused by natural features while preventing contamination of these sensitive areas from surface runoff, infrastructure flooding, etc.
- Reduce the costs of responding to natural hazards by proactively investing in resilient infrastructure, including winter maintenance and road treatment plans and policies.
- Collaborate with local jurisdictions on strategies to incorporate the use of transit in evacuation plans, particularly in highly populated areas and those with concentrations of people without access to a personal vehicle.
- Use policy incentives and infrastructure investments, such as transit expansion/improvements and transportation demand management to plan carbon offsets consistent with local needs and State requirements.

3. Integration of land use and transportation

Planning for where people live and work (land use) affects how we build and manage roads. Similarly, roadway location and capacity influence where future development occurs. Local land use plans and zoning ordinances help ROCOG prepare for current and future travel demand, transportation design, and the timing of future infrastructure improvements.

Goals met:

Supporting data

- Sidewalk and trail system planning has become a critical component of comprehensive plans and city zoning ordinances in the ROCOG planning area to meet travel and recreation needs. The City of Byron's comprehensive plan, for example, led to the development of a road project for 7th Street NE that will enhance sidewalk and trail access and better connect the neighborhoods, schools, parks, and commercial areas of this growing community.
- Rochester is planning for services such as the Primary Transit Network and Link Rapid Transit to provide faster, more efficient, and reliable transit service in higher-density and mixed-use areas of the city.

- MnDOT is leading a planning study with the City of Rochester to strengthen active transportation connections in support of the upcoming Link BRT corridor and to ensure users can access this transit system via walking and rolling.
- In Northwest Rochester, new apartment developments are now connected to both transit service and nearby trail infrastructure. Coordinating approaches like this ensures that as new areas develop, residents have access to a wide range of transportation options to best suit their travel needs.
- Regional Park and Ride Facilities are often constructed in proximity to the county's trail system, highlighting opportunities to extend these facilities' reach if accommodations like bike lockers and sheltered bike racks are added nearby.
- Mixed land uses and convenience stops added to park and ride facilities give travelers and commuters an opportunity to "trip-chain" before or after they board the transit system.
- In Downtown Rochester, a commuter facility was recently constructed by Mayo Clinic near the Discovery Square Campus. This facility houses a secure bike rack area, employee lockers, and a bike maintenance area, within the traditional parking ramp. This highlights opportunities to set aside space within existing developments and parking structures to provide amenities for travel modes beyond private vehicle parking.

Engagement insights

Many of the MTP 2050 focus groups pointed out examples of perceived conflicts between current land use and transportation practices and gave suggestions for improvements, including:

- Expensive and poorly located downtown parking deters customers/employees.
- The current system is dominated by personal vehicles and creates transportation challenges for non-drivers and businesses struggling to attract workers without alternative transportation options.
- High housing costs in Rochester are pushing people to live in areas with poor multimodal access, reducing the feasibility of walking, biking, or using transit. Continued urban sprawl may disadvantage outlying residents unless mobility options expand.
- Mass transit must be a priority to handle expected growth in Rochester's population and workforce. Balancing service expansion with demonstrable ridership demand, however, is a persistent challenge.
- Greater Olmsted cities are seeing roadway improvements increasing housing and commercial development. Township officers noted that this growth is putting more vehicles on township roads that are not built to handle the increased usage.

- Housing development should be coordinated with transit/trail investments to attract businesses and create walkable, connected communities.
- Lack of transit options for commuting between Rochester, Byron, and Stewartville limits workforce access. Improved regional transit and multimodal infrastructure are needed to attract employees from surrounding areas.
- Major roadways divide neighborhoods and create unsafe crossings.

Recommendations

- Coordinate area land use and transportation professionals to prepare for current and future travel demand, transportation design, and the timing of future infrastructure improvements.
- Coordinate transportation investments with housing development to support walkable, mixed-use neighborhoods near transit.
- Maintain and update the regional functional classification system to ensure it matches current and future network needs.

