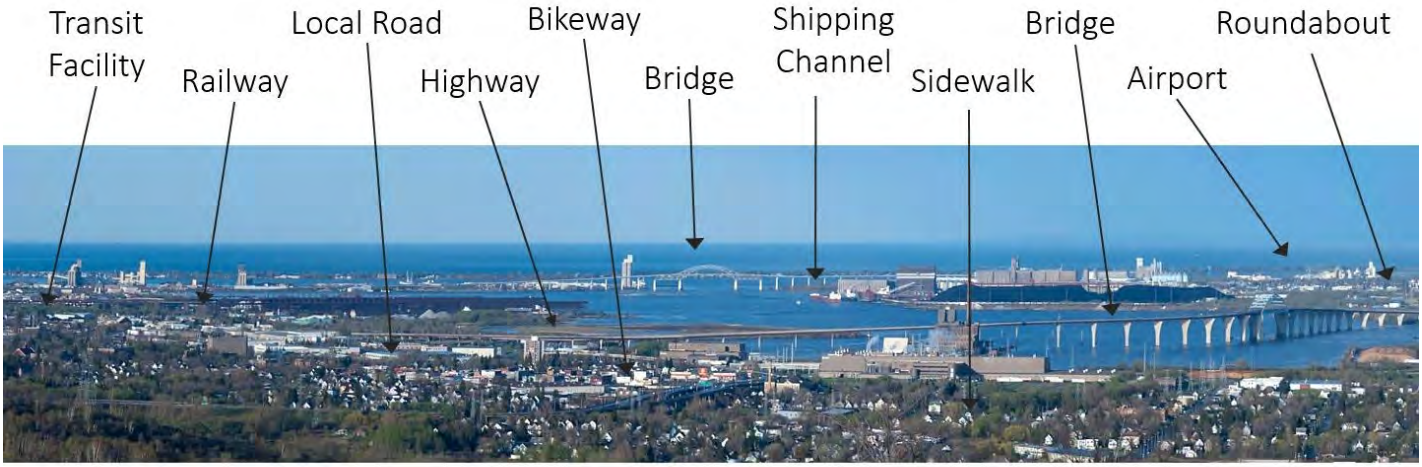
Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Duluth-Superior Metropolitan Interstate Council
221 West First Street
Duluth, MN 55802

Adopted—MIC Policy Board: October 16, 2019

dsmic.org/planning/long-range/



Key Elements of the Duluth-Superior Multimodal Transportation Network

Sustainable Choices 2045

Duluth-Superior Long Range Transportation Plan

October 16, 2019

To view this plan online and for more information about its development, please visit dsmic.org/planning/long-range

Prepared by the
Duluth-Superior Metropolitan Interstate Council

Guiding the Future of Transportation for the Twin Ports Area

Duluth and Superior urban area communities cooperating in planning and development
through a joint venture of the
Arrowhead Regional Development Commission
and the Northwest Regional Planning Commission

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DULUTH-SUPERIOR METROPOLITAN INTERSTATE COUNCIL

Policy Board, Transportation Advisory Committee and Staff Members

October 2019

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Ed Anderson – City of Superior Citizen Rep		Chris Belden – Duluth Transit Authority
Nick Baker – Douglas County Board *(Chair)*		David Bolf – City of Hermantown
Warren Bender – Superior Common Council		Chris Carlson – City of Superior
Wayne Boucher – City of Hermantown		Mark Casey – City of Proctor
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APPENDICES

RESOLUTION by the MIC Policy Board Adopting Sustainable Choices 2045 as the update for 2020-2045 of its Long Range Transportation Plan

MAPS

MAPS DISCLAIMER

The information in these maps is a compilation of data derived from various federal, state, county, regional, and municipal sources. Geographic information has limitations due to the scale, resolution, date, and interpretation of the original source materials. Maps and data are to be used for reference purposes only and the Arrowhead Regional Development Commission (ARDC)/Duluth-Superior Metropolitan Interstate Council (MIC) is not responsible for any inaccuracies herein contained. No responsibility if assumed for damages or other liabilities due to the accuracy, availability, use, or misuse of the information herein provided.

1. Welcome!

This chapter introduces the Long Range Transportation Plan (LRTP) for the Duluth-Superior area.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Introduction: What is Sustainable Choices 2045?

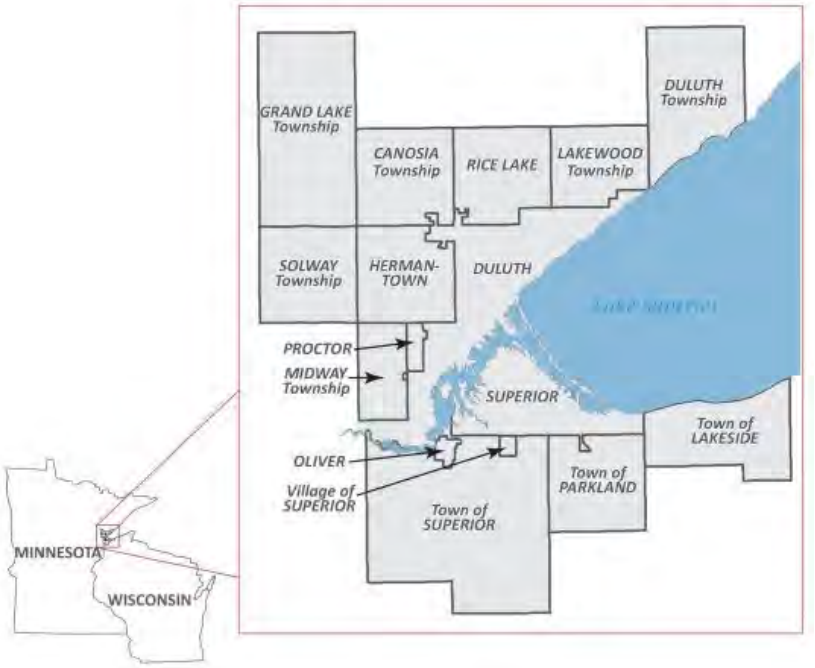
This Long Range Transportation Plan (LRTP) provides vision, goals and objectives, data and policy guidance for jurisdictions within the greater metropolitan area of Duluth, Minnesota and Superior, Wisconsin to work cooperatively to provide a well-maintained, integrated, accessible and multi-modal transportation system to safely and efficiently move people and freight for the next 25 years. *Sustainable Choices 2045* is not simply an update of our past LRTPs., it is a significant overhaul.

Since a transportation system crosses many jurisdictional boundaries with spending decisions made at state, county and city levels, *Sustainable Choices 2045* coordinates the planning and sets forth a vision for the area-wide transportation network, within the constraints of funding the region can reasonably expect to receive. It covers a twenty-five year planning horizon and is updated every five years.

What Area Does It Cover?

Sustainable Choices 2045 addresses all modes of transportation within the Duluth-Superior metropolitan planning area (Fig. 1.1).

Figure 1.1: Duluth-Superior Metropolitan Planning Area



Statement of Purpose

Sustainable Choices 2045 will guide the future of transportation in the Twin Ports area by planning for a comprehensive, multi-modal, and integrated transportation system that provides a high level of access and mobility for all people and goods, improves safety, preserves infrastructure, and provides economic activity consistent with available environmental and fiscal resources.

Access and mobility...

Access is the ease with which people can reach destinations

Mobility is the ease of movement that people experience in moving from place to place

for people and freight...

Transportation systems must accommodate the needs of personal and commercial trips, locally and regionally, via multiple modes

...is the sensitive balance sought in good transportation planning.*

* Source: The Institute of Transportation Engineers and Smart Growth transportation planners.

Area Transportation Assets

The Duluth-Superior metropolitan planning area features a broad range of infrastructure across all modes of transport: four Class I railroads, local roads, an Interstate highway, an international seaport, an international airport, a public transit system and miles of hiking and biking trails. These assets should be preserved and developed to maximize their economic development value and minimize their impact on the environment and other community values. (See Map 5.1 on page 5-17)

Why Does It Matter?

Sustainable Choices 2045 serves as the foundation for the MIC's planning efforts. This multimodal plan is important because it provides an overall vision, incorporates community and jurisdictional input to establish priorities for area transportation decisions; identifies issues for further study by the MIC; and filters potential projects down into the Duluth and Superior Transportation Improvement Program (TIPs) which use federal transportation funds to priority projects for the Duluth-Superior area.

If a city, county, or public agency in the Duluth-Superior metropolitan planning area intends to use federal transportation funding for projects or programs, the projects must be included in and be consistent with this LRTP.

When Is It Updated?

To keep pace with changing priorities, opportunities, and challenges, the MIC's LRTP is updated every 5 years, while the TIPs are updated annually.

What's New for the 2045 LRTP?

Sustainable Choices 2045 is not simply an update of our past LRTPs. It is a complete overhaul, attempting to consider and plan for the entire MIC-area transportation system in a holistic and applied manner. This more holistic approach is perhaps most notable in the following ways:

- The public is calling for transportation projects to consider not only safety and efficient movement of automobiles, but also to achieve a balance of other transportation-related planning factors such as supporting and maintaining health

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The MIC is the designated Metropolitan Planning Organization (MPO) for the Duluth-Superior area and produced this Long Range Transportation Plan.

MIC-Area Jurisdictions include:

Minnesota

- Canosia Township
- City of Duluth
- City of Hermantown
- City of Proctor
- City of Rice Lake
- Duluth Township
- Grand Lake Township
- Lakewood Township
- Midway Township
- Solway Township
- St. Louis County
- MnDOT

Wisconsin

- City of Superior
- Lakeside Township
- Parkland Township
- Town of Oliver
- Village of Superior
- Douglas County
- WisDOT

of people and the environment, livable and equitable communities, and economic vitality. This plan weaves this holistic view throughout and these factors serve as the foundation of its five primary goals.

- As the name of the plan implies, a greater emphasis than in the past will be placed on the importance of incorporating a sustainable mindset and approach to the development and maintenance of our transportation system, and includes objectives to move us toward implementing a fully sustainable transportation system. This includes more emphasis on fiscal constraint than in previous plans.
- Unlike past LRTPs, *Sustainable Choices 2045* calls for the development of an ongoing implementation strategy to ensure the goals of the plan are carried out. We are recommending an annual evaluation and report of how goals, objectives, and key highlights of the plan are being implemented and incorporated into actual transportation-related projects. It is believed this will help the plan remain much more useful and relevant over time.
- The federally required performance measures are incorporated into the MIC's long range transportation planning process. The MIC's recently-adopted targets are included in this plan, and examples of projects that help achieve these targets are discussed.

In addition to the overhaul of the overall approach of the plan described above, new data that has become available since the publication of the last LRTP (*Connections 2040*), along with federal FAST Act transportation legislation which put forward notable policy initiatives and planning directives, have shaped the focus of *Sustainable Choices 2045*. A brief summary of these new aspects of the plan are provided below.

Updated Traffic Demand Model

The MIC-area travel demand model has been updated to include revised demographic and employment projections, as well as expansion projects that have occurred since 2014.

Adjusted Project Lists—Revenues & Expenditures

Estimated costs of all improvement projects identified in the previous (2040) version of the LRTP have been revised to better reflect updated information and inflationary increases. The updated project lists are included on pages 6-15—6-35 of

Planning for All Modes of Transportation

Transportation systems are multi-modal. This plan addresses both motorized and non-motorized (or "active") modes of travel, including:

Pedestrian

Harbor/Port

Highways

Transit

Chapter 6. In summary this plan includes $3,074,625,000 in total revenues and $2,503,633,800 in total expenditures. Additionally, $1,152,055,000 is estimated for operations and maintenance. Finally, there is an estimated additional $199 million in unfunded transportation needs. These are clarified and detailed in Chapter 6.

Better Explanation of Fiscal Constraint

Sustainable Choices 2045 explains better how the projects in the plan demonstrate fiscal constraint. As can be noted above the fiscal analysis in this plan is showing an overall surplus of approximately $571 million over the 25-year life of the Plan. At the same time one of the plan's main premises is that there is not enough revenue to cover the existing transportation infrastructure expenses within the MIC area. At first glance, there appears to be a significant contradiction. The summary explanation is two-fold:

- The MIC area has very large and expensive bridge and highway projects that will take place within this 25-year planning horizon but are not fully scoped at this time, thus their associated cost estimates are not yet know.
- Not all publicly funded transportation system costs are federally eligible and/or considered regionally significant, and thus not all projects in the MIC area are included in this plan's project lists and fiscal analysis.

A full explanation of how fiscal constraint is demonstrated within this plan is provided in Chapter 6.

Inclusion of State Performance Measures

Sustainable Choices 2045 includes the locally adopted State performance measures regarding:

- Safety
- Pavement and Bridge Condition
- Performance of National Highway System (NHS) and Freight
- Transit Asset Management

These performance measures are detailed, with listed targets and timelines in Chapter 5 (See p. 5-23—5-33).

Emphasis on Overall Sustainability

A purposeful emphasis on achieving fiscal, social, and environmental sustainability in both the short and long-term

Planning for All Modes of Transportation

Roadways

Air

Bicycle

Rail

across the entire Duluth-Superior area transportation system is woven throughout, and integral to the vision of *Sustainable Choices 2045.*

Implementation Strategy

Sustainable Choices 2045 calls for an ongoing implementation strategy to begin after its final adoption by the MIC Policy Board. MIC staff working with an Implementation Strategy team will develop a process and timeline to interact with the TAC and the Policy Board to (1) keep the LRTP's goals and objectives top of mind with these stakeholders and (2) to evaluate progress toward implementing the plan's goals and objectives. Ideas for the Implementation Strategy are outlined on page 2-11.

How Was This Plan Developed?

Sustainable Choices 2045 was developed after assessing transportation needs and setting priorities for the Duluth-Superior area, which included:

- Gathering and summarizing input from the public regarding local transportation options, use, issues, and priorities;
- Analyzing the most recent data available, including traffic volumes, level of service estimates, socio-economic and demographic trends, and existing transportation assets;
- Estimating projected revenues;
- Coordinating with current federal and state policies;
- Building upon recent local and area plans and policies;
- Consulting with local jurisdictions and other partners.

These priorities are reflected in the plan's Goals and Objectives which are described and listed in Chapter 2.

Who Was Involved?

Public involvement is integral to good transportation planning. The MIC's Public Involvement Plan set the framework for the outreach efforts throughout the development of *Sustainable Choices 2045*. Chapter 7 describes the public involvement process in detail, but to summarize key participants and opportunities:

Advisory Committee—The MIC's Transportation Advisory Committee was consulted on an almost-monthly basis during all phases of the Plan's development.

THE MIC'S PUBLIC INVOLVEMENT PLAN SET THE FRAMEWORK FOR OUTREACH EFFORTS THROUGHOUT THE DEVELOPMENT OF *SUSTAINABLE CHOICES 2045*

MIC Policy Board—The MIC Policy Board was updated on an almost-monthly basis during all phases of the Plan's development.

Public Surveys—The interactive online survey platform MetroQuest was utilized in two separate phases in the early development of Sustainable Choices 2045.

Public Events—MIC staff participated in 11 public events to reach out to the general public on the goals of the LRTP, promote the online surveys and to gather input in person.

Meetings with Partner Organizations—MIC staff held 17 meetings with targeted stakeholder groups (business, education, mobility impaired, transit users).

Consultations—MIC staff held 17 meetings with elected officials, planners and engineers from all MIC-area jurisdictions to discuss LRTP key points and gather pertinent information specific to each.

2. A Vision to Implement

This chapter identifies and explains the vision, goals, objectives, strategies, tactics, and general implementation strategy of Sustainable Choices 2045.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Vision

Sustainable Choices 2045 is driven by the following overall **vision**:

Develop a community-supported multimodal transportation system that not only supports the diverse needs of people and commerce, but is also fiscally, socially, and environmentally sustainable over time.

This is the central tenet of *Sustainable Choices 2045* – the MIC's Long Range Transportation Plan (LRTP).

Goals, Objectives, Strategies, & Tactics

Goals, objectives, strategies, and tactics associate specific actions that can be implemented to achieve the vision. For the purpose of this plan, the following definitions are used:

Goals are broad statements that describe a desired end state. They are successful endpoints an organization is striving for, and should help clarify an organization's vision. Goals and objectives are usually the terms that are confused and used interchangeably. Goals are more general than objectives.

Objectives are specific, measurable statements that are used to measure the success or failure of a plan, policy, or organization. The key word here is "measurable." A good objective should include (or lead to) the development of strategies that can be measured and tracked over time, and can be used to assess alternatives. There may be multiple objectives linked to each goal.

Strategies and **Performance Measures** are actions or metrics used to assess progress toward meeting an objective – in other words, "how" to meet objectives. They can be used to compare different plan, policy, or investment alternatives, as well as track actual performance over time. Strategies are not as specific as tactics or targets.

Tactics and **Targets** are where the rubber meets the road. Tactics are specific actions to implement the strategies. Targets are specific levels of performance that are desired to be achieved within a certain timeframe. Either can be used as a basis for comparing progress or performance over time, and both are an integral part of an implementation strategy.

***The Vision of Sustainable Choices 2045* is to develop a transportation system that:**

- Is community-supported;
- Multimodal;
- Supports the needs of both people and commerce,
- Is fiscally, socially, and environmentally sustainable over time.

The goals of *Sustainable Choices 2045* are to achieve five planning perspectives, which represent basic, important aspects of a community that transportation directly and indirectly impacts. The public surveys used to gather input and priorities from the public were largely developed around these five planning perspectives.

The Five Planning Perspectives

The five planning perspectives that form the basis of Sustainable Choices 2045 are described below. They are listed in order of preference based on public survey results (described in detail in Chapter 7).

1. Health of People and the Environment

It is important to protect and enhance the environment, and promote energy conservation and public health through responsible transportation system policies and design. Ignoring these can lead to significant future costs in terms of human health, property damage, and environmental remediation.

2. Livable Communities and Equity

A livable and equitable community is a safe and connected place where people can live independent, healthy, and meaningful lives. These places have a diverse and resilient local economy, transportation options that access needed services, and provide opportunities and choices for people of all ages and ability to engage in the community's civic, economic, and social life.

3. Safety

Continually improving the safety of the Duluth-Superior transportation system for all users and modes is obviously important. A part of system safety is ensuring we are prepared to handle emergencies and disasters. Additionally, a well-functioning system is secure, helping people feel free from danger or fear.

4. Moving People and Goods

Ensuring people and goods get to where they need to go is an essential purpose of a local transportation system. Factors such as how easy it is for people and goods to move from one place to another, how well-connected primary destinations

The Goals of *Sustainable Choices 2045* are Based on Five Planning Perspectives:

- Health of People & the Environment
- Livable Communities & Equity
- Safety
- Moving People & Goods
- Economic Vitality

are, and ensuring all modes of transportation operate as one seamless network, are all important.

5. Economic Vitality

Local and regional transportation systems are critical to a healthy economy. It is important to develop and maintain our transportation system to support economic productivity, efficiency, and competitiveness. As visitors contribute significantly to our local economy, it is important our transportation system enhance travel and tourism.

Goals

The five goals of *Sustainable Choices 2045*, representing the five planning perspectives, are:

Goal 1

Promote public health and energy conservation, and protect and enhance the environment through responsible Duluth-Superior area transportation system policies and design.

Goal 2

Ensure the Duluth-Superior area transportation system supports the development and maintenance of a safe, healthy, and connected community that provides opportunities and choices for people of all ages, incomes, and abilities.

Goal 3

Ensure the safety and security of the Duluth-Superior area transportation system for all users and modes, including being prepared to handle emergencies and disasters.

Goal 4

Ensure the Duluth-Superior area transportation system is an integrated multimodal network that supports people and goods getting to where they need to go in an efficient manner.

Goal 5

Develop and maintain the Duluth-Superior area transportation system to support economic productivity and competitiveness, including tourism.

While achieving a relative balance of all five goals within our transportation projects and across the transportation network is desired, it is understood that it may not be possible or necessary to achieve this balance in every project.

Three overarching questions

- ...should be asked to focus transportation policies, decisions, and projects towards achieving the overall vision of our regional transportation network:

- Is this policy, project, or decision fiscally sustainable?

- How does this policy, project, or decision help promote social sustainability?

- How does this policy, project, or decision help promote environmental sustainability?

Objectives

The following objectives for each goal were developed based on survey results as well as discussion and recommendations from the LRTP Advisory Committee.

Goal 1

Promote public health and energy conservation, and protect and enhance the environment through responsible Duluth-Superior area transportation system policies and design.

Objective 1-1

Design and maintain infrastructure across the Duluth-Superior area transportation system in a manner that supports and encourages a physically active everyday transportation routine.

Objective 1-2

Improve energy conservation related to the use and operation of the local and regional transportation system, for both environmental and public health benefits.

Objective 1-3

Through innovative design, improved infrastructure, land use planning, use of sustainable approaches, higher fuel efficiency, and other options, avoid, minimize, and/or mitigate the negative environmental impacts of the Duluth-Superior area transportation system, such as stormwater runoff, flooding, air emissions, toxic pollution, noise and light pollution, and the spread of invasive species.

Goal 1

Promote public health and energy conservation and protect and enhance the environment through transportation system policies and design

Goal 2

Ensure the Duluth-Superior area transportation system supports the development and maintenance of a safe, healthy, and connected community that provides opportunities and choices for people of all ages, incomes, and abilities.

Objective 2-1

Provide legitimate choices for all people of all ages, incomes, and abilities across the entire Duluth-Superior area transportation system.

Objective 2-2

Ensure legitimate opportunities for the public to engage in discussion about, and to share their needs and desires regarding the Duluth-Superior area transportation system.

Objective 2-3

Build and maintain infrastructure that fits the neighborhood character.

Objective 2-4

Appropriately scale transportation-related projects across the Duluth-Superior area transportation system.

Objective 2-5

Ensure investments in the Duluth-Superior area transportation system lead to a diversification of transportation options for people across all modes.

Objective 2-6

Make information about the Duluth-Superior area transportation system available to the public in a variety of ways.

Goal 2

Ensure the area transportation system supports the development and maintenance of a safe, healthy, and connected community that provides opportunities and choices for people of all ages, incomes, and abilities.

Goal 3

Ensure the safety and security of the Duluth-Superior area transportation system for all users and modes, including being prepared to handle emergencies and disasters.

Objective 3-1

Ensure acceptable security, emergency response, disaster preparedness, and risk mitigation is maintained across the entire Duluth-Superior area transportation system.

Objective 3-2

Ensure evidence-based, data-supported design integrating acceptable levels of risk is emphasized in transportation-related project development and selection.

Objective 3-3

Prioritize safety and acceptable levels of risk for vulnerable users of the Duluth-Superior area transportation system.

Objective 3-4

Meet all required safety-related federal, state, and local performance measures.

Objective 3-5

Maintain Duluth-Superior area transportation system infrastructure to ensure an acceptable level of risk for all users, both people and goods.

Objective 3-6

Use technology to improve the safety and security of the Duluth-Superior area transportation system.

Goal 3

Ensure the safety and security of the Duluth-Superior area transportation system for all users and modes, including being prepared to handle emergencies and disasters.

Goal 4

Ensure the Duluth-Superior area transportation system is an integrated multimodal network that supports people and goods getting to where they need to go in an efficient manner.

Objective 4-1

Provide viable and efficient travel options for the movement of people and goods across the entire Duluth-Superior area transportation system.

Objective 4-2

Address inefficiencies in the Duluth-Superior area transportation system for all modes.

Objective 4-3

Improve real-time travel across the Duluth-Superior area transportation system by maintaining the current critical infrastructure to increase longevity of local transportation facilities for all modes.

Objective 4-4

Improve real-time travel across the Duluth-Superior area transportation system through the adoption and use of technology.

Objective 4-5

Ensure direct travel connections between modes of transportation for people exist and are maintained across the Duluth-Superior area transportation system.

Objective 4-6

Ensure direct travel connections between modes of transportation for goods and services exist and are maintained across the Duluth-Superior area transportation system.

Objective 4-7

Meet all required federal, state, and local performance measures and targets for NHS infrastructure (PM2), system performance on the NHS (PM3), and transit asset management (TAM).

Goal 4

Ensure the Duluth-Superior area transportation system is an integrated multimodal network that supports people and goods getting to where they need to go in an efficient manner.

Goal 5

Develop and maintain the Duluth-Superior area transportation system to support economic productivity and competitiveness, including tourism.

Objective 5-1

Ensure the Duluth-Superior area transportation system provides access to and connection of key population and employment centers.

Objective 5-2

Improve access and mobility across the Duluth-Superior area transportation system for the movement of freight.

Objective 5-3

Promote Duluth-Superior area transportation system decisions and investments that enhance the regional and global competitiveness of the Duluth-Superior Port.

Objective 5-4

Promote Duluth-Superior area transportation system decisions and investments that stimulate neighborhood and regional economic activity, such as those that support core investment areas in local jurisdictions.

Objective 5-5

Make it easier to travel to tourist destinations and events.

Objective 5-6

Integrate existing economic development plan recommendations when making decisions about Duluth-Superior area transportation system projects.

Goal 5

Develop and maintain the Duluth-Superior area transportation system to support economic productivity and competitiveness, including tourism.

Strategies & Tactics

Developing specific strategies and tactics under each objective are proposed to be determined by an Implementation Strategy Team (discussed below).

It is anticipated that these will incorporate comments from the public surveys, public meetings and consultations with MIC-area jurisdictions, as well as the input of planners and engineers from the MIC's Transportation Advisory Committee (TAC).

Example

Goal 5

Develop and maintain the Duluth-Superior area transportation system to support economic productivity and competitiveness.

Objective 5-1: Ensure the Duluth-Superior area transportation system provides access to and connection of key population and employment centers.

Strategy 1a: Ensure consistent transit route options exist in all primary neighborhoods

Strategy 1b: Ensure consistent transit route options exist to all primary employment centers or employers

Strategy 1c: Ensure transit options exist to and from key employment centers or employers at times that allow employees to arrive before common shifts and use transit following common shift end times.

- **Tactic 1c1:** Ensure DTA bus route 8 includes at least one service leaving the Miller Hill Mall after 11:15 PM.
- **Tactic 1c2:** Same as c1 for DTA bus route 5.

Performance Measures & Targets

Performance measures and targets included in *Sustainable Choices 2045* are federal requirements that have already been approved by the MIC Board. It is proposed they be included within an implementation strategy as described below. They are also included on pages 5-23—5-33 in Chapter 5.

Strategies, Tactics, Performance Measures, and Targets

- are the details to ensure the objectives and goals of *Sustainable Choices 2045* are met and implemented

Implementation Strategy

Upon approval of *Sustainable Choices 2045*, a team will be established to guide ongoing implementation of the Plan's vision, goals and objectives. Tasks for the Team will likely include:

- Develop an overall implementation strategy that outlines a process and details steps to be taken.
- Prepare a list of strategies specific to each objective listed in *Sustainable Choices 2045* that can be used when implementing the objectives.
- Prepare a list of tactics specific to each strategy that can be used when implementing the objectives.
- Consider how the comments received from surveys, partner groups and jurisdictional consultations can be considered and used to help implement *Sustainable Choices 2045.*
- List all current required performance measures and targets, and include ideas on how to ensure they are implemented and met.
- Update the TIP project selection process to address and meet the long range objectives of *Sustainable Choices 2045*.
- Distribute *Sustainable Choices 2045* to all appropriate MIC-area jurisdictions, agencies, and partners for their consideration.
- Assist jurisdictions, agencies, and partners in including and/or implementing portions of *Sustainable Choices 2045* within their own plans, policies, or projects.
- Develop an evaluation process and timeframe to regularly assess progress toward implementing the goals and objectives of *Sustainable Choices 2045* (at least once annually).
- Generally ensure that over time, all aspects of *Sustainable Choices 2045* are being implemented.

Implementation Team

- Upon approval of *Sustainable Choices 2045*, a team will be established to guide implementation of the Plan's vision, goals and objectives.

3. Key Takeaways

This chapter describes the key takeaway points to consider in making sustainable choices for the Duluth-Superior area transportation system

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Key Takeaway Points

The following are the key points considered in *Sustainable Choices 2045*, integrated and summarized from all data sources and analyses used in this plan. The data sources, analyses, results, and more are identified and detailed within numerous chapters and appendices throughout this plan, perhaps most notably in Chapters 4 and 6, and Appendices B, C, E, F, and G.

1. Many Needs and Wants, Limited Resources

Overall, funding the many transportation system needs and increasing costs, in the context of a stagnant population and decreasing tax base, is not attainable using current approaches, and will require more long-term sustainable approaches to be implemented.

2. Stagnant Population Growth

The projected continued stagnant population trend of the past 40+ years presents real potential challenges to our transportation system. The lack of population growth, along with the increase in the aging portion of our population and decline in the percentage of people of working age, will result in a decreased tax base. Thus, there is less money over time to fund the many transportation system needs we face, which are getting more expensive over time.

3. Aging Population

The projected increase in the elderly portion of the MIC area population presents a real challenge to our transportation system. It is expected this will require expanded and/or different transportation options than currently exist. Some of the anticipated needs for an aging population overlap with the stated needs of disabled people, who have provided comments requesting numerous changes to our system (see Appendix D).

4. Cost & Funding Concerns

The following demonstrate the significant concerns associated with costs and funding of transportation system:

4a. Rising Costs/Inflation

- Highway construction costs rose 66% between 2003 and 2016 (Long, Elliott. 2017. *Soaring Construction Costs Threaten Infrastructure Push*. Progressive Policy Institute, Washington DC. 13 pp).

4b. ASCE Infrastructure Report Card

- The American Society of Civil Engineers (ASCE) *2018 Twin Ports Area's Infrastructure Report Card* graded our roads D+, ports C+, aviation B-, and bridges B-. Except for aviation these grades are very similar to the national grades of D for roads, C+ for ports, D for aviation, and C+ for bridges. The local report card did not grade rail or transit, which at the national level received grades of B and D, respectively.
- The estimated total costs across the country for these needed infrastructure investments is $2.4 trillion , with a funding gap estimated at $1.2 trillion. The MIC area obviously has infrastructure improvement needs, and has a similar funding problem—see below.

4c. Large, Expensive Projects

- As detailed in Chapter 6, the MIC area is facing numerous extremely expensive infrastructure projects in the immediate and near future, including the Twin Ports Interchange, I-35 over Thompson Hill, Blatnik Bridge work, and major Bong Bridge work, among others. This does not include the regular costs of maintenance across the system, annual dredging of the shipping channel, and the upgrade and reconstruction of the Soo Locks.

4d. Revenues, Expenditures, & Unfunded Needs

- This plan includes $3,074,625,000 in total revenues (funding to resurface or reconstruct transportation infrastructure) and $2,503,633,800 in total expenditures (cost of short, mid, and long term federally eligible projects over the next 25 years). Additionally, $1,152,055,000 is estimated for operations and maintenance (revenues are partially from general fund budgets and not fully reliant on transportation related taxes). Finally, there is an estimated additional $199 million in unfunded transportation needs. These are clarified and detailed in Chapter 6.

4e. Fiscal Constraint

- The fiscal analysis in this plan is showing an overall surplus of approximately $571 million over the 25-year life of the Plan. At the same time one of the plan's main premises is that there is not enough revenue to cover the existing

transportation infrastructure expenses within the MIC area. At first glance, there appears to be a significant contradiction. The summary explanation is two-fold: One, the MIC area has very large and expensive bridge and highway projects that will take place within this 25-year planning horizon but are not fully scoped at this time, thus their associated cost estimates are not yet known. Two, not all publicly funded transportation system costs are federally eligible and considered regionally significant, and thus not all projects in the MIC area are included in this plan's project lists and fiscal analysis.

- A full explanation of how fiscal constraint is demonstrated within this plan is provided in Chapter 6.

5. Low Levels of Traffic Congestion

Current and future Level of Service (LOS) projections from the MIC's travel demand model (TDM) show little traffic congestion and few areas/corridors of concern. There are only a few select locations to consider for expanding infrastructure, which helps promote and fund maintenance of existing infrastructure.

6. Reverse Commuters

Twice as many people commute into the MIC area for work as commute outside it. This fact, along with the residential growth happening in outlying areas, means that the demand for roads and other transportation infrastructure is increasing despite the loss of tax base.

7. Poverty Level

Poverty affects a significant number of people in the MIC area—18% of the population (compared to 11% in Minnesota, 13% in Wisconsin, and 15% nationally). The percentage of poverty as a portion of the population is much greater in the Cities of Duluth and Superior (21%) than in the neighboring municipalities within the MIC area (2-13%), with one exception—the Village of Oliver (20%).

People in poverty are often limited in their options for transportation due to cost or other access barriers, which increases the importance of maintaining multiple options that

are accessible for this population. This plays a real role in decision-making regarding our transportation system.

8. Balance of Multiple Goals

People clearly want all five goals of this plan to be achieved, and in a relatively balanced manner.

Achieving this will require a shift from traditional transportation priorities, including new, broader, more integrative and holistic approaches that include a more diverse group of interests and professionals within project planning and decision-making teams from the beginning.

9. Multi-Modal Choices

Although driving and riding in automobiles and walking are the primary modes used in the MIC area, other modes of travel are also used, desired, and in some cases necessary for people to travel within, through, and to and from the MIC area.

It will be extremely difficult, if not impossible, to establish livable and equitable communities that meet the multiple goals of this plan without true multi-modal options.

10. Evidence-Based Decisions

People want and expect decisions about our transportation system to be based on data and evidence, and not on political or other factors.

11. Maintenance of Existing Infrastructure

Maintenance of our existing transportation system is strongly desired, with specific focus and priority on critical infrastructure rather than on the entire system. This includes maintenance of all aspects of our infrastructure (not simply road surfaces), as well as addressing inefficiencies within the system.

12. Environmental Sustainability

Building, maintaining, and operating our transportation system in an environmentally sound and sustainable manner is strongly desired.

13. Public Health Impacts

The design of our transportation system has multiple impacts on public health, including providing active transportation

options, supporting air quality improvements and reducing toxic emissions, and reducing noise and light pollution. Survey respondents supported transportation options that benefit and improve the overall health of the community.

14. Geographic Challenges

Geography within the MIC area, including steep hills and numerous water features, present real and significant challenges and barriers to our transportation system, and to achieving the goals of this plan. And while geography should not be used as an excuse, it does need to be considered in finding viable solutions.

15. Unknown Impacts of Emerging Technologies

There are many significant "unknowns" in regard to our future transportation system: we do not know exactly what or how future trends may change what is common practice today. Connected and autonomous vehicles (CAVs), ride sharing apps, national data that suggest younger adults have different priorities in terms of vehicle ownership, and other trends may alter costs, funding needs, and funding mechanisms.

4. Primary Data Sources & Results

This chapter summarizes the data used in this plan and presents the primary results supporting the key takeaway points of the plan listed in Chapter 3.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Primary Data Sources for the 2045 LRTP

The following are the primary data sources supporting *Sustainable Choices 2045*:

- United States Census Bureau, including the American Community Survey
- MetroQuest online surveys — Phases 1 & 2
- Consultations with local jurisdictions and stakeholders
- Travel Demand Model (TDM) sources

United States Census Bureau

Trends regarding population, demographics, economics, and other characteristics are tracked using data published by the U.S. Census Bureau and other agencies. This includes the Census Bureau's American Community Survey, or ACS.

For metropolitan areas like Duluth-Superior, such data is collected and delivered according to at least one of three geographic levels: the metropolitan statistical area (MSA), the urbanized area (UZA), or the individual municipalities that comprise the MIC planning area.

The Duluth-Superior MSA is a much larger geographic area that contains the MPO. It includes counties with close economic ties to the metropolitan area. Trends in population, workforce, and transportation are all available for this geographic area and can be easily compared.

The Duluth-Superior UZA boundary delineates the portion of the MPO considered to be "urban" based on the population density. This is the smallest unit with which some employment and transportation-related data are delivered.

The trends and projections of Appendix E are largely based on census and ACS data.

MIC-Area Travel Demand Model (2018 Update)

Primary inputs (data sources) to the 2018 update of MIC's travel demand model (TDM) included U.S. Census Bureau data, traffic estimates from Minnesota DOT and Wisconsin DOT, and TAZ data that included information gathered from consultations with jurisdictions. Details of the TDM are provided in Appendix F.

The Metropolitan Transportation Planning Process:

- **Identifies travel and transportation issues and needs;**

(MIC tool: Community Engagement through online surveys, events and consultations)

- **Includes a demographic analysis of the community in question;**

(MIC tool: US Census Bureau/ACS data)

- **Examines travel patterns, trends and projected future demands;**

(MIC tool: Updated MIC Area Travel Demand Model)

...with the goal of providing a safe and efficient transportation system that provides mobility while not creating adverse impacts to the environment and historically under-served populations.

Source: FHWA
www.fhwa.dot.gov/planning/processes/metropolitan

Consultations with Jurisdictions & Stakeholders

MIC staff held 30 consultations with MIC area jurisdictions and other stakeholders. Most of these consultations were one-on-one, and involved asking key questions and receiving feedback. The MIC received 262 comments during these consultations. Summaries of these consultations, as well as the comments received during stakeholder meetings and consultations are provided in Appendices H and I.

Public Surveys

Public surveys included two phases of an online survey using the MetroQuest platform, as well as shorter, in-person dot surveys that allowed people to express their preferences about transportation priorities.

MIC-Area Transportation Issues

Based on demographic and travel demand model information, the following issues emerged as having key influences on the MIC -area transportation network and future investments in its infrastructure:

Continued Flat Growth And Aging Population

The MIC area population has decreased by nearly 4000 people since 1980 (151,381 to 147,541), although it has risen slightly since 2000. Thus, overall the MIC area population growth continues to be flat. The trend for the population in the two primary MIC area cities (Duluth and Superior) is very similar (Figures 4.1 and 4.2). However, there is a slight increase in some of the adjacent cities and townships, thus a sign of some decentralizing from the more urban core.

According to US Census and ACS household data, and reflection on past population trends summarized above, the projected percent population increase in 2045 is 3.4% across the MIC area, or a total population of 152,587. Duluth is projected to increase by 3.7%, while Superior is projected to increase by 2.7%. The only two municipalities with higher projected increases are the Cities of Proctor (11.1%) and Hermantown (10.9%). The projected 3.4% increase is what was used in the travel demand model (TDM) to produce 2045 outcomes.

Figure 4.1: Population of Duluth and Superior (1980—2015)

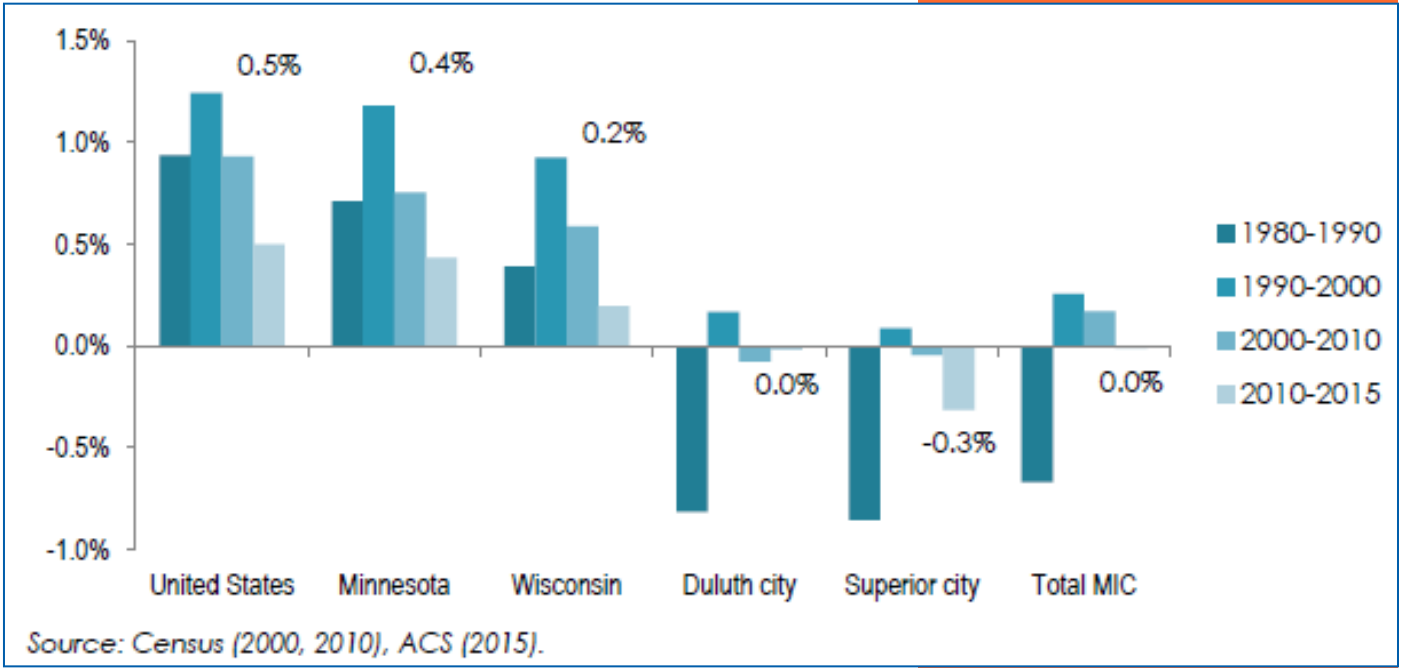
	Duluth	Superior
1980	92,811	29,571
2000	86,918	27,368
2015	86,178	26,817

The age structure of the MIC area population is also of importance. There are two age cluster concentrations in the Duluth-Superior area that are larger than across the nation—those between the ages of 20-24 and 50-64. In the MIC area, 28% of the population is at least 55 years or older, compared to 26.5% across the nation. In contrast, the U.S. share of the population that is 25-54 (i.e. prime working age adults) is 40.3%, compared to 37.1% in the MIC area. This can have implications for the economy, local municipal finances, and demand for services. See Figure 4.3.

In St. Louis County the proportion of the population aged 55 or older is projected to rise from 36% to 38% between 2020 and 2035, but drop to 34% in 2050, sooner than the projected rise for Minnesota statewide. The increasing number of seniors may also translate into increased demand for more accessible transportation options and increased transit service.

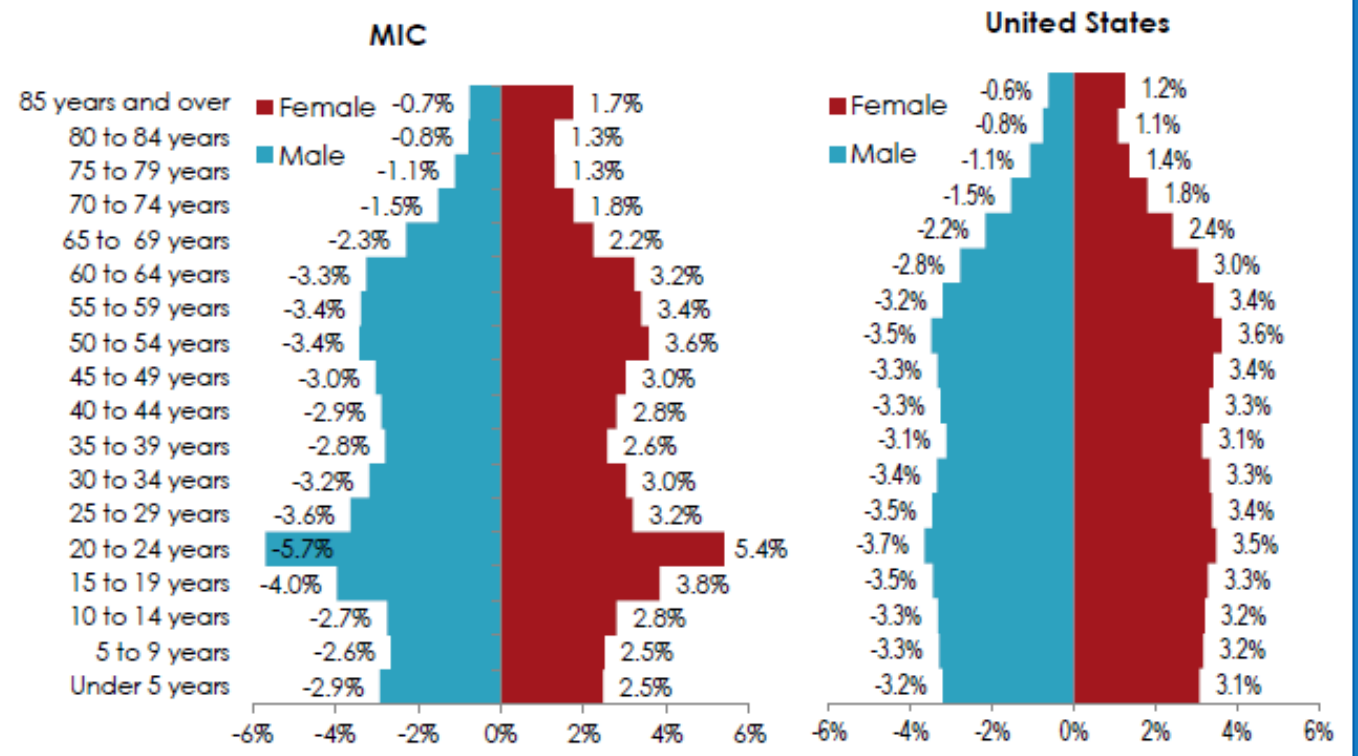
See Appendix E pages 2-12 for additional details and full data.

Figure 4.2: Annualized Population Growth in Major Population Centers & Benchmark Regions (also Figure 1 in Appendix E)



Source: Census (2000, 2010), ACS (2015).

Figure 4.3: Population Pyramids (2015) (also Figure 3 in Appendix E)



Source: ACS (2015).

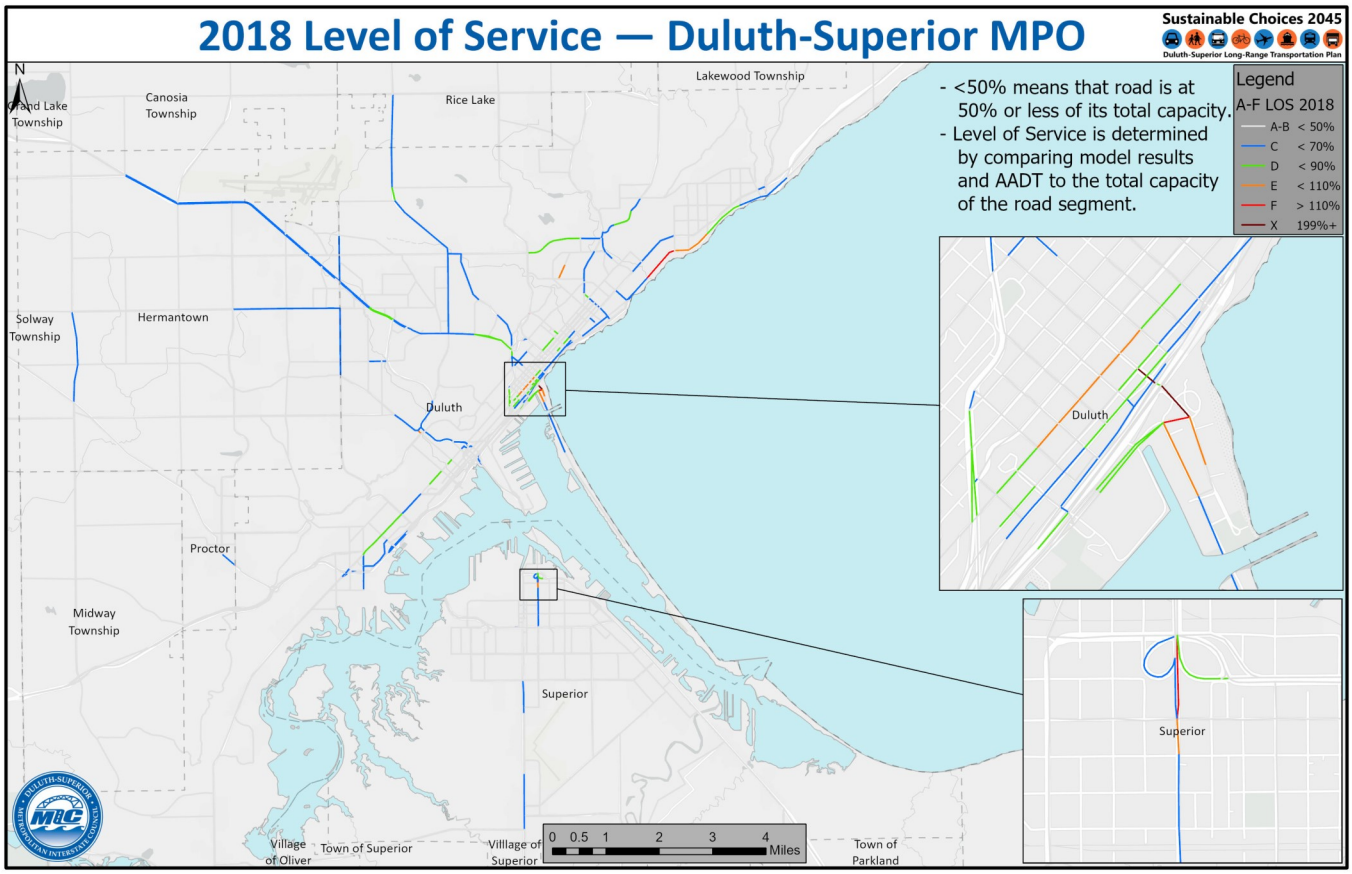
Level of Service / Travel Demand Model Outputs

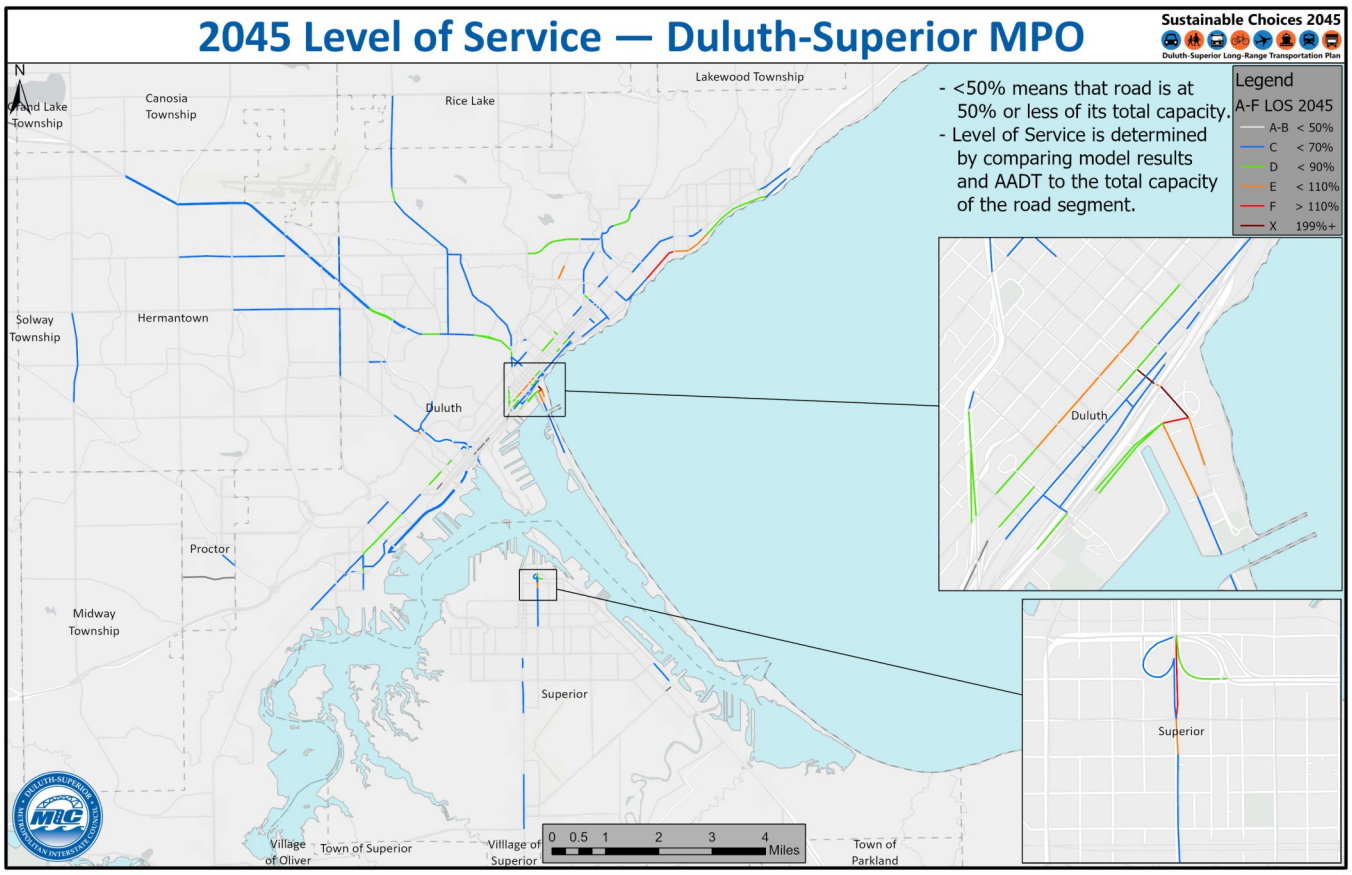
Level of service (LOS) is determined by looking at what the total capacity of the road is and comparing it to the total daily traffic on the road segment. AADT is used where available for current year totals and then adjustments are made based on growth expectations. The population in the Duluth-Superior area is not expected to rise significantly by 2045, so the model only shows minor increase/decrease (1%-2%) to LOS.

There are concerns with current and future LOS for a few road corridors in the Duluth-Superior area. Concern areas are any road corridors that have a LOS that exceeds 90% capacity. 90% to 110% capacity is classified as LOS E (At Capacity). 110%+ is classified as LOS F (Above Capacity). 200% means the road is at two times its capacity. The percentages listed in Figure 4.4 represent the projected LOS in 2045. The LOS service values and maps for 2018 and 2045 are nearly identical (Map 4.1).

Overall, as can be seen in Map 4.1, there are very few LOS and congestion problems projected in the MIC area. That said, the model that projects the LOS, does not necessarily capture

Map 4.1: MIC Area Level of Service—2018 vs 2045





congestion at intersections. There are intersections in the MIC area that do have congestion problems during peak hours or during significant events. Examples include the intersections at Arrowhead Road and Rice Lake Road, London Road and 21st Avenue, London Road and 40th Avenue E, Lake Avenue-Railroad Street-Canal Park Drive, Hammond Avenue and Belknap Street, and the I 35 ramp at 5th Avenue W/Harbor Drive.

Since congestion is mostly a peak hour phenomenon, people can address it through behavioral changes if they want to avoid it, reducing the need and cost of adding more road capacity.

The following are a couple of related pieces of data that are useful to understanding traffic patterns in the MIC area:

- The AADT on key MIC area roadways generally increased from 2013-2017, to give a general slight increase between 2009-2017. The one significant exception to this was Wisconsin Trunk Highway 35 south of Superior. See Table 20 in Appendix E for more details.
- More than twice as many people commute into the MIC area for work as commute outside (Figure 4.5). Further, commuter distances are approximately the same over the past 10 years, and 58% of commuters have less than a 20 minute commute (Figures 4.6 and 4.7). Reasons for this are not clear, but may be due to a lack of housing, a lack of affordable housing, desired access to other school districts, or a desire for a more suburban lifestyle. Commute mode is identified in Figure 4.8. See pages 33-45 in Appendix E for more details.

Figure 4.4: 2045 Projected LOS Concerns

Duluth—LOS F

210%
North Lake Avenue
I-35 to West Superior Street

200%
South Lake Avenue
I-35 to Canal Park Drive

119%
London Road
Tischer Creek to 40th Avenue

117%
Railroad Street
Lake Avenue to Canal Park Drive

Duluth—LOS E

100%
London Road
40th Avenue E to 47th Avenue E

98%
Canal Park Drive
South Lake Ave to Buchanan St

Lake Avenue South
Railroad St to Buchanan St

91-95%
West 1st Street
4th Avenue W to 1st Avenue E

Superior—LOS F

118%
I-535
N 5th Street to North Bound on Ramp

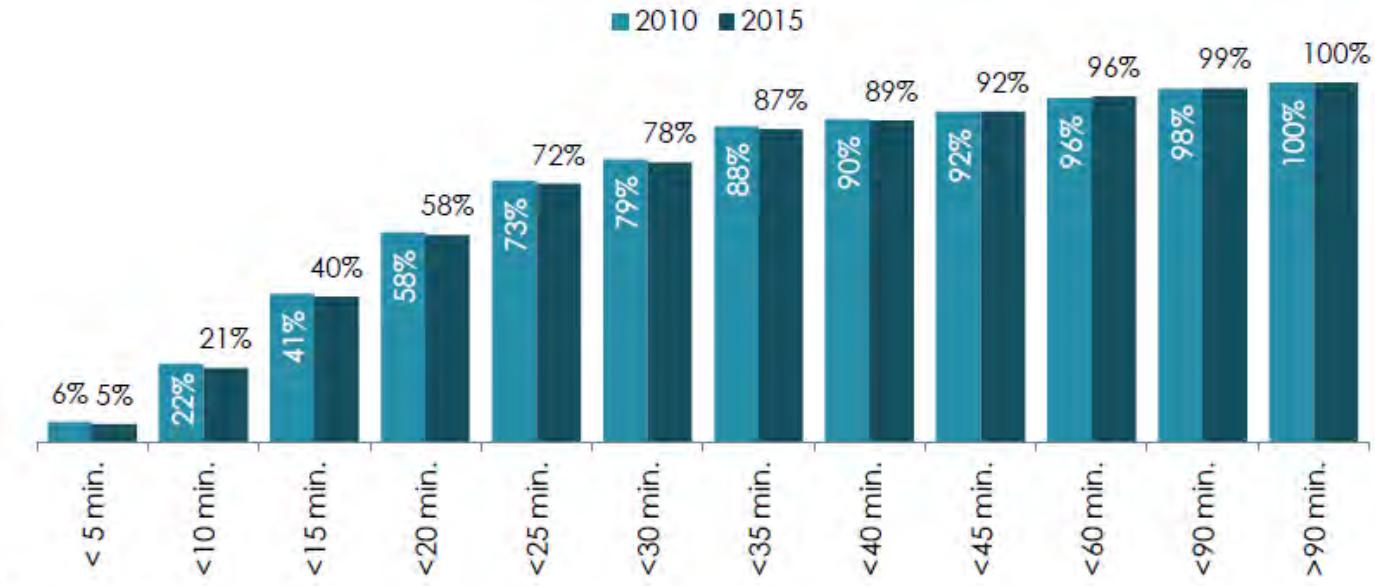
Superior—LOS E

98%
Hammond Avenue
6th Street to 5th Street

Figure 4.5: Commuting Into and Out Of the MIC Area

2015 data shows that 31,159 people are potentially commuting into the area for work on a daily basis, while 14,726 people are commuting outside the area. 56,223 people both live and work within the MIC area. See page 43 of Appendix E for additional information.

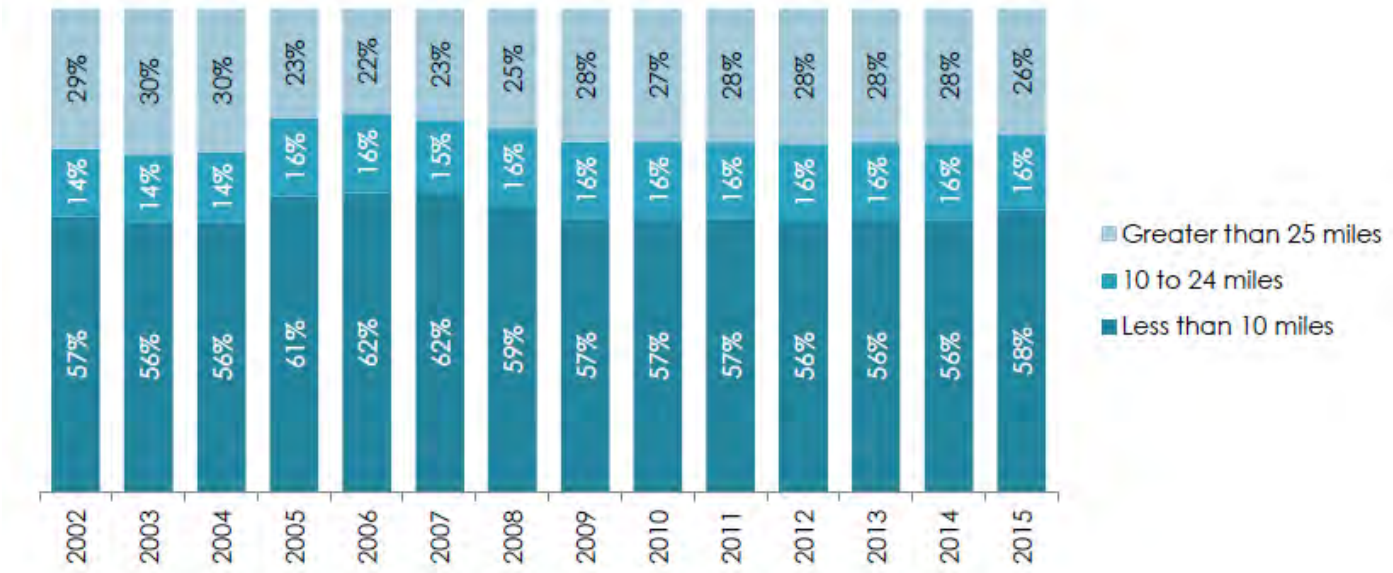
Figure 4.6: Share of Duluth-Superior MSA by Commute Length (Time) (2010-2015)



Source: ACS 2010, 2015.

The commute time in the Duluth-Superior area is relatively low for most people—58% have a commute time of less than 20 minutes, while 78% have a commute time under 30 minutes. Commute times changed very little between 2010 and 2015.

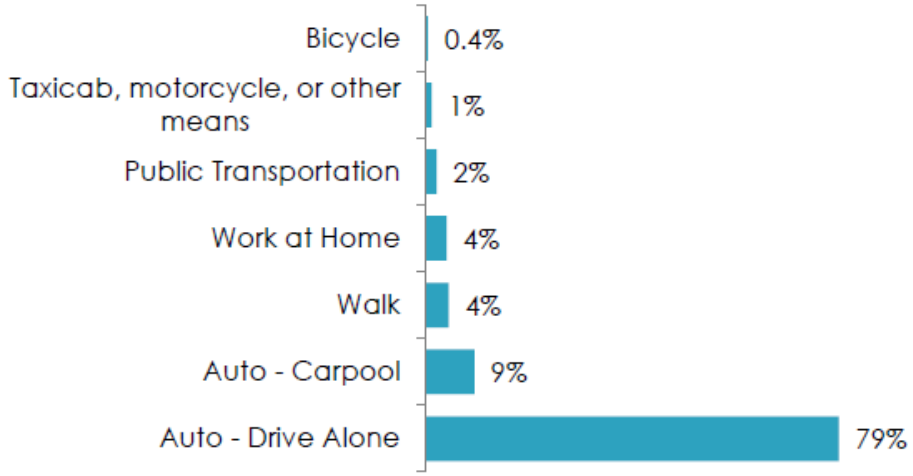
Figure 4.7: Historical Shares of Distance Traveled by Commuters



Source: LEHD 2015.

The commute distance in the Duluth-Superior area is relatively low for most people—58% have a commute distance less than 10 miles, while 74% have a commute distance less than 24 miles. Commute distances changed very little between 2002 and 2015.

Figure 4.8: Duluth-Superior MSA by Commute Mode Share (2015)



Source: ACS 2015.

The responses gathered in the local MetroQuest survey (see page 4-5—4-7) are significantly higher than the corresponding mode values from ACS. This is not surprising for three reasons. One, the ACS values consider the entire MSA which includes a vast majority of very rural areas, not representative of the MIC area. Two, the ACS values represent the "primary" mode of travel, which very much differs from the MetroQuest survey question. Three, the ACS values are specific to travel to work, whereas the MetroQuest survey question was broader in regard to transportation or travel to any place.

Poverty Concerns

The poverty level in the MIC area (18%) is higher than the national (15%), and Minnesota (11%) and Wisconsin (13%) statewide percentages. Of note, the poverty level in both the Cities of Duluth and Superior is 21%, and the Village of Oliver is 20%. The only other municipalities in the MIC area with greater than 10% poverty is the Town of Parkland (13%). See Figure 4.9 and Appendix E for more details.

The relatively high poverty levels should play a real role in decision-making regarding our transportation system, as people in poverty are often limited in their options for transportation due to cost or other access barriers, which increases the importance of maintaining multiple options that are accessible for this population.

18%

of the total MIC area population is below poverty

Figure 4.9: Population by Poverty Level (2015) (see also Table 12 in Appendix E)

Geography	Population With Income Data	Below Poverty Level	% Below Poverty (2015)
United States	308,619,550	47,749,043	15%
Minnesota	5,295,613	596,662	11%
Wisconsin	5,589,889	724,348	13%
St. Louis County, MN	192,546	30,869	16%
Douglas County, WI	42,376	6,713	16%
MIC (MN)	**109,103**	**19,201**	**18%**
Duluth city	*80,675*	*17,331*	*21%*
Hermantown city	*8,799*	*643*	*7%*
Proctor city	*2,950*	*267*	*9%*
Rice Lake township	*4,110*	*324*	*8%*
Grand Lake township	*2,656*	*122*	*5%*
Lakewood township	*2,431*	*224*	*9%*
Canosia township	*2,213*	*44*	*2%*
Solway township	*1,917*	*65*	*3%*
Duluth township	*1,866*	*146*	*8%*
Midway township	*1,486*	*35*	*2%*
MIC (WI)	**30,633**	**5,760**	**19%**
Superior city	*25,636*	*5,320*	*21%*
Superior town	*2,035*	*99*	*5%*
Parkland town	*1,330*	*168*	*13%*
Lakeside town	*578*	*41*	*7%*
Superior village	*695*	*61*	*9%*
Oliver village	*359*	*71*	*20%*
Total MIC	**139,736**	**24,961**	**18%**

Source: ACS 2015.

Cost & Funding Concerns

This plan includes $3.1 billion in total revenues (funding to resurface or reconstruct transportation infrastructure) and $2.5 billion in total expenditures (cost of short, mid, and long term federally eligible projects over the next 25 years). Additionally, $1.2 billion is estimated for operations and maintenance (revenues are partially from general fund budgets and not fully reliant on transportation related taxes). Finally, as detailed in Chapter 6, there is an estimated additional $199 million in unfunded transportation needs.

The following demonstrate the significant concerns associated with costs and funding of the MIC-area transportation system:

"highway construction costs rose 66% between 2003 and 2016."

Infrastructure costs continue to rise. While the price of construction has doubled since 2000, highway construction costs rose 66% between 2003 and 2016 (Long, Elliott. 2017. *Soaring Construction Costs Threaten Infrastructure Push*, Progressive Policy Institute, Washington DC. 13 pp).

The American Society of Civil Engineers (ASCE) 2018 Twin Ports Area's Infrastructure Report Card graded our roads D+, ports C+, aviation B-, and bridges B-. Except for aviation these grades are very similar to the national grades of D for roads, C+ for ports, D for aviation, and C+ for bridges. The local report card did not grade rail or transit, which received grades of B and D– nationally. The estimated total costs across the country for these needed infrastructure investments is $2.4 trillion , with a funding gap estimated at $1.2 trillion. The MIC area obviously has infrastructure improvement needs, and has a similar funding problem—see below.

The estimated total cost of planned projects in the MIC area over the next 25 years is $2.5 billion, with an additional $199 million in unfunded needs

The MIC area is facing numerous extremely expensive infrastructure projects in the immediate and near future, including the Twin Ports Interchange, Thompson Hill, Blatnik Bridge reconstruction, major Bong Bridge work, among others. This does not include the regular costs of maintenance across the system, annual dredging of the shipping channel, and the upgrade and reconstruction of the Soo Locks.

State and federal funding tied to fuel taxes continue to decline due to inflation, greater fuel efficiency, and the introduction of electric vehicles. New and alternative funding mechanisms are necessary.

Fiscal Constraint

As can be determined from Figure 6.7 the fiscal analysis in this plan is showing an overall surplus of approximately $571 million over the 25-year life of the Plan. At the same time one of the plan's main premises is that there is not enough revenue to cover the existing transportation infrastructure expenses within the MIC area. At first glance, there appears to be a significant contradiction. However, there is not. The short explanation is that the MIC area has very large and expensive bridge and highway projects that will take place within this 25-year planning horizon. However, the exact scope of those projects and their associated costs is not defined at this time. The longer explanation includes three key factors to consider:

1. The project lists in this plan ONLY cover federally eligible and/or regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area. While federally funded and regionally significant roadways include all of the state DOT's roads and much of each county's roadway system within the MIC area, this fiscal analysis excludes the local/residential roadway system needs, which for the cities in the MIC area, comprises a large percentage of their roadway network. Therefore, the surpluses for the respective cities are no-where near the revenues needed to cover the expenses of their local roadway system, and thus the costs of these projects are not factored into this financial analysis. It is reasonable to state that there is presently not enough funding to cover ALL transportation needs for the Duluth-Superior area. Evidence of this is the recent adoption of local transportation sales taxes by the City of Duluth and St. Louis County to add available revenue and reduce the gap in needed funds.
2. While ideal for planning purposes, it is difficult to fully and accurately project long-term revenues and expenditures over a 25-year timeframe, largely due to the fact that none of the roadway jurisdictions program their revenue or projects past a 10-year timeframe. In the short and mid-term timeframes, the project lists are largely based on expected revenues and lists of projects identified in capital improvement programs that generally look out 10 years. Projecting out further than 10 years and then

The project lists in this plan ONLY cover federally eligible and regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area

selecting projects for that timeframe is an exercise of estimates and best guesses and is limited in its overall usefulness. In reality, the list of projects in the long term does not reflect the entirety of transportation work that will take place in those 15 years and therefore results in the identified surpluses.

3. The planning and design for the anticipated major work on the Blatnik Bridge and I-35 corridor in the MIC area has not been conducted. While it is fully anticipated this work will happen during the life of this plan, the actual scope of these projects is not known yet. It is anticipated the costs will exceed the projected revenues of MnDOT District 1 and WisDOT Northwest Region and will require either funding from statewide sources to fill the gap or keeping these projects within available funds through alternative approaches.

Geography of the MIC Area

The geography of the MIC area presents numerous challenges to the function and maintenance of the transportation system. The two primary cities in the MIC area (Duluth and Superior), while adjacent to each other, clustering the highest density, are separated by both the St Louis River and estuary and Lake Superior. The only connections are three automobile bridges, and two railroad bridges. Two, both Duluth and Superior have long narrow primary corridors. This is especially true of Duluth. Three, the significant steep hills along the length of Duluth are barriers, especially during the winter. All of these contribute to difficulties in achieving highest efficiencies across the transportation system. This is especially challenging for transit operations, during construction in certain key locations, or during large scale emergency or evacuation situations.

Duluth's steep hills create a significant challenge to its multimodal transportation network, especially during the winter.

The mode data in this chapter can be compared with data in Figure 4.8 and Figure 15 in Appendix E, which is from the American Community Survey (ACS). The ACS survey considers only the primary mode of a person's commute, while our survey considered all modes a person may use for moving from one place to another, including commuting.

Public Survey Results

The original data summarized here is detailed in Appendices B, C, and D.

MetroQuest Phase 1 participants:

- The primary age groups were 25-49 (50%) and 50-64 (28%).
- The vast majority (67%) were employed full-time, while 8% were employed part-time, and 13% were retired. In addition, 5% were students, 3% worked or stayed at home, and 4% were unemployed.
- The majority had household incomes of $55,000-99,000 (31%), less than $40,000 (27%), or $100,000-199,999 (26%). Less than 2% had household incomes greater than $200,000.
- 52% were female, while 48% were male.

MetroQuest Phase 2 participants:

- The primary age groups were 25-49 (45%) and 50-64 (29%).
- The vast majority (62%) were employed full-time, while 12% were employed part-time, 10% were retired, and 9% were students. Alternatively 4% worked or stayed at home. 3% were unemployed.
- The majority had household incomes of less than $40,000 (30+%), $100,000-199,999 (30%), and $55,000-99,000 (25%). This included 21% less than $25,000. Less than 4% had household incomes greater than $200,000.
- 55% were male, while 45% were female.

Movement By Mode

To start the MetroQuest Phase 1 survey, people were asked three questions regarding which modes they used, in regard to four modes: walking, biking, taking a bus or shuttle, and driving or riding in an automobile.

The first question was "How often have you used each mode for transportation within the past year?"

The second question asked people to identify the most significant challenges or barriers to travel by each mode, selecting up to three options from a list.

MetroQuest Online Surveys

The Phase 1 survey included responses from 542 participants. The Phase 2 survey included responses from 275 participants. Of those participants that identified their zip code, the vast majority (greater than 90% in each survey) lived in or adjacent to the MIC area.

The participant demographics were similar in both surveys, with a good balance of household incomes and gender, and less of a balance between age groups and employment status, despite some effort to do so.

The Phase 1 survey produced 299 open comments regarding the five planning factors/goals, as well as 623 open comments associated with the interactive map.

While we did not achieve perfect balance of all socio-economic categories among survey respondents, overall, we believe the surveys are representative of, and include input from, the community as a whole.

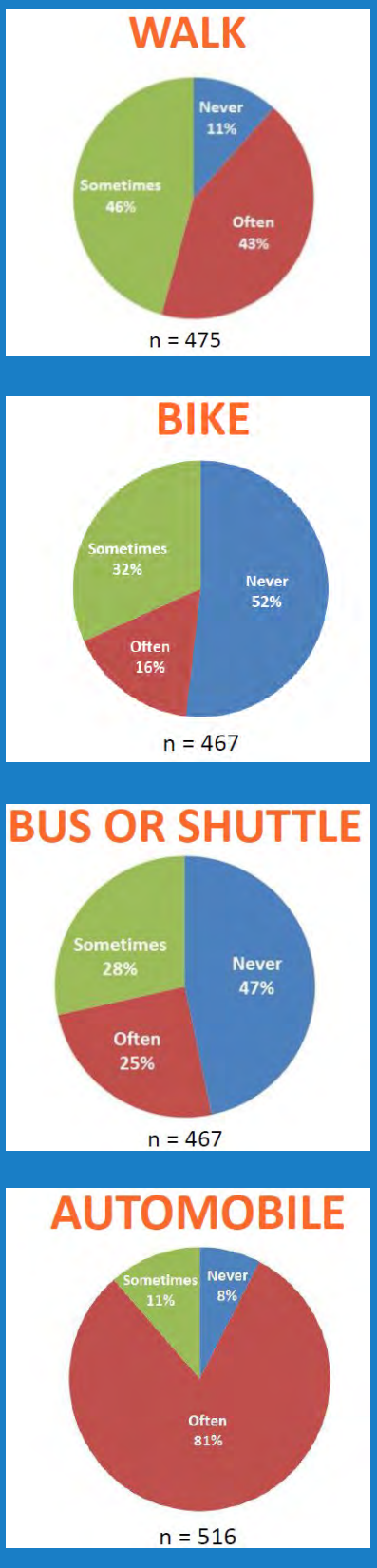
Overall, we believe the surveys are representative of, and include input from, the community as a whole.

Finally, in considering removal of the identified challenges or barriers, people were asked to select whether or not they believed 1) that it would generally improve that mode as a transportation option and 2) that they would personally use that mode more as a means of travel. Appendix G displays the responses to these questions.

In regard to modes people used for transportation within the past year (Figure 4.10):

- 89% of respondents said they walked, which also means 11% said they never walked.
- 52% of respondents never biked.
- 53% of respondents took a bus or shuttle.
- 92% of respondents drove or rode in an automobile, which also means that 8% never drove or rode in an automobile.

Figure 4.10: Mode Choice



Walking

The most selected significant challenges or barriers to walking were:

- Sidewalks in poor condition or difficult to use
- Distance to destinations
- Unsafe crossings
- Lack of or gaps in sidewalk network

If the identified significant challenges or barriers to walking were removed, 309 people said it would generally improve this mode of travel and 173 people said they would personally walk more often for travel.

15% of respondents that never walk for transportation would walk more if the identified challenges or barriers were removed. Of all respondents (whether they never, sometimes, or often walked), 43% said they would walk more if the identified challenges or barriers were removed. Perhaps this is a sign of a limit to how much or how far people are willing to walk for transportation.

Bicycling

The most selected significant challenges or barriers to bicycling were:

- Do not feel safe riding in the street

- Comfort (weather, arriving sweaty, etc.)
- Terrain (steep incline)
- Distance is too far to my destination
- Inability to carry passengers, or other items

If the identified significant challenges or barriers to biking were removed, 228 people said it would generally improve this mode of travel, and 191 people said they would personally bike more often for travel.

23% of respondents that never bike for transportation would bike more if the identified challenges or barriers were removed. However, 57% respondents that sometimes bike and 65% of respondents that often bike said they would bike more if the identified challenges or barriers were removed.

Using a Bus or Shuttle

The most selected significant challenges or barriers to using a bus or shuttle were:

- Takes too long or indirect routes
- No late night service
- Too infrequent

If the identified significant challenges or barriers to using a bus or shuttle were removed, 247 people said it would generally improve this mode of travel, and 156 people said they would personally use a bus or shuttle more often for travel.

17% of respondents that never use a bus or shuttle for transportation would use a bus or shuttle more if the identified challenges or barriers were removed. Of all respondents (whether they never, sometimes, or often walked), not more than 48% said they would bus or shuttle more if the identified challenges or barriers were removed. Far more respondents believed removing the challenges or barriers would generally improve the mode, than would personally use a bus or shuttle more, which indicates a level of disconnect with this mode and people's perceptions of it.

Driving or Riding in an Automobile

The most selected significant challenges or barriers to driving or riding in an automobile were:

Public transportation investment yields a 4-to-1 return to the U.S. economy, including long-term productivity enhancements, such as improved sales and workforce access

Economic Impact of Public Transportation Investment, (2014)
American Public Transportation Association,
www.apta.com/resources

For additional information on Duluth-area transit, see the Duluth Transit Authority's ***Duluth Transit Development Plan Update Final Report*** **(2017)**

- High cost of owning a car
- Road construction
- Difficulties related to parking
- Traffic congestion

If the identified significant challenges or barriers to driving or riding in an automobile were removed, 269 people said it would generally improve this mode of travel, and 113 people said they would personally use an automobile more often for travel.

26% of respondents that never drive or ride in an automobile and 34% of respondents that sometimes drive or ride in an automobile said they would drive or ride in an automobile more if the identified challenges or barriers were removed.

Further, 20% of respondents that often drive or ride in an automobile would do so more if the identified challenges or barriers were removed. Perhaps these results are a sign of a limit to how much driving one will do, and/or that local people are part of a national trend of an increasing number of people choosing not to be automobile-dependent.

Demographic Influence by Mode

Walk

- The percentage of respondents who often walk for transportation steadily decreases with age.
- The percentage of respondents who walk for transportation decreases with increasing household income—especially from $55-99 K (91%, n = 109) and $100-199 K (83%, n = 87), and even more so between $100-199 K and $200 K or more (57%, n = 7).
- Women walk for transportation slightly more than men (93% vs 87%, n = 357).

Bike

- 75% of currently unemployed respondents never bike for transportation, and 0% often do so (n = 16).
- 34% of retirees bike for transportation (n = 41)
- 68% of students bike for transportation (n = 19)
- The highest percentage of respondents who never bike

Socio-Economic Demographics Influences Mode Choice

(59%, n = 93) have a household income $39 K or less.

- Only 41% of respondents with a household income of $39K or less bike for transportation, while the percentage for all other household income categories range between 50-58%.
- More men bike for transportation than women (56% vs 44%, n = 354)

Bus or Shuttle

- Respondents of working age (25-49) use a bus or shuttle for transportation less (by at least 9%) than all other age categories except those of age 75 or older (overall n = 373).
- There is a clear inverse relationship between household income and bus or shuttle ridership.
- 53% of respondents that are employed fulltime never use a bus or shuttle for transportation (n = 250).
- 94% of respondents that are currently unemployed use a bus or shuttle for transportation (n = 16).
- 74% of respondents that are students use a bus or shuttle for transportation (n = 19).
- More women use a bus or shuttle for transportation than men (65% vs 43%, n = 357).

Automobile:

- While 92% of respondents said they drove or rode in an automobile for transportation, those that are currently unemployed do so much less frequently (56%, n = 16) vs a minimum of 84% (students being the 84%) for all other employment categories (overall n = 397).
- The only household income level with under 93% of respondents driving or riding in automobiles for transportation was those making $39 K or less (n = 98)
- There was no real difference in driving or riding in automobiles between gender (93% men vs 92% female, n = 383).

Mode Prioritization

In the MetroQuest Phase 2 survey, people were asked whether our transportation system should prioritize multiple modes or prioritize automobiles. Prioritizing multiple modes considers

Top Identified Transportation Priorities from the Phase 1 Survey.

MetroQuest Phase 1 survey respondents selected the following factors as the 10 most important to wise transportation investment:

- Provide choices for all people of all ages, incomes, and abilities
- Effective emergency response capabilities
- Provide viable travel choices for all
- Access to key population and employment centers
- Do not create costly environmental problems
- Consider community needs and wants
- Use evidence-based decision-making
- Address inefficiencies in our system
- Enhance the regional/ global competitiveness of the Duluth-Superior Port
- Maintain current infrastructure

the needs of all people, including those walking, biking, taking transit, and driving.

People prioritizing multiple modes would rather reduce auto-oriented infrastructure to accommodate a multi-modal network. Not surprisingly, people prioritizing automobiles would rather not reduce auto-oriented infrastructure to accommodate a multi-modal network.

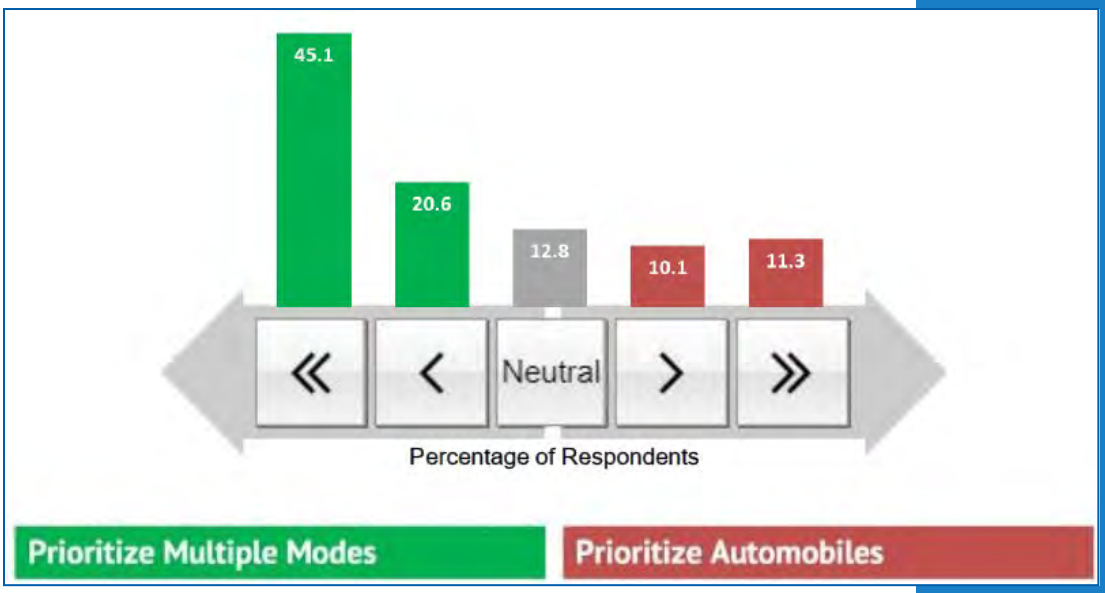
Of the 257 people who responded to this question, 116 (or 45%) strongly preferred prioritizing multiple modes. Further, 169 (or 66%) overall preferred prioritizing multiple modes.

Conversely, 55 people (or 21%) preferred prioritizing automobiles, with only 29 people (or 11%) strongly so. This information is presented in Appendix C and summarized in Figure 4.11.

Transit Comments

The following are summaries of the primary themes expressed in the comments received during both the MetroQuest Phase 1

Figure 4.11: Prioritizing Multiple Modes vs. Prioritizing Automobiles in the MIC Area Transportation System



survey and meetings with partner groups. All comments can be read in Appendix D.

- Numerous comments reflect that riders believe MIC area transit options are on time, are a good value, and are a

positive option for some.