4. Funding and financial sustainability

Reliable, long-term funding is essential for supporting transportation improvements and maintaining services across all modes. As the ROCOG region grows through 2050, ensuring sustainable funding will be necessary to expand services, maintain aging infrastructure, and implement resilient transportation strategies.

Goals met:

Supporting data

- Capital and operating costs for expanded transit are expected to rise with initiatives like Link Rapid Transit, the Primary Transit Network (PTN), and an expanded city-owned park-and-ride system.
- Agencies report increased cost in maintaining the roadway, bridge and trails network.

- Growing freight activity increases pavement and structural wear, particularly on high-volume corridors like US 52 and US 63, which could strain maintenance resources over time.
- A 2023 Minnesota law requires carbon offset planning and mitigation for highway expansion projects, potentially increasing project costs and affecting timelines.

Engagement insights

- Agencies report challenges in developing long-term plans with fiscal and policy changes at the federal and state levels.
- Transit providers identified funding as a top constraint, noting that rising local match requirements are making it more difficult to upgrade infrastructure and expand service.
- In public surveys, the top two transportation challenges for 2050 were managing population growth and service demand, and maintaining aging infrastructure (roads, bridges, transit systems).

Recommendations

- Use low cost Transportation Systems Management and Operations (TSMO) strategies to optimize existing infrastructure before expanding capacity. Examples include intelligent work zones, signal improvements for pedestrians and bikes, complete streets design, and reduced conflict intersections, which are typically much less expensive than road widening.
- Incorporate climate adaptation and hazard mitigation into transportation planning to reduce long-term costs. This includes investing in resilient infrastructure, leveraging state and local mitigation tools, coordinating transit for evacuation planning, and exploring federal non-programmatic funding sources. Transit agencies should consider applying for Low or No Emission Vehicle Program funding to support cleaner bus fleets and reduce emissions.
- Pursue federal and state funding opportunities, including BUILD program grants for future interchange improvements and Safe Streets and Roads for All (SS4A) grants for roundabout and intersection safety upgrades. Agencies should pursue innovative funding mechanisms and partnerships to meet growing capital and operational needs. Applying for competitive grants, forming public-private partnerships, and collaborating across agencies can enhance financial sustainability.
- Focus on maintenance and preservation strategies that extend infrastructure life and provide strong returns on investment, ensuring existing assets remain safe and functional.

- Encourage adoption of environmentally sensitive construction techniques during project design and implementation to minimize ecological impacts. Agencies should seek federal and state funding to support these practices, as demonstrated by projects like County State Aid Highway 18, which used Carbon Reduction Program (CRP) funds.

5. Traffic congestion and system optimization

Worsening congestion on key corridors could impact business efficiency, increase emissions, and strain emergency response times. As the region continues to grow and attract visitors, strategically optimizing the transportation system will be critical for maintaining economic competitiveness and supporting southern Minnesota's leading tourism economy.

Goals met:




Supporting data

- Travel demand is expected to increase along major commuter corridors of Broadway Avenue, US 52, Highway 14, and Civic Center Drive, which are critical for both local and regional travel. Without changes to how trips are managed, future congestion may reduce access to jobs, delay emergency response, and strain infrastructure.
- Increased freight volumes may cause bottlenecks at rural two-lane highways like Highway 14 between Eyota and Lewiston, and at interchanges like I-90 and US 52, reducing travel time reliability and affecting freight operations.
- Access management studies show that controlling driveways and turning movements, as well as optimizing signal spacing, can increase capacity by up to 25% on congested corridors.

Engagement insights

- Stakeholders identified congestion on Civic Center Drive and Highway 14 as a barrier to business efficiency and expressed concern about access into and out of Downtown Rochester, including backups on US 14 between Byron and Rochester.
- Focus groups emphasized the need for improved regional connectivity through infrastructure and transit to support economic growth. This is particularly important given that Olmsted County leads the Southern Minnesota Tourism Region in tourism

employment (9,412 jobs in 2023) and gross tourism sales ($627.7 million), with Downtown Rochester drawing 24% of travelers and 52% of visitors coming from out of state.