- There is interest in multimodal options, including transit, for reasons of equity, health, and the environment.
- Numerous suggestions regarding improving transit operations were shared, most specifically relating to frequency of service, earlier and later hours of service, and overall rider experience, including safety and comfort of bus shelters.
- Numerous concerns regarding STRIDE operations were expressed, especially in regards to meeting the needs of riders, scheduling, and improving efficiency.
- There is awareness that transportation options, including transit, drive and enhance the local economy. A specific examples of this is transit being a means for people of all ages and abilities to access employment that would otherwise be a barrier. However, transit operators and employers should coordinate together to optimize routes and times of service for employees.
- There is interest in, and understanding of, the benefits of passenger rail between the MIC area and the Twin Cities.

What Transportation Issues Matter Most?

In Person Dot Surveys

People at numerous public events were given three dot stickers or given three stars to use online, and asked to place them under the planning perspectives (the five goals of the Long Range Transportation Plan (LRTP)) they believed our transportation resources should be directed towards.

Reminded of the context of the LRTP, that we have many needs but limited resources, survey respondents placed the three dots or stars in whatever manner they chose, including one each to three different goals, two to one goal and one to another, or all three under the same goal.

Results

A total of 1591 responses were received. Of that, 843 (53%) were via in-person dot surveys at five public events, 676 (42%) were via the online MetroQuest Phase 2 survey, and 72 (5%) were via a paper copy of the MetroQuest survey.

A quick glance at the pie chart of survey results (Figure 4.12)

What Transportation Issues Matter Most?

Survey Respondents' Ranking of Plan Goals:

Health of People & the Environment

It is important to protect and enhance the environment, and promote energy conservation and public health through responsible transportation system policies and design. Ignoring these can lead to significant future costs in terms of human health, property damage, and environmental remediation.

Supporting Great Places & Neighborhoods

A livable and equitable community is a safe and connected place where people can live independent, healthy and meaningful lives. These places have a diverse and resilient local economy, transportation options that access needed services, and provide opportunities and choices for people of all ages and ability to engage in the community's civic, economic, and social life.

Reducing Injuries and Crashes

Continually improving the safety of the Duluth-Superior transportation system for all users and modes is obviously important. A part of system safety is ensuring we are prepared to handle emergencies and disasters. Additionally, a well-functioning system is secure, helping people feel free from danger or fear.

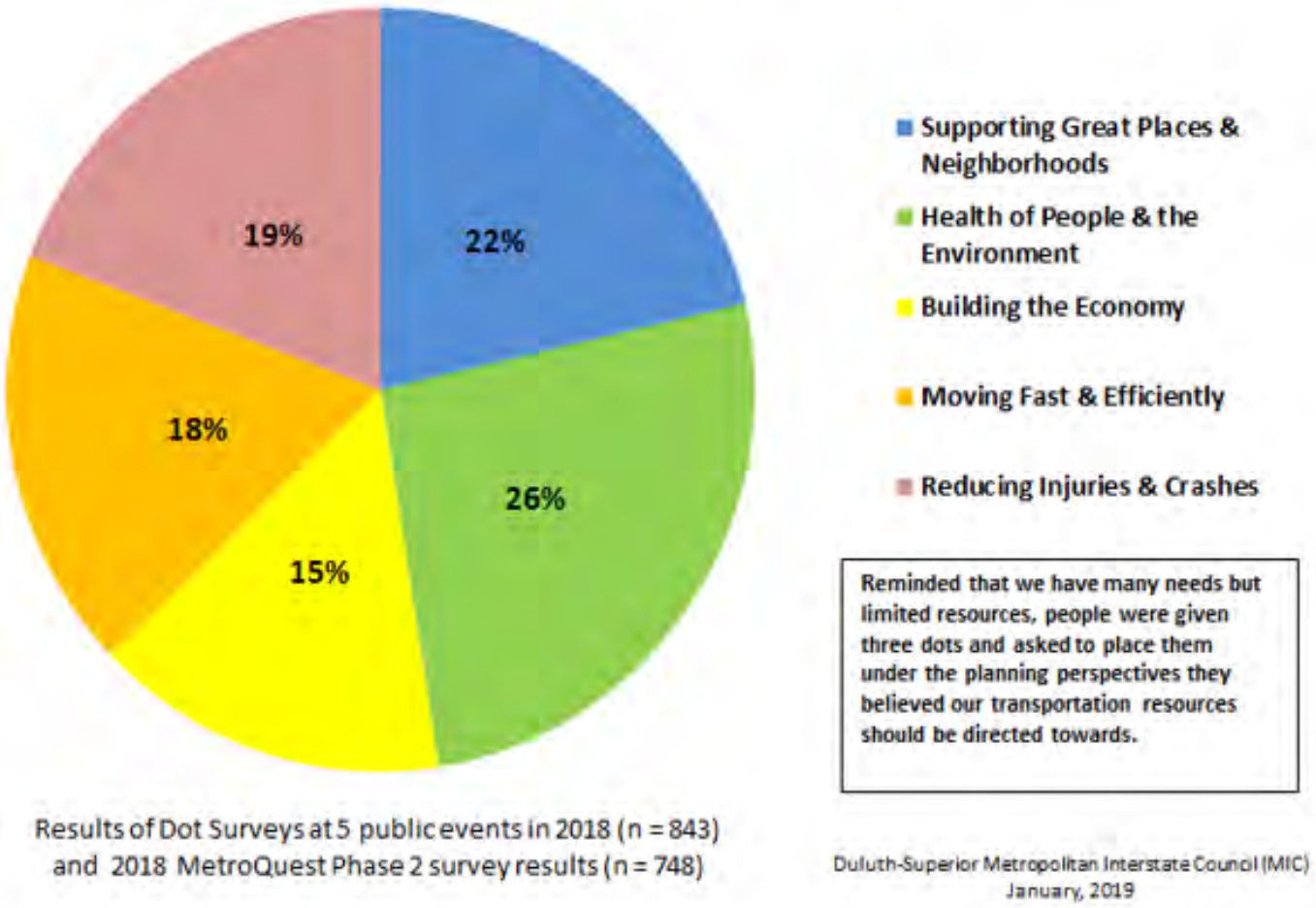
Moving Fast & Efficiently

Ensuring people and goods get to where they need to go is an essential purpose of a local transportation system. Factors such as how easy it is for people and goods to move from one place to another, how well-connected primary destinations are, and ensuring all modes of transportation operate as one seamless network, are all important.

Building the Economy

Local and regional transportation systems are critical to a healthy economy. It is important to develop and maintain our transportation system to support economic productivity, efficiency, and competitiveness. As visitors contribute significantly to our local economy, it is important our transportation system enhance travel and tourism

Figure 4.12 What Transportation Issues Matter Most?



indicates people want to achieve all the goals in a relatively balanced way. The difference between the lowest chosen total (15%) and the highest chosen total (26%) is only 11% across all five goals. It is important to people that we use our limited resources in a manner that makes an honest attempt to achieve all of the five goals of our transportation system.

Given the above, the following trends within the general observation of a desired relative balance are also noteworthy:

- The goals of Health of People and the Environment and Supporting Great Places and Neighborhoods were the only goals to have greater than 20% selection overall.
- Health of People and the Environment was the only goal to have greater than 20% selection in all 5 dot surveys at public

events and the MetroQuest survey (range = 22.9 - 30.9%).

- The goal of Building the Economy was the only goal to not be selected greater than 20% in any survey.
- Supporting Great Places and Neighborhoods was selected greater than 20% four of the six times.
- Reducing Injuries and Crashes was selected greater than 20% three of the six times.
- Moving Fast and Efficiently was selected greater than 20% two of the six times.
- The goal of Health of People and the Environment was not only the highest selected overall, it was highest selected in the MetroQuest survey, as well as highest selected 4 of the 5 dot surveys at public events.
- The other time it was selected second-highest, and was nearly 7% higher than the third highest selected goal. This, along with results identified in the first bullet above, clearly suggests people desire the Health of People and the Environment goal be met.
- The goal of Building the Economy was not only the lowest selected overall, it was lowest (or tied for lowest) in all 5 dot surveys at public events, as well as third lowest in the MetroQuest survey, 6.5 % lower than the goal of Health of People and the Environment.
- The goal of Building the Economy was nearly 11% lower than Health of People and the Environment overall, and as much as 25+% lower in one of the dot surveys.
- It is unclear if these results indicate people do not understand the important role of transportation in Building the Economy and achieving economic vitality, or if people simply prefer our limited resources be used more to achieve the other goals.
- The goal of Supporting Great Places and Neighborhoods was the only goal other than Health of People and the Environment to be selected highest during any of the surveys. It was selected second highest overall, as well as highest once, and third highest three times. However, it was also selected fourth highest once – in the MetroQuest survey. This, along with results identified in the first bullet above, suggests people desire the Supporting Great Places

and Neighborhoods goal be met.

In addition to the points above, it is noteworthy that while most of the attention and project emphasis historically has focused on "Moving Fast and Efficiently" (moving people and goods) and "Reducing Injuries and Crashes" (i.e., safety-related goals). While these remain as important goals, two of the other goals of our transportation system, "Health of People and the Environment" and "Supporting Great Places and Neighborhoods", (livable communities and equity) were ranked more highly overall by our survey respondents.

Further, the goal of "Health of People and the Environment" was ranked as much as 18% higher than the goals of "Moving Fast and Efficiently" and "Reducing Injuries and Crashes."

Top Identified Priorities

The MetroQuest Phase 1 survey included lists of factors related to each of the five goals (planning perspectives) of this plan. There were 32 overall factors/options to choose from. Given our limited resources, people were asked to select up to three factors from each of the five lists they believe are the most important to wise transportation investments. Appendix B identifies all the factors and options for each goal, and the results of which factors were chosen as top priorities. Figure 4.13 lists the top selected factors from the Phase 1 survey.

Eight of top selected factors from the Phase 1 survey were included in the Phase 2 survey in order to determine a final overall priority of factors we should consider in regard to our transportation system. People were asked to select and order in terms of preference the five factors they believe should be prioritized. The final order and details are presented in Figure 4.14.

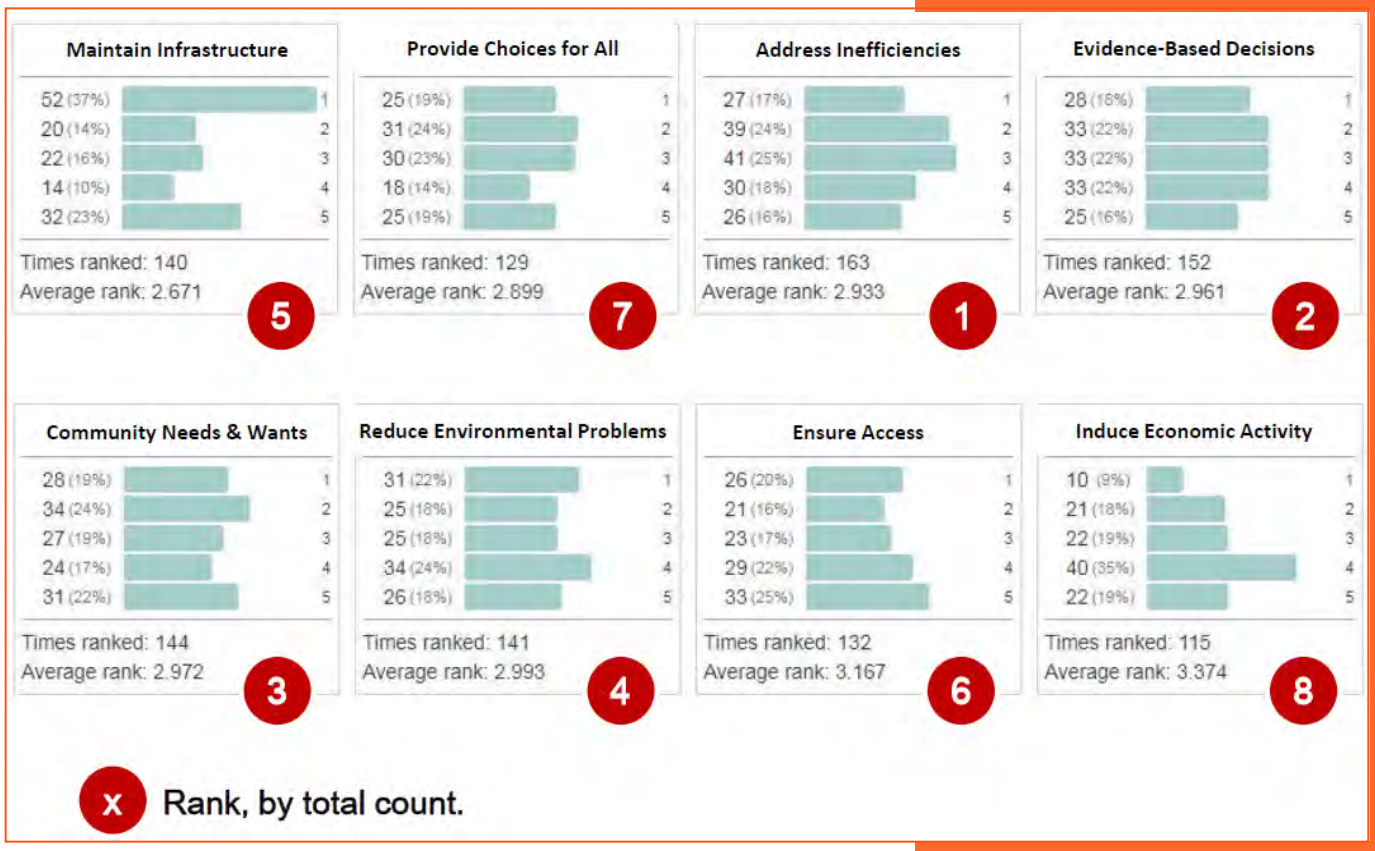
Addressing inefficiencies in our system (developing a transportation system that is fully interconnected, safe, and functional, creating easy and reliable movement from one place to another and between one mode to another) was the most selected factor—selected 163 times. Using evidence-based decisions was the second most selected factor—selected 152 times. Inducing economic activity (developing a transportation system that supports a strong economy—moving both people and goods) was selected the fewest

Figure 4.13
Top Identified Transportation Priorities from the Phase 1 Survey.

MetroQuest Phase 1 survey respondents selected the following factors as the 10 most important to wise transportation investment:

- Provide choices for all people of all ages, incomes, and abilities
- Effective emergency response capabilities
- Provide viable travel choices for all
- Access to key population and employment centers
- Do not create costly environmental problems
- Consider community needs and wants
- Use evidence-based decision-making
- Address inefficiencies in our system
- Enhance the regional/ global competitiveness of the Duluth-Superior Port
- Maintain current infrastructure

Figure 4.14: Top 5 Options in Order of Preference



times—selected 115 times. Interestingly, while only the fifth most selected factor, maintaining our current infrastructure (preserving and maintaining our existing transportation system before we expand it) had by far the highest number selected as the top priority—selected 52 times.

Overall, the results once again indicate people want a balance of factors to be considered and prioritized. This is demonstrated by the fact that the number of times each of the eight was selected is fairly closely clustered (range = 163—115), and the average rank of selection for each factor ranges from 2.67 to 3.38. See Figure 4.14.

Demographic Influence by Priority Options

In this section "inverse with age" means that the older the person, the less likely the person was to select the given option.

Provide choices for all people of all ages, incomes, and abilities

- 73% of respondents with a household income of $40-54K

selected this option the most (n = 56) of all income brackets. Selection declined steadily with increasing household income. The pattern was nearly identical for "Provide viable travel choices for all".

- Selection of this option was inverse with age.
- A greater percentage of females (72%, n = 200) selected this option than males (55%, n = 187).

Consider community needs and wants

- 61% of respondents with a household income of $40-54K selected this option the most (n = 56) of all income brackets. Selection declined steadily with increasing household income.
- Selection of this option was inverse with age.
- A greater percentage of females (58%, n = 200) selected this option than males (49%, n = 187).

Infrastructure that fits the neighborhood character

- Respondent selection of this option by household income and age was fairly similar.
- Males and females selected this option at the same percentage (45%).

Create places that people love and enjoy

- Respondent selection of this option by household income was nearly identical for all categories.
- Selection of this option was inverse with age.
- Females (47%, n = 200) selected this option at nearly the same percentage as males (44%, n = 187).

Prioritize safety for vulnerable users

- While there was no clear pattern of respondent selection of this option by age, the 16-18 and 19-24 categories were much higher than the others.
- Females (51%, n = 200) selected this option at a much higher percentage than males (36%, n = 187).

Emphasize safe design

- 71% of respondents with a household income of $200 K or more selected this option the most (n = 7) of all income brackets. Selection increased steadily with increasing household income.

- A greater percentage of males (61%, n = 187) selected this option than females (51%, n = 200).

Use evidence-based decision-making

- Respondent selection of this option was generally increased with increasing age.
- Females (41%, n = 200) selected this option at nearly the same percentage as males (42%, n = 187).

Access to key population and employment centers

- Respondent selection of this option by household income was relatively similar and high (no category < 52%).

Enhance the regional/global competitiveness of the Duluth-Superior Port

- Respondent selection of this option by age was bell-shaped with the 25-49 category selecting it the most (53%, n = 201)

Do not create costly environmental problems

- Selection of this option was gently increasing with increasing household income, until the $200 K or more category. Only the $200 K or more category selected it at less than 52%.
- Selection of this option was generally inverse with age, with all but one group selecting it at 50% or more.
- Females (57%, n = 200) selected this option at nearly the same percentage as males (54%, n = 187).

Reduce stormwater runoff/flooding

- 57% of respondents with a household income of $200 K or more selected this option the most (n = 7) of all income brackets. Selection increased steadily with increasing household income.
- Females (43%, n = 200) selected this option at nearly the same percentage as males (42%, n = 187).

Minimize toxic pollution

- 52% of respondents with a household income of $40-54K selected this option the most (n = 56) of all income brackets. Selection generally declined steadily with increasing household income.
- Selection of this option was generally inverse with age. The notable selections were 65% of the 19-24 category and

48% of the 65-74 category.

- A greater percentage of females (43%, n = 200) selected this option than males (37%, n = 187).

Ensure infrastructure that does not hinder physical activity

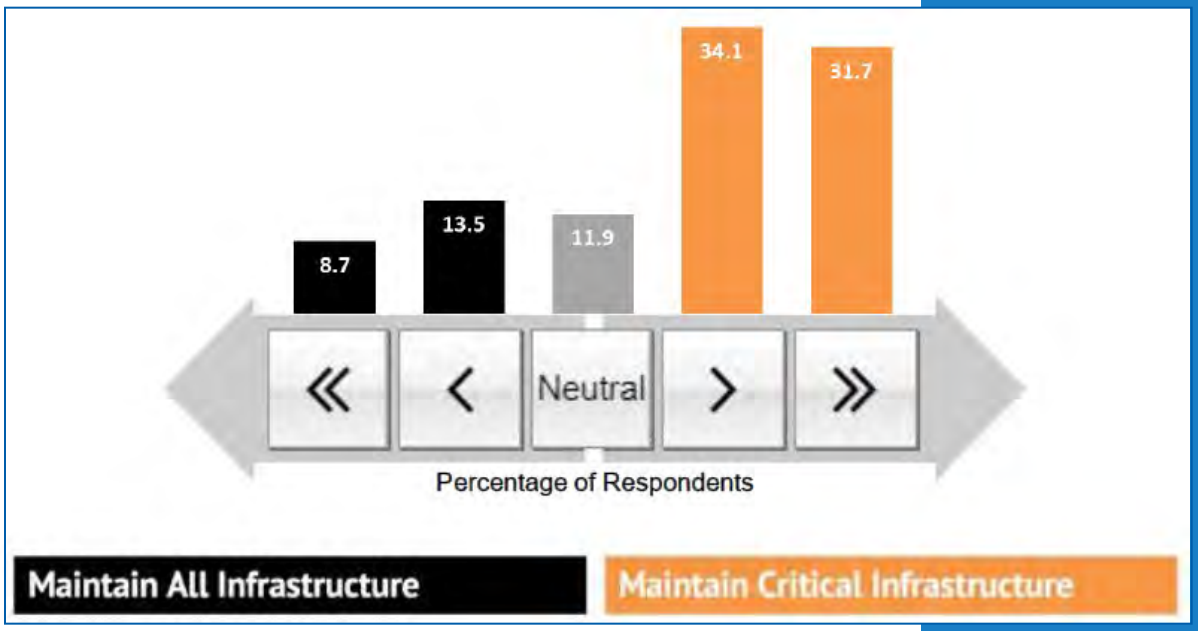
- Respondent selection of this option by household income was bell-shaped with the $100-199 K category selecting it the most (48%, n = 96)
- Selection of this option generally increased with increasing age.
- Females (39%, n = 200) selected this option at nearly the same percentage as males (41%, n = 187).

Maintaining Our Transportation Infrastructure

Maintaining our current infrastructure was the tenth highest selected factor (out of 32) in the MetroQuest Phase 1 survey, selected a total of 215 times.

In determining the overall priority of factors to consider in regard to our transportation system as part of the MetroQuest Phase 2 survey, "Maintaining our current infrastructure" was selected the fifth most times out of 8 (n = 140). As mentioned

Figure 4.15: 'Maintain All Infrastructure' vs. 'Maintain Critical Infrastructure' in the MIC Area Transportation System



earlier, it had by far the highest number selected as the top priority—selected 52 times. This is depicted in Figure 4.15.

In the MetroQuest Phase 2 survey, people were asked whether we should maintain all of our infrastructure (maintain all portions of the entire existing system as is, regardless of use), or maintain critical infrastructure (maintain the system to what is anticipated or needed, focusing maintenance on critical, higher priority portions of the system)?

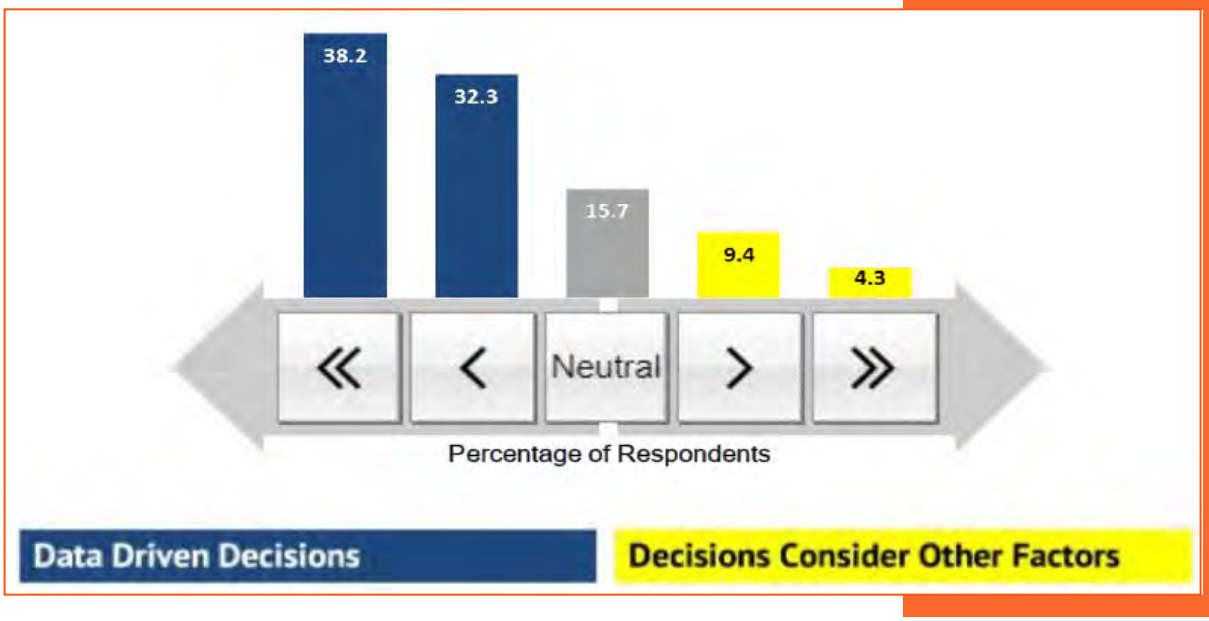
Of the 252 people who responded to this question, 166 (or 66%) overall preferred maintaining critical infrastructure, with 80 people (or 32%) strongly preferring. Conversely, 56 people (or 22%) preferred maintaining all infrastructure, with only 22 people (or 9%) strongly so. Additionally, 78 comments related to maintenance of our transportation system were submitted from both survey takers and MIC partners.

This information is presented in Appendix C, and summarized in Figure 4.15.

Base Decisions on Data and Evidence

In the MetroQuest Phase 2 survey, people were asked whether decisions about our transportation system should be based on data, analysis, and research (be more objective), or be based on political, societal, and other factors (be more subjective)?

Figure 4.16: Base Decisions on Data vs. Base Decisions on Political, Societal, or Other Factors



Of the 254 people who responded to this question, 179 (or 70.5%) overall preferred decisions based on data, analysis, and research, with 97 people (or 38%) strongly preferring. Conversely, 35 people (or 14%) preferred decisions based on political, societal, and other factors, with only 11 people (or 4%) strongly so. This information is presented in Appendix C and summarized in Figure 4.16.

5. Multimodal Network

This chapter discusses the existing multimodal transportation system in place, the performance of this system in the Duluth-Superior area as well as the challenges and opportunities before it.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Transportation System

Over the next 25 years, the challenges borne by urban areas and the burdens placed upon the urban transportation system are anticipated to multiply in quantity and complexity. With this look to the future, understanding where the system is today is important in order to move forward.

The transportation system is the foundation of the urban economy. In this urban context, the transportation network must meet the needs of people and freight. Of the modes of transportation, this LRTP covers airways, railways, roadways, and waterways. In the Duluth-Superior region, this includes airport facilities, bikeways, bridges, highways, shipping channels, sidewalks, streets, trails, transit lines. Furthermore, over the past 25 years, the region has made a significant investment, in both planning and construction, into right-sizing the system while also creating a viable multimodal system.

As traffic patterns have changed due to changes in infrastructure, technology, and land use patterns, the configuration of the system has changed as well. A number of roadways have been reduced from 4-lanes to 3-lanes or 2-lanes where traffic volumes allow, creating space for other uses and modes. In addition, converting one-way streets to two-way, removing traffic signals where they are no longer warranted, installing technology to improve traffic signal operations, improving safety with rumble strips, cable median barriers and installing roundabouts (which have both significant traffic operations and safety improvements) are all measures that have been taken to adapt the transportation system to meet present-day demands. Map 5.1 displays the MIC area's transportation assets.

Re-Thinking the System

Cities existed for 1000s of years as primarily walkable, human centered spaces. However, in the last 100 years, as the motor vehicle became the primary mode of transportation, cities and urban areas rapidly transformed into auto-centric places. While individual mobility over larges expanses has been gained, other aspects, particularly local economic and livability components of the city have been impacted. Furthermore, cities are finding themselves in an unenviable situation where the general public is demanding potholes be filled as well as expressing their desires for better transit, sidewalk and bike lanes. Though at

Re-Thinking the System

With stagnant and in many cases shrinking transportation revenues available to cover infrastructure costs and growing long-term needs and impacts, there is a critical need to do more than preserve the system "as is", so it is imperative to re-think the system to get more out of the future infrastructure investments:

- More independent mobility for all, regardless of age, ability or income.
- More access to housing, education, healthcare, and jobs.
- More economic returns on infrastructure investment for jurisdictions and for citizens to be able to build wealth.
- More infrastructure designed to accommodate large freight movements thru the Twin Ports and the intermodal needs at the Port.
- More environmental benefits, reducing costly mitigation of impacts later.
- More human health and social connections creating stronger communities in the long run.
- More understanding of the dynamic nature of human travel behavior and the interplay between modes as people travel around the urban area.

the same time revenues to build and maintain the existing transportation system is stagnant and shrinking in some cases. Time is of the essence to re-think the transportation system to meet the needs of today while at the same time working towards a vision of a more sustainable and livable future.

Today's multimodal system

As the final extension and the interstate tunnels were being completed in Duluth, a major shift in transportation policy was happening, one with a more multimodal focus. While at the same time, a new vision for the old major east-west thoroughfares in Duluth was being crafted, including London Road, Superior Street, Cody Street, Garfield Avenue, 6th Avenue East, 2nd and 3rd Streets. Ideas were and continued to be explored and implemented with the reconfiguration of the roadways as well as land use changes from highway commercial to more urban along these corridors.

While much has been changed and reconstructed over the years on these corridors, remnants from the old highway corridors remain with opportunities for positive change. Looking into how these streets and this transportation system can be safer, better for moving people and goods, more livable, environmentally friendly, better for human health and better for the local economy. Figuring out the right balance for these corridors and the overall system is the central theme to this LRTP. The development of and regularly carrying out an implementation strategy (see Chapter 2), will be a vital step towards being able to work toward this Plan's goals.

This is not to say that nothing has been accomplished over the past 25 years. In that time, the Duluth-Superior area has made many improvements to both the built environment as well as complementary educational, encouragement and evaluation efforts. The development of the primary east-west trail corridor along the waterfront in Duluth with the Lakewalk and Cross City Trail, bike lanes on Tower Avenue, London Road, Hwy 23, and 4th Street, improved highway connections to the Miller Hill area, construction of a new access road to Port facilities and dockwall stabilization, the building of new UMD and Downtown transit centers, construction of a new DLH airport terminal and runway reconstruction are key examples.

Re-thinking the Streets

- Road Diets/Right Sizing/ Complete Streets
- Streets where their role has changed in the system.
- Reconfiguring these streets has been undertaken or being considered.

Road Diets Undertaken

- 21st Ave E—London Rd to Woodland Ave
- London Rd—10th—21AE
- Hwy 23 – Fond du Lac to Becks Rd
- Grand Ave—Carlton Ave to 59AW
- Superior St—22AW to Carlton Ave
- Tower Ave—52nd to 69th
- Hammond Ave—Belknap St to 21st St.

Road Diets Under Consideration

- London Rd—21st to 26AE
- 1st/Superior St—40th –46AW
- 27th Ave W—Helm St to 3rd St
- Garfield Ave—Nelson St to Superior St
- Superior St—Michigan to 19AW
- 6th Ave East—2nd St to Central Ent
- Cody Street—Central Ave to 64AW
- Michigan/Superior
- Woodland Ave - Snively Rd to Anoka St

Also implemented were sidewalks on the urban sections of the St. Louis County roadway system and bicycle racks on all DTA transit vehicles. In addition, numerous programs, like the college student transit pass program and the bicycle and pedestrian count program, land use and built environment policies that encourage multimodal-friendly development, as well as educational and encouragement activities to promote and support the multimodal system. While much work has transpired, much remains to do. Urban street design, parking policies, green infrastructure, return on investment economic policies to name a few are all key focus areas in the future.

Nature of Travel in the Twin Ports

The Duluth-Superior Urban Area is the regional trade center of the Northeast Minnesota-Northwest Wisconsin region. It is the primary regional hub for retail, trade, employment, education, healthcare, entertainment and tourism. This urban area draws people from a wide area and a large amount of daily trips are coming into the urban area from across Minnesota, Wisconsin and Ontario.

Due to distances, particularly those 3 miles and greater, the most viable and logical transportation mode currently available is the motor vehicle. Ensuring mobility into and access across this urban region is important. Though, this is not without impacts, particularly to the urban neighborhoods that must endure the traffic and parking needs that come with the longer distance trips. There are an increasing number of alternativess to driving, including inter-regional/ state bus service, shuttles, and flying—each of which have expanded options. Additionally, a rail passenger service is planned, as well.

While accommodating longer distance trips is important, the majority of all trips taken within an urban area are of shorter distances. These trips are typically less than 3 miles and are made frequently throughout each day. Within shorter distances, options for mode choice including combining modes to make a trip is more practicable. A combination of walking, cycling, ride-sharing, taking transit, and driving are all viable multimodal options available each day depending on the trip purpose and geographic location.

A problem not unique to urban areas

Older cities in the United States are facing financial challenges with covering the cost of fixing their infrastructure.

Newer cities will face this reality in time as well, as their new infrastructure ages.

All infrastructure must be maintained and eventually rebuilt in time.

Sustainable Framework

Developing a model where the infrastructure put in place is sustainably covered by revenues generated.

- Maximize return on public infrastructure investments
- Minimize undermining these investments
- Reduce externalities, costs and impacts that come from these investments and will have to be mitigated later.
- Understand the cost burdens placed on jurisdictions as well as citizens.
- Maintaining and rebuilding critical infrastructure.

Tourism

Tourism is placing increasingly more traffic demands on the system today. Trips up the North Shore create congestion through Duluth on the weekends. Special events like Grandma's Marathon, Bentleyville, concerts at Bayfront Park, and other events in the Waterfront District create predictable backups even onto the major thoroughfares. Major events at UMD as well as good weather Summer "beach" days, particularly on Saturdays create traffic congestion that can last for hours.

Security and emergency preparedness

Additional measures have been taken to improve security and emergency preparedness for major events, including both those that are planned community events, such as Grandma's Marathon as well as the unplanned, unexpected disasters such as the refinery explosion in 2018 in Superior, Wisconsin which created an evacuation.

Multimodal System Profile

Because the Duluth-Superior Urban area serves as a regional hub, it also has a major advantage and gives the Twin Ports both challenges and opportunities. Within the urban area the regional destinations are largely in close proximity to each other. Distance is the key variable in determining mode share in an area. Quality of infrastructure is important, as well, and weather and topography play a role. But where the distances are shorter there is more mode choice available. Where distances are longer the single mode use of the automobile is widely prevalent.

Challenges

- Old infrastructure is coming due (over due in many cases) for replacement.
- More infrastructure per capita, larger size and scale. Compare scale changes to Piedmont Ave before and after.
- Struggle to maintain the existing system, including more striping for cyclists and pedestrians and more maintenance, sweeping and snow clearing, all the while improving traffic flow, filling potholes, rebuilding streets, and more.

Re-thinking one-way streets

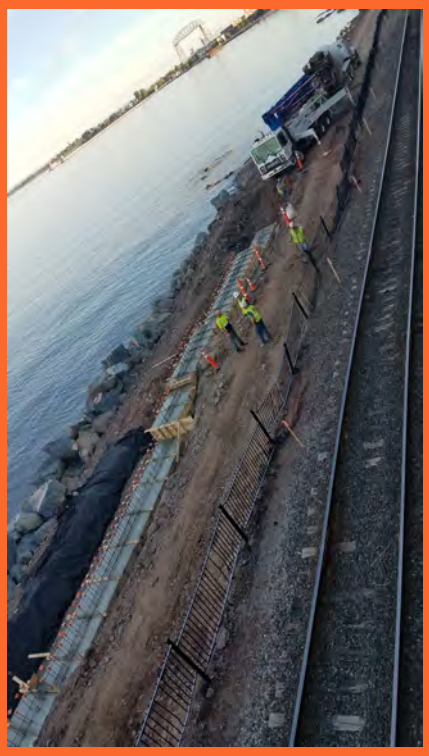
The one-way system was designed and implemented largely in the 1950s as a response to a massive increase in private motor vehicle usage, coupled with a commercial (retail & office) development pattern that was primary located in densely developed areas including the downtowns of Duluth and Superior and a few other activity nodes including the West End, West Duluth and the Belknap corridor in Superior. These areas became congested and difficult to access by motor vehicle and the solution arose to create a system of one-way streets to move motor vehicular traffic more efficiently. Since that time, commercial (retail and office) and institutional (schools and churches) have largely moved out of the central business districts and into outlying areas and therefore, the density of uses has spread out and the traffic demand by motorists has greatly diminished in these areas.

Re-thinking the continual need of each of the various segments of one-way system has been taking place over the past 20 years, with some streets converted back to two-way and others currently under consideration.

- Population demographic challenges—more seniors, more students and more people in poverty particularly those with children.
- Auto-centric system that prioritizes private motor vehicle use.
- Climate change impacts in this region, bigger and more frequent storm events, impacting culverts, bridges, and waterfront infrastructure.
- Environmental, historical and cultural impacts, creating long term costly mitigation.

Opportunities

- Infrastructure reconstruction is coming due—opportunity to re-think.
- Technological changes in how people interact with each other (less in person) and order transportation through apps on their phone.
- Changing public attitudes/desire to driving, including teenagers delay in getting driver's licenses.
- Public health benefits extend beyond physical activity, including social cohesion, safety, stress reduction, improved environmental health and more.
- Public support for transportation investment.
- Willingness to try new approaches.
- Real-time data & messaging.
- New micro mobility/light individual transport vehicles.
- Growing sharing economy—ride share, e-scooters, car share, etc.



New concrete barrier being installed in 2019 to provide higher level of protection from anticipated bigger storm-events.

Active Transportation

Walking

A pedestrian is defined as a person who walks or rolls with the use of a wheelchair or other mobility assistive device. This mode is essential to transportation and is key for the economy and for public health.

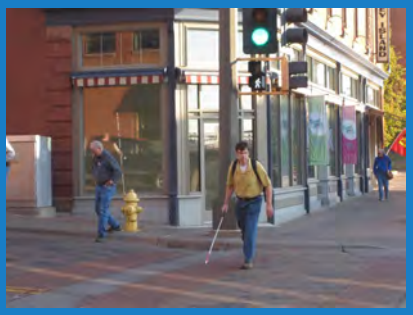
The key infrastructure element of the pedestrian network is sidewalks. Sidewalks provide necessary walking connections to homes, businesses, transit services, and other activities. The MIC region has an extensive network of public sidewalks and stairways in place. While most public streets in the region have sidewalks, there are gaps in the sidewalk network.

Unlike public streets and trails, sidewalk maintenance is largely the responsibility of the adjacent property owners. This can create challenges, as property owners can vary greatly in their ability or desire to maintain sidewalks.

Design of sidewalks plays an important role to extent of use. Design elements that encourage pedestrian usage include curb extensions, enhanced street crossing, and reduced vehicle lane width.

Challenges & Opportunities

- Sidewalk condition (snow clearing, repair, brush removal/ clearance).
- Vehicle yield for pedestrians crossing issues.
- Vulnerable users—reducing exposure to risks.
- Sidewalk network continuity (gaps).
- Steep topography, especially when snow/ice is on streets and sidewalks there is no hill climbing alternative.
- High usage of sidewalks by cyclists.
- Increasing use of sidewalks by motorized devices, for example e-scooters and segways.



Active Transportation

Pedestrians and cyclists are vulnerable users of the transportation system, particularly in shared spaces with motor vehicles. It is important to limit exposure to risk. Strategies to reduce exposure risks include:

- Reducing pedestrian crossing distances (rate of exposure)
- Reducing vehicle speed with traffic calming measures.
- Create buffer zone between sidewalks and multi-use paths and motor vehicles.
- Installing dynamic signage (RRFB's, bike signals, etc)
- Creating separated bikeways

Education, Encouragement & Evaluation—Annual Efforts

Winter Bike to Work Day—February
Bus, Bike, Walk Series—April-June
Bike to Work Day—May
Mayor's Bike Ride—May
School Bike Counts—Sept– May
Bike & Ped Counts—September
Walk/Bike to School Day—October

Bicycling

The bicycle mode of transportation continues to be under-developed in the MIC area, as there is currently not a fully viable interconnected bikeway system in place. However, national, state and local policy support for developing the bikeway networks does exist. Federal transportation policy clearly states that it is the responsibility of every transportation agency in the United States to improve conditions for bicycling and to integrate bicycling into their transportation system. Agencies are encouraged to not just meet minimum requirements of providing bicycle facilities, but to go beyond minimum standards to provide the safest and most convenient bicycle facilities practicable.

Much planning has been conducted in the Twin Ports over the past 25 years place to address this issue. Following these planning efforts, bike route maps were developed, wayfinding signage was put up, bike racks at K-12 public schools were installed, and in the last 10 years, major off-street multi-use paths and bike lanes have been constructed. In addition, educational, encouragement and evaluation programs have been put into place including bike to school and work days, Bus, Bike, Walk Month series of activities and the establishment of the Bike & Ped Count program.

Challenges & Opportunities

- Lack of a fully interconnected bikeways network.
- Limited options for people of all ages and abilities, particularly those who not the “Strong & Fearless” cyclists.
- Bikeway maintenance (sweeping and snow clearing), cracks and potholes and iterative improvements.
- Steep topography.
- Traffic signals that do not recognize bicyclists.
- Bikeway wayfinding signage on the Minnesota is largely in place, but not on the Wisconsin side.
- Bike share—dock vs dockless systems.

Trunk Lines are a transportation system handling long-distance through traffic. A main supply channel. The major trunk lines for the active transportation modes in the MIC area include:

Waterfront trunk line

- Munger Trail
- Cross City Trail
- Lakewalk
- Osaugie Trail

Hill climbing trunk lines

- Hermantown/Proctor Trail
- Lincoln Park Drive
- Congdon Park Drive

Possible Future Trunk Lines

- CSS/UMD Corridor (Campus Connector)
- Hammond Corridor
- Miller Hill/Central Ent Corridor
- Blatnik Bridge Corridor

Air Transportation

The Duluth-Superior area has three primary, publicly-owned airports that provide a wide range of services for both general aviation, commercial passenger flights (only available at the Duluth International Airport), and freight transport. Together, the area's airports provide the greater area, the Arrowhead region of Minnesota, northwest Wisconsin and the Thunder Bay, Ontario region with commercial air service, air freight service, general aviation services and float plane capabilities.

The Joint Airport Zoning Board, comprised of representatives of communities surrounding airports, imposes a variety of restrictions on land use through safety zones. This creates challenges for communities, as the regional benefit of the airports and the local community need for tax revenue to cover services can at times conflict.

Air based transportation is undergoing challenges as well. The Duluth Airport Authority worked to meet post 9-11 security requirements by building a new terminal at Duluth International Airport, and is replacing aging infrastructure by reconstructing runways at Duluth International and Sky Harbor Airports.

For more information on the infrastructure replacement plan at the Duluth International Airport please visit the master plan website at: https://duluthairport.com/master-plan/.

Challenges & Opportunities

- Increased access to national and international destinations particularly with direct service to MSP and to Chicago O'Hare Airports.
- "Leakage"—passengers utilizing MSP instead of DLH.
- Extending cross-runway at DLH.
- Building complementary services around the airport grounds, including lodging, restaurants, day-care, automobile services, etc.).
- Development pressures within airport safety zones.
- Noise impacts on surrounding land uses associated with unconstrained military operations at DLH.

Duluth International Airport (DLH)

- 2 runways (one of which is 10,165 feet in length—2nd longest runway in Minnesota)
- Designated as a Airport of Entry for Customs (24-hour service)
- Approximately 300,000 passengers per year
- 3 commercial passenger airlines (American, Delta & United)
- Daily flights to Minneapolis-St. Paul & Chicago

Sky Harbor Airport

- 1 runway (rebuilt 2018)
- 2 sea lanes

Richard I. Bong Airport (Superior)

- 2 Runways
- Approx. 50 flights per day

Rail Transportation

Rail lines in the Duluth-Superior area have enjoyed increasing freight loads, as well as renewed efforts to create high(er)-speed passenger rail systems, all while creating safer and quieter crossings in urban areas, improving reliability, and upgrading widespread aging infrastructure.

Four Class 1 railroads operate within the Duluth-Superior area offering connection to rail lines across North America. For example, Canadian National (CN) offers freight transport from Duluth-Superior to the Pacific Ocean, Atlantic Ocean, and the Gulf of Mexico. Container shipping of freight via rail has increased in the area with the start of Duluth Cargo Connect, an intermodal operation partnership between the Duluth Seaway Port Authority and Lake Superior Warehousing.

Rail movement between Duluth and Superior takes place on two bridges, the Grassy Point Draw near the Bong Bridge and the Oliver Bridge along MN Hwy 39/WI Hwy 105.

Passenger Rail—Northern Lights Express (NLX)

Efforts are underway to bring passenger rail service back to the Duluth-Superior area. As the regional trade center and a center for tourism the urban area has growing potential to support and benefit from this planned new service.

Challenges & Opportunities

- Rail line crossing safety restrictions.
- Increased use likely to spur increase in public investment.
- Preserving and/or re-using under-used and/or abandoned rail corridors.
- In Superior, WI numerous rail lines create challenges for crossings, including roadway blockages, motor vehicle traffic delays and barriers to walking and bicycling with limited crossing and/or long distances between crossing points.
- Reliability challenges with passenger trains sharing tracks with freight trains.
- The passenger rail line would add system redundancy and increased safety factors.

Freight Rail

4 “Class 1 Rail” Companies in the Duluth-Superior Area. “Class 1 Railroad” is defined as having annual carrier operating revenues of $250 million or more.

- BNSF
- CN
- CPR
- UP

Passenger Rail (proposed)

Northern Lights Express (NLX)

- Service from Minneapolis to Duluth
- Stops in Coon Rapids, Cambridge, Hinckley & Superior.
- Would share use of existing freight rail lines
- Planning for NLX has concluded
- Pursuing funding to upgrade tracks, build/update stations and purchase train cars.

Surface Transportation

The predominant part of the transportation system in the MIC area, as is in much of the United States, is the network of streets, roadways and highways that primarily carry automobiles and trucks. This includes two very large bridges connecting the communities on each side of the St. Louis River. These roadways accommodate the travel needs of residents', businesses, and travelers as well as freight needs.

The Duluth-Superior area has an extensive and well-connected network of federal, state and local roadways, including major bridge crossings. The system has a significant amount of redundancy giving the system good connectivity for the movement of motor vehicles with few gaps.

Streets serve as corridors for the conveyance of people, goods, and services and must accommodate an ever-expanding set of needs. They must be safe, sustainable, resilient, multi-modal, and economically beneficial, all while accommodating traffic and serve as community gathering spaces.

Challenges & Opportunities

- Network connectivity—issue of major throughways are disjointed.
- Climate change impacts—bigger storm events, that will necessitate a need for larger culverts and bridges, and improved street stormwater management.
- Pavement condition—lack of resources to maintain and reconstruct local roadways.
- Short but intense peak hours.
- Much of the system has available capacity.
- Real time data available—congestion on Google Maps.
- Intersection controls—roundabouts and improved signal timing.
- Connected and autonomous vehicles—passenger and truck.
- Major infrastructure maintenance, repair, and reconstruction coming due.

Major thoroughfares designed for the quick and efficient movement of motor vehicles:

- I-35 & I-535
- WI Hwy 35
- US Hwy 2 (in MN & WI)
- US Hwy 53 (in MN & WI)
- MN Hwy 23
- MN Hwy 194
- WI Hwy 105
- 2nd & 3rd Street pair (Duluth)
- Midway Rd
- Martin Rd
- Lower Michigan St
- Central Entrance
- Becks Road
- Woodland Avenue
- Arrowhead Road
- Arlington Road
- Maple Grove Road

Areas of Congestion

- Lake Ave at Superior Street
- London Rd at 40th Ave East
- Hammond Ave at Blatnik Bridge
- 24th Ave West at Piedmont Ave

Major Network Gaps

- Kenwood Ave to 6th Ave E
- Martin Rd to MN Hwy 61
- Joshua Ave to Arrowhead/Rice Lake Rd

Pavement Condition

Figures 5.1-5.3 display aspects of local pavement and bridge condition. Recently, pavement conditions on the arterial system has improved. Federal transportation legislation has placed emphasis on maintaining the National Highway System (NHS) in good condition, which in turn resulted in less federal funding for the other roadways. While the largest amount of traffic travels on the NHS system, the vast majority of roadway mileage is the non-NHS system.

In addition to maintaining miles of roadways, the area's jurisdictions maintain more than 300 bridges. Bridge structures are some of the most expensive infrastructure assets and while the majority of the bridges are less than 50 years old, as they age increasing investment will be needed for repairs and full replacement of some in the future. Removal of many of the bridges associated with the Twin Ports Interchange project will help alleviate part of this problem in the long term.

For comparison and tracking purposes, pavement condition data is not readily available at this time across all roadway authorities. Though, work is underway to develop a process where pavement conditions are routinely collected in a comparable and trackable format.

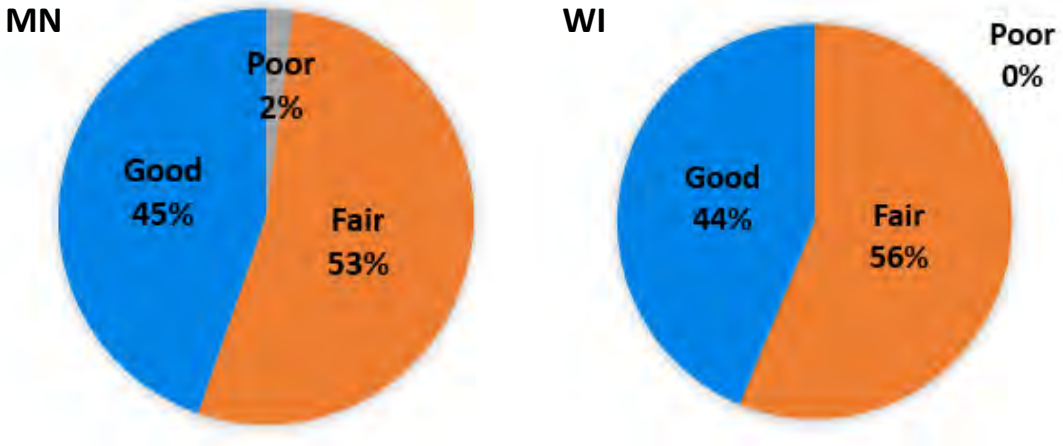
Figure 5.1: MN MIC Area Interstate Pavement Condition (2018)

Data Source for Figures 5.1, and 5.2: Mn DOT

Data Source for Figure 5.3: MnDOT and WisDOT

Figure 5.2: MN MIC Area Non-Interstate Pavement Condition (2018)

Figure 5.3: MIC Area Bridge Condition (2018)



Transit

Transit service comprises of a mix of public and private systems which provides access across the urban area as well as to other cities, including the Twin Cities, the Iron Range, and Fargo. Two main transit providers serve the Twin Ports, DTA and Arrowhead Transit. The region also has several smaller agencies that provide rides to specific groups such as the elderly or disabled and a private commuter bus service from Cloquet.

The DTA is the municipal transit authority for the Twin Ports, has fixed regular routes across Duluth, Hermantown, Proctor and Superior, and serves approximately 3 million rides per year. DTA provides paratransit service, known locally as STRIDE, which is a dial-a-ride service for qualified individuals with disabilities. DTA has several new low emission electric buses, and has established transit hubs in Downtown Duluth, UMD Kirby Center and the Miller Hill Mall. The relatively new Duluth Transportation Center (DTC) is a multimodal center which provides indoor passenger waiting, a Jefferson Lines ticket counter, bike parking and has future capacity to accommodate passenger rail. The DTA also has a successful college service to UMD, CSS, LSC and UWS, has incorporated new technology tools to improve service, has a trolley service in Downtown and Canal Park, and is planning for bus rapid transit (BRT).

There are a number of transit options in addition to the DTA. Arrowhead Transit serves Hermantown and the larger Arrowhead Region of Minnesota. Jefferson Lines serves destinations across Minnesota with direct connections from Duluth to the Twin Cities, the Iron Range, St. Cloud, and Fargo. Indian Trails bus serves destinations across Wisconsin with direct connections from Duluth to Ashland, Iron River and Milwaukee. Groome and Land Line provide shuttle and bus service respectively to the MSP airport. Groome also provides services to select destinations along the I-35 corridor, including Hinckley and a stop at the state capitol in St. Paul.

Considerations to improve transit services in the future include better connections to regional destinations, including Cloquet, Two Harbors, Iron Range, and Ashland; maritime transport service between Duluth and Superior via ferry and/or water taxis; and aerial lift service to traverse the hill, whether it be a tramway, gondola and/or funicular (incline).

Transit Service in the Duluth-Superior Area

Urban Transit Service

- Duluth Transit Authority
- Arrowhead Transit
- Employer/School shuttles/ buses (Essentia & Boulder Ridge)
- Human Services shuttles/vans
- Major Events shuttles for Grandma's Marathon, Bentleyville, Glensheen Winter Village, Inline North Shore Marathon, Dragon Boat Festival, etc.

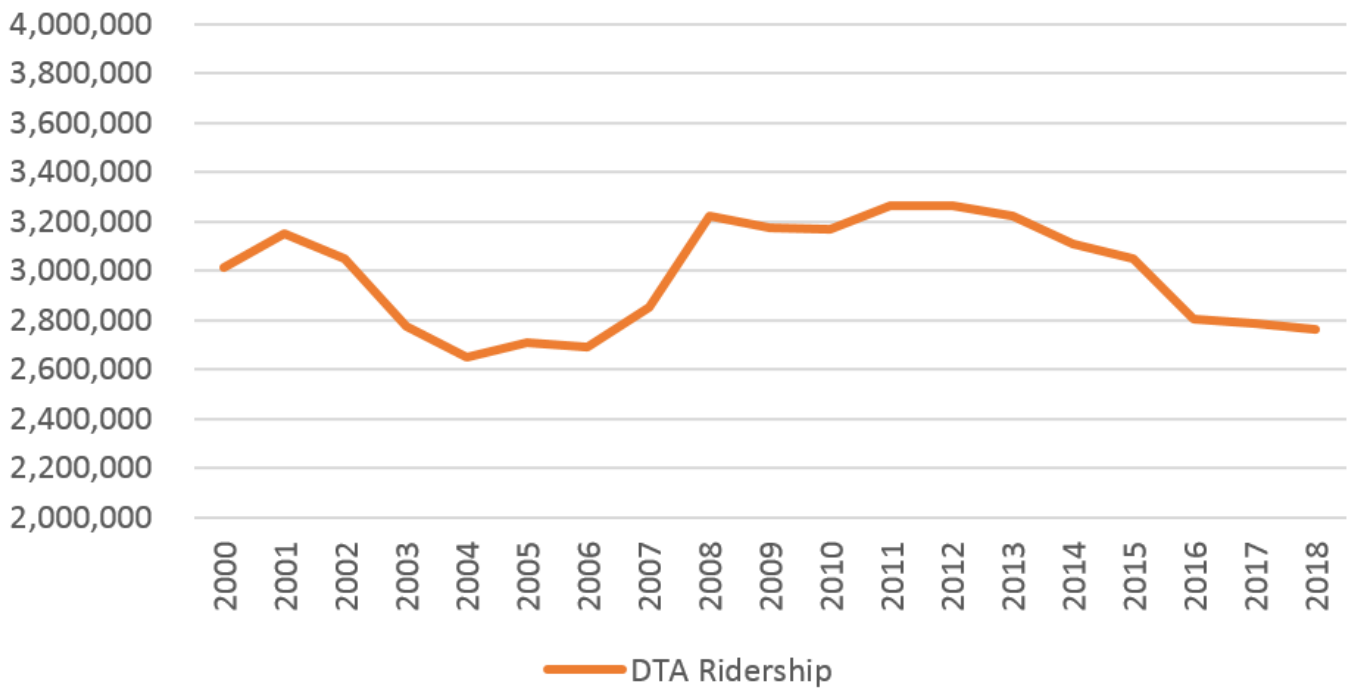
Inter-City Bus & Shuttle Service

- Jefferson Lines—to Twin Cities, St. Cloud, Fargo, & Iron Range
- Indian Trails—to Ashland, Iron River & Milwaukee
- Groome Shuttle (formerly known as Skyline Shuttle) - to Twin Cities and MSP Airport
- Land Line Shuttle—DLH to MSP

Challenges & Opportunities

- High level of use (compared to similar size urban areas).
- High level of regard and support for transit by the public.
- Fixed route DTA ridership is declining since 2011, but at a slower rate since 2016.
- ADA sidewalk improvements are happening.
- Encourage & ensure viable interconnections between transit and all other active transportation modes (walk, bike, etc.).
- Technology—rider access to real time data.
- Connected and Autonomous vehicles (CAV) development.
- Sidewalk condition—limits access to transit buses due to overgrown vegetation, lack of snow clearing, minimal maintenance, major gaps in sidewalk network including along bus routes.
- Lack of shelters, including warming devices in shelters.
- Land use developments happening without a full consideration of transit needs make it difficult to serve via fixed transit route system.
- On-demand—growing expectation for trips.
- Technology providing more real-time information (smart phone).

Figure 5.4: DTA Annual Ridership (2000-2018)



Waterways—Harbor/Port

The port serves as a full-service, multimodal hub for domestic and international trade. It is the largest and busiest port on the Great Lakes, and is ranked by cargo tonnage among the top 20 ports in the U.S. Further, the port is one of North America's major links to the world markets, aided by the Duluth Seaway Port Authority property being designated a Foreign Trade Zone, which provides incentives for international shippers. Overall the port remains a significant component of the region's economy, and supports a significant number of good paying and technical jobs.

The movement of freight by water is the most efficient and environmentally friendly way of moving bulk commodities. Primarily a natural resources port, docks in the "twin ports" of Duluth and Superior, handle a diversified commodities base ranging from coal, iron ore, grain, and limestone to cement, salt, wood pulp, steel coil, wind turbine components, and other heavy lift/dimensional equipment.

Integral to the functioning of the port is 17 miles of dredged shipping channels. These dredged channels are a largely unseen but essential component of the region's transportation network. Figure 5.5 displays the shipping channels.

At the crossroads of three major highway systems and four Class I railroads - BNSF, CN, CP and UP - the port is situated well for moving cargo in and out of the Midwest. These rail lines traverse through the port area and directly connect to the Pacific Ocean through British Columbia, to the Atlantic Ocean via the St. Lawrence Seaway, and to the Gulf of Mexico through Houston.

Harbor-related tourism, including the regular tall ships festival, is also a contributor to the local economy. Harbor cruises, the William Irvin and SS Meteor ship museums, airplane and helicopter flights offering aerial views of the area, and numerous tourist-based companies offering paddle-based tours of the harbor, estuary, and lake are all examples of tourism business in the harbor. Additionally, Great Lakes cruises are anticipated to return to Duluth on a regular basis. All of these require transportation infrastructure, including dock walls and dredged shipping channels, in and adjacent to the harbor to connect people with these opportunities.

Primary Commodities

- Iron Ore/Taconite
- Coal
- Grain
- Limestone
- Cement
- Salt
- Wood pulp
- Steel coil
- Wind turbine components

Infrastructure

- 35 million short tons of cargo
- 900 vessel visits
- 17 miles of dredged shipping channels
- 20 docks (privately owned)

Transportation Improvements with Port related Benefits

- Helberg Drive
- Twin Ports Interchange
- Blatnik Bridge

Past port-related transportation projects include the building of Helberg Drive to provide improved access, especially for over-sized loads out of the port and improve access to the state and U.S. highway system. Further improvements to the surrounding interstate (Twin Ports Interchange and Blatnik Bridge approach) will improve port access.

There are growing pressures to continue to redevelop land along the waterfront. Redeveloping waterfront properties to possible residential, commercial and recreational uses has been underway for decades, and the pressures to redevelop continue. Transportation must be addressed in relation to any of these potential redevelopment scenarios. n addition, as the waterfront continues to be cleaned up, more and more people are recreating (canoe, kayak, paddle board, etc). Efforts are underway to improve awareness of hazards of recreating in the river, harbor, and Lake Superior and strive for safe experiences for all users, whether recreational, commercial, or industrial.

Challenges & Opportunities

- Placement/beneficial re-use of dredged materials
- Water level fluctuation and long term sustainability
- Dock wall replacement
- Legacy pollution clean up
- Land use redevelopment pressure for non-maritime and non-industrial uses.
- Major bridges (Blatnik, Bong, Oliver & rail bridge)
- Intermodal facility needs.
- Tourism—cruise ships

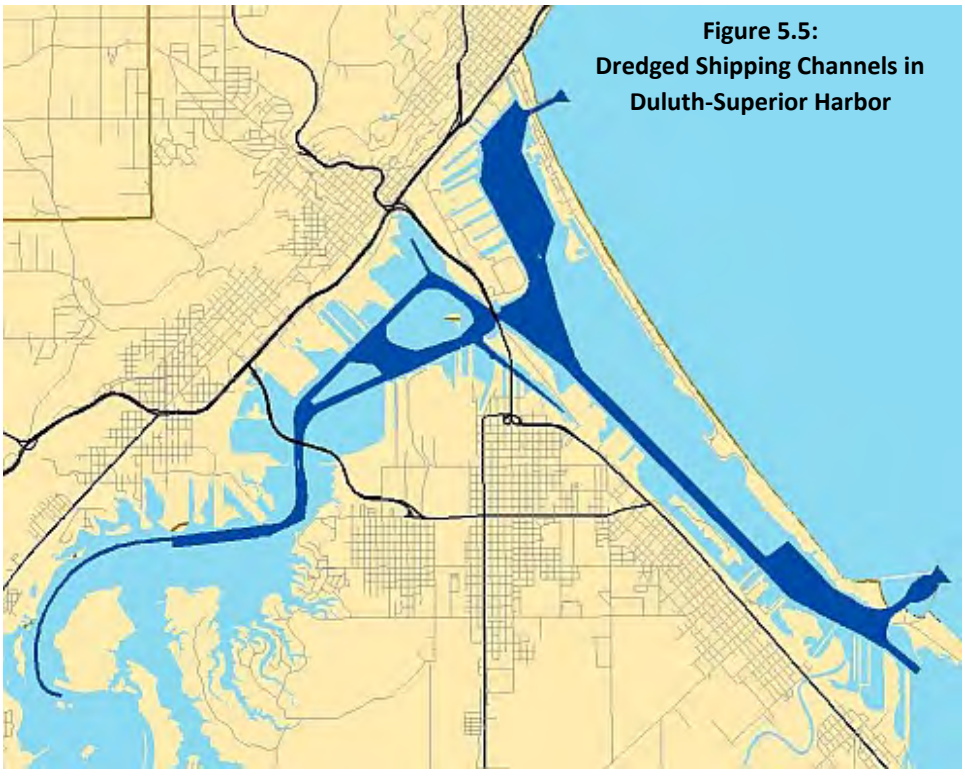
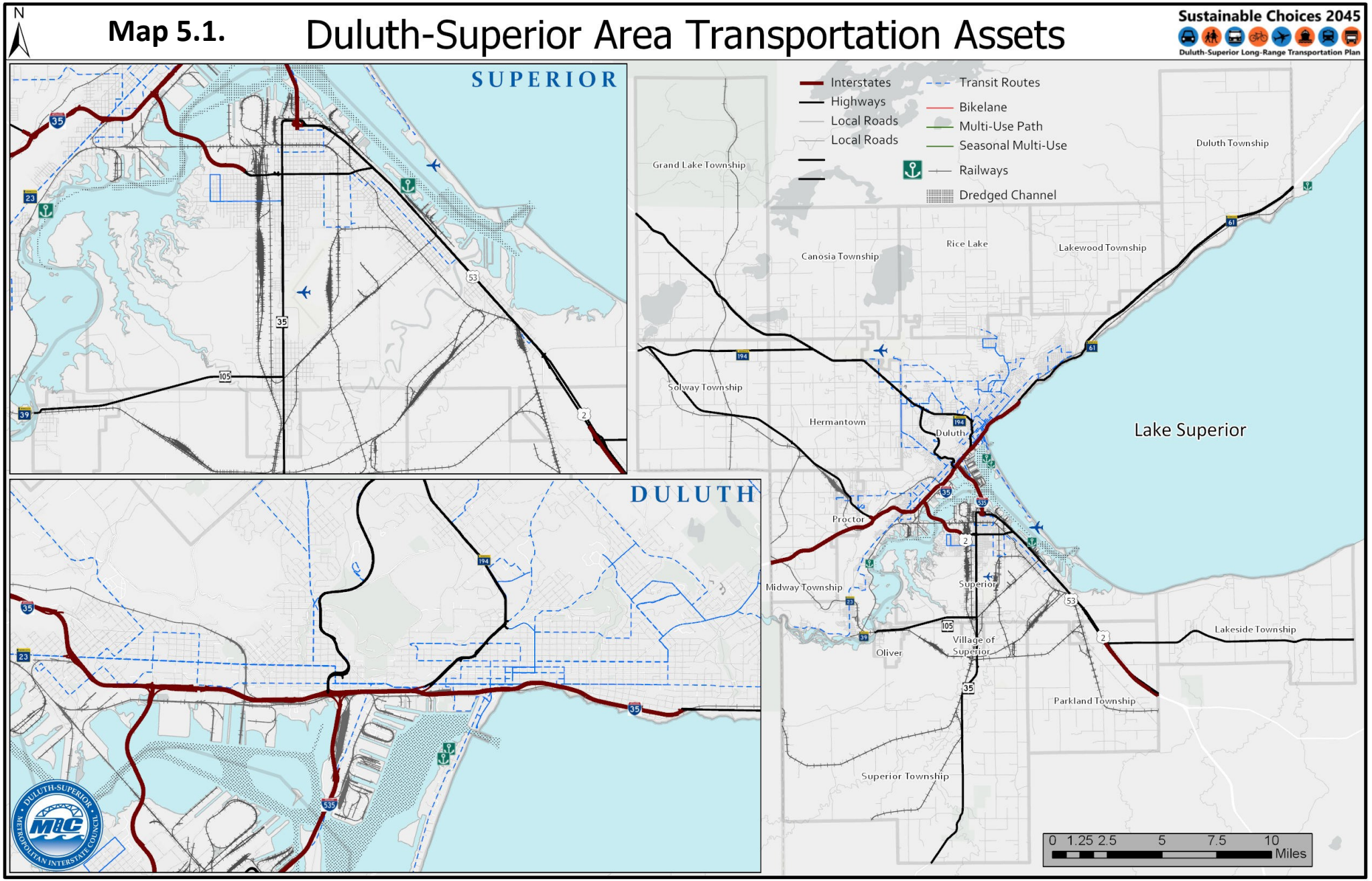


Figure 5.5:
Dredged Shipping Channels in Duluth-Superior Harbor


Map 5.1.
Duluth-Superior Area Transportation Assets
Sustainable Choices 2045
Duluth-Superior Long-Range Transportation Plan
N
SUPERIOR
DULUTH
Interstates
Highways
Local Roads
Local Roads
Transit Routes
Bikelane
Multi-Use Path
Seasonal Multi-Use
Railways
Dredged Channel
Grand Lake Township
Duluth Township
Canosia Township
Rice Lake
Lakewood Township
Solway Township
Hermantown
Duluth
Lake Superior
Proctor
Midway Township
Superior
Oliver
Village of Superior
Lakeside Township
Parkland Township
Superior Township
0 1.25 2.5 5 7.5 10
Miles
DULUTH-SUPERIOR METROPOLITAN INTERSTATE COUNCIL
MIC

Functional Classification

Functional Classification describes roadways based on the type of service they provide. Roadways provide two basic types of service: land access and mobility. The degree to which a roadway provides access and/or mobility determines its functional classification. The key to planning an efficient roadway system is finding the appropriate balance between mobility and accessibility. Map 5.2 displays roadway functional classification across the MIC area.

Principal Arterials roadways primarily serve a mobility function with minimal land access. The primary purpose arterials serve is the rapid movement of people and goods for extended distance. Principal arterials are high capacity, high speed roadways with restricted access.

Minor Arterials interconnect with and augment principal arterials. Minor Arterials within urban areas serve inter-community trips of moderate length. Although the primary use of the minor arterials is mobility, this functional class provides more land access than a principal arterial.

Collectors channel trips between the local street system and the arterials. Collectors serve a balance between mobility and land access. Parking and direct driveway access to the street are typically allowed on collectors. Collectors are usually wider, have higher capacity, and permit somewhat higher speeds than the local street network. Collectors are broken down into two categories Major Collectors and Urban Minor Collectors.

Locals primarily provide local land access and offer the lowest level of mobility. Characteristics of local streets include uncontrolled intersections and few restrictions on parking. Local streets are not a significant consideration in metropolitan planning and this plan does address them in any systematic fashion.

The Federal Highway Administration uses functional classification to determine if a roadway is eligible for federal (gas tax) funds. Federal-aid eligible routes include: Principal Arterials, Major Arterials, Minor Arterials, and Major and Urban Minor Collectors. Local Streets and Rural Minor Collectors are not Federal-aid eligible.

Hierarchy of Roads

- **Local**—low volume, low speed (paved or unpaved).
- **Collector**—collect traffic from local roads, and distribute it to arterials. Traffic using a collector is usually going to or coming from somewhere nearby.
- **Arterial**—major through roads that are expected to carry large volumes of traffic.

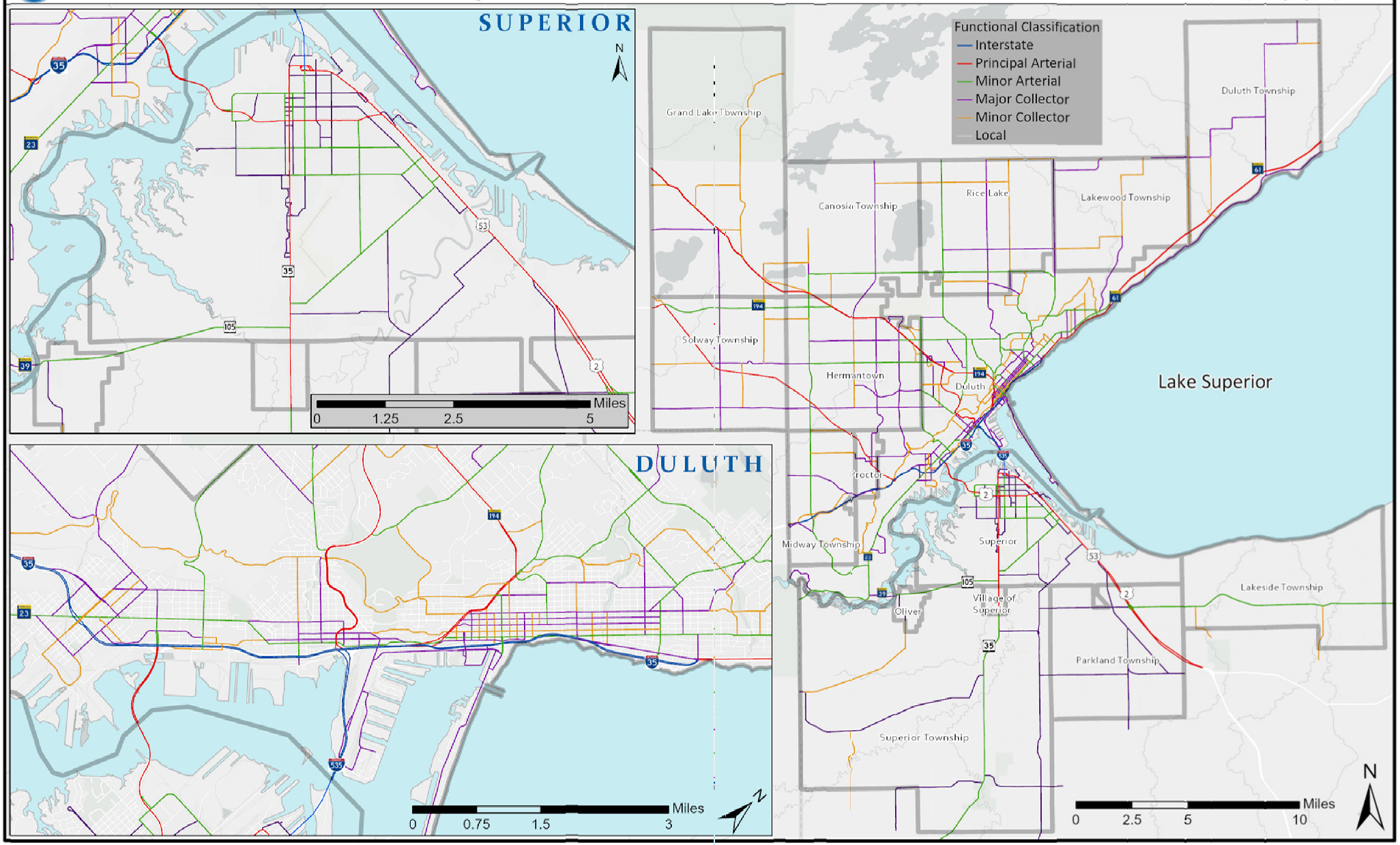
Access = refers to the ability to reach desired goods, services, activities and destinations Access is the ultimate goal of most transportation, except a small portion of travel in which movement is an end in itself (jogging, horseback riding, pleasure drives), with no destination.

Mobility = refers to the movement of people or goods. It assumes that "travel" means person- or ton-miles, "trip" means person- or freight-vehicle trip. It assumes that any increase in travel mileage or speed benefits society.

In general, as mobility increases, access decreases, and vice versa. In order to promote increased mobility access has to be limited. To increase the amount of access, mobility has to be limited.

Map 5.2. Duluth-Superior Area Functional Classification

Sustainable Choices 2045
Duluth-Superior Long-Range Transportation Plan



Network Performance

In order to improve the transportation system, gaining a greater understanding on the return on public investment, the cost-benefits, the lessons learned from past projects, what worked and what did not, the transportation system is regularly evaluated. Key measures of transportation network performance are traffic volumes, level of service and performance measures, including pavement and bridge condition and crash analysis.

Traffic Volume

Traffic volume counts for all modes are regularly collected. For motor vehicles, transportation planners use average annual daily traffic and/or peak hour volumes to measure the use of the roadway system. AADT is an annualized measure of traffic volume on a road segment. AADT numbers are based on traffic counts that local and DOT engineers periodically collect on area roads. Traffic counts provide onetime "snapshot" views of traffic on area roads that traffic engineers then extrapolate into an annualized daily average using a mathematical process.

Traffic volumes for air, cyclists, motor vehicles, pedestrians, ports and transit are also being collected. For bicycle and pedestrian count data, a limited amount of data was available, largely collected during specific projects. However, in the last 10 years, a more robust local bicycle and pedestrian count program has been developed following methodologies from the National Bicycle and Pedestrian Documentation Project.

Level of Service

Level of service (LOS) is a measure describing conditions within a motor vehicle traffic stream, based on speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. LOS is determined by calculating the Volume to Capacity ratio, where the traffic volume, observed or forecasted, is divided by the estimated capacity of the roadway. LOS A represents complete free flow of traffic, allowing traffic to maneuver unimpeded. LOS F represents a complete breakdown in traffic flow, resulting in stop and go travel. With LOS, Level "D" is acceptable traffic conditions. However, expectations in the Duluth-Superior Urban Area are generally higher. LOS is used to study and better understand congestion.

Street Network Congestion happens during the routin AM and PM weekday peaks-time periods and at times during off-peak special events or recreational based trips during off-peak times.

- 23 (or more) hours of the day are largely congestion free.
- "15-minute" rush in AM and PM work-related.
- Around schools as parents are increasingly driving their children to and from school, creating congestion immediately around school sites, particularly during the afternoon school dismissal times.
- Tourism/event/recreational congestion during major events in the Downtown waterfront area, Summer "beach" days along Lake Avenue through Downtown Duluth and Canal Park and along the North Shore Scenic Drive, particularly on the Sunday drive back to the Twin Cities.

Eliminating congestion on all roads is not necessarily a desired goal in the big picture. For example, in high-performing economic districts congestion is a by-product of a strong business district and a place where people want to spend time. Having a better understanding what type of congestion exists is critical to planning congestion reduction strategies on specific road corridors. Strategies to reduce predictable congestion taking place that is impacting a small part of the network during a limited period of time, due to regular special events, schools, sports, recreation activities, etc. should take into account ways to improve operations, through traffic signal timing, parking and other non-roadway expansion solutions, including shifting trips to non-peak times.

Maps 5.3 and 4.1 demonstrate there are very few LOS and congestion problems projected in the MIC area in 2045. That said, the model that projects the LOS does not necessarily capture congestion at intersections. There are intersections in the MIC area that do have congestion problems during peak hours or during significant events. With limited congestion in the Twin Ports, and the vast majority of regular roadway congestion taking place over small time periods (approximately 15 minutes or less) or happening due to isolated or infrequent events or activities, focus should be placed on design and operation improvements and inducing the type and location of the appropriate multimodal demand where the system capacity exists and efficiency can be maximized.

It is important to recognize that LOS is an important factor but has limitations as well. In the MIC area, LOS does not consider those traveling the system via other modes, quality of life factors, or the revenue generated for roadway jurisdictions to cover long-term costs of infrastructure investments. It is generally not cost-effective to expand capacity for short-term peak conditions, given that the resulting capacity is unused for a majority of the time.

Other measures are being developed to determine LOS for other modes to more fully incorporate the varying differences between the modes and other important factors when making transportation decisions. For example, Level of Traffic Stress for bicyclists has been developed as a more appropriate alternative measure to LOS.

Non-Capacity Expansion

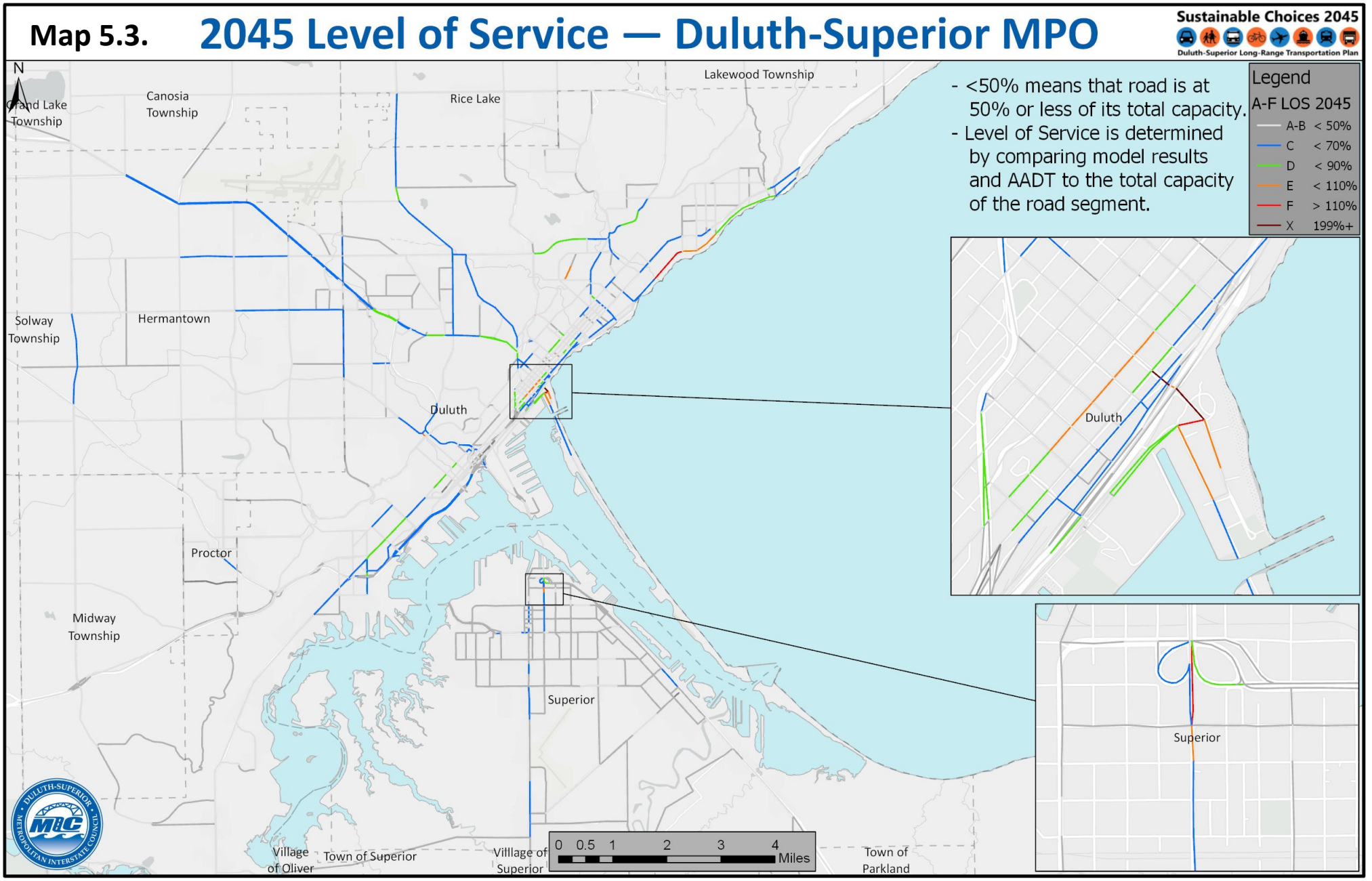
Operational Improvements

- Dynamic signal timing
- Enhanced pedestrian crossings, including dynamic pedestrian crossing warning signage, curb extensions to reduce crossing distances, which reduces both motor vehicle delay.
- Placing major motor vehicle parking facilities directly adjacent to car thoroughfares.
- Re-striping /configuring existing roadways.

Twin Ports Congestion Spots

- Lake Ave—Downtown Duluth/ Canal Park
- London Rd—26th Ave E to 40th Ave E
- 1st Street—Downtown Duluth
- Hammond Ave—near Blatnik Bridge
- Kirby Dr on UMD campus
- 24th Ave W—at Piedmont Ave

Map 5.3. 2045 Level of Service — Duluth-Superior MPO



Performance Measures

Duluth-Superior Metropolitan Interstate Council (MIC) serves as the federally designated Metropolitan Planning Organization (MPO), must establish and use a performance-based approach to transportation decision-making to support national goals. MPOs are to integrate the goals, objectives, performance measures and targets from other performance-based plans and programs into their transportation planning processes.

The two most recent federal transportation acts (MAP-21 and the current FAST Act) incorporated Performance-Based Planning and Programming (PBPP) requirements in the development of this Long Range Transportation Plan (LRTP—Sustainable Choices 2045) and Transportation Improvement Program (TIP).

MIC Area Performance Measures

The MIC's planning and programming contribute to the State of Minnesota's and the State of Wisconsins's performance targets and the DTA's transit targets. As part of implementation of this Plan, the MIC will be fully integrating performance measures into plans, studies and processes and linking investments to targets. To the extent practicable, a description of the anticipated effect of the TIP projects toward achieving targets will be provided. Revising the TIP project selection process and project status reports will be a key component to achieving this.

The MIC's approach at this time, to adopt and contribute toward the statewide targets for safety, pavement, bridge, reliability, and freight was deemed appropriate based on the limited MIC staff resources to develop, maintain and refine performance measures and targets for the MIC area.

At this time, the MIC has decided to adopt the states' (Minnesota & Wisconsin) performance targets instead of developing MPO based measures. The MIC's performance measures and related planning information can be found at:

dsmic.org/study/performance-measures/

Performance Measures

FAST Act—legislation regarding Metropolitan (Long Range) Transportation Plans

23 CFR 450.324(f)(3) and (4)

(3) A description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with § 450.306(d).

(4) A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in § 450.306(d), including -

(i) Progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and

(ii) For metropolitan planning organizations that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.

National Performances Measures 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.

Congestion Reduction—to achieve a significant reduction in congestion on the National Highway System.

System Reliability—to improve the efficiency of the surface transportation system.

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.

Environmental Sustainability—to enhance the performance of the transportation system while protecting and enhancing the natural environment.

Reduced 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.

Fixing America's Surface Transportation (FAST) Act—Federal Transportation Legislation Performance Measures

Performance Measures as established by the FAST Act are:

PM 1—Safety

- Number of fatalities
- Fatalities per 100 million vehicle miles traveled
- Number of serious injuries
- Serious injuries per 100 million vehicle miles traveled
- Number of non-motorized fatalities and non-motorized serious injuries.

PM 2—Infrastructure (National Highway System—NHS Pavement and Bridge Condition)

- Percentage of pavements of the Interstate System in good condition.
- Percentage of pavements of the Interstate System in poor condition.
- Percentage of pavements of the non-Interstate NHS in good condition.
- Percentage of pavements of the non-interstate NHS in poor condition.
- Percentage of NHS bridges classified in good condition.
- Percentage of NHS bridges classified in poor condition.

PM 3—System Performance on NHS (NHS Performance and Freight Movement on the Interstate System)

- Interstate travel time reliability measure: percent of person-miles traveled on the Interstate that are reliable.
- Non-interstate travel time reliability measure: percent of person-miles traveled on the non-Interstate NHS that are reliable.
- Freight reliability measure: truck travel time reliability (TTTR) index.

Transit (Asset Management)

- The Duluth– Superior Metropolitan Area was also required to establish performance targets, and has done so by adopting the federal targets established by each state and agreeing to plan and program projects so that they contribute to the accomplishment of the targets
- Rolling Stock: the percentage of revenue vehicle (by type) for that exceed the useful life benchmark (ULB).
- Equipment: the percentage of non-revenue service vehicles (by type) that exceed the ULB.
- Facilities: the percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) Scale.
- Infrastructure: the percentage of track segments (by mode) that have performance restrictions (speed and/or weight). Track segments are measured to the nearest 0.01 of a mile.

MIC-Adopted State Performance Measure Targets

Each state was to establish performance targets for each of the above federal performance measures. The MIC, as the MPO for the Duluth-Superior metropolitan area, was also required to establish performance targets, and has done so by adopting the federal targets established by each state and agreeing to plan and program projects so that they contribute to the accomplishment of the targets.