Recommendations

- Continue monitoring and reviewing congested corridors.
- Develop and apply TSMO strategies on corridors like Broadway and West Circle Drive.
- Implement access management techniques to regulate driveways, turning movements, and signal spacing, improving safety and capacity along major corridors.
- Increase development of multi-modal infrastructure including EV charging stations, bike-sharing programs, pedestrian-friendly design, and public transit improvements to reduce vehicle demand, lower emissions, and support the regional tourism economy.

6. Transportation system preservation

Rochester, Olmsted County, and MnDOT will continue to prioritize efforts to fund the preservation of the existing transportation network in order to maximize the efficiency and utilization of existing capital investment.

Goals met: 

Supporting data

- A 2022 NCHRP report (No. 1004) indicates that stagnant federal gas taxes since 1993, coupled with increased vehicle fuel efficiency and rising construction costs, have created significant funding uncertainty and maintenance issues for our current infrastructure system.
- While still meeting targets, bridges on the National Highway System have seen a decline in condition; only 43.8% are now considered in good condition. No bridges are currently classified as in poor condition.
- Previous ROCOG studies show that approximately 55% of Rochester's street network was built within the last 30 years,

suggesting it should primarily require periodic preservation work like seal coating and mill and overlay projects in the coming years.

- According to 2023 RPT reports, over 25% of the 40- and 60-foot transit vehicles (rolling stock) have exceeded their useful service life. This is significantly higher than the 10% target.

Engagement insights

- MTP 2050 Community Survey results show the public is generally satisfied or very satisfied (53%) with the current state of the transportation system.

Recommendations

- Collect and maintain facility condition, traffic volume, and geometric data in order to support system preservation activities.
- Use quantitative performance measures for assets and monitor how well strategic goals are being met.
- Work with MnDOT on establishing data compatibility, interoperability, and metadata standards to improve data sharing capabilities.
- Plan for the incremental expansion of maintenance budgets to address the increasing costs of preserving growing and/or aging local road networks.
- Coordinate the assessment of design concepts, access and traffic management priorities, and environmental resource issues. This will facilitate corridor preservation and early right-of-way acquisition as well as provide a pipeline of projects that can be considered in response to new state or federal funding initiatives.
- Prioritize bridge structures with existing or emerging structural deficiencies that pose a potential risk to network operations. Bridge structures that are highly important to network function and economic activity should be given the highest priority.

7. Alternative transportation options

Significant demand exists for walking and biking infrastructure improvements throughout the region; significant desire exists for more transportation options serving first-mile and last-mile access at the local level. This demand is partially created by

transportation barriers that limit access to jobs, services, and daily needs, particularly for residents without personal vehicles or with mobility challenges.

Goals met: 

Supporting data

- Nearly 90% of Southeast Minnesota residents commute by private car. This means the system is often more difficult for those who walk, roll, bike and use paratransit or public transit.
- In Olmsted County, 2,269 workers aged 16 and over had no access to a vehicle (2019–2023 American Community Survey).
- The current Olmsted County Public Works Department ADA Transition Plan found over 40% of inventoried pedestrian ramps lack detectable warnings like truncated domes, which are critical for people with visual impairments.
- The 2018 Southeast Minnesota Regional Economic Study identified regional transit improvements as a way to help close workforce gaps and support residential growth across a broader area.
- According to a 2021 transportation survey conducted by the City of Rochester, 35% of Rochester residents want to drive less often than they currently do. 30% want to walk to destinations more frequently, and 40% want to bike more frequently.
- Rochester's Active Transportation Plan discovered 50% of trips taken in Rochester are under 3 miles, key candidates for converting from private vehicle trips to other travel modes.
- Regional documents like the District 6 Bicycle Plan (2019), and the Statewide Bicycle System Plan (2016) acknowledge a majority of users greatly prefer to bicycle in low-stress environments (e.g. low traffic speeds and/or volumes).