The performance measure targets adopted by the MIC for each state are listed below. A brief description of how projects in the MIC area have contributed to accomplishing the performance measure targets is also provided.

PM 1: Safety—Minnesota Targets

Measure	Baseline *1	2019 Targets
Number of Traffic Fatalities	375	372.2
Rate of Traffic Fatalities	0.62 per 100 million VMT *2	0.622 per 100 million VMT *2
Number of Serious Injuries	1935	1711
Rate of Serious Injuries	3.19 per 100 million VMT *2	2.854 per 100 million VMT*2
Number of Non-Motorized Fatalities & Serious Injuries	348	267.5

**1 Baseline = 2018 adopted targets*
**2 VMT = Vehicle Miles Traveled*

Progress in Meeting PM 1/MN Performance Measures

The following projects in the Minnesota portion of the MIC area have contributed to accomplishing the performance measure targets above:

- Installation of roundabout at Midway Road and Maple Grove Road.
- Various St. Louis County highway safety measures including rumble strips.
- Removal of unwarranted traffic signals in Downtown Duluth.

PM 1: Safety—Wisconsin Targets

Measure	Baseline *1	2019 Targets
Number of Traffic Fatalities	556.1	555.7
Rate of Traffic Fatalities	0.914 per 100 million VMT *2	0.915 per 100 million VMT *2
Number of Serious Injuries	3023.9	2967.6
Rate of Serious Injuries	4.997 per 100 million VMT *2	4.785 per 100 million VMT*2
Number of Non-Motorized Fatalities & Serious Injuries	343.3	342.0

**1 Baseline = 2018 adopted targets*
**2 VMT = Vehicle Miles Traveled*

Progress in Meeting PM1/WI Performance Measures

The following projects in the Wisconsin portion of the MIC area have contributed to accomplishing the performance measure targets above:

- Installation of roundabout at Belknap Street and US Hwy 2.
- Belknap Street full reconstruction with dedicated left turn lanes.

PM 2—Infrastructure (NHS Pavement and Bridge Condition) Minnesota Targets

Measure	Baseline *1	2-Year Target	4-Year Target
% of NHS * Bridges in Good Condition	42	50	50
% of NHS * Bridges in Poor Condition	2	4	4
% of Interstate Pavement in Good Condition	36.8	N/A	55
% of Interstate Pavement in Poor Condition	1.56	N/A	2
% of Non-Interstate NHS *2 Pavement in Good Condition	35.62	50	50
% of Non-Interstate NHS *2 Pavement in Poor Condition	1.33	4	4

**1 Baseline = 2018 data*
**2 NHS = National Highway System*

Progress in Meeting PM2/MN Performance Measures

In 2018, on the NHS the MIC area had 2 of 94 (2%) bridges rated in poor condition, 50 of 94 (53%) bridges rated in fair condition, and 42 of 94 (45%) bridges rated in good condition. Thus the bridge targets were met.

In 2018, 36.80% of MIC-area interstate was in good condition and 1.56% was in poor condition. Without improvement, the "Good" condition 4-year target will not be met.

In 2018, 35.62% of MIC-area non-interstate was in good condition and 1.33% was in poor condition. While improvement was observed from 2017 (only 25.06% was in good condition), additional improvement will need to be made to meet the "Good" condition 2-year and 4-year targets.

The following projects in the Minnesota portion of the MIC area have contributed to accomplishing the performance measure targets above:

- Blatnik Bridge preservation.
- Bong Bridge redecking and preservation.

PM 2—Infrastructure (NHS Pavement and Bridge Condition) Wisconsin Targets

Measure	Baseline *1	2-Year Target	4-Year Target
% of NHS *2 Bridges in Good Condition	44	≥ 50	≥ 50
% of NHS *2 Bridges in Poor Condition	0	≤ 3	≤ 3
% of Interstate Pavement in Good Condition		N/A	≥ 45
% of Interstate Pavement in Poor Condition		N/A	≤ 5
% of Non-Interstate NHS * Pavement in Good Condition		≥ 20	≥ 20
% of Non-Interstate NHS * Pavement in Poor Condition		≤ 12	≤ 12

**1 Baseline = 2018 data*
**2 NHS = National Highway System*

Progress in Meeting PM2/WI Performance Measures

The following projects in the Wisconsin portion of the MIC area have contributed towards eventually fully meeting the performance measure targets above:

- Blatnik Bridge preservation.
- Bong Bridge redecking and preservation.

Pavement condition data was not provided so a baseline was unable to be identified at this time.

In 2018, 44% of MIC-area NHS bridges were in good condition and 0% were in poor condition. Additional improvement will need to be made to meet the "Good" condition 2-year and 4-year targets, while continuing to meet the "Poor" condition targets.

PM 3—System Performance on NHS (NHS Performance and Freight Movement on the Interstate System)

Minnesota Targets

Measure	Baseline *1	2-Year Target	4-Year Target
% of Reliable Person Miles on the Interstate	99.8	80	80
% of Reliable Person Miles on the Non-Interstate NHS *2	97.3	N/A	75
Truck Travel Time Reliability (TTTR) Index	1.36	1.5	1.5

**1 Baseline = 2018 data*
**2 NHS = National Highway System*

Progress in Meeting PM3/MN Performance Measures

The following projects in the Minnesota portion of the MIC area have contributed to accomplishing the performance measure targets above:

- Repaving of I-35 from tunnels to 26th Ave East
- Miller Trunk Highway Traffic signal coordination.
- ITS signage usage.

PM 3—System Performance on NHS (NHS Performance and Freight Movement on the Interstate System)

Wisconsin Targets

Measure	Baseline *1	2-Year Target	4-Year Target
% of Reliable Person Miles on the Interstate	97.9	94	90
% of Reliable Person Miles on the Non-Interstate NHS *2	93.9	N/A	86
Truck Travel Time Reliability (TTTR) Index	1.16	1.4	1.6

**1 Baseline = 2018 data*

**2 NHS = National Highway System*

Progress in Meeting PM3/WI Performance Measures

The following projects in the Wisconsin portion of the MIC area have contributed to accomplishing the performance measure targets above:

- ITS signage usage.
- Installation of roundabout at Belknap Street and US Hwy 2.

Transit Asset Management (TAM) Plan Targets

Duluth Transit Authority (DTA) Targets

Asset	4-Year Target
Rolling Stock	<10% of active Fixed Route vehicles and <20% of Paratransit vehicles have reached their useful life.
Equipment	<35% of equipment (i.e. service vehicles) have reached their useful life.
Parking/Pedestrian Facility	<10% of parking/pedestrian facilities have a condition rating below 3 based on FTA's TERM scale.*
Administrative/Maintenance Facility	<20% of facility elements within the Administrative & Maintenance Facility have a condition rating below 3.

** FTA = Federal Transit Administration*

Asset	Baseline (2019 Data)
Rolling Stock	19.5% of active Fixed Route vehicles have met or exceeded useful life 20% of Paratransit vehicles have met or exceeded useful life.
Equipment	42% of equipment (i.e. service vehicles) have reached their useful life.
Parking/Pedestrian Facility	50% of parking/pedestrian facilities have a condition rating below 3 based on FTA's TERM scale.*
Administrative/Maintenance Facility	0% of facility elements within the Administrative & Maintenance Facility have a condition rating below 3.

** FTA = Federal Transit Administration*

Progress in Meeting TAM Performance Measures

The following projects in the MIC area have contributed to accomplishing the performance measure targets above:

- Buses are replaced on regularly set schedule.
- Transit facilities and equipment are regularly maintained.

While DTA is clearly meeting its "Administrative/Maintenance Facility" target, additional improvements will need to be made to meet the "Rolling Stock", "Equipment", and "Parking/Pedestrian Facility" targets.

System Performance Report Summary

Since the approval of the last LRTP five years ago, resources have been focused on maintaining and improving the operation of the transportation system with a focus on improving the safety and pavement conditions on arterial roadways, improving transit operations and passenger amenities, improving pedestrian infrastructure and improving the under-developed bikeway network.

Maintaining and improving the MIC area arterial roadways has been a major focus, including the NHS non-NHS arterial system, to ensure these roadways and bridges remain in good condition. More regular re-surfacing and more extensive reconstruction work on I-35, Blatnik Bridge, Bong Bridge, Hwy 53 (Minnesota side), Minnesota Hwy 23 has taken place over the past 5 years.

In addition, intersections are now all reviewed through an Intersection Control Evaluation (ICE) study for roundabout potential and other potential safety and operations improvements. This has directly lead to the first two roundabouts installed in the MIC area, one in Minnesota and one in Wisconsin. The Minnesota roundabout located at Midway Road and Maple Grove Road provides both safety and reliability (non-NHS system) improvements.

Transit has several new low emission electric buses, conducts regular maintenance of transit facilities and equipment, has a successful loop serving UMD, has incorporated new technology tools to improve service, and is planning a bus rapid transit (BRT) study. There are a number of transit service options within the Duluth-Superior area in addition to DTA, including Arrowhead Transit and other local bus service, Jefferson Lines and other inter-city buses and shuttles to and from the Minneapolis-St. Paul International Airport. Effort is being made to maintain and improve good connections between neighboring services.

Pedestrian improvements have taken place in a variety of ways, including updates to the pedestrian infrastructure condition inventory, creation/updates to the jurisdiction's ADA transition plans and the upgrade of pedestrian infrastructure. Specifically, improvements to pedestrian crosswalks, including utilizing pavement markings more visible to motorists and longer-lasting crosswalk markings, the high-visibility ladder instead of the standard parallel pavement markings, installing Rectangular Rapid

Focus Areas

Arterial Roadways— pavement conditions and installing safety devices.

Transit—bus operations and passenger amenities and testing new routes.

Pedestrian—facility design and user friendly devices.

Bicycle— interconnected network of on-street bikeways for people of all ages, abilities and incomes.

Highways & Bridges—major infrastructure upgrades needed in the near future.

Flash Beacons (RRFBs) at intersections and locations that are difficult and/or uncomfortable for pedestrians to cross, installing countdown timers and I pro-actively improving curb ramps that line up with direction that pedestrians are to walk or roll.

In addition, separated multiple use paths have been installed to provide a safer environment for cyclists and pedestrians, including multi-use paths along West Superior Street, College Street and Rice Lake Road in Duluth and paved shoulders on Martin Road and Arlington Avenue.

The bicycle mode of transportation continues to be under-developed as there is not a fully viable interconnected bikeway system currently in place. With that said, significant improvements to the bikeways network have begun. Prior LRTP's discussed the implementation of bike route wayfinding signage and guide maps. More recently both on-street bike lanes and off-street multi-use paths have seen increased use, improving the conditions for bicycling and integrating bicycling into the transportation system. For example, bike lanes have been added on Belknap Street (US Hwy 2), Grand Ave (MN Hwy 23) as well as major non-NHS routes including the installation of bike lanes on East 4th Street in Duluth and Hammond Avenue in Superior.

Furthermore, a protected bikeway demonstration project took place to introduce the community to a high-quality on-street bikeway facility design, as well as test out a bikeway connection from a primary trunk-line east-west multi-use trail to the new multimodal transportation facility in Downtown Duluth.

In addition, continued community-wide and school-focused educational, encouragement and evaluation activities, including pedestrian crossing safety and motorist awareness campaigns as well as safe cycling, helmet give-away programs and walk and bike to school days are taking taken place to encourage walking and bicycling and increase safety.

Due to additional required focus on NHS routes there has been less focus on the non-NHS system, particularly the collectors and local streets. While these roadways carry less traffic, they include the largest number of miles and receive the least resurfacing and reconstruction dollars.

Furthermore, the NHS system in the Duluth-Superior area has many massive highway and bridge structures that present long-

term maintenance and eventual reconstruction liabilities, particularly for the population and size of the Twin Ports.

The Blatnik Bridge and Bong Bridge are two of the three largest bridges in Minnesota, and I-35 within the City of Duluth has a series of bridge and tunnel structures that will all consume large funding amounts for maintenance and eventual reconstruction. While the timeframe for reconstructing the Bong Bridge and the I-35 tunnels is undetermined at this time, the Blatnik Bridge is due for significant work (perhaps reconstruction) in the mid-term of the this LRTP 2045.

Much progress has been made to meet the general goal of a local and regional multimodal transportation system, and much work remains. Remaining work includes the need to improve the pavement conditions of the roadway system, especially with the local and collector streets; the need to fully integrate an interconnected multimodal system, including building out the under-developed bikeway system; the need to improve transit service, including STRIDE; and the need to maintain and improve infrastructure in the harbor, such as dock walls and shipping channels. During the update to this plan many constructive comments were received with ideas to improve the transportation system. Many of these comments have already been shared with the appropriate agencies, advisory committees, and board, and will be regularly used as appropriate in the implementation of the plan.

6. Projects & Funding

This chapter identifies the surface transportation projects that:

- **Are planned to be implemented in the next 25 years;**
- **Meet the vision of this Plan;**
- **Are eligible for federal funding and/or are regionally significant**

(For this reason, the project list does not include ALL transportation related projects that will take place in the Twin Ports).

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

6. Projects & Funding

(*continued, next page*)

Transportation Projects Overview

The Duluth-Superior area has enormous fiscally related transportation challenges as well as opportunities from innovative technological development over the next 25 years. The biggest challenge is a transportation system that is not fiscally sustainable—meaning existing tax revenues are not meeting the needs to fully maintain, operate and reconstruct the system. Therefore, this plan has a vision of sustainability.

All federally funded and regionally significant transportation projects within the MIC area are listed in this chapter (see the tables on pages 6-15—6-35). The listed projects strive to address the issue of fiscal sustainability by building a transportation system that creates wealth, or at least maximizes the community's ability to build sustainable wealth, and where transportation investments are not undermined, but are working towards greater returns on investment creating win, win, win situations (i.e. create improved traffic operations, generate increased revenue, and are safer for all users).

This chapter identifies future transportation projects that are meeting the long term regional vision and goals that are being planned for in the Duluth-Superior area over the next 25 years. It also provides an estimation of the funding that will be available to finance those projects. Such estimates help local and regional transportation officials determine the financial feasibility of planned projects.

Meeting the Long-Term Vision of Sustainability

The following pages contain future transportation projects that were identified through the development of *Sustainable Choices 2045*. The selection of these projects was based on meeting the various transportation goals and objectives for the area, the federal and state policies guiding this plan, the various trends and projections for the area, and the current performance of the existing transportation system.

The projects that are listed on the following pages are organized according to the various transportation jurisdictions in the area.

Short-Range Projects (2020-2024)

Projects already planned and being programmed in either the Duluth Area or Superior Area Transportation Improvement Programs (TIPs). These documents identify federal, state, and local funding sources and amounts to be applied to the projects listed with in them.

Mid-Range Projects (2025-2029)

Projects identified by jurisdictions and already part of their ten-year capital improvement programs. Local funding sources have already been identified for many of these projects.

Long-Range Projects (2030-2045)

Projects that jurisdictions anticipate doing beyond 10 years out, but are currently not part of any capital improvement program. Federal, state, and local funding sources have not yet been identified for these projects, though such funding is reasonably expected to be available for them.

Planning Perspectives

Transportation projects have direct and indirect impacts on five general aspects of a community, what this plan is calling "planning perspectives." The five planning perspectives are the basis for the plan's five goals (see Chapter 2). The projects listed in this chapter aim to incorporate numerous planning perspectives in order to meet the plan's vision, goals and objectives as detailed in Chapter 2.

With limited resources and with public input, this plan calls for projects to address these five planning perspectives in an approximate even manner, as appropriate.

Project Types

The projects listed on pages 6-15—6-35 have been categorized according to the "type" descriptors listed below. The distribution of listed projects in this plan by the defined project types is displayed in Figure 6-1. This provides for a quick glimpse of the area's transportation investment priorities.

Project Types—Definitions

Preservation—projects that retain or restore the condition of existing facilities through repaving or similar activities.

Reconstruction—projects that rebuild or rehab existing facilities without adding more capacity or change roadway alignment.

Safety—projects with a focus on improving safety of the system.

Intersection Control or Roundabout—projects that are focusing on improving the traffic control at intersections.

Bike or Pedestrian Improvement —stand alone projects focused on bike and pedestrian improvements.

Bridge Repair or Reconstruction—projects that are focused on bridges.

ITS—Intelligent Transportation System is a project utilizing technological improvements to improve operations of the transportation system.

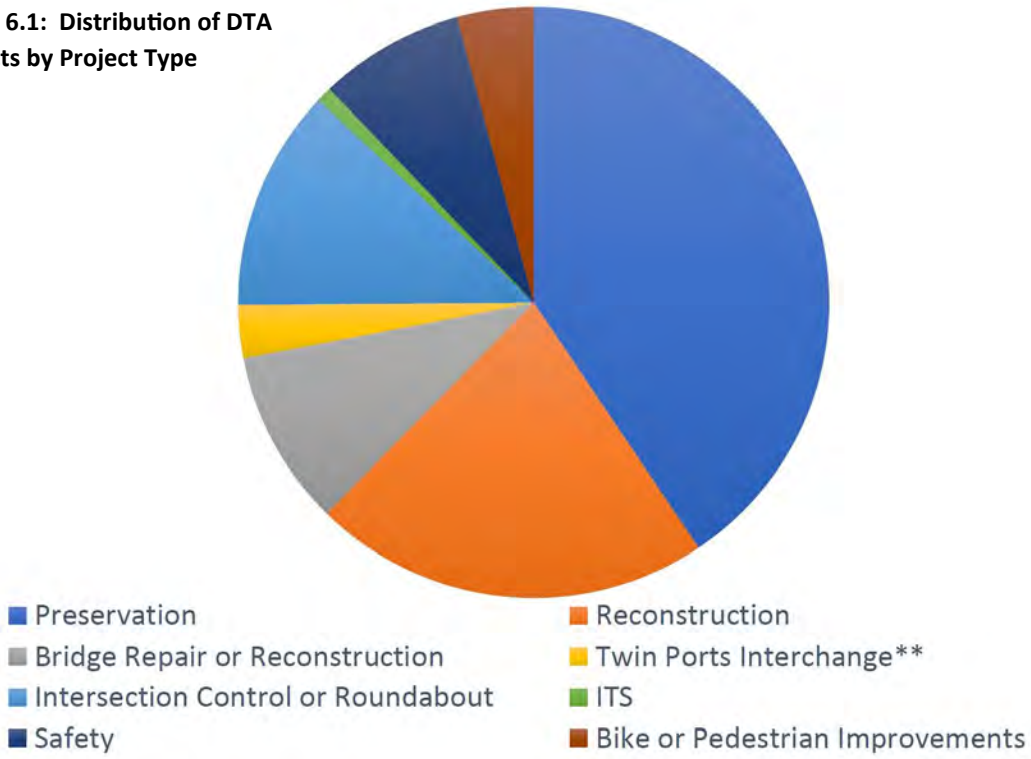
Twin Ports Interchange**—encompasses multiple project types that are a part of the I-35, I-535 and US Hwy 53 interchange full reconstruction.

The Five Planning Perspectives and Goals of *Sustainable Choices 2045*

These five planning perspectives are the basis of the 5 goals of the plan, which are detailed in Chapter 2.

- **Health of People and Environment**
- **Livable Communities and Equity**
- **Safety**
- **Moving People and Goods**
- **Economic Vitality**

Figure 6.1: Distribution of DTA Projects by Project Type



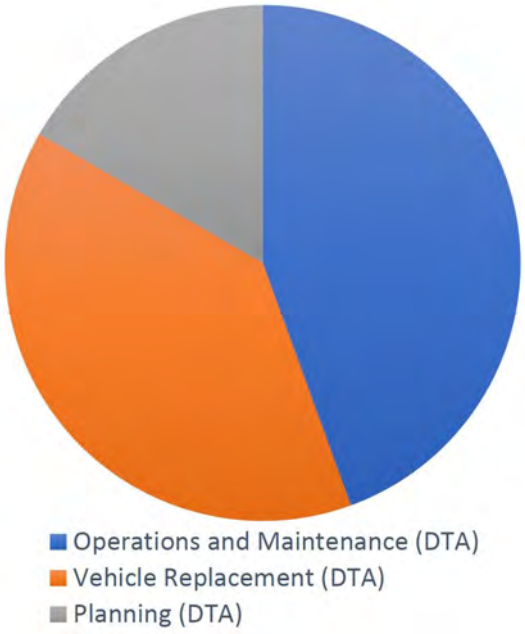
The following are descriptions of DTA project types whose distributions are diagramed in Figure 6.2:

Operations & Maintenance (DTA) - projects that are solely focused on transit operations and maintenance of busses facilities.

Vehicle Replacement (DTA) - projects that include the regular replacement of regular route and paratransit vehicles.

Planning (DTA) - projects that involve DTA planning activities, Operational Analysis, BRT and various studies.

Figure 6.2: Distribution of DTA Projects by Project Type



Unfunded Needs/Future Studies

During the process of identifying projects, it became increasingly clear that more projects were being planned for the area than there would be funding available. Because federal regulations require the LRTP to be fiscally constrained to only the sources of revenue that can be clearly identified and reasonably expected to be available, some projects had to be relegated to a status of "Unfunded Need". Even though the area's jurisdictions will continue to plan for them, the future implementation of these projects will be contingent upon sources of funding that cannot be identified at this time.

Projects Identified as "For Study"

In addition to the projects identified as "unfunded need", other projects (or potential projects) were identified, for which appropriate solutions have not yet been determined. Examples of this are the potential design and construction of passenger terminals in Duluth and Superior for future high-speed rail service to the area. The feasibility of such a service is being studied at this time and it is too early to know size, extent, or scope of such projects. Projects like this are classified as being "For Study" and are listed on page 4-33. Because the extent of the work required for these projects has not yet been determined, there are no cost estimates associated with them at this time.

Priorities for Future Transportation Investments

Population and employment projections forecast continued stagnant population growth and modest economic growth over the next 25 years. The existing roadways with capacity challenges during brief rush-hour periods will continue in the same locations throughout the roadway network. Over this same period, however, the cost of maintaining the Duluth-Superior area's existing transportation infrastructure is expected to more than double due to the rising cost of construction materials and the effects of inflation.

Coupled with a decline in gas tax revenues, and supplanted through local transportation sales taxes, projects that can reach broader societal goals (fiscal and environmental sustainability, public health, etc.) were identified early on in the *Sustainable Choices 2045* planning process as high priorities for future transportation investments in the area.

Project Selection—Implementation of the LRTP

This plan will be implemented by undertaking planning studies and programming projects, as identified in the Project Lists beginning on page 6-15. The MIC's Work Program sets the schedule for undertaking the studies and the Transportation Improvement Program (TIP) lists the MIC area transportation projects, including the federally funded and regionally significant projects. A TIP process will be developed as a part of the implementation of *Sustainable Choices 2045* that ensures selected projects support its goals and objectives.

Implementation of *Sustainable Choices 2045* will be guided by a strategy outlined in Chapter 2.

Financial Assessment

Transportation infrastructure is an asset with known long-term financial liabilities that require continual funding to operate, maintain and reconstruct. As previously mentioned, revenues earmarked for transportation infrastructure have generally diminished, which means cities, counties, and states are increasingly relying on sales and property taxes, and general funds to pay for transportation infrastructure. This puts transportation in competition with all other societal needs and generally results in fluctuating funding levels over time. This creates challenges for maintenance activities that are needed to extend infrastructure life with the least overall expenditure over time.

Forecasting Future Revenues

The MIC consulted with staff from MnDOT District 1, WisDOT's NW Regional Office in Superior, and the DTA to develop estimates of the federal and state dollars that will be available to those agencies over the next 25 years. For estimates of local revenues, information was retrieved from the Minnesota Office of the State Auditor and the Wisconsin Department of Revenue regarding the amount of "capital outlay" that the area's cities and counties have historically directed to highway improvement projects. In all cases, these estimates represent a mix of federal, state, and local funding sources.

A slightly different approach was taken with the DOTs. Based on the relative numbers and sizes of other population centers in these regions - as well as the amount and expanse of existing DOT infrastructure within the MIC area - it was estimated that no more than 45% of MnDOT District 1's and no more than 16% of WisDOT NW Region's forecasted revenues could be reasonably expected to be available to the area over the life of the plan.

Public revenues are subject to the effects of inflation over time. To model these realities the Expenditure Inflation Rate is 2.5%. This expenditure inflation rate is based on the average change in the Consumer Price Index over the previous 10 years. This inflation factor is not intended to capture increases in the costs of individual items or services.

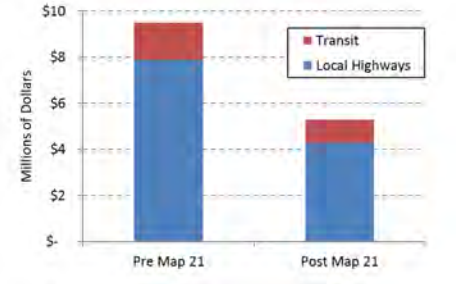


Figure 6.3: Federal Funding decrease since 2012, when MAP 21 was approved.

Financial Limitations

Funding of local roadway system needs often falls short. One key reason is that fuel (gas) tax revenues have been in decline because:

- Increased fuel efficiency
- Federal Gas Tax has remained unchanged since 1993 (18.4 cents per gallon)

To counter this state gas and sales tax revenues for transportation are increasing to make up the shortfall. Both Duluth and St. Louis County have enacted local transportation sales taxes to help pay for infrastructure.

Also, alternative transportation funding studies are underway:

- Mileage-based user fee
- Transportation Company taxes
- Vehicle Registration fees (reflect fuel efficiency)

These increases should be reflected in the individual project cost estimates as they are updated annually. The revenue inflation rate has been calculated to be 2.0%. This revenue inflation rate has been determined using projections based upon authorization of the FAST (Fixing America's Surface Transportation) Act with yearly increases in federal apportionments. This was applied to the revenue estimates beginning in year 2020 and projected out 2045. This resulted in the short-, mid-, and long-range revenue forecasts.

Forecasting System-Level Needs

Once revenue forecasts were developed, an effort was made to estimate system-level needs for comparison. The purpose for doing this was to determine the potential costs of maintaining the existing system in addition to any construction projects (representing system expansion) that might be identified.

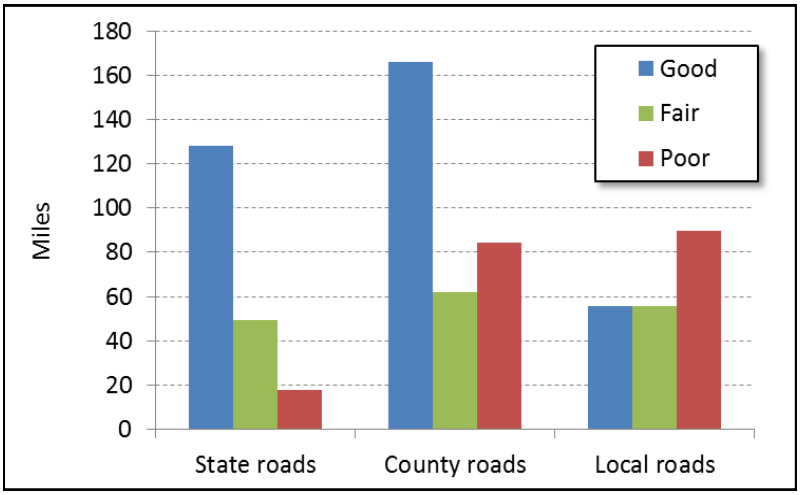
Estimates were derived by gathering information about the existing condition of road pavements and the annual operating costs of maintaining current levels of transit service in the area. The future costs of addressing these needs were projected out to the year 2045 and were adjusted to account for the effects of inflation over those 25 years.

Estimating Future Roadway Needs

Understanding the needs of future roadways is an exercise of looking at the life–cycle of the roadway. Work to pull this information together is ongoing and a process to streamline this data collection effort is still being developed. Currently, each roadway authority undertakes their own process for estimated roadway needs, which is largely focused on pavement condition, or rideability. The MIC did receive 2018 pavement condition data from MnDOT (Figures 5-1 and 5-2) and 2018 bridge condition data from both MnDOT and WisDOT (Figure 5-3). However, other than these the latest data available that is comparable across jurisdictions is from 2014 (see Figure 6.4). The method of rating pavements differs among the jurisdictions, so the ratings were indexed and categorized according to one of three condition classes: "Good", "Fair", or "Poor". The cost-per-mile estimates were then applied to these totals to represent what it would take to maintain the miles of "Good" pavement and convert the miles of "Fair" and "Poor" pavements to a "Good" condition

within the 25-year timeframe of this plan. These per-mile estimates were based on the average costs-per-mile of recent projects in the area and were vetted by jurisdiction officials.

Figure 6.4: Pavement Condition of MIC Area Roads According to Jurisdiction Type (2014)



Source: Data provided by MIC area jurisdictions (2014).

The methodology described above only produces, at best, a gross estimate of the long-term needs that each jurisdiction faces. See Figure 6.7. For one thing, it assumes that each mile is alike in terms of its dimensions and the cost of its materials. Secondly, those estimates are based on data that does not sufficiently speak to the potential needs that may exist with the road base and any infrastructure that may exist beneath the pavement. It does not account for the even greater costs that may be associated with the maintenance or reconstruction of bridges.

Given we know the comparative data used is from 2014, it can be assumed some county roads have been improved through use of a dedicated transportation sales tax for that purpose.

Further, while the methodology provides values for objective comparison, it is illustrative, and not a true goal of the plan because it is unrealistic to assume all roads will have “good” pavement quality. This LRTP emphasizes prioritizing maintenance of critical transportation infrastructure. (see Goal 4 Objective 3, Figure 4.14, and Figure 4.15).

Because large bridge structures represent substantially

greater investments per mile than roads, it was decided that any bridge projects identified for inclusion in the plan should be added in addition to the estimated pavement needs. MnDOT and WisDOT both identified estimated bridge project costs.

As has been identified elsewhere in this plan, maintaining sufficient revenues to pay for our transportation infrastructure needs is a continuous challenge. These challenges have been identified and discussed at jurisdictional consultations. Topics discussed during these consultations included prioritizing transportation investments in the area and identifying projects that are listed on pages 6-15-6-35.

Typical Cost per Mile

Costs to build an urban road and trail per mile based on recent project costs in the MIC area combined with the estimates provided by the American Road & Transportation Builders Association.

- **Road Resurface = $1 million/ mile**
- **Road Reconstruction = $4 million/mile**
- **New Road Construction = $5-10 million/mile**
- **Trail = $500,000/mile**

Figure 6.5: The Twin Ports Interchange in Duluth, an infrastructure and public safety reconstruction project currently on the docket for 2020-2023, isn't fully funded yet — while the estimated total project cost is $342 million, MnDOT currently has $299 million. An estimated additional $42 million is needed to redesign another component of the Twin Ports project, called the Garfield Avenue interchange.

Courtesy of the Duluth News Tribune

An aerial view of the can of worms interchange at 21st Avenue West and Interstate 35 in Duluth.

Estimating Future Transit Needs

To estimate future needs for Duluth-Superior's public transit system, the current annual cost of operations and costs of bus replacements were forecasted out over 25 years.

In consultation with the DTA, a 3.5% annual rate of inflation was applied to future revenues. The forecasted future revenues cover planned operational, maintenance and capital project costs in the short-term (2020-2024) and mid-term (2025-2029) timeframes but does show a deficit in the long-term. It is anticipated that the DTA will adjust the transit system in response to anticipated available funding, and/or meet long-term future capital needs for facilities through grants, bonds, and additional funding sources.

As with the roadway system, the operations and maintenance costs of transit are outpacing increases in revenue. This issue is addressed with changes in routes to create more cost efficiencies, coupled with possible future revenue increases through taxes and fares.

Transit (DTA) Annual Spending

To ensure compliance with FTA regulations and meet its own objectives regarding passenger safety and comfort, as well as operational efficiency, the DTA maintains a vehicle replacement schedule of 10 regular route buses every other year and alternates between 3 and 6 new STRIDE vehicles in the intervening years.

- $24.6 million on operations and maintenance.
- $500,000 per replacement vehicle for its fleet of regular route buses.
- $145,000 to replace a 30-foot STRIDE bus
- $65,000 to replace its smaller size STRIDE vehicles.

Financial Analysis

An assessment of the potential needs system-wide, MIC area plan recommendations, and consultation with each roadway/ transit authority guided the development of the project list. The total cost of projects was vetted against the levels of revenue reasonably expected to be available over the next 25 years.

The estimated costs of future federal aid eligible and/or regionally significant transportation projects were adjusted to reflect a 2.0% annual rate of inflation for expenditures, while transit projects were factored for a 3.5% rate of inflation. These costs were then compared to the levels of projected future revenues.

To ensure a fiscally constrained transportation plan, expenditures (project costs) were balanced with reasonably expected revenues. Project costs were determined from a variety of sources including jurisdictional estimates from their Capital Improvement Programs (CIPs) and typical costs for project types.

This plan's project lists are fiscally constrained with all jurisdictions' project costs falling within projected future revenues, with two exceptions. However, it is reasonably anticipated that each agency will receive additional funding, through grants and/or bonding in the future, to cover the deficits. It is also important to reiterate that the project lists in this plan do not reflect the entire transportation needs of each jurisdiction. Only federal aid eligible surface transportation and/or regionally significant projects are included in the project lists of this plan. All other transportation projects, including but not limited to, the projects for local residential streets, are NOT included in this plan's project lists. Therefore, the costs of these projects are not factored into this financial analysis. It is reasonable to state that there is presently not enough funding to cover ALL transportation needs for the Duluth-Superior Urban Area. Evidence of this can be found with the recent adoption of local transportation sales taxes by the City of Duluth and St. Louis County to add available revenue and reduce the gap in needed funds.

Figure 6.6: Estimated annual transportation revenues available to MIC area jurisdictions

MnDOT Dist. 1 [a]	$37,000,000
St. Louis County, MN [b]	$8,600,000
City of Duluth, MN	$13,000,000
City of Hermantown, MN	$500,000
WisDOT NW Region [a]	$8,000,000
Douglas County, WI [c]	$400,000
City of Superior, WI	$1,250,000
DTA [d]	$18,000,000

Sources: MnDOT District 1, WisDOT NW Region, Duluth Transit Authority, Minnesota Office of the State Auditor; Wisconsin Department of Revenue, 2009.

a - 25% of MnDOT District 1 revenues; 16% of WisDOT NW Region revenues.

b - Estimating availability of 22.5% of county's highway expenses (based on portion of road miles w/n the MIC).

c - Estimating availability of 100% of county's highway expenses.

d - DTA revenues represent FHWA funding available for bus purchases, FTA funding available for operations and capital improvements, plus local and state revenue sources.

Expenditure Inflation Rate = 2.5%

Revenue Inflation Rate = 2.00%

Figure 6.7: Financial Capacity of Planned Projects (25 years)

	Revenues				Expenditures				
MPO Jurisidictions	Federal $	State $	Local $	Total Revenues	Planned Projects	Surplus/ Deficit	Unfunded Needs	Operations & Maintenance	Notes
MnDOT	$ 625,000,000	$ 982,500,000	$ -	$ 1,197,035,000	$ 890,720,000	$306,315,000	$ 25,000,000	$ 258,700,000	1
WISDOT	$ 160,000,000	$ 99,500,000	$ -	$ 259,500,000	$ 221,872,000	$37,628,000	$ 25,000,000	$ 137,500,000	2
Douglas County	$ 8,000,000	$ -	$ 4,900,000	$ 12,900,000	$ 8,000,000	$4,900,000		$ 13,860,000	3
St. Louis County	$ 30,000,000	$ 136,250,000	$ 111,250,000	$ 277,500,000	$ 158,095,000	$119,405,000	$ 31,000,000	$ 276,000,000	3
City of Duluth	$ 50,000,000	$ 150,500,000	$ 175,500,000	$ 376,000,000	$ 273,618,000	$102,382,000	$ 25,000,000	$ 375,330,000	3
City of Hermantown	$ 2,500,000	$ 9,250,000	$ 4,250,000	$ 16,000,000	$ 5,100,000	$10,900,000		$ 24,265,000	3
City of Superior	$ 25,000,000	$ -	$ 15,750,000	$ 40,750,000	$ 27,904,800	$12,845,200	$ 25,000,000	$ 41,800,000	3
Duluth Transit Authority (DTA)	$ 894,940,000	$ -	$ -	$ 894,940,000	$ 918,324,000	-$23,384,000	$ 67,500,000	$ 24,600,000	4
Total	$ 1,795,440,000	$ 1,378,000,000	$ 311,650,000	$ 3,074,625,000	$ 2,503,633,800	$570,991,200	$ 198,500,000	$ 1,152,055,000	

Figure 6.7 Notes:

General Note—the project expenditures in this fiscal constraint analysis only include the federally eligible and the regionally significant projects. While these roadways include all of the state DOTs and many of each county's roadway system, this analysis excludes the local/residential roadway system, which for the cities comprises a large percentage of their roadway network. In the short and mid term, the projects fall under fiscal constraint. However, in the long term years, less projects were identified as scoping is too far out for MIC area jurisdictions (generally work within 10 year capital improvement timeframes).

1. MnDOT is showing a surplus in funding in the long term. However MnDOT is studying the future needs of the Blatnik Bridge (shared cost with WisDOT) and I-35 Corridor through the MIC Area which will more clearly define the actual long term future costs of this infrastructure and it is anticipated these projects will more than consume this surplus in the long term.

2. WisDOT - It is anticipated that the Blatnik Bridge (shared cost with MnDOT) will consume more than the WisDOT NW Region's annual budget. However, it is reasonably expected that the State of Wisconsin, as it has with other major reconstruction projects, will fill the gap in funding. The $200 million for the Blatnik Bridge is for planning purposes only.

3. While it appears there are surpluses for the local jurisdictions, this analysis only covers the federal aid eligible and/or regionally significant project costs. The pavement and roadway needs of the local functionally classified roads (residential streets) are excluded from this analysis.

4. DTA is funded differently than roadway authorities. Some operations and maintenance funding is included in the project list. DTA does have a deficit, but routinely receives MnDOT and FTA grants to cover capital expenses.

Figure 6.7 Label Definitions

- Financial Capacity -the ability to fund the federal aid and regionally significant projects.
- MPO Jurisdictions - governmental organizations within the Duluth-Superior Urban Area that are eligible to receive federal surface transportation funding.
- Revenues - reasonably expected funding from fuel (gas) taxes, related motor vehicle fees, and sales taxes dedicated to transportation. Does not include revenues for ALL transportation projects.
- Expenditures - for projects listed in this LRTP, includes only federally aid eligible and regionally significant surface transportation projects. Does not include ALL transportation projects.
- Planned Projects - the list of projects that are eligible for federal surface transportation funding and/or are regionally significant.
- Surplus/Deficit - revenues minus expenditures. Does not include additional (unique, one time) funding for individual, budget-busting projects (Twin Ports Interchange, Blatnik Bridge, etc).
- Unfunded Needs - projects that are eligible for federal funding, but have no current funding identified for them.
- Operations & Maintenance - reasonably anticipated funding amount devoted to O&M. Can be allocated through general fund budgets and not fully reliant on transportation related taxes.

2020-2045 Duluth-Superior Area Project List

The focus of this plan and the project lists is not to preserve the entire transportation system "as is", but to re-shape the system to meet the future needs with an eye towards the key components of our transportation infrastructure. Over the life of this plan a number of major urban transportation projects will come forth. These projects have long term impacts, setting in place a transportation system for generations to come. Therefore, special attention is being given to the following major projects in the LRTP 2045 Project List.

Blatnik Bridge

As "life of the structure" questions are presently unanswered, a structural assessment of the Blatnik Bridge is currently underway. Once the findings are known, a planning process will be initiated. The planning will help lay out a scope and an alternatives study, and eventually lead to design options. Until the planning process is completed an alternatives study or a design process is premature. Regardless of the alternative selected, the expenditures are expected to be significant and beyond the typical annual revenues received by MnDOT District One and WisDOT Northwest Region. Costs included in the Project Lists are for planning purposes only.

I-35 Corridor in the MIC Area

As the first round of major reconstruction projects for I-35 within the MIC area have taken place over the last 10 years, a full analysis of the infrastructure will precede a planning effort to determine scope, alternatives and eventual future design for this major thoroughfare.

Northern Lights Express (NLX)

MnDOT has completed all planning work on the NLX project. This project is awaiting funding to begin railroad track and crossing improvements, station upgrades and the purchase of rail cars. This project is beyond any MIC area jurisdiction or state of Minnesota or Wisconsin budget and will most likely require new or special funding from the states and the federal government.

Projects Addressing Known Issue Areas

- **Pavement Conditions —** improve critical infrastructure (highways, shipping channels, bridges, etc.) to "good" condition.
- **Forecasted Congestion Areas -** address problem areas, noting that the goal is not to alleviate all congestion, as congestion is a sign of a strong, economic area but to improve traffic operations where possible.
- **Modal Infrastructure Gaps —** identify and closing existing major gaps in the system for bikeways, rail lines, roadways, sidewalks, trails and transit.

Critical infrastructure are assets that are essential for the proper functioning of the transportation system, including the U.S. and state highways, bridges that provide connections with limited or no alternatives, shipping channels, active rail lines, and the mainline transitways.