Engagement insights

- Disability focus group participants noted that inflexible paratransit scheduling creates restrictions for users needing same-day or variable transportation.
- Active transportation focus group participants reported that poor winter maintenance of sidewalks and trails limits mobility for

pedestrians and those using mobility devices.

- Social service focus group participants from rural areas indicated they often require consolidating errands into infrequent trips or relying on others when vehicle access is unavailable.
- Economic development and business focus groups cited limited transit options as a barrier to attracting and retaining workers without personal vehicles.
- The township officers focus group noted that regional trail planning efforts need to balance community desires. They commented that the suburban townships have a desire to fill trail connection gaps near city limits; rural townships, however, typically don't want trails.
- 72% of MTP 2050 Survey respondents said transportation projects improving mobility for those with limited options should be a high or top priority.
- 45% of MTP 2050 Survey respondents are either dissatisfied or extremely dissatisfied with the state of trails, sidewalks, and intersections in Olmsted County, primarily noting inadequate connections in the system and concerns for safety using the system.

Recommendations

- Invest in accessible infrastructure upgrades, including pedestrian ramp improvements, tactile warnings, and better winter maintenance of sidewalks and trails.
- Prioritize year-round maintenance of pedestrian and bicycle facilities near essential services and transit stops.
- Develop and promote on-demand and same-day transit services through updates to transit scheduling software to meet the needs of paratransit users.
- ROCOG's partner jurisdictions should adopt or update Complete Streets policies. Policies should focus on safety and accessibility for all users, regardless of age, ability, income, race, or mode of transportation.
- Examine ways to access financial resources to facilitate construction of a regional trail system.
- Seek ways to incorporate the greatest amount of separation between bicycle and pedestrian infrastructure and motor vehicle traffic during roadway design and construction.

8. Regional transit integration and connectivity

Long-term transit success in the ROCOG planning area may depend on improving cooperation across services, expanding regional coverage, and addressing real barriers that residents and transit agencies face today. Better coordination between transit providers and stronger connections between communities may be necessary to meet growing demand, improve system efficiency, and expand access to jobs, essential services, and daily destinations throughout the region.

Goals met:

Supporting data

- Multiple transit providers (RPT, Rolling Hills Transit, Mayo Clinic shuttles) operate independently with limited coordination.
- Connectivity gaps exist between Rochester and surrounding communities, especially for those who do not work at Mayo Clinic.
- Transit services vary in scheduling, fare systems, and service types, preventing the ability for seamless transfers or shared infrastructure.
- Rising local match requirements and uncertainty in state funding challenge the ability of transit providers to expand or modernize services.

Engagement insights

- 42% of respondents in the 2022 Rochester Active Transportation Plan said they want to use transit more frequently.
- 75% of Channel One food access clients rely on personal vehicles or carpools due to limited transit options.
- Public engagement for state and local transit plans highlighted a strong interest in improved regional transit connections, including service beyond Rochester's urban core. Interest for rail connections was a key takeaway from MnDOT's State Rail Plan.

Recommendations

- Create a regional transit plan to provide a shared framework for aligning service goals, coordinating across providers, and identifying future regional transit corridors. It may also help providers guide decisions around route expansion, hub locations, transfer timing, fare coordination, and shared infrastructure, while supporting funding efforts and long-term investment.
- Expand flexible, community-based transit services and enhance regional transit connections to better serve urban and rural residents without vehicles. This could include continuing to explore implementation of a Regional Transportation Coordinating Council (RTCC) or Transportation Management Organization (TMO).
- Align real-time information systems, expand mobile fare payment options, and upgrade paratransit technology to improve user experience and system efficiency, particularly for riders who need more flexible scheduling.
- Work with healthcare providers, schools, and food access organizations to help identify gaps in service for early-morning shifts, medical appointments, and grocery access, especially for residents who rely on transit for essential needs.
- Track performance through ridership data, community feedback, and service coordination metrics to support regular evaluation and adjustment of routes and schedules that match changing development patterns and transportation needs. Sharing ridership data among transit providers may also improve coordination and help align services across the region.