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-01-01	I-35 *Central Ave to Boundary Ave/Thompson Hill*	Preservation	$13,000,000			X	X	X
MN-01-02	I-35 Lake Ave to MN 61	Preservation	$5,250,000				X	X
MN-01-03	Replace Bridges on US-2 *Box Culvert 8016, 8017*	Bridge Repair or Reconstruction	$750,000				X	X
MN-01-04	5th Ave Bridge over I-35 *Bridge 69870*	Bridge Repair or Reconstruction	$1,300,000				X	X
MN-01-05	MN 23 in duluth from MN 23 to 4th St. Construct 134 Ave W *Hwy 23 in Duluth construct 134th Ave W.*	Reconstruction	$200,000		X		X	
MN-01-06	US 53 in Duluth at Jct US 53 & Michigan St. Building demolition in advance of the Twin Ports Interchange Project. *Building Removal/Demolition*	Twin Ports Interchange	$50,000				X	X
MN-01-07	Twin Ports Interchange - reconstruct *Bridge replacement or construction.*	Twin Ports Interchange	$5,800,000			X	X	X
MN-01-08	I-35 in Duluth, first phase of Twin Ports Interchange construction and bridge replacement. *Bridge replacement or construction.*	Twin Ports Interchange	$44,502,222			X	X	X
MN-01-09	Hwy 61 NB & SB in Duluth 0.3 miles North of Superior St to CR 33/McQuade Rd. Resurface roadway. *Pavement resurface and rehabilitation*	Preservation	$3,000,000				X	X
MN-01-10	I-35 in Duluth JCT I-35 & Lake Ave. Bridge repairs 69816 & ADA improvements *Bridge rehabilitation*	Bridge Repair or Reconstruction	$2,300,000	X	X	X	X	X
MN-01-11	NSSR RR, install gates and flashing lights at MSAS 166, N 40th Ave, Dululth, St. Louis County. *RR X-ing improvements*	Intersection Control or Roundabout	$230,000			X		X
MN-01-12	Install gates and flashing lights at MSAS 195 (S 60th Ave E) in Duluth at NSSR Railroad. *RR X-ing improvements*	Intersection Control or Roundabout	$230,000			X		X
MN-01-13	I-35 in Duluth, second phase of Twin Ports Interchange construction. Construct bridges, retaining walls, drainage improvements. *Bridge replacement or construction.*	Twin Ports Interchange	$252,297,781			X	X	X
MN-01-14	Hwy 61 NB & SB in Duluth 0.3 miles North of Superior St to CR 33/McQuade Rd. Resurface roadway. *Pavement resurface and rehabilitation*	Preservation	$3,000,000				X	X
MN-01-15	Painting the Blatnik Bridge between Duluth and Superior over the St. Louis River in St. Louis County. *Bridge rehabilitation and painting*	Bridge Repair or Reconstruction	$9,100,000				X	X
MN-01-16	In Duluth, on I-35 reconstruct interchange. *Bridge replacement or construction.*	Twin Ports Interchange	$1,700,000			X	X	X
MN-01-17	I-35 from JCT Garfield Ave to JCT MN 194 *Drainage and fencing improvements*	Preservation	$200,000	X		X	X	X

MN-01-18	Culvert improvements at US Steel Creek in Duluth *Culvert rehabilitation*	Reconstruction	$1,100,000	X		X	X	X
MN-01-19	Culvert improvements at Gegebic Creek in Duluth *Culvert rehabilitation*	Reconstruction	$1,100,000	X		X	X	X
MN-01-20	Drainage system improvement at Lakewalk in Duluth. *Culvert rehabilitation*	Reconstruction	$1,100,000	X	X			
MN-01-21	I35 in Duluth from JCT Mesaba Ave to JCT London Rd/26th Ave. E Extend fiber optic cable and add additional traffic cameras. *Upgrade fiber optic cable and traffic cameras in Duluth.*	ITS	$425,000			X	X	
MN-01-22	Thompson Hill rest area repairs. *Rest Area Repairs*	Preservation	$3,500,000				X	X
MN-01-23	In Duluth, on I-35 reconstruct interchange. *Bridge replacement or construction.*	Twin Ports Interchange	$1,700,000			X	X	X
MN-01-24	Hwy 194 resurface highway from Hwy 2 to Hwy 53. Intersection improvements at Midway Rd and Hwy 53/Lindahl Rd. *Pavement resurface and rehabilitation/Reconstruction*	Reconstruction	$4,700,000			X	X	X
MN-01-25	Resurface MN 61 Expressway from 0.1 mi N Knife River to 0.3 mi South Scenic 61. *Pavement resurface and rehabilitation*	Preservation	$6,220,000				X	X
MN-01-26	Hwy 23 from N 130th Ave to Becks Rd. *Pavement resurface and rehabilitation*	Preservation	$1,700,000			X	X	X
MN-01-27	MN 194 Central Entrance in Duluth, TPI local traffic mitigation from Anderson RD to Mesaba Ave. *Resurfacing*	Twin Ports Interchange	$600,000				X	X
MN-01-28	Districtwide signal communications & PTZ cameras *Safety Improvements*	ITS	$405,000			X	X	
Total:			$365,460,003					

Mid-term Projects (2025-2029)

				Goals of Sustainable 2045 Met				
Proj. No.	Project Description	Type	Total Cost	Health	Livable	Safety	Moving	Economy
MN-01-29	Central Entrance Corridor *Partial Reconstruction & Multi-Modal Improvements Mesaba to Trinity*	Reconstruction	$15,000,000	X	X	X	X	
MN-01-31	London Rd/MN 61 *Several Projects Include Possible Roundabouts at 26th and 40th Ave E*	Preservation	$11,200,000			X	X	
MN-01-32	US53 *N of Piedmont to S of Mall Drive*	Preservation	$2,100,000				X	X
MN-01-33	I-35 Under 5th Ave W Bridge	Preservation	$720,000				X	X
MN-01-34	I-35 BRIDGE *Bridges 69879 and 69879E*	Preservation	$54,000,000				X	X
MN-01-35	Highway 2 *Resurface from Hwy 194 to 1st Ave in Proctor*	Preservation	$11,500,000		X	X	X	X
MN-01-37	Blatnik Bridge *Please See* ***For Study List*** *For More Info or Page 6-13*	Reconstruction	$200,000,000			X	X	X
Total:			$294,520,000					

Long-term Projects (2030-2045)

				Goals of Sustainable 2045 Met				
Proj. No.	Project Description	Type	Total Cost	Health	Livable	Safety	Moving	Economy
MN-01-38	Bong Bridge Redecking	Preservation	$15,600,000			X	X	

MN-01-39	Boundary Ave Interchange	Reconstruction	$15,600,000			X	X	X
MN-01-40	Highway 53 *Segment to be determined*	Reconstruction	$25,000,000	X	X	X	X	X
MN-01-41	Highway 2 Segment to be determined	Reconstruction	$25,000,000	X	X	X	X	X
MN-01-42	Highway 61 *Segment to be determined*	Reconstruction	$25,000,000	X	X	X	X	X
MN-01-43	Highway 194 Segment to be determined	Reconstruction	$25,000,000	X	X	X	X	X
MN-01-44	I-35/I-35 Tunnels *Segment to be determined*	Preservation	$100,000,000	X	X	X	X	X
Total:			$231,200,000					

* Projects shown beyond the year 2028 are not identified in MnDOT's current 10-year Capital Highway Investment Plan, 2019-2028. Although the financial capabilities analysis used in Sustainable Choices 2045 shows that the estimated cost of these projects is fundable under future revenue projections, MnDOT does not necessarily share these assumptions and considers these projects unfunded at this time. MnDOT is studying the future needs of the Blatnik Bridge and I-35 through the City of Duluth which will more clearly define the actual long term future costs of this infrastructure.

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-02-01	BRIDGE 3601 ON CSAH 61 *12.5 Miles NE of the City of Duluth over French River*	Bridge Repair or Reconstruction	$2,200,000			X	X	
MN-02-02	BRIDGE 6666 ON CR 293 *0.4 Miles S of Jct Lavis Rd and over Lester River*	Bridge Repair or Reconstruction	$1,117,700			X	X	
MN-02-03	BRIDGE REMOVAL L6010 ON TWP *0.25 Miles N of CSAH 11 and over Kingsbury Creek*	Bridge Repair or Reconstruction	$10,000			X	X	
MN-02-04	BRIDGE 88154 ON CSAH 37 *0.55 Miles N of Glenwood St and over Amity Creek*	Bridge Repair or Reconstruction	$550,000			X	X	
MN-02-05	BRIDGE 69504 ON CSAH 12 *60th Ave E to 61st Ave E and over Lester River*	Bridge Repair or Reconstruction	$1,880,141			X	X	
MN-02-06	BRIDGE 69845 ON CSAH 14 *0.06 Miles N of Mountain Dr over railroad tracks*	*Bridge Repair or Reconstruction*	$900,000			X	X	
MN-02-07	Lismore Road *N. Tischer Road to Ryan Road*	Preservation	$3,100,000					X
MN-02-08	Morris Thomas Road Trunk Highway 2 to Piedmont Avenue	Preservation	$3,000,000					X
MN-02-09	Snively Road / Jean Duluth Road / Glenwood	Intersection Control or Roundabout	$690,000			X	X	
MN-02-10	Woodland Ave *Arrowhead Road to Anoka Street*	Preservation	$2,000,000					X
MN-02-11	Piedmont Ave *Haines Road to Chambersburg*	Preservation	$350,000					X
MN-02-12	Haines Rd *Piedmont Avenue to Aiport Road*	Preservation	$1,300,000					X
MN-02-13	Rice Lake Rd *Trunk Highway 194 to Arrowhead Road*	Preservation	$750,000					X
MN-02-14	Morris Thomas Rd *US-2 at Morris Thomas Road (CSAH 56)*	Intersection Control or Roundabout	$500,000	X		X		
MN-02-15	Industrial Road *US-53 at Industrial Road (CSAH 7/CR 885)*	Intersection Control or Roundabout	$1,000,000	X		X		
MN-02-16	Midway Road *MNTH-194 at Midway Road (CSAH 13)*	Intersection Control or Roundabout	$2,500,000	X		X		
MN-02-17	West Arrowhead Road *Rice Lake Road (CSAH 4)/Arlington Avenue (CSAH 90) at West Arrowhead Road (CSAH 32)*	Intersection Control or Roundabout	$1,500,000				X	
MN-02-18	Technology Drive *Rice Lake Road (CSAH 4) at Technology Drive*	Intersection Control or Roundabout	$1,000,000				X	
MN-02-19	West Arrowhead Road *Woodland Avenue (CSAH 9) at West Arrowhead Road*	Intersection Control or Roundabout	$1,000,000				X	
MN-02-20	Snively Road *Woodland Avenue (CSAH 9) at Snively Road (CSAH 37)*	Intersection Control or Roundabout	$1,000,000				X	
MN-02-21	Stark Road *Midway Road (CSAH 13) at Stark Road (CSAH 11/CR 894)*	Intersection Control or Roundabout	$500,000	X		X		
MN-02-22	North Cloquet Road *Midway Road (CSAH 13) at North Cloquet Road (CSAH 45)*	Intersection Control or Roundabout	$500,000	X		X		
MN-02-23	Glenwood Street *Jean Duluth Road/Snively Road (CSAH 37) at Glenwood Street*	Intersection Control or Roundabout	$2,500,000				X	
MN-02-24	D1 St. Louis countywide, various locations, install 6in. Paint edgeline *Traffic control devices/safety striping*	Preservation	$70,000					
MN-02-25	D1 St. Louis countywide, various locations, install high friction surface treatment for high risk, high voulume curves *Pavement Resurface and rehabiliation; Bituminous overlay*	Preservation	$370,000					

MN-02-26	D1 St. Louis countywide, various locations, install high friction surface treatment for high risk, high voulume curves *Pavement Resurface and rehabiliation; Mill and Overlay*	Preservation	$320,000						
MN-02-27	French River wayside rehabiliation *Rest area/beautfication*	Preservation	$600,000						
MN-02-28	St. Louis countywide safety improvements. 6 in. edgelines *Traffic control devices/safety; pavement markings*	Preservation	$70,000						
MN-02-29	Snively Rd from Woodland Ave. to Glenwood St *Pavement resurface and rehabiliation/ ped*	Preservation	$300,000						
MN-02-30	Safety imporvements at 5 intersections in St. Louis County *Traffic control devices/safety*	Intersection Control or Roundabout	$496,800						
MN-02-31	County wide centerline rumble strips in St. Louis County *Traffic control devices/safety*	Safety	$238,300						
MN-02-32	County wide chevrons at 27 curves in St. Louis County *Traffic control devices/safety*	Safety	$137,400						
MN-02-33	East side of Boundary Ave construct new sidewalk from 300 ft North of Anchor to Orchard St. *New Sidewalk*	Bike or Pedestrian Improvement	$375,000						
Total:			$32,825,341						

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-02-34	BRIDGE 6667 ON CSAH 10 *0.6 Miles E of Jct CR 293 and over Lester River*	Bridge Repair or Reconstruction	$1,100,000			X	X	
MN-02-35	BRIDGE 93586 ON CR 245 *1.4 Miles N of Jct W Tischer Rd and over unnamed Stream*	Bridge Repair or Reconstruction	$425,000			X	X	
MN-02-36	BRIDGE 7702 ON CSAH 40 *1.7 Miles N of Jct E Pioneer Rd and over Sucker River*	Bridge Repair or Reconstruction	$975,000			X	X	
MN-02-37	BRIDGE 8755 ON CSAH 61 *0.56 Miles E of Jct Homestead Rd and over Little Sucker River*	Bridge Repair or Reconstruction	$730,000			X	X	
MN-02-38	BRIDGE 3597 ON CSAH 61 *0.3 Miles E of Jct McQuade Rd and over Talmadge River*	Bridge Repair or Reconstruction	$1,500,000			X	X	
MN-02-39	BRIDGE 8753 ON CSAH 61 0.4 Miles E of Jct Ryan Rd and over Schmidt Creek	Bridge Repair or Reconstruction	$975,000			X	X	
MN-02-40	BRIDGE 88584 ON CSAH 34 *0.6 Miles N of Jct Norton Rd and over Tischer Creek*	Bridge Repair or Reconstruction	$425,000			X	X	
MN-02-41	BRIDGE 90657 ON CSAH 13 0.3 Miles S of Jct St. Louis River Rd and over Midway River	Bridge Repair or Reconstruction	$1,100,000			X	X	
MN-02-42	BRIDGE 88655 ON CR 280 *0.7 Miles W of Jct Jean Duluth Rd and over Amity Creek*	Bridge Repair or Reconstruction	$425,000			X	X	
MN-02-43	BRIDGE 7788 ON CSAH 61 2.0 Miles E of TH 53 and over White Pine River	Bridge Repair or Reconstruction	$500,000			X	X	
MN-02-44	BRIDGE 88560 ON CSAH 12 *0.24 Miles S of Jct Lavis Rd and over Talmadge River*	Bridge Repair or Reconstruction	$425,000			X	X	
MN-02-45	BRIDGE 88546 ON CSAH 9 0.03 Miles NW of Jct Caribou Lake Rd and over Pine Creek	Bridge Repair or Reconstruction	$500,000			X	X	
MN-02-46	BRIDGE 69501 ON CSAH 50 *0.12 Miles S of Jct Old N Shore Rd and over French River*	Bridge Repair or Reconstruction	$1,340,000			X	X	

MN-02-47	Homestead Road *Trunk Higway 61 to W. Knife River Road*	Preservation	$3,700,000					X
MN-02-48	Morris Thomas Road *Crosby Road to Canosia Road*	Preservation	$1,800,000					X
MN-02-49	Canosia Road *St. Louis River Road to Trunk Highway 53*	Preservation	$4,300,000					X
MN-02-50	Rice Lake Road Calvary Road to Martin Road	Reconstruction	$3,700,000			X	X	
MN-02-51	Rice Lake Road *Martin Road to West Lismore Road*	Preservation	$2,400,000					X
MN-02-52	Munger Shaw Road *US-53 at Munger Shaw Road (CSAH 15/CR 223)*	Intersection Control or Roundabout	$1,200,000	X		X		
MN-02-53	Mcquade Road *MNTH-61 at McQuade Road (CSAH 33)*	Intersection Control or Roundabout	$1,200,000	X		X		
MN-02-54	Ryan Road *MNTH-61 at Ryan Road (CSAH 50)*	Intersection Control or Roundabout	$1,200,000	X		X		
MN-02-55	Homestead Road *MNTH-61 at Homestead Road (CSAH 42)*	Intersection Control or Roundabout	$1,200,000	X		X		
MN-02-56	Basswood Avenue *Central Entrance (MNTH-194) at Basswood Avenue*	Intersection Control or Roundabout	$610,000				X	
MN-02-57	Martin Road *Rice Lake Road (CSAH 4) at Martin Road (CSAH 9)*	Intersection Control or Roundabout	$3,000,000				X	
MN-02-58	West Calvary Road *Rice Lake Road (CSAH 4) at West Calvary Road (CR 234)*	Intersection Control or Roundabout	$2,400,000				X	
MN-02-59	West Arrowhead Road *Midway Road (CSAH 13) at West Arrowhead Road*	Intersection Control or Roundabout	$610,000	X		X		
MN-02-60	Safe Routes to School (SRTS) / Transportation Alternatives (TA) *Implementing existing SRTS, Bicycle and Pedestrian Transportation Plans*	Bike or Pedestrian Improvement	$1,200,000	X	X	X	X	X
MN-02-61	Highway Safety Improvement Program (HSIP) *Implementing projects from the County Road Safety Plan*	Safety	$2,400,000	X	X	X	X	X
MN-02-62	Federal Railroad Safety Program *County wide railroad safety crossing improvement projects*	Safety	$400,000	X	X	X	X	X
Total:			$41,740,000					

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-02-63	Lavaque Road *Martin Road to W. Lismore Road*	Preservation	$3,100,000			X		X
MN-02-64	Maple Grove Road *Trunk Highway 2 to Midway Road*	Preservation	$3,100,000					X
MN-02-65	Jean Duluth *Glenwood to CSAH 43 (Lismore)*	Preservation	$4,700,000			X	X	X
MN-02-66	Lavaque Road *Boundary Avenue to Morris Thomas Road*	Preservation	$3,100,000	X	X			X
MN-02-67	W. Tisher Road *Arnold Road to Jean Duluth Road*	Preservation	$1,600,000					X
MN-02-68	Howard Gnesen Road *Arrowhead Road to Martin Road*	Preservation	$2,000,000					X
MN-02-69	Lavaque Road *Morris Thomas Road to Maple Grove Road*	Preservation	$1,600,000	X	X			X
MN-02-70	Midway Road *Interstate 35 to Trunk Highway 2*	Preservation	$4,700,000			X	X	X
MN-02-71	Midway Road *Highway 2 to Trunk Highway 53*	Preservation	$5,500,000			X	X	X

MN-02-72	Midway Road *Trunk Highway 53 to Martin Road*	Preservation	$1,200,000			X	X	X
MN-02-73	Midway Road *Martin Road to N. Pike Lake Road*	Preservation	$1,200,000		X			X
MN-02-74	Industrial Road *Trunk Highway 53 to 3.5 miles West*	Preservation	$2,700,000					X
MN-02-75	Arrowhead Road Trunk Highway 53 to Arlington Avenue	Preservation	$3,100,000				X	X
MN-02-76	Scenic 61 *Duluth City Limits to Lake County Line*	Preservation	$5,500,000	X	X			X
MN-02-77	Woodland Avenue *Arrowhead Road to Anoka Street*	Reconstruction	$7,800,000		X	X		X
MN-02-78	Haines Road *Railroad to Morris Thomas*	Preservation	$2,300,000			X	X	X
MN-02-79	Rice Lake Road *Central Entrance/Mesaba Avenue (MNTH-194) at Rice Lake Road (CSAH 4)/6th Avenue East*	Intersection Control or Roundabout	$1,600,000				X	X
MN-02-80	St. Louis River Road *Midway Road (CSAH 13) at St. Louis River Road (CR 696)*	Intersection Control or Roundabout	$230,000			X	X	
MN-02-81	4th Street *6th Avenue East at 4th Street (CSAH 9)*	Intersection Control or Roundabout	$1,200,000		X	X	X	
MN-02-82	Transportation Alternatives (TA) / Safe Routes to School (SRTS) *Implementing projects within existing SRTS, Bicycle and Pedestrian Transportation Plans*	Bike or Pedestrian Improvement	$7,800,000	X	X	X	X	X
MN-02-83	Highway Safety Improvement Program (HSIP) *Implementing projects from the County Road Safety Plan*	Safety	$15,600,000	X	X	X	X	X
MN-02-84	Federal Railroad Safety Program *County wide railroad safety crossing improvement projects*	Safety	$2,300,000	X	X	X	X	X
MN-02-85	Federal Bridge Bonding *Repair various bridges county wide*	Preservation	$1,600,000	X	X	X	X	X
Total:			$83,530,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-03-01	Aerial Lift Bridge *Structural and Mechanical maintenance, paint top span and lift span, side walk and deck replacement*	Preservation	$11,000,000				X	X
MN-03-02	Decker Road Piedmont Ave to Mall Dr	Preservation	$1,500,000	X			X	X
MN-03-03	Waseca Industrial Road Extenision 59th Ave W to 63rd Ave W to Raleigh St	Reconstruction	$4,000,000	X	X	X	X	X
MN-03-04	Kayak Bay Drive Signal At Th23 *New signalized intersection at Warwick/River West Dr and TH23*	Intersection Control or Roundabout	$350,000	X	X	X		X
MN-03-05	Superior Street *Phases 2 and 3 Reconstruction, 3rd Ave W to 4th Ave E*	Reconstruction	$20,500,000	X	X	X		
MN-03-06	E Superior Street *Lester River Road to Expressway*	Preservation	$1,400,000	X	X	X	X	
MN-03-07	Third Street Mesaba Ave to 12th Ave E	Preservation	$1,600,000	X	X	X	X	X
MN-03-08	Brighton Beach Shared Use Path *Extend Lakewalk to Scenic 61*	Bike/Pedestrian Improvement	$640,000	X	X	X		
MN-03-09	Railroad Street *Lake Ave to 5th Ave W*	Preservation	$1,718,000	X	X	X	X	X
MN-03-10	Burning Tree, Mt. Shadow, And Mall Dr *Reconstruction*	Reconstruction	$1,700,000	X	X	X	X	X
MN-03-11	Glenwood And Snively Intersection *Roundabout at Jean Duluth/Glenwood/Snively intersecton*	Intersection Control or Roundabout	$750,000	X	X	X	X	
MN-03-12	Arrowhead And Woodland Intersection Signal Replacement	Preservation	$187,500			X	X	
MN-03-13	Arrowhead Road *Woodland Ave to Dodge Street*	Preservation	$737,500	X	X	X	X	
MN-03-14	Cross City Trail *Segment from Irvning Park to Keene Creek Park*	Bike/Pedestrian Improvement	$750,000	X	X	X		X
Total:			$46,833,000					

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-03-15	Superior Street 45th Ave E to 60th Ave E	Preservation	$3,400,000	X	X	X	X	X
MN-03-16	21st Ave E London Rd to Woodland Ave.	Reconstruction	$3,000,000	X	X	X	X	X
MN-03-17	Hawthorne Rd Superior Street to 4th street	Reconstruction	$1,500,000	X	X	X	X	
MN-03-18	Raleigh St Grand ave to Central Ave	Preservation	$1,200,000	X	X	X	X	
MN-03-19	6th Avenue E. And Central Entrance 2nd St. to 9th St to Mesaba Ave	Reconstruction	$4,150,000	X	X	X	X	X
MN-03-20	4th St Wallace to 34th Ave E	Preservation	$1,200,000	X	X	X	X	
MN-03-21	Old Howard Mill Rd E 4th Street to 36th Ave. E	Preservation	$500,000	X	X	X	X	
MN-03-22	4th Ave E Superior St to 4th Street	Reconstruction	$1,300,000	X	X	X	X	X
MN-03-23	Central Avenue I-35 to Raleigh St.	Preservation	$500,000			X	X	X
MN-03-24	College St Kenwood Ave to Woodland Ave.	Reconstruction	$5,400,000	X	X	X	X	X

MN-03-25	Kenwood Ave Skyline/Martha intersection to Arrowhead Road	Reconstruction	$5,600,000	X	X	X	X	X
MN-03-26	Grand Ave Carlton to 59th Ave. W	Preservation	$3,700,000	X		X	X	X
MN-03-27	11th Ave E *9th Street to Kenwood Ave*	Preservation	$500,000	X		X	X	
MN-03-28	Cross City Trail *Conncection To Munger Trail*	Bike/Pedestrian Improvement	$1,200,000	X	X	X		X
MN-03-29	Campus Connector Trail *Rice Lake Road to London Road*	Bike/Pederstrian Improvement	$2,400,000	X	X	X		X
MN-03-30	Safe Routes to School (SRTS) / Transportation *Implementing existing SRTS, Bike, Ped Trail and Active Transportation Plans.*	Safety	$1,200,000	X	X	X	X	X
Total:			$36,750,000					

Long-term Projects (2030-2045)

				Goals of Sustainable 2045 Met				
Proj. No.	Project Description	Type	Total Cost	Health	Livable	Safety	Moving	Economy
MN-03-31	Aerial Lift Bridge *Structural Rehabilitation and Painitng*	Preservation	$7,800,000				X	X
MN-03-32	3rd Street *12th Ave E 21st Ave E*	Preservation	$2,300,000	X	X	X	X	X
MN-03-33	Junctionn/St. Marie *College St. Wallace Ave*	Reconstruction	$8,700,000	X	X	X	X	X
MN-03-34	1st Street *Mesaba Ave to 9th Ave E*	Reconstruction	$8,900,000	X	X	X	X	X
MN-03-35	4th Street *Mesaba to 6th Ave E*	Reconstruction	$6,000,000	X	X	X	X	X
MN-03-36	Lake Ave *Railroad St to 13th St*	Reconstruction	$6,900,000	X	X	X	X	X
MN-03-37	Canal Park Dr *Lake Ave to Buchanan St.*	Preservation	$820,000	X	X	X	X	X
MN-03-38	6th Ave W *Michigan St to 2nd Street*	Reconstruction	$1,100,000	X	X	X	X	X
MN-03-39	4th Ave W *Michigan St to 2nd Street*	Reconstruction	$2,400,000	X	X	X	X	X
MN-03-40	34th Ave E *Superior Street to 4th Street*	Preservation	$630,000	X	X	X	X	
MN-03-41	5th Ave W Michigan Ave to 21st Ave E.	Reconstruction	$1,400,000	X	X	X	X	X
MN-03-42	E 2nd Street *Mesaba Ave to 21st Ave E*	Preservation	$5,400,000	X	X	X	X	X
MN-03-43	7th Street *Mesaba Ave to 6th Ave E*	Preservation	$1,300,000	X	X	X	X	X
MN-03-44	Cody St *I-35 to Central Ave*	Reconstruction	$5,100,000	X	X	X	X	X
MN-03-45	8th St *40th Ave W to 59th Ave W*	Preservation	$2,600,000	X	X	X	X	
MN-03-46	Idaho St *TH23 to 88th Ave W*	Preservation	$1,750,000	X	X	X	X	
MN-03-47	88th Ave W *Idaho St to TH23*	Preservation	$2,500,000	X	X	X	X	
MN-03-48	Ramsey Street *Central Ave to Mike Colalillo Dr*	Preservation	$630,000	X	X	X	X	X
MN-03-49	Crosley Ave *Glenwood St to Oakley St*	Reconstruction	$3,400,000	X	X	X	X	
MN-03-50	Oakley St *51st to 52nd Ave E*	Reconstruction	$560,000	X	X	X	X	

MN-03-51	36th Ave E *London Road to Superior Street*	Reconstruction	$655,000	X	X	X	X	
MN-03-52	Skyline Parkway *Hwy 2 to Vinland St*	Preservation	$3,500,000	X	X	X	X	
MN-03-53	Skyline Parkway *Haines Rd to 24th Ave. W*	Preservation	$3,800,000	X	X	X	X	
MN-03-54	Carlton St *Grand Ave to Micigan St*	Reconstruction	$2,250,000	X	X	X	X	X
MN-03-55	Joshua Ave *TH53 to Maple Grove RD*	Reconstruction	$1,400,000	X	X	X	X	X
MN-03-56	13th St *Skyline to Parkway to Rice Lake Road*	Reconstruction	$940,000	X	X	X	X	
MN-03-57	Superior St *4th Ave E to 45th Ave E*	Preservation	$9,400,000	X	X	X	X	X
MN-03-58	Third St *21st Ave W to Carlton St*	Preservation	$2,650,000	X	X	X	X	X
MN-03-59	London Road *10th Ave. E to 26th Ave. E*	Preservation	$3,400,000	X	X	X	X	X
MN-03-60	Helberg Dr *Garfield Ave to Port Terminal Dr*	Preservation	$1,800,000			X	X	X
MN-03-61	Mike Colalillo Dr *Bristol St to 46th Ave W*	Preservation	$1,600,000			X	X	X
MN-03-62	43rd Avenue E. *Superior St. to Glenwood St*	Preservation	$2,300,000	X	X	X	X	
MN-03-63	19th Avenue E Superior St to College St	Preservation	$2,700,000	X	X	X	X	X
MN-03-64	Minnesota Avenue S. *13th st to 40th st*	Preservation	$5,600,000	X	X	X	X	
MN-03-65	Superior Street *Michigan St (M&H) to Jenswold*	Reconstruction	$11,900,000	X	X	X	X	X
MN-03-66	W Michigan St *TH53 Overpass to Carlton St*	Reconstruction	$2,300,000	X		X	X	X
MN-03-67	3rd Ave W *Michigan St to 4th Street*	Reconstruction	$2,300,000	X	X	X	X	X
MN-03-68	2nd Ave W *Michigan St to 4th Street*	Reconstruction	$2,500,000	X	X	X	X	X
MN-03-69	1st Ave W *Frontage Rd to 4th Street*	Reconstruction	$2,200,000	X	X	X	X	X
MN-03-70	1st Ave E *Michigan St to Mesaba Ave*	Reconstruction	$4,200,000	X	X	X	X	X
MN-03-71	2nd Ave E *Michigan St to 4th Street*	Reconstruction	$2,000,000	X	X	X	X	X
MN-03-72	3rd Ave E *Michigan St to 4th Street*	Reconstruction	$2,000,000	X	X	X	X	X
MN-03-73	Lift Bridge *redecking and general maintenance*	Preservation	$16,000,000			X	X	X
MN-03-74	Superior St *Between 21st and 60th*	Reconstruction	$23,400,000	X	X	X	X	X
MN-03-75	Munger Trail Connections *Bayview Connection*	Preservation	$1,600,000	X	X	X		
MN-03-76	Transportation Alternatives (Ta) / Safe Routes To School *Implementing projects within existing SRTS, Bike, Ped Trail and Active Transportation Plans.*	Safety	$5,700,000	X	X	X	X	X
MN-03-77	Western Waterfront Trail	Bike/Pederstrian Improvement	$3,800,000	X	X	X	X	X
Total:			$192,085,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
	Total:							

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
	Total:							

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
MN-04-01	Munger Trail Connector *Numerous segments from Hermantown school campus to and along St Louis River Rd*	Bike or Pedestrian Improvement	$4,600,000	X	X	X		
MN-04-02	Roundabout At Arrowhead Rd And Ugstad Rd *Perhaps in combo with a mini roundabout just to the north*	Intersection Control or Roundabout	$400,000	X	X	X	X	X
MN-04-03	Transportation Alternatives (TA) / Safe Routes to School (SRTS) *Implementing projects within existing SRTS, Bike, Ped Trail and Active Transportation Plans.*	Safety	$100,000	X	X	X	X	X
	Total:		$5,100,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
	Total:							

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
	Total:							

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met: Health	Livable	Safety	Moving	Economy
MN-05-01	Munger trail connector through proctor *Address Boundary Ave ROW and utility pole issues for 3 blocks*	Bike or Pedestrian Improvement	$7,700,000	X	X			
MN-05-02	Transportation Alternatives (TA) / Safe Routes to School (SRTS) *Implementing projects within existing SRTS, Bike, Ped Trail and Active Transportation Plans.*	Safety	$100,000	X	X	X	X	X
	Total:		$7,800,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
	Total:							

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
	Total:							

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-06-01	Rice Lake Road And Martin Road *Upgrades to this intersection*	Intersection Control or Roundabout	$400,000					X
MN-06-02	Frontage Road Along Rice Lake Road *Install a frontage road between Martin Rd and W Calvary Rd*	Reconstruction	$3,100,000			X	X	X
	Total:		$3,500,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-07-01	Transit Operations: Regular Route	Operations & Maintenance	$103,377,076	X	X	X	X	X
MN-07-02	Transit Operations: Paratransit	Operations & Maintenance	$5,785,545	X	X	X	X	X
MN-07-03	Transit Capital Assistance	Vehicle Replacements	$13,700,000	X	X	X	X	X
MN-07-04	Bus Purchase: Regular Route	Vehicle Replacements	$8,761,896	X	X	X	X	X
MN-07-05	Bus Purchase: Paratransit Vehicles	Vehicle Replacements	$1,015,300	X	X	X	X	X
MN-07-06	Plannning: Operations	Planning	$225,000	X	X	X	X	X
MN-07-07	Planning: Facilities	Planning	$200,000	X	X	X	X	X
Total:			$133,064,817					

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-07-08	Transit Operations: Regular Route	Operations & Maintenance	$128,773,000	X	X	X	X	X
MN-07-09	Transit Operations: Paratransit	Operations & Maintenance	$7,209,000	X	X	X	X	X
MN-07-10	Transit Capital Assistance *Operations & Maintenance TAM and New*	Operations & Maintenance	$22,102,000	X	X	X	X	X
MN-07-11	Bus Purchase: Regular Route *Vehicle Replacements Thirty 40Ft. Buses*	Vehicle Replacements	$15,624,000	X	X	X	X	X
MN-07-12	Bus Purchase: Paratransit Vehicles	Vehicle Replacements	$1,142,000	X	X	X	X	X
MN-07-13	Plannning: Operations	Planning	$300,000	X	X	X	X	X
Total:			$175,150,000					

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-07-14	Transit Operations: Regular Route	Operations & Maintenance	$386,319,000	X	X	X	X	X
MN-07-15	Transit Operations: Paratransit	Operations & Maintenance	$37,300,000	X	X	X	X	X
MN-07-16	Transit Capital Assistance	Operations & Maintenance	$117,700,000	X	X	X	X	X
MN-07-17	Bus Purchase: Regular Route	Vehicle Replacements	$64,500,000	X	X	X	X	X
MN-07-18	Bus Purchase: Paratransit Vehicles	Vehicle Replacements	$4,355,000	X	X	X	X	X
Total:			$610,174,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MN-08-01	Rebuild Garfield Dock (Berth 11) and Clure Terminal Improvements	Preservation	$24,000,000	X	X	X	X	X
Total:			$24,000,000					

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-01-01	N 28th Street *Hill Avenue and E. 3rd Street*	Preservation	$602,000			X		
WI-01-02	USH 2/STH 53 *2nd Avenue E and 31st Avenue E*	Preservation	$6,090,000			X		X
WI-01-03	USH 53/USH 2, USH 2/USH 13, USH 53/STH 35 Bridges *Crack sealing at bridges*	Preservation	$150,000					X
WI-01-04	STH 35/Tower Avenue *69th Street to 64th Street*	Preservation	$701,000			X		X
WI-01-05	USH 2/STH 53 *31st Avenue E and 53rd Avenue E*	Preservation	$6,327,000			X		X
WI-01-06	STH 35 & STH 105 *(Tower Avenue and Central Avenue) Intersection Signal Insall & RR Signal Interconnection*	Safety	$800,000		X	X	X	X
WI-01-07	STH 13 between Superior and Port Wing *Four Bridge Rehab Projects B-16-014,- 015, 016 & 023*	Reconstruction	$3,500,000			X		X
WI-01-08	5th Street E BNSF Crossing 075947U *Install Flashing lighs and gates*	Safety	$202,000			X		X
Total:			$18,372,000					

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-01-09	Blatnik Bridge *Please See **For Study List** For More Info or Page 6-13*	Reconstruction	$200,000,000			X	X	X
Total:			$200,000,000					

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-01-10	STH 35 Tower Ave *Segment to be determined*	Preservation	$3,500,000			X	X	X
Total:			$3,500,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-02-01	County Z RR Bridge	Safety	$2,000,000			X		
WI-02-02	County W In Village Of Oliver *Curb & Gutter*	Preservation	$2,000,000	X	X			
WI-02-03	Highway E (E City Limits Rd To Highway Z)	Preservation	$2,000,000	X	X			
WI-02-04	County Z (S Lyman Lake Rd - Hwy 13 Overpass)	Preservation	$2,000,000			X		X
Total:			$8,000,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-03-01	Marina Drive *Marina Bridge Replacement*	Reconstruction	$334,800	X	X	X		X
WI-03-02	N 28th Street Unioin Pacific Crossing 186144U *Install Flashing lighs and gates*	Safety	$370,000			X		X
WI-03-04	E 5TH ST *24th and 31st Ave*	Reconstruction	$4,000,000	X	X	X	X	
WI-03-05	USH 2/USH 53 *2nd to 31st*	Preservation	$1,000,000	X	X	X	X	X
WI-03-06	USH 2/USH 53 *31st to 53rd*	Preservation	$1,000,000	X	X	X	X	X
Total:			$6,704,800					

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-03-07	31st Ave E *E 2nd and E 13th St*	Preservation	$2,400,000				X	
WI-03-08	Safe Routes to School (SRTS) / Transportation *Implementing existing SRTS, Bike, Ped, Trail and Active Transportation Plans.*	Safety	$1,200,000	X	X	X	X	X
Total:			$3,600,000					

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-03-09	Winter Street *Oakes to Hill Ave*	Reconstruction	$7,800,000	X	X	X	X	X
WI-03-10	Transportation Alternatives (TA) / Safe Routes to School (SRTS) *Implementing projects within existing SRTS, Bike, Ped, Trail and Active Transportation Plans.*	Safety	$5,800,000	X	X	X	X	X
WI-03-03	Hammond Ave from Belknap St to 28th St	Preservation	$4,000,000	X	X	X	X	
Total:			$17,600,000					

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
WI-04-01	58th Street & WCL Crossing 697407S *Install Flashing lighs and gates*	Safety	$228,000			X		X
WI-04-02	CTH C BNSF Crossing 067760D *Install Flashing lighs and gates*	Safety	$202,000			X		X
WI-04-03	CTH C BNSF Crossing 086403C *Install Flashing lighs and gates*	Safety	$202,000			X		X
Total:			$632,000					

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Projects Identified as "Unfunded Needs"

Short-term Projects (2020-2024)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Mid-term Projects (2025-2029)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
Total:								

Long-term Projects (2030-2045)

Proj. No.	Project Description	Type	Total Cost	Goals of Sustainable 2045 Met				
				Health	Livable	Safety	Moving	Economy
MnDOT	NLX Infrastructure *Rail Station for NLX Line at Depot in Duluth*	NLX	$25,000,000	X	X	X	X	X
WisDOT	NLX Infrastructure *Rail Station for NLX Line at Depot in Duluth*	NLX	$25,000,000	X	X	X	X	X
City of Duluth	NLX Infrastructure *Rail Station for NLX Line in Superior*	NLX	$25,000,000	X	X	X	X	X
City of Superior	NLX Infrastructure *Rail Station for NLX Line in Superior*	NLX	$25,000,000	X	X	X	X	X
St.Louis County	Martin Road Extension *Jean Duluth Rd to MN TH 61*	Construction	$31,200,000	X	X	X	X	X
DTA	Bus Rapid Transit (BRT along mainline & Central	Service Expansion and Capital	$50,000,000	X	X	X	X	X
DTA	Passenger Amenities	Capital	$1,500,000	X	X	X	X	X
DTA	Mall AREA Transfer Station & Park & Ride	Capital	$1,000,000	X	X	X	X	X
DTA	Transit Facility Improvements	Capital	$10,000,000	X	X	X	X	X
DTA	Technology	Capital	$5,000,000	X	X	X	X	X
Total:			$198,700,000					

Projects Identified as "For Study"

Proj. No.	Project Description	Jurisdiction	Total Cost	Goals of Sustainable Choices 2045				
				Health	Livable	Safety	Moving	Economy
MN-01-37	Blatnik Bridge	MnDOT/WisDOT		x	x	x	x	x
WI-01-09	*Assess bridge structure and consider future needs. For more information please go to Page 6-13.*							
	Rice Lake Road - Arrowhead Rd to Airport Rd	City of Rice Lake				x		
	Traffic and limited connection issues at United Healthcare, MN Power, North Star Academy.							
	East Calvary Road - Howard Gnesen Rd to Woodland Ave	City of Rice Lake		x	x	x	x	x
	Multi-Model Needs Study between Homecraft Elementary and the Woodland business district							
	West Calvary Road -Rice Lake Rd to Howard Gnesen Rd	City of Rice Lake				x	x	
	Corridor Study							
	Rice Lake Road - Airport Rd to Beyer Rd	City of Rice Lake			x	x	x	x
	Commercial Corridor Study - Examines future land uses and includes potential new roads.							
	I-35 Corridor Study (MPO Segment)	MnDOT		x	x	x	x	x
	Consier all aspects of this corridor							
	MN Hwy 194 Study	MnDOT				x		
	Evaluation/Possible Intersection Control or Roundabout							
	US Hwy 2 Railroad Crossing Study	MnDOT				x		
	US Hwy 2/53 and Mocassin Mike Rd Interchange Study	WisDOT				x		
	US Hwy 53 - Belknap St to Blatnik Bridge	WisDOT			x	x	x	
	Corridor Study							
	Douglas County Hwy C and WI Hwy 35	Douglas County				x		
	Reduce Intersection Conflicts							
	Miller Trunk Hwy Study - Maple Grove Rd to Midway Rd	MnDOT				x	x	
	Reduce Conflict Intersection							
	Midway Rd Corridor Study - I 35 To US Hwy 53	City of Hermantown				x	x	
	Maple Grove Rd Corridor Study - US Hwy 53 To Lavaque Rd	City of Hermantown		x	x	x	x	x
	Hermantown Transit Study	City of Hermantown		x	x		x	
	Ridership Needs and Stop Locations							
	Proctor Transportation Plan	City of Proctor		x	x	x	x	x
	I-35 Interchange/US Hwy 2/Munger Trail Spur/Boundary Ave and Active Transportation Routes							
	Proctor Transit Study	City of Proctor			x		x	
	Especially for the older population and in connection with assisted living facilities							
	Key Transit Corridor Improvement Study	Duluth Transit Auhtority		x	x		x	x
	BRT NETWORK STUDY	Duluth Transit Authority		x	x		x	
	Connect with Duluth's Opportunity Zones							
	Transit Transfer Point Study	Duluth Transit Authority		x	x	x	x	x
	Consider stop, centers, park and ride locations, level of use, and economic benefits.							
	New South Superior thoroughfare between US Hwy 2/53 to Bong Bridge	City of Superior			x	x	x	x
	Would include an examination of the future role of East 2nd Street thru Superior.							
	Winter Street Truck Route Corridor between US Hwy 53 and Bong Bridge	City of Superior			x	x	x	x
	Include an examination of the future role of Belknap Street thru Superior.							
	Superior Railyard Crossing Study - Winter St, Belknap St, 21st St and 28th St	City of Superior				x	x	
	Viaducts, Bridges and At-Grade Crossings							
	Superior Urban Railroad Crossings	City of Superior			x	x	x	
	The railroads significantly divide the neighborhoods in numerous places							
	Superior Transit Study	City of Superior			x		x	
	7Th Ave West Incline - Historic Pedestrian Way	City of Duluth		x	x			
	Traffic Signal Management Study	MIC Area		x	x	x	x	x
	Connected and Dynamic Signals and CAV Readiness							

Fiscal Constraint

As can be determined from Figure 6.7 the fiscal analysis in this plan is showing an overall surplus of approximately $571 million over the 25-year life of the Plan. At the same time one of the plan's main premises is that there is not enough revenue to cover the existing transportation infrastructure expenses within the MIC area. At first glance, there appears to be a significant contradiction. However, there is not. The short explanation is that the MIC area has very large and expensive bridge and highway projects that will take place within this 25-year planning horizon. However, the exact scope of those projects and their associated costs is not defined at this time. The longer explanation includes three key factors to consider:

1. The project lists in this plan ONLY cover federally eligible and/or regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area. While federally funded and regionally significant roadways include all of the state DOT's roads and much of each county's roadway system within the MIC area, this fiscal analysis excludes the local/residential roadway system needs, which for the cities in the MIC area, comprises a large percentage of their roadway network. Therefore, the surpluses for the respective cities are no-where near the revenues needed to cover the expenses of their local roadway system, and thus the costs of these projects are not factored into this financial analysis. It is reasonable to state that there is presently not enough funding to cover ALL transportation needs for the Duluth-Superior area. Evidence of this is the recent adoption of local transportation sales taxes by the City of Duluth and St. Louis County to add available revenue and reduce the gap in needed funds.
2. While ideal for planning purposes, it is difficult to fully and accurately project long-term revenues and expenditures over a 25-year timeframe, largely due to the fact that none of the roadway jurisdictions program their revenue or projects past a 10-year timeframe. In the short and mid-term timeframes, the project lists are largely based on expected revenues and lists of projects identified in capital improvement programs that generally look out 10 years.

The project lists in this plan ONLY cover federally eligible and regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area

Projecting out further than 10 years and then selecting projects for that timeframe is an exercise of estimates and best guesses and is limited in its overall usefulness. In reality, the list of projects in the long term does not reflect the entirety of transportation work that will take place in those 15 years and therefore results in the identified surpluses.

3. The planning and design for the anticipated major work on the Blatnik Bridge and I-35 corridor in the MIC area has not been conducted. While it is fully anticipated this work will happen during the life of this plan, the actual scope of these projects is not known yet. It is anticipated the costs will exceed the projected revenues of MnDOT District 1 and WisDOT Northwest Region and will require either funding from statewide sources to fill the gap or keeping these projects within available funds through alternative approaches.

Project Impact Assessments

In addition to determining the capability of jurisdictions within the MIC area to finance the projects identified in LRTP, a set of assessments was conducted to determine the potential of these projects to negatively impact area communities. These include social, environmental, and cultural impacts. Projects with potential impacts have been listed and mapped, and the MIC has contacted relevant federal, state and county agencies, as well as local stakeholder groups, to both inform and consult with them about this information. As planning for these projects moves forward, each responsible jurisdiction will have access to the comments received pertaining to their project area and the possible groups that could be impacted by the project.

Community Impact & Environmental Justice

Utilizing the data in the Demographics, Trends and Projections Report in Appendix E, each project being planned underwent an environmental justice (EJ)/Community Impact Assessment to determine the potential of each project to have negative impacts on human health, cultural and environmental resources, and economic opportunity. Map 6.1 displays the MIC area environmental justice analysis.

Project assessments were done by first mapping areas with high concentrations of minorities or low-income individuals in the Duluth-Superior area. This was done by determining which census tracts within the MIC planning area have a concentration of minorities greater than the area's average and which census tracts have household incomes at or below the poverty guidelines established by the Department of Health and Human Services (HHS). Special attention was given to those projects that involve reconstruction or significant alteration of the existing transportation system.

The Twin Ports has a higher than state and national averages poverty levels, 18% for the MIC area, but 20% within the Cities of Duluth and Superior. Therefore, attention was focused on the neighborhoods with 50% or more of the population living in poverty and/or where up to 40% of the population in minority. Additional consideration is to be made to the potential impacts (positive and/or negative) to these populations on the Twin Ports Interchange, Central Entrance Reconstruction, the Blatnik Bridge, and East 2nd Street (Hwy 2/53) in Superior.

Environmental Justice (EJ)

Definition: the public policy goal of ensuring that low-income or minority populations do not bear disproportionately high or negative impacts as a result of the policies, programs and activities of federal agencies.

Duluth-Superior MIC Area Population Demographics

⇒ Total Pop = 150,000 people
⇒ Poverty Rate = 18%
⇒ White Population = 92%
⇒ Total Minority Population = 8%
⇒ African–American = 2%
⇒ American –Indian = 2%
⇒ Ambulatory Difficulties = 6%
⇒ Speak Other than English = 2%
⇒ Older than 65 = 34%

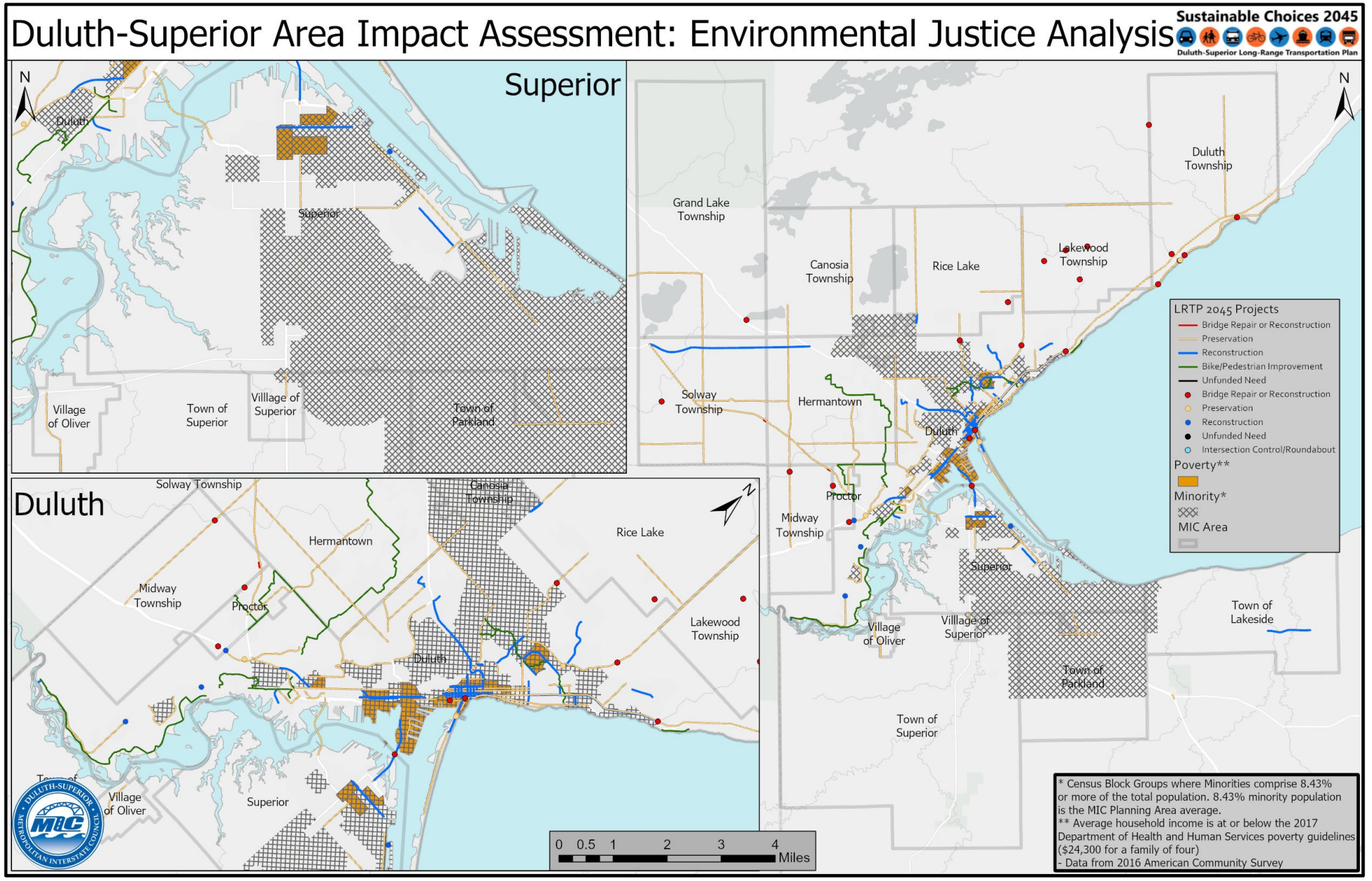
See Appendix E for data sources

Economically struggling corridors

With poverty being high in the Twin Ports, planned future transportation projects should consider possible economic impacts, especially with the following projects:

- **Central Entrance**—Blackman Rd to Anderson Rd
- **6th Ave East**—2nd St to 9th St
- **East 2nd Street**—Superior—Moccasin Mike Rd to Nemadji River
- **Tower Ave**—Belknap St to 21st Street

Map 6.1


Duluth-Superior Area Impact Assessment: Environmental Justice Analysis
Sustainable Choices 2045
Duluth-Superior Long-Range Transportation Plan
Superior
Duluth
Superior
Village of Oliver
Town of Superior
Villlage of Superior
Town of Parkland
Grand Lake Township
Canosia Township
Rice Lake
Lakewood Township
Duluth Township
Solway Township
Hermantown
Duluth
Proctor
Midway Township
Superior
Village of Oliver
Villlage of Superior
Town of Lakeside
Town of Parkland
Town of Superior
LRTP 2045 Projects
Bridge Repair or Reconstruction
Preservation
Reconstruction
Bike/Pedestrian Improvement
Unfunded Need
Bridge Repair or Reconstruction
Preservation
Reconstruction
Unfunded Need
Intersection Control/Roundabout
Poverty**
Minority*
MIC Area
Duluth
Solway Township
Canosia Township
Hermantown
Rice Lake
Midway Township
Proctor
Lakewood Township
Duluth
Village of Oliver
Superior
0 0.5 1 2 3 4 Miles
* Census Block Groups where Minorities comprise 8.43% or more of the total population. 8.43% minority population is the MIC Planning Area average.
** Average household income is at or below the 2017 Department of Health and Human Services poverty guidelines ($24,300 for a family of four)
- Data from 2016 American Community Survey

Cultural, Historical & Environmentally Sensitive Areas

Map 6.2 displays the MIC area environmental sensitivity analysis. The MIC also assessed each of the projects identified in LRTP in terms of their potential impacts to environmentally sensitive areas, or areas with historically or culturally significant sites or structures. The map identifies the relative proximity of future projects to environmentally, culturally, and/or historically sensitive areas identified via data provided by the Minnesota and Wisconsin DNRs, or listed on the national, or state historical preservation registries.

This assessment was done in preparation for the interagency consultation that is necessary to satisfy the MIC's requirements regarding the National Environmental Policy Act (NEPA). The MIC notified all relevant federal, state, local and tribal agencies about the projects it identified as having potential impacts to historical sites or sensitive areas. Following this consultation process, communication regarding the projects identified in this plan is discussed Chapter 7.

Major Transportation Projects

Roadway Projects—improving safety, traffic flow and freight movements:

- Twin Ports Interchange
- Blatnik Bridge

Business Corridors—improving safety and economic activity:

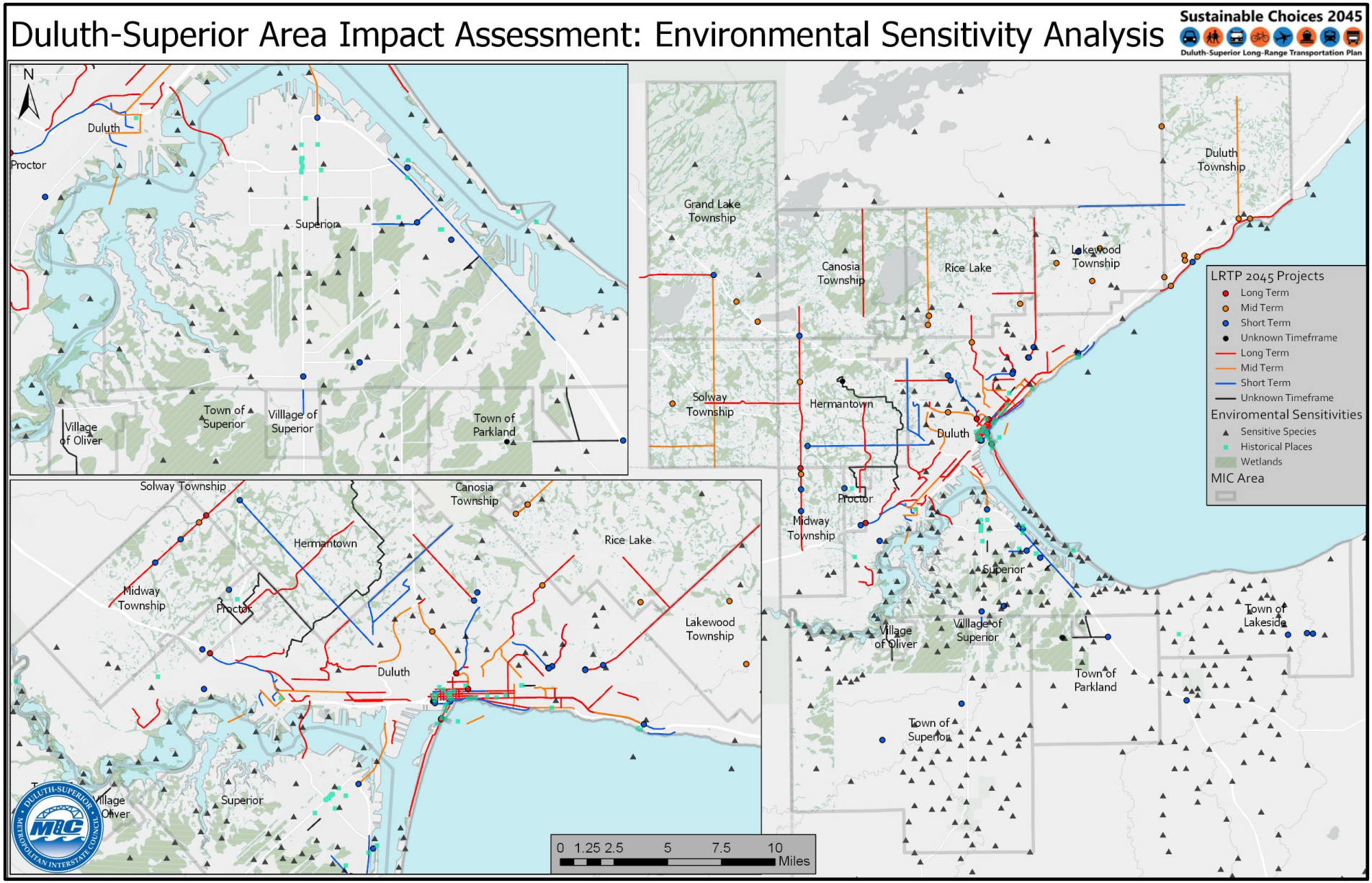
- Central Entrance –Duluth
- 6th Ave East—Duluth
- Hwy 2/East 2nd Street—Superior
- Tower Avenue—Superior

Northern Lights Express—new passenger rail service that will provide access to the Twin Cities.

During snow and ice events, would give people a safer option than traveling on the roadways.

Cross City Trail—provides access for people of all ages, abilities and incomes to travel the length of Duluth. Will provide a trunk line commuter route for bicyclists.

Map 6.2


Duluth-Superior Area Impact Assessment: Environmental Sensitivity Analysis
Sustainable Choices 2045
Duluth-Superior Long-Range Transportation Plan
N
Duluth
Proctor
Superior
Village of Oliver
Town of Superior
Villlage of Superior
Town of Parkland
Grand Lake Township
Canosia Township
Rice Lake
Lakewood Township
Duluth Township
Solway Township
Hermantown
Midway Township
Lakewood Township
Village of Oliver
Villlage of Superior
Town of Lakeside
Town of Parkland
Town of Superior
LRTP 2045 Projects
Long Term
Mid Term
Short Term
Unknown Timeframe
Long Term
Mid Term
Short Term
Unknown Timeframe
Enviromental Sensitivities
Sensitive Species
Historical Places
Wetlands
MIC Area
0 1.25 2.5 5 7.5 10
Miles

Projects and System Level Impacts

Twin Ports Interchange Project (Can of Worms)

Once completed this project will provide safer conditions for motorists and improve access to the port, reduce neighborhood impacts due to freight traffic, and improve movement of over-sized, over-weight loads (OSOW) through the MIC area. While an elevated highway system will remain in the Lincoln Park Neighborhood, efforts are being made to design viable active spaces under the highway to reduce negative impacts associated with the project.

Northern Lights Express (NLX) Passenger Rail

The Duluth Depot is a designated historical resource in the Twin Ports. The NLX will utilize this historic (and only remaining) train station in Downtown Duluth. The new passenger rail service will provide an additional option for direct access to the Twin Cities. This service is anticipated to positively impact those who cannot or choose not to drive an automobile.

Non-motorized Multi-use Trail System

An active transportation system is currently being developed, perhaps most notably with the development of major non-motorized thoroughfares within the MIC area. These active transportation thoroughfares provide mobility across the urban area for people of all ages, all abilities and all incomes, and encourage positive health, economic, and social benefits to the general public.

7. Participation

This chapter details the MIC's process for ensuring timely and substantive public participation during the development of the LRTP.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Engaging the Public in Transportation Planning

A major theme of this Plan is that the cost of needed improvements to the transportation system far exceeds the funding available to address those needs. Difficult choices must be made regarding the use of scarce transportation dollars.

The long term effect such decisions will have makes it critical that the public be included in a dynamic decision-making process.

The MIC's Planning Process

The MIC is committed to reaching out to and engaging community members throughout the transportation planning process. All of the MIC's planning activities embody the cooperative, continuous and comprehensive ("3-C") framework for making transportation investment decisions in metropolitan areas as reaffirmed in the 2015 FAST Act. The MIC aims to ensure that all stakeholders are given ample opportunity to have a real influence throughout the planning and decision-making processes and thus help to shape the transportation policies, programs and projects in the Duluth-Superior area.

Public Participation Initiatives for the LRTP

As detailed in Appendix H, for more than two years prior to the completion of *Sustainable Choices 2045*, MIC staff conducted or participated in 78 public participation activities with a broad and diverse group of stakeholders.

Throughout the process, MIC staff followed its 2018 Public Involvement Plan which incorporates the public participation requirements of 23 CFR 450.316 into 4 overall phases and several specific strategies, tools and techniques, as follows:

Phase 1: Planning and Groundwork

The first of four public involvement phases began in early 2017 to plan and lay the groundwork for public engagement activities, which were conducted through August 2019.

1.1. Develop LRTP Public Participation Process

The first step was to devise and document a public participation process specific to the LRTP. In keeping with federal regulations and the MIC's Public Involvement Plan, it includes steps to:

- Identify roles, responsibilities and key decision points;

Federal LRTP Outreach Requirements:

- Provide reasonable public access to information.
- Incorporate the use of electronic methods and visualization techniques.
- Provide early & continuous opportunities for involvement.
- Offer timely information to citizens, affected agencies, private entities and other interested parties.
- Give adequate notice of public involvement activities and ample time for public review and comment at key decision points.
- Hold public meetings at convenient times and accessible locations.
- Ensure the inclusion of non-motorized users, the disabled, the elderly, minority, low-income and other traditionally "underserved populations".
- Include the consideration of the potential impacts of decisions on social and natural resources and reach out to relevant agencies and stakeholders.
- Develop and regularly review a public participation plan.

Sources:

Fixing America's Surface Transportation Act (FAST Act) § 1201;

USC 23 § 134 and 49 § 5303 and CFR 450.316

National Environmental Policy Act (NEPA)

Title VI of the Civil Rights Act

28 CFR 36 Americans with Disabilities Act (ADA)

Executive Order 12898 on Environmental Justice

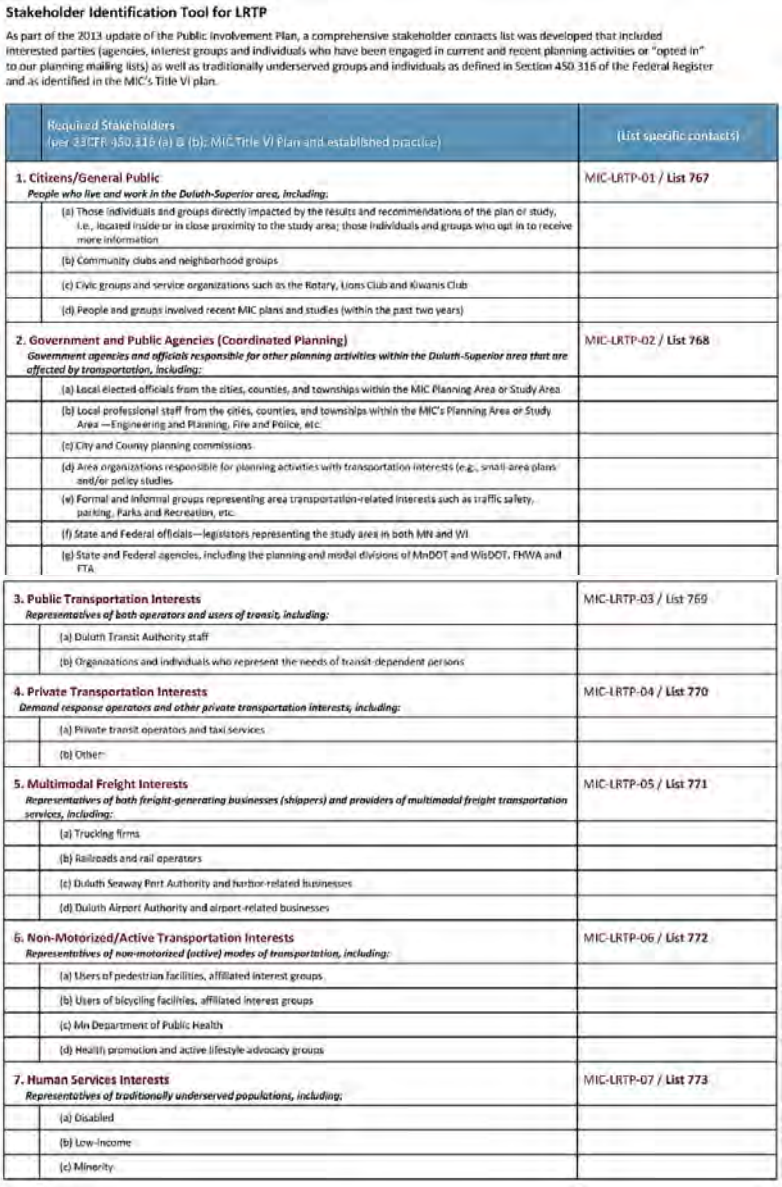
Executive Order 13166 on Limited English Proficiency

- Coordinate with statewide public involvement procedures and consider related planning activities;
- Consult with related agencies, officials and tribes;
- Employ visualization techniques, utilize electronic formats and hold public meetings at convenient and accessible locations and times;
- Demonstrate explicit consideration and response to public input received during the development of the LRTP.

1.2. Identify Stakeholders and Develop Contact List

An extensive effort was made to obtain and verify current email addresses for a broad range of organizations and

Fig. 7.1: The MIC's Stakeholder Identification Tool



Stakeholder Identification Tool for LRTP

As part of the 2013 update of the Public Involvement Plan, a comprehensive stakeholder contacts list was developed that included interested parties (agencies, interest groups and individuals who have been engaged in current and recent planning activities or "opted in" to our planning mailing lists) as well as traditionally underserved groups and individuals as defined in Section 450.316 of the Federal Register and as identified in the MIC's Title VI plan.

Required Stakeholders (per 23 CFR 450.316 (a) & (b); MIC Title VI Plan and established practice)	(List specific contacts)
1. Citizens/General Public *People who live and work in the Duluth-Superior area, including:*	MIC-LRTP-01 / List 767
(a) Those individuals and groups directly impacted by the results and recommendations of the plan or study, i.e., located inside or in close proximity to the study area; those individuals and groups who opt in to receive more information	
(b) Community clubs and neighborhood groups	
(c) Civic groups and service organizations such as the Rotary, Lions Club and Kiwanis Club	
(d) People and groups involved recent MIC plans and studies (within the past two years)	
2. Government and Public Agencies (Coordinated Planning) *Government agencies and officials responsible for other planning activities within the Duluth-Superior area that are affected by transportation, including:*	MIC-LRTP-02 / List 768
(a) Local elected officials from the cities, counties, and townships within the MIC Planning Area or Study Area	
(b) Local professional staff from the cities, counties, and townships within the MIC's Planning Area or Study Area —Engineering and Planning, Fire and Police, etc.	
(c) City and County planning commissions	
(d) Area organizations responsible for planning activities with transportation interests (e.g., small-area plans and/or policy studies	
(e) Formal and informal groups representing area transportation-related interests such as traffic safety, parking, Parks and Recreation, etc.	
(f) State and Federal officials—legislators representing the study area in both MN and WI	
(g) State and Federal agencies, including the planning and modal divisions of MnDOT and WisDOT, FHWA and FTA	
3. Public Transportation Interests *Representatives of both operators and users of transit, including:*	MIC-LRTP-03 / List 769
(a) Duluth Transit Authority staff	
(b) Organizations and individuals who represent the needs of transit-dependent persons	
4. Private Transportation Interests *Demand response operators and other private transportation interests, including:*	MIC-LRTP-04 / List 770
(a) Private transit operators and taxi services	
(b) Other:	
5. Multimodal Freight Interests *Representatives of both freight-generating businesses (shippers) and providers of multimodal freight transportation services, including:*	MIC-LRTP-05 / List 771
(a) Trucking firms	
(b) Railroads and rail operators	
(c) Duluth Seaway Port Authority and harbor-related businesses	
(d) Duluth Airport Authority and airport-related businesses	
6. Non-Motorized/Active Transportation Interests *Representatives of non-motorized (active) modes of transportation, including:*	MIC-LRTP-06 / List 772
(a) Users of pedestrian facilities, affiliated interest groups	
(b) Users of bicycling facilities, affiliated interest groups	
(c) Mn Department of Public Health	
(d) Health promotion and active lifestyle advocacy groups	
7. Human Services Interests *Representatives of traditionally underserved populations, including:*	MIC-LRTP-07 / List 773
(a) Disabled	
(b) Low-income	
(c) Minority	

Stakeholder Identification Tool

The MIC's Stakeholder Identification Tool translates the requirements of CFR 450.316 into a detailed listing of local organizations and individuals potentially interested in and/or affected by the transportation policies and projects included in the MIC area LRTP. Briefly, those interested parties included:

- Citizens/General Public
- Government and Public Agencies
- Public Transportation Operators and Users
- Private Transportation Operators
- Multimodal Freight Providers and Customers
- Non-Motorized/Active Transportation Advocates
- Human Services Providers and Recipients
- Natural and Historical Resource Preservation and Protection Groups and Agencies
- Business and Economic Development Interests
- Educational Institutions
- Tribal and Federal Lands Agencies

In addition to those identified by MIC staff, visitors to the Sustainable Choices 2045 website were invited to submit their email address if they were interested in receiving updates.

individuals, in keeping with federal requirements and the MIC's commitment to seek out and consider the needs of those traditionally underserved by existing transportation systems (Fig. 7.1).

A comprehensive mailing list was compiled that included interested parties (agencies, groups and individuals) as well as traditionally underserved groups and individuals as identified in the MIC's Title VI plan.

Identified stakeholders also included current MIC Board and committee members as well as participants in MIC plans and studies over the past several years.

1.3. Develop a Brand

A project brand and logo was developed for use throughout the project, on the website, all printed materials and public engagement activities

MIC staff developed a brand to consistently identify the LRTP project with specific fonts, colors and a logo, for use across all print and electronic media and during public engagement activities.

1.4. Form and Engage LRTP Advisory Committee

The MIC's Transportation Advisory Committee (TAC), consisting of Duluth and Superior area planners, engineers and modal representatives, as a voice of many key stakeholders, was enlisted as the primary advisory group for the LRTP (Fig. 7.2).

Fig. 7.2: The MIC's Transportation Advisory Committee was enlisted as the primary advisory group for the LRTP throughout during all phases of the its development.

PUBLIC INVOLVEMENT is integral to the vision of *Sustainable Choices 2045:*

"To develop a **community-supported** multimodal transportation system that not only supports the diverse needs of people and commerce, but is also fiscally, socially, and environmentally sustainable over time."

PUBLIC INVOLVEMENT is represented in several different goals and objectives:

Objective 2-2: Ensure legitimate opportunities for the public to engage in discussion about, and to share their needs and desires regarding the Duluth-Superior area transportation system.

Objective 2-6: Make information about the Duluth-Superior area transportation system available to the public in a variety of ways.

Its purpose was to provide input on all aspects of the LRTP during its development, by reviewing the vision and goals, providing feedback on chapters as they were drafted, and assessing key take-aways from data collected and public comments.

The MIC Board also received much the same information as the LRTP Committee at several of its monthly meetings, and was appraised of primary comments and suggestions of the Advisory Committee.

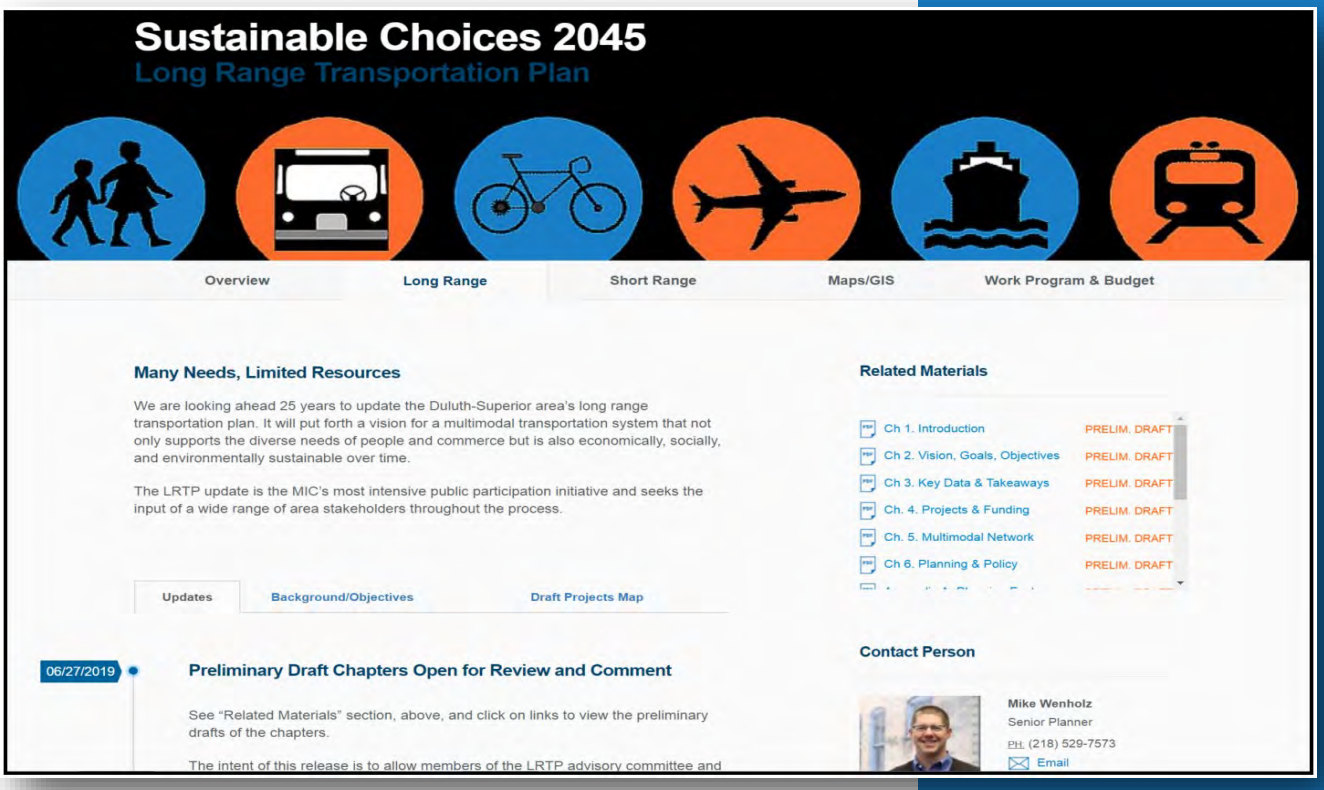
Phase 2: Public Outreach

A variety of online, print, media and in-person strategies were undertaken to give information about the LRTP and promote opportunities for giving input into the Plan during its development, including:

2.1. *Sustainable Choices 2045* web page

The project web page https://dsmic.org/planning/long-range/ was developed and maintained as the primary resource for current information about the LRTP for the duration of the planning process. (Figures 7.3, 7.4 & 7.5)

Fig. 7.3 Screenshot of the MIC's Long Range Plan Web Page
(https://dsmic.org/planning/long-range/)



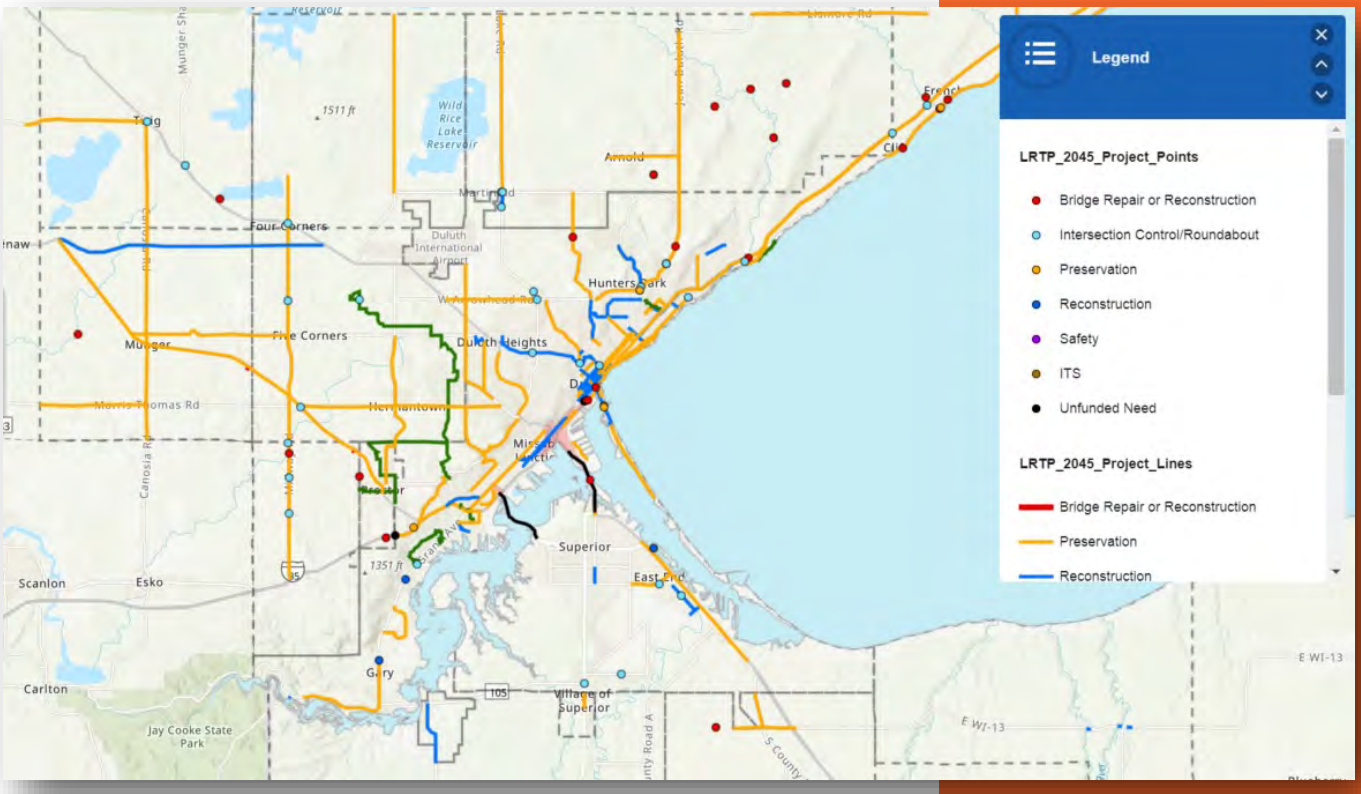
LRTP Web Page

As the primary source of information about the LRTP process and content, the dedicated project web page was updated throughout the duration of the Plan's development, including:

- Background info and scope of work;
- Notifications of upcoming public meetings;
- Links to online public surveys (Fig. 7.4);
- Links to an interactive projects map (Fig. 7.5) and Draft plan chapters;
- Email link to MIC staff person to enable site visitors to provide input and ask questions.

Fig. 7.4: The LRTP web page was a primary public involvement tool, with several 'call to action' posts about taking the surveys, attend meetings, and other public engagement notifications.

Fig. 7.5: The LRTP web page features a link to an interactive map of short- and mid-range projects listed in the Plan
(http://bit.ly/LRTP2045ProjectList)



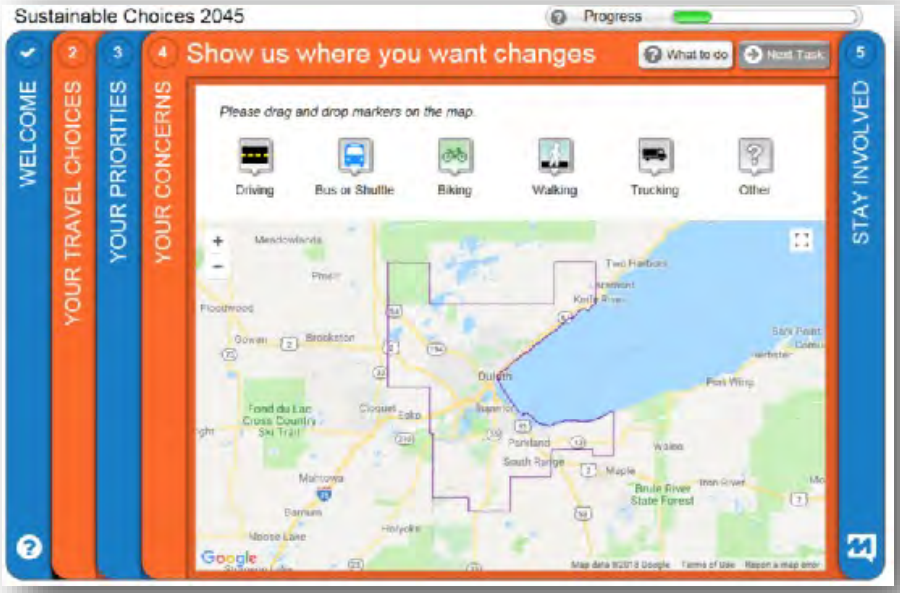
2.2. Public Surveys

MIC staff designed and distributed two online surveys to obtain public input about area transportation priorities, which in turn translated into short-and long-term goals and objectives. (Fig. 7.6)

The Phase 1 survey focused on transportation priorities while the Phase 2 survey asked participants to address more in-depth topics such as tradeoffs.

922 comments were received from the two surveys. Appendices B, C, D and G describe the survey questions and format and discuss their results in detail.

Figure 7.6: Screenshots of two pages of the online Phase 1 public survey utilizing the MetroQuest platform.



The interactive online survey platform MetroQuest was utilized for two separate "Phase 1" and "Phase 2" surveys in the early development of Sustainable *Choices 2045*.

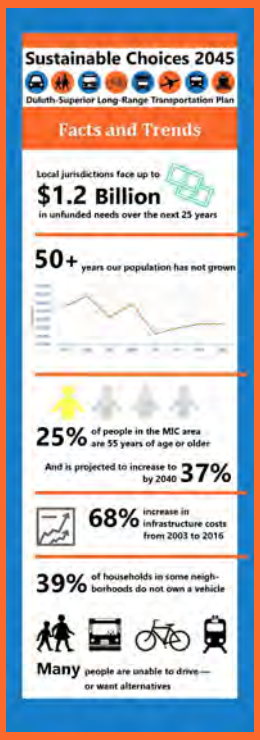
2-3. Informational Pieces

As the project progressed, a number of displays and handouts were produced to describe our LRTP initiative and to promote the surveys, including:

- Handouts describing the LRTP: key facts, primary issues and public involvement opportunities (Fig. 7.7—sidebar).
- Posters with a message to "Take the Survey" included a scannable QR code linking directly to the online survey (Fig. 7.8).
- An interactive project maps and other visualization tools to describe aspects of the LRTP.
- PowerPoint presentations about current topics, technical data, transportation trends and public input.

Fig. 7.8: Posters with "Take the Survey" message included a scannable QR code linking directly to the online survey.

Fig. 7.7: A two-sided bookmark handout described the LRTP's key facts, primary issues and included a scannable link to the online public survey.



2-4. LRTP Displays at Public Events

MIC staff conducted several pop-up displays, early in development of the LRTP, to reach out to the general public about the goals of the LRTP, promote the online surveys and gather input in person. (Figures 7.9 & 7.10)

Eight pop-up displays were conducted at public events in 2018 to promote the LRTP and the 2 surveys, including:

- 7th Annual Mayor's Bicycle Ride and Luncheon
- MIC Bike to Work Day Hospitality Station
- Lincoln Park Craft District Solstice Street Party
- Downtown Duluth Sidewalk Days Display
- Lincoln Park Meet on the Street Event
- Duluth Transit Authority Customer Appreciation Day at the DTA Passenger Terminal

Fig. 7.10: The three-day Downtown Duluth Sidewalk Days event in July 2018 allowed MIC staff to interact with many community members and yielded a high number of survey responses.

Fig. 7.9: LRTP Displays at Public Events created opportunities, early in the process, to interact with members of the public, answer questions, and direct them to the Phase I survey.

7th Annual Mayor's Bicycle Ride and Luncheon (May 2018)

Lincoln Park Neighborhood 'Meet on the Street' Event (June 2018)

Duluth Transit Authority Passenger Terminal (Oct. and Dec. 2018)

2-5. Local Media Engagement

Local media picked up on a MIC press release featuring the Phase 1 public survey:

- Article in the Duluth News Tribune
- Interview with Lead Planner Mike Wenholz on weekly PBS public affairs program Almanac North

2-6. Social Media Engagement

The MIC's Facebook page was used several times to promote the LRTP generally, and the Phase 1 and Phase 2 surveys specifically:

- 6 posts with links to the surveys June—November 2018, reaching 848 people.
- 2 paid Facebook Boosts with links to the surveys in June and November, reaching 1280 people.

A total of 8 posts (paid and unpaid) were made on the MIC Facebook page with links to the Phase 1 and Phase 2 public surveys, resulting in a total reach of 2128 people.

Phase 3: Consultations

MIC staff reached out to a wide variety of stakeholder groups and organizations early, and again midway, through the process of developing the LRTP. Consultation meetings were scheduled with both targeted interest groups and MIC-area jurisdictions (see sidebar). A total of 262 comments were received from these consultations and are detailed in Appendix I.

3-1. Targeted Stakeholder Consultations Part 1 (2018)

The purpose of the stakeholder consultations held in 2018 was to meet with targeted groups of individuals with unique transportation needs. At these meetings MIC staff shared an overview of the LRTP and also requested feedback, with two questions:

- How well does the existing Duluth-Superior area transportation system help your organization meet its mission or goals?
- Looking ahead 25 years, what should the Duluth-Superior area transportation system look like to help your organization meet its mission or goals?

Stakeholder Group Consultations (Part 1)

Several diverse groups accepted our invitation to meet during the first round of stakeholder consultations:

- City of Duluth Public Arts Commission
- Ecolibrium 3
- Duluth Transit Authority (DTA) Board
- One Roof Housing
- Harbor Technical Advisory Committee (HTAC)
- City of Duluth Commission on Disabilities
- ARC Northland
- SOAR Career Solutions
- Superior-Douglas County Area Chamber of Commerce and Travel Superior
- Duluth Community School Collaborative
- Duluth LISC Local Advisory Board

3.2. Jurisdictional Consultations

As part of developing of the transportation project list and fiscal constraint components of the Plan (described in Chapter 4), MIC planning staff met with officials from every MIC-area jurisdiction (see sidebar) .

The purpose of the consultations was for our jurisdictional partners to learn about the vision and goals of the LRTP, and to share the key take-aways from our public involvement efforts to date (Chapter 3).

It also served as an opportunity for the jurisdiction to share its transportation wants, needs and short– mid– and long-range projects to be considered for inclusion within the LRTP.

They were also asked to share any known project ideas or suggestions for future additional study within the next 25 years, and to identify which of the five planning perspectives/ goals of *Sustainable Choices 2045* would be key drivers of each project idea or suggested study.

3.3. Targeted Stakeholder Consultations Part 2 (2019)

The purpose of the second round of stakeholder meetings, held in 2019, was to give agencies, groups or organizations with interests in environmental and historic preservation, and low-income, minority, aging and disabled populations a meaningful opportunity for input prior to the finalization of the Draft Plan.

Fig. 7.11: MIC staff conducted a second round of consultations with representatives from local agencies with interests in human services and aging, environmental and historic preservation, and tribes.

Jurisdictional Consultations

MIC staff conducted consultations with all MIC-area jurisdictions (April-May, 2019):

- City of Rice Lake
- Minnesota DOT
- Wisconsin DOT and Douglas County
- St. Louis County
- City of Hermantown
- City of Proctor
- Duluth Transit Authority (DTA)
- City of Superior and Area Townships & Villages
- City of Duluth
- Duluth Area Townships

Stakeholder Group Consultations (Part 2)

MIC staff conducted a second round of stakeholder consultations with these stakeholder groups in 2019:

- Bicycle Pedestrian Advisory Committee (BPAC)
- Harbor Technical Advisory Committee (HTAC)
- Duluth Transit Authority (DTA) Board
- Natural and Historic Resources, Human Services Agencies and Tribes (2 meetings)

These consultations (see sidebar, previous page) were purposely held at a later stage in the Plan's development, so we could bring forward the information collected to date, highlight key take-aways from data collected and feedback received and present the short-, mid– and long-term projects proposed for inclusion in the Plan's project list.

Participants at these meetings were asked to respond to the following two questions:

- Are there any concerns to consider, from the perspective of your organization, regarding the proposed transportation projects?
- What additional transportation projects or issues should be considered for inclusion in the plan?

Appendix I discusses comments received during all consultations in detail.

3.4. Seeking Input from Traditionally Underserved Populations

Community advocacy groups with which the MIC works regularly were identified as primary contacts to traditionally underserved populations during its initial outreach efforts.

Staff from the MIC introduced the *Sustainable Choices 2045* process at a transportation-focused meeting sponsored by Community Action Duluth, and met with staff from Ecolibrium 3 and One Roof Housing, neighborhood improvement agencies. Various members of these organizations were included on the LRTP stakeholder mailing list and notified directly about the LRTP update and opportunities for involvement.

During the development of *Sustainable Choices 2045* the MIC also considered outreach to non-English speaking individuals, but data regarding the number and specific language requirements of such individuals in the Duluth-Superior area is scant, and, as discussed in its 2018 Title VI Plan, the MIC was unable to determine a cost-effective approach of targeting communication to non-English speaking people.

As development of the plan progressed and future transportation projects were identified, staff also conducted an environmental justice (EJ) assessment of those projects and included this information in the jurisdictional consultations (Section 3.2, above) and the second round of targeted stakeholder consultations (Section 3.3).

Comments from Consultation with Area Tribe Representative (Fond du Lac Reservation):

- The Tribe has found that many culverts are undersized given the increase in rain events — a climate change-related phenomenon. Suggests projects should include resizing culverts and proper realignment through wetland areas.
- Many roads were built through wetlands, bisecting them hydrologically and causing problems and damage to the wetlands. Suggests properly reconnecting the wetlands hydrologically to be balanced and healthier.
- Direct people involved with ALL projects in the LRTP to consult directly with the Tribal Historic Preservation office (J. Hoppe).
- Cultural resources are ubiquitous and found throughout the entire MIC area, as native americans have lived in this area for centuries.
- State databases and GIS layers are not 100% accurate, and often do not include resources that locals are aware of.
- The tribe does not hand out maps of cultural resources for security reasons.

Phase 4: Release of Draft Plan for Public Comment

The Draft document was released for public review and comment in accordance with federal regulations and the MIC's Public Involvement Plan.

4.0. Preliminary Draft Chapters

One month prior to the formal release of the Draft Plan, i.e., in late June 2019, preliminary drafts of all chapters were posted on the *Sustainable Choices 2045* web page, and a link was distributed to members of the LRTP advisory committee, oversight agencies and the MIC Policy Board, to encourage review and edits from these key stakeholders as the formal Draft version was being finalized.

4.1. Formal Release of Draft Document

The Draft version of *Sustainable Choices 2045* was approved by the MIC Board for released for the 30-day public review and comment period effective Monday, July 29 through Friday, August 30, 2019.

4.2. Publicity and Distribution

Legal Notices were placed and press releases were sent to the two major papers of record, the Duluth News Tribune and the Superior Telegram.

Oversight agencies, including MnDOT, WisDOT and FHWA were contacted by email with a link to the Draft document on the MIC website, with a request to review the content before the end of the 30-day public comment period and to formally respond.

Emails were also sent to the TAC, as the primary Advisory group, to the MIC Policy Board members, and to general stakeholder lists. Each included a link to the LRTP web page and a request to review and comment on the Draft plan and included an invitation to attend the public open houses on August 8 and 22nd.

A post about the Draft plan and the public open houses was placed on the MIC's Facebook page and promoted via a paid boost (ad) for the duration of the comment period.

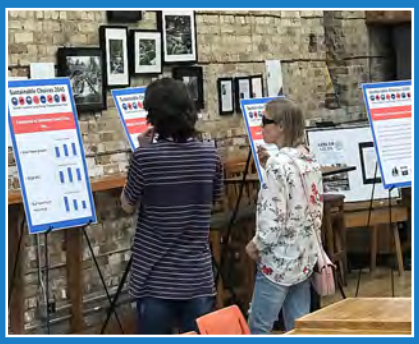
4.3. Public Open Houses

Two open houses were held, on Thursday, August 8, 2019 from 3:30 – 6:30 p.m. at the Duluth Folk School, 1917 W Superior St,

Public Open Houses — Draft LRTP:

Thursday, August 8, 20191
3:30-6:30pmpm
Duluth Folk School
917 W Superior St, Duluth, MN

Thursday, August 22
3:30-6:30pm
Superior Public Library
1530 Tower Avenue, Superior, WI

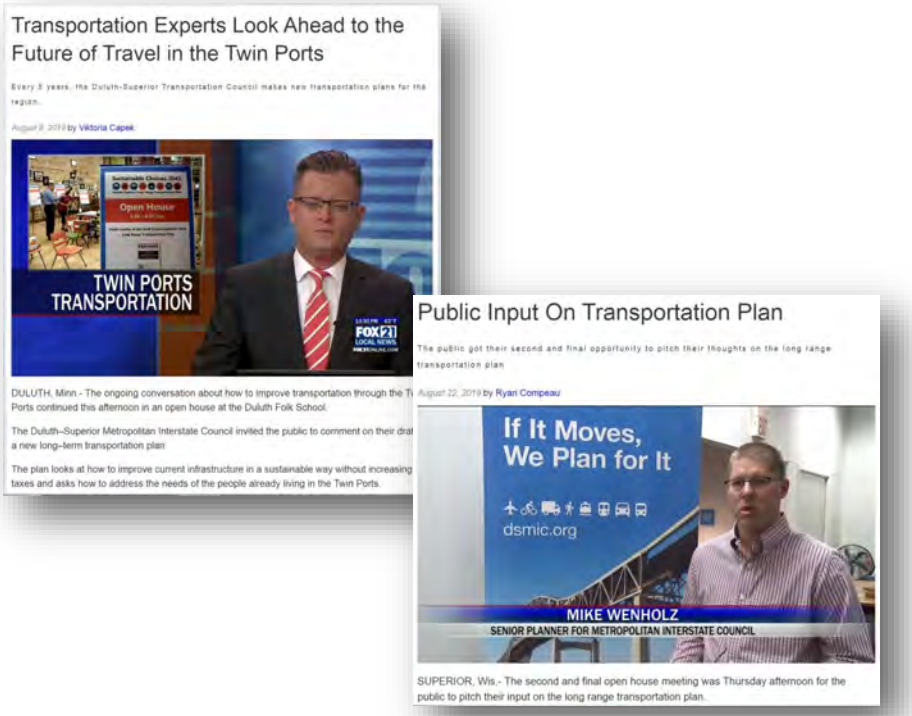


and on Thursday, August 22, 2019 from 3:30 – 6:30 p.m. at the Superior Public Library, 1530 Tower Ave, Superior, WI.

4.4. Media Coverage

The LRTP open houses were picked up as stories by local media outlets, including articles in the Duluth News-Tribune in advance of the public meetings, and television news stories after both the Duluth and Superior meetings.

Fig. 7.12: Local TV news stations featured stories about the LRTP after the public Open Houses in both Duluth and Superior..



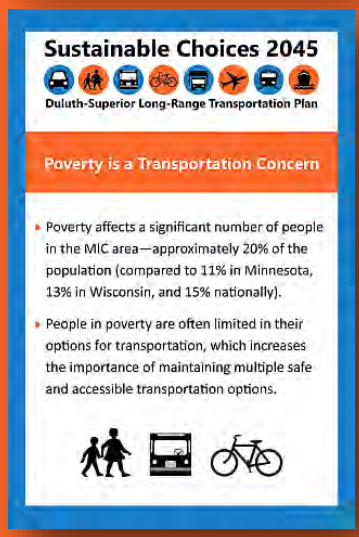
4.5. Presentations to Targeted Audiences

Presentations about the Draft Plan were given during the public comment period to the TAC, the MIC, the Bicycle-Pedestrian Advisory Committee, the Harbor Technical Advisory Committee and the Duluth Transit Authority Board. Comments were requested, and invitations extended to attend the scheduled open houses.

4.6. Comments

A total of 108 comments were received on the Draft LRTP from Advisory Committee members, oversight agencies including MnDOT, WisDOT, FHWA and FTA as well as

Fig. 7.12: Posters at Open Houses were used to communicate 12 key messages from the LRTP



members of the public.

All comments, along with MIC responses as to how that input was considered, were recorded (in Appendix J) and as appropriate, incorporated into various sections of the Final document. Significant comments and staff responses were reported to all TAC and MIC members at their regularly scheduled meetings in October, prior to the Policy Board's scheduled action to vote on adoption of the plan (October 16, 2019).

Public Input: What We Heard

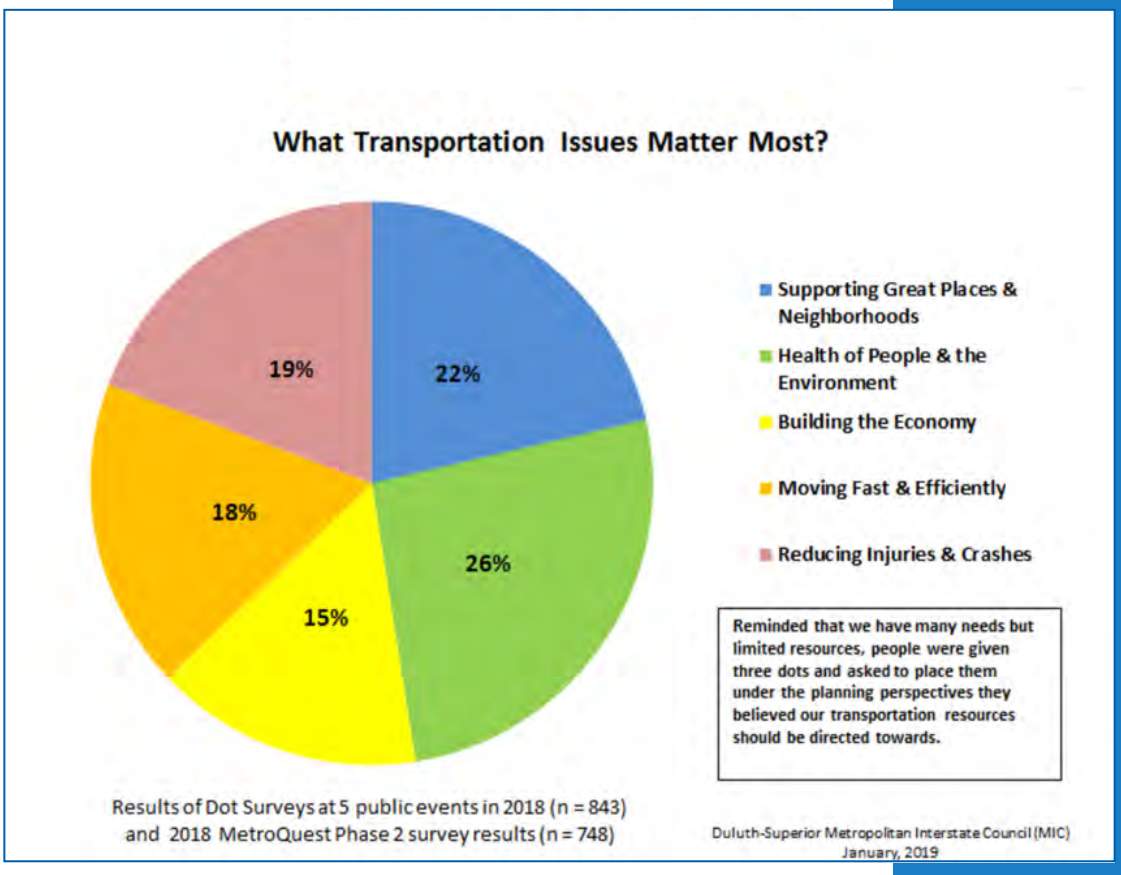
The main theme of *Sustainable Choices 2045* is that over the next 25 years there will be many transportation needs but limited resources, and that we will need to make wise choices in how we build and maintain a transportation system so that it is economically, socially, and environmentally sustainable over time.

This is the context for the nearly 1200 responses gathered from the public engagement activities as described, all of which aimed

Achieving a Balanced Transportation Network

One comment received fairly sums up the public interest in a balanced transportation system:

"Basically people will use the system we design. If we build for cars then we will get cars. If we build for public accessibility and mobility for all people regardless of ages and abilities we will get people then we will get people moving around in all types of ways."



to ascertain the travel choices, priorities and concerns of people, organizations and jurisdictions throughout the Duluth-Superior metropolitan area.

Major Themes

Appendices B, C, D, G, H and I discuss specific comments received and major themes in detail, but they include:

Achieve a Balance of Multiple Goals

One key message we heard is that the public wants our future transportation investments to accomplish multiple goals, and in a relatively balanced manner.

Achieving this will require a shift from traditional transportation priorities, including new, broader, more integrative and holistic approaches that include a more diverse group of interests and professionals within project planning and decision-making teams from the beginning.

Provide Multi-Modal Choices

Although driving and riding in automobiles and walking are the primary modes used in the MIC area, other modes of travel are also used, desired, and in some cases necessary for people to travel within, through, and to and from the MIC area.

It will be extremely difficult, if not impossible, to establish livable and equitable communities that meet the multiple goals of this plan without true multi-modal options.

Maintain Existing Infrastructure

Maintenance of our existing transportation system is strongly desired, with specific focus and priority on critical infrastructure rather than on the entire system.

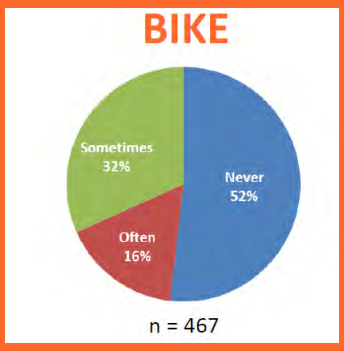
This includes maintenance of all aspects of our infrastructure (not simply road surfaces), as well as addressing inefficiencies within the system.

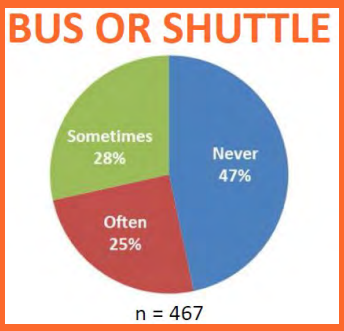
Promote Environmental Sustainability

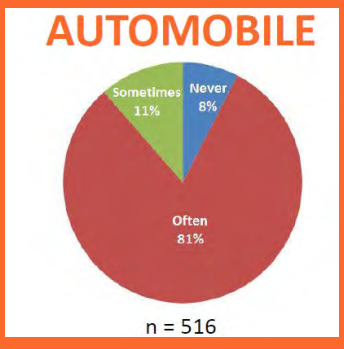
Building, maintaining, and operating our transportation system in an environmentally sound and sustainable manner is strongly desired.

Provide multimodal transportation choices

Although travel by automobile was the most common mode of travel survey results reflected the use of multimple modes and a desire to support them







Make Evidence-Based Decisions

People want and expect decisions about our transportation system to be based on data and evidence, and not on political or other factors.

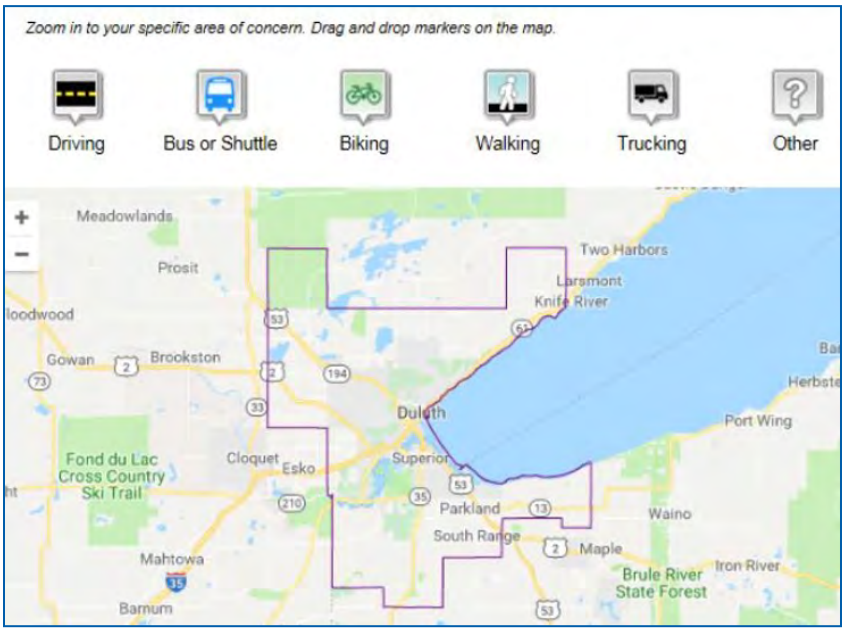
In addition to the points above, it is noteworthy that while most of the focus historically has been on vehicular efficiency and safety, two other themes emerged as important goals for our transportation system, namely:

- Support the health of people and the environment
- Support great places and neighborhoods

Public Input: What We Will Do With This Information

The MIC is committed to ongoing implementation of the vision, goals and objectives of *Sustainable Choices 2045*, and to due consideration of the public comments received.

All comments have been recorded into a searchable database and will be shared with appropriate area jurisdictions as transportation projects are planned and move forward for consideration. These comments are also available to view in Appendices D, I and J of this Plan.



Survey takers were able to attach comments identifying issues and concerns on an interactive online map. These comments, which pertain to specific locations throughout the Duluth-Superior area, have been compiled in a GIS shape file and will be made available to the appropriate jurisdictions or organizations as relevant transportation projects emerge for consideration.

Implementation Strategy

Upon approval of *Sustainable Choices 2045*, a team will be established to guide ongoing implementation of the Plan's vision, goals and objectives. Tasks for the Team will likely include:

- Develop an overall implementation strategy that outlines a process and details steps to be taken.
- Prepare a list of strategies specific to each objective listed in *Sustainable Choices 2045* that can be used when implementing the objectives.
- Prepare a list of tactics specific to each strategy that can be used when implementing the objectives.
- Consider how the comments received from surveys, partner groups and jurisdictional consultations can be considered and used to help implement *Sustainable Choices 2045.*
- List all current required performance measures and targets, and include ideas on how to ensure they are implemented and met.
- Update the TIP project selection process to address and meet the long range objectives of *Sustainable Choices 2045*.
- Distribute *Sustainable Choices 2045* to all appropriate MIC-area jurisdictions, agencies, and partners for their consideration.
- Assist jurisdictions, agencies, and partners in including and/or implementing portions of *Sustainable Choices 2045* within their own plans, policies, or projects.
- Develop an evaluation process and timeframe to regularly assess progress toward implementing the goals and objectives of *Sustainable Choices 2045* (at least once annually).
- Generally ensure that over time, all aspects of *Sustainable Choices 2045* are being implemented.

8. Planning & Policy

This section reviews the planning policies and processes that guided the development of *Sustainable Choices 2045*.

Planning and Policy Framework

Many policy elements form the planning framework for *Sustainable Choices 2045*. These include the federally-mandated role of Metropolitan Planning Organizations (MPOs) in combination with other national, state and regional planning directives, as well as the MIC's established public participation and planning processes.

Duluth-Superior Metropolitan Interstate Council

As the designated MPO for the urbanized area that includes both Superior, Wisconsin and Duluth, Minnesota, the MIC works to coordinate and harmonize the activities of federal, state and local agencies in both states.

The MIC's Requirements as an MPO

MPOs are federally mandated to conduct a continuing, cooperative and comprehensive (3-C) planning process as a condition for spending federal highway or transit funds in every urbanized area with a population of 50,000 or more.

The MIC's principal role is to establish a fair and impartial setting for effective regional decision making for shared transportation goals and facilities. The core functions of every MPO, including the MIC, are to:

Maintain a Long Range Transportation Plan (LRTP)
The LRTP sets forth a vision for the area's transportation system with a planning horizon of twenty-five years. It includes strategies to accomplish these goals as well as prioritized projects with short-, mid- and long-term timeframes. It must also include a financial plan that demonstrates how these projects can be implemented using the resources that are reasonably expected to be available over the life of the plan.

Develop a Transportation Improvement Program (TIP)
The TIP is a short-range (four-year) program of the area's transportation improvements and must include all regionally significant projects receiving federal funding. The TIP is a mechanism for allocating limited financial resources among the capital and operating needs of the area, based on the transportation priorities, goals and projects identified in the LRTP.

Metropolitan Planning Organizations (MPOs)

MPOs are federally mandated to conduct transportation planning in urbanized population areas of 50,000 or more.

MPOs are comprised of a Policy Board of local elected officials and citizens, professional planning staff and technical advisory committees.

MPOs are funded by a combination of federal transportation funds and state and local matching funds.

MPOs are required to involve local stakeholders and citizens.

MPOs encourage a multi-modal approach to transportation planning and infrastructure investments.

MPOs ensure that expenditures of federal funds for transportation projects and programs are based on a 3-C (continuing, comprehensive and cooperative) planning process.

MPOs complement and supplement local government activities but are not in themselves units of government—they have no authority to levy taxes or implement recommendations.

Within the Duluth-Superior Metropolitan Planning Area, certain local public agencies and cities or towns over 5,000 are eligible to apply for federal TIP funds. These include the Minnesota and Wisconsin Departments of Transportation (MnDOT, WisDOT), St. Louis and Douglas counties, the cities of Duluth, Hermantown, and Superior, the Duluth Seaway Port Authority, and the Duluth Transit Authority.

The MIC maintains two separate TIPs for the urbanized areas of Duluth, MN and Superior, WI, based on the differing state processes and timelines.

Implement a Unified Planning Work Program (UPWP)
The UPWP spells out the MIC's transportation planning activities as well as administrative activities, budgets and funding sources for each project for a two-year period.

Facilitate Public Involvement
Public involvement means that stakeholders are involved in our area's transportation planning and decision-making processes.

"Stakeholders" are individuals or entities that could be significantly affected by the plan recommendations or could significantly influence implementation. Stakeholders include (but are not limited to): the general public, low income, people with disabilities, neighborhood representatives, local transportation providers, local businesses and associations, special transportation interests such as airport and port authorities, freight shippers, advocacy groups for or users of alternate modes such and transit or bicycling, local officials and jurisdictional representatives, and federal and state transportation agencies.

Public involvement is a two-way process. It gives the community an opportunity to provide input and also serves as a mechanism to provide information and answer questions. This exchange leads to better decisions and gives the public a sense of ownership of the resulting plans and recommendations.

The MIC worked to secure participation from stakeholders throughout the development of *Sustainable Choices 2045*. The public involvement process for this Plan is discussed in detail in Chapter 7 and an overall guide to public involvement activities is outlined in the MIC's Public

Duluth-Superior Metropolitan Interstate Council (MIC)

Mission:
Guiding the future of transportation and planning for the Twin Ports Area

The MIC is the designated MPO for the Duluth-Superior metropolitan urbanized planning area.

The MIC is one of eight MPOs in the State of Minnesota, one of fourteen MPOs in the State of Wisconsin, and one of approximately 400 Metropolitan Planning Organizations across the country.

The MIC provides guidance and leadership on transportation and land use planning issues in the Duluth-Superior metropolitan planning area.

The MIC works to focus the area's limited transportation funding on projects that yield the greatest benefit and integrate with the existing transportation system.

The MIC conducts studies, develops plans, models the transportation system, and programs projects for federal funding in the metropolitan area.

Involvement Plan, last updated October 2013.

Duluth-Superior Metropolitan Planning Area

The population of the Duluth-Superior area has remained relatively flat for many years: 145,166 in 2000, 147,628 in 2010, and 147,541 in 2015, and is projected to grow only to 152,587 by 2045 (see Figures 4.8, 4.9, and Table 3 of Appendix E).

The MIC's planning jurisdiction encompasses 641 square miles within St. Louis and Douglas counties in Minnesota and Wisconsin, respectively (see Map 8.1). It extends from the census-defined Duluth-Superior Urbanized Area out to the first ring of non-urbanized townships. This includes:

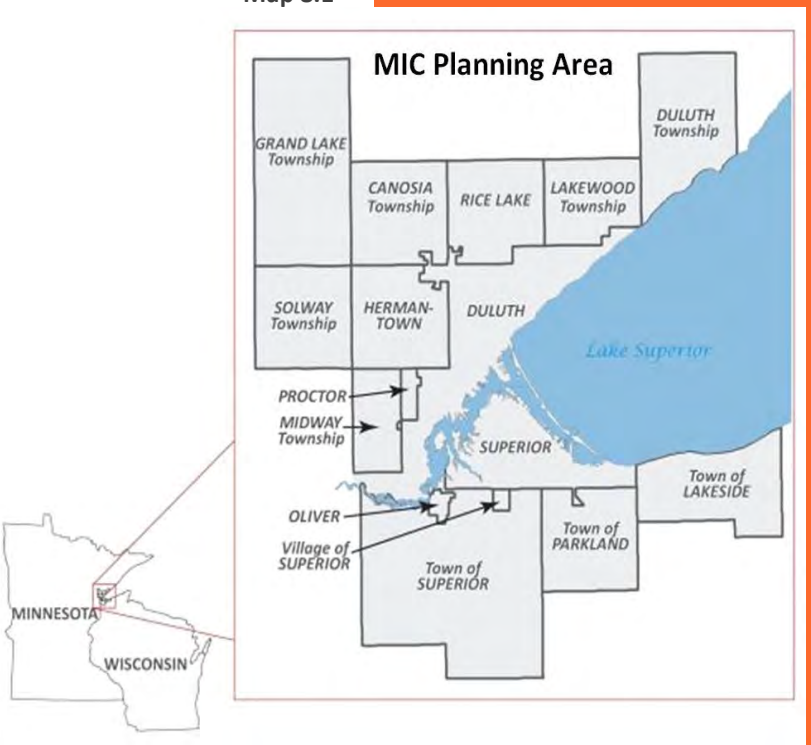
Minnesota/St. Louis County

City of Duluth
City of Hermantown
City of Proctor
City of Rice Lake
Canosia Township
Duluth Township
Grand Lake Township
Lakewood Township
Midway Township
Solway Township
St. Louis County

Wisconsin/Douglas County

City of Superior
Douglas County
Town of Lakeside
Town of Parkland
Town of Superior
Village of Oliver
Village of Superior

Map 8.1



MIC Organizational Structure

The organizational arrangements of MPOs vary throughout the country —some are free-standing entities, some are set up as a

division within city or county offices, while others, like the MIC, are housed within regional planning and development organizations.

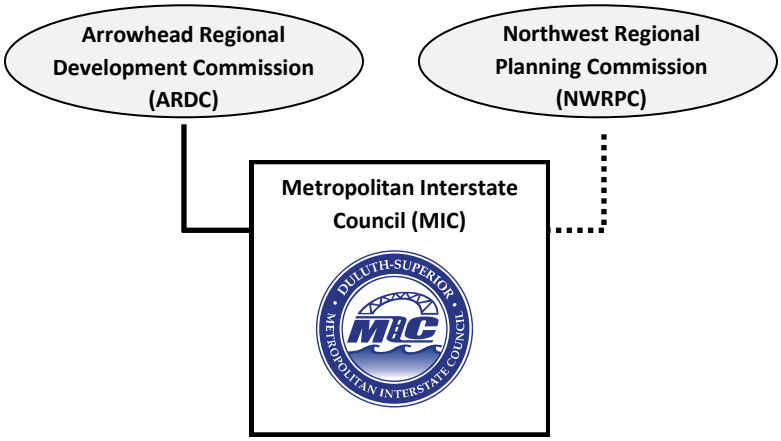
ARDC, NWRPC and the MIC

The MIC was formed in 1975 under a joint agreement between the Arrowhead Regional Development Commission (ARDC) in Duluth, Minnesota and the Northwest Regional Planning Commission (NWRPC) in Spooner, Wisconsin and is housed as a division of ARDC (Figure 8.1).

MIC Board, Staff and Advisory Committees

The MIC includes a top-level policy board, specialized advisory committees and professional planning staff.

Figure 8.1 Organizational Structure of ARDC, NWRPC and the MIC



MIC Policy Board

The MIC Policy Board is comprised of 18 elected officials and appointed citizen representatives (nine from Minnesota and nine from Wisconsin) who represent all local units of government within the planning area (Figure 8.2). The Policy Board considers and determines key MPO actions as well as the policies and recommen-dations in its plans and studies. It is also responsible for prioritizing projects for inclusion in the four-year Transportation Improvement Programs of federally -funded projects in Duluth and Superior.

MIC Planning Staff

The MIC's professional planning staff conducts ongoing planning and administrative activities, including research, data collection and analysis, mapping, facilitating public input and feedback, consulting with area jurisdictions and

Regional Development Commissions and Regional Planning Commissions

Regional Development Commissions (RDCs) in Minnesota and **Regional Planning Commissions** (RPCs) in Wisconsin are multi-county planning and development districts that, like MPOs, encourage cooperation between local, state, and federal agencies, elected officials, the private sector, and citizens.

Each is governed by a policy board consisting of elected officials from each jurisdiction within the region.

Arrowhead Regional Development Commission (ARDC), the first of nine multi-county regional development organizations in Minnesota, was established in 1969 based on the state Regional Development Act (1969). ARDC serves 7 counties, 180 townships, 70 cities, and 3 reservations in northeast Minnesota.

Northwest Regional Planning Commission (NWRPC) was created in 1959 by local units of government of northwest Wisconsin. It is the oldest planning commission in Wisconsin and one of the first multi-county planning commissions in the nation. The NWRPC is a cooperative venture of 10 counties and 5 tribal nations in the northwest corner of the state.

Figure 8.2 Jurisdictional Representation on the MIC Policy Board

Minnesota (9 representatives)	Wisconsin (9 representatives)
4 City of Duluth (2 city councilors, 1 Duluth Transit Authority Board member, 1 citizen)	**4 City of Superior** (1 citizen, 3 city councilors)
1 City of Hermantown (elected official)	**5 Douglas County** (4 county board supervisors, 1 suburban township elected official or citizen)
1 City of Proctor (elected official)	
3 St. Louis County (1 county board member, 1 suburban township elected official and 1 suburban township citizen)	

bringing plans and recommendations forward to the Policy Board for final approvals. Staff members include a director, administrative assistant, Geographic Information Systems (GIS) specialist and three transportation planners.

Advisory Committees to the MIC

Three formal advisory committees advise the Policy Board on technical matters and interact with the MIC's professional staff for consultation, analysis and other project work (Figure 8.3). All three committees meet regularly to consider, discuss and forward recommendations for Policy Board consideration.

Transportation Advisory Committee (TAC)

The Transportation Advisory Committee, or TAC, is comprised of staff-level officials, planners and engineers from local jurisdictions and state and federal agencies. It also includes

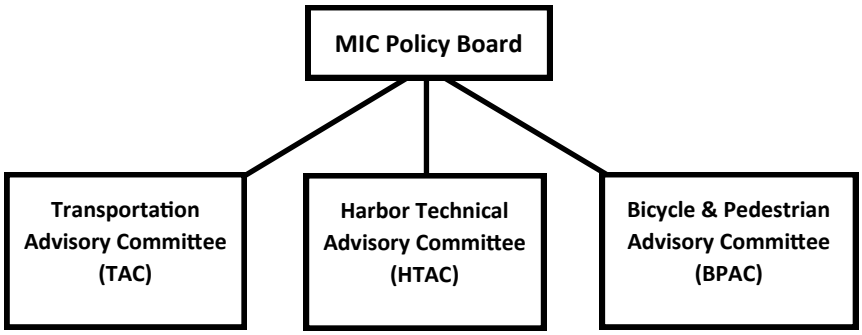


Figure 8.3 MIC Policy Board & Advisory Committees

The MIC Policy Board provides cooperative leadership to meet the following objectives:

To address major transportation issues and solve problems that affect multiple jurisdictions or agencies within the Duluth-Superior metropolitan area.

To develop detailed transportation information that will encourage decisions to enhance livability and optimize the movement of people and goods throughout the metro area.

To improve the comprehensive transportation network so that it is safe and fully integrated.

To gain the maximum benefit from each public transportation investment.

To establish an effective area-wide transportation planning process that is inclusive and responsive to the needs and interests of the area's residents, interest groups, units of government and affected agencies.

modal representatives (bike/pedestrian, transit, port and airport).

Harbor Technical Advisory Committee (HTAC)
The Harbor Technical Advisory Committee, or HTAC, provides guidance on decisions affecting the Duluth-Superior harbor. It also serves as an interstate forum for the development of recommendations relevant to the private, local, state and federal stakeholders who are directly involved with or impacted by their planning, programming and implementation.

Bicycle and Pedestrian Advisory Committee (BPAC)
The Bicycle and Pedestrian Advisory Committee, or BPAC, was formed in early 2010 to provide citizen input into the planning and implementation of bicycle and pedestrian infrastructure and to assist with data collection and developing recommendations for a variety of MIC projects including an area bike map and events such as the annual Bike to Work Day.

The MIC's Planning Process

Transportation planning is a cooperative process designed to foster involvement by all relevant stakeholders. Federal, state and local guidelines are integrated into a planning process utilized by the MIC for all its planning projects, including *Sustainable Choices 2045*.

The MIC's transportation planning process is not a "one size fits all" approach but rather recognizes that different projects call for customized approaches and may vary in the types and frequencies of stakeholder participation.

All of the MIC's planning activities (LRTP, TIPs and short-range plans and studies) offer several opportunities for at key decision points during the planning process, as specified in the MIC's Public Involvement Plan.

Federal Guidance

MPOs are charged with providing regional-level coordination and planning for transportation investments in a continuing, cooperative, and comprehensive manner (the 3-C planning process). *Sustainable Choices 2045* incorporates the most

Harbor Technical Advisory Committee

The HTAC's voting members include a broad range of area stakeholders:

City/County/Regional
- City of Duluth
- City of Superior
- St. Louis County
- Douglas County
- MIC
- NWRPC
- Western Lake Superior Sanitary District
- Duluth Seaway Port Authority

State/Federal
- MnDNR
- WisDNR
- MnDOT
- WisDOT
- MN Pollution Control Agency
- MN Sea Grant Program
- WI Sea Grant Program
- USDA-Natural Resources Conservation Service
- US Army Corps of Engineers
- US Coast Guard
- US Fish & Wildlife Service

Industry and Environmental/Citizen
- Coal sector
- General Bulk sector
- General Cargo sector
- Grain sector
- Harbor Engineering sector
- Harbor Services sector
- Iron Ore sector
- Pilots/Vessel Operations sector
- Recreation sector
- Save Lake Superior Association
- St. Louis River Alliance
- Isaak Walton League

recent federal-legislative mandates.

The following regulations identify additional federal requirements that impact the MIC's planning and programming activities:

Transportation Legislation: Federal FAST Act

The Fixing America's Surface Transportation (FAST) Act is a funding and authorization bill to govern United States federal surface transportation spending. It was passed by Congress in 2015.

In the FAST Act, the metropolitan and statewide transportation planning processes established in prior transportation authorizations are continued and enhanced to incorporate performance goals, measures and targets into the process of identifying needed transportation improvements and project selection. Public involvement remains a hallmark of the planning process.

Requirements for a long-range plan and a short-term Transportation Improvement Plan (TIP) continue. The (long range) Metropolitan Transportation Plan must describe the performance measures and targets used in assessing system performance and progress in funds and focused greater attention in certain areas critical to transportation agencies, such as connectivity, freight, asset management, and performance measurement.

Federal Planning Factors

The federally-required planning factors of 23 CFR 450.306(b) are addressed in detail, along with a discussion of how they are addressed in this plan, in Appendix A.

Other Federal Requirements

The following regulations identify additional federal requirements that impact the MIC's planning and programming activities:

Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act ensures that no person shall, on the grounds of race, color or national origin, be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under any program receiving

Federal Legislation and the Role of MPOs

The MPO role in transportation planning has become more robust as national transportation policy has evolved through a series of federal legislative initiatives:

- **2015** Fixing America's Surface Transportation (FAST) Act
- **2012** Moving Ahead for Progress in the 21st Century (MAP-21)
- **2005** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
- **1998** Transportation Equity Act for the 21st Century (TEA-21)
- **1991** Intermodal Surface Transportation Efficiency Act (ISTEA)
- **1962** Federal-Aid Highway Act

federal assistance from the United States Department of Transportation.

National Environmental Policy Act (NEPA) of 1969

The National Environmental Policy Act (NEPA) requires all Federal agencies to systematically assess the environmental impacts of their proposed actions and consider alternative ways of accomplishing their missions that are less damaging to the environment. To ensure the public's interests are protected, proposed actions involving Federal resources may not take place until all NEPA and agency requirements for environmental analysis are met.

Americans with Disabilities Act (ADA) of 1990 and ADA Amendments Act of 2008

The Americans with Disabilities Act (ADA) requires that disabled populations must be assured access to employment, public services, and private facilities through improved transportation services. The MIC will identify actions necessary to ensure that the local transportation planning process involves the entire community, particularly those with disabilities, in the development and improvement of public transportation facilities and services. The local process must also ensure that physical locations for such activities, as well as the information presented, shall be accessible to persons with disabilities.

Clean Air Act Amendments (CAAA) of 1990

The Clean Air Act Amendments require greater integration of transportation and air quality planning, and assign a greater responsibility to transportation plans and programs for reducing mobile source emissions. They allowed the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for various pollutants. NAAQS standards have been developed for carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide.

Environmental Justice Executive Order (12898) 1994

Environmental Justice is the public policy goal of ensuring that low-income or minority populations do not bear "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities." Adverse human health effects include air and

noise pollution, divided neighborhoods, loss of access to opportunities and jobs, property value changes, safety, and aesthetics.

Federal Transit Act (FTA) of 1997

The Federal Transit Act requires any urban area with a population of 50,000 or greater to undertake a process to develop transportation plans and programs based upon transportation needs. Additionally, these plans and programs will consider transit elements in comprehensive long range land use plans, development objectives, and social, economic, environmental and energy conservation goals.

State Guidance

Both Minnesota and Wisconsin statewide plans were also used as framework for developing goals and objectives for this plan. Key state plans are summarized below.

Minnesota Transportation Plans

Minnesota GO / 50-Year Vision for Transportation

In 2012, MnDOT completed the Minnesota GO visioning process to better align the transportation system with what Minnesotans expect for their quality of life, economy and natural environment.

The Minnesota GO vision and guiding principles are intended to be used by all agencies responsible for transportation planning, construction and delivery in Minnesota, including within the MIC planning area, to inform their investment and service decisions by:

- **Leveraging public investments to achieve multiple purposes:** The transportation system should support other public purposes such as environmental stewardship, economic competitiveness, public health and energy independence.
- **Ensuring accessibility:** The transportation system must be accessible and safe for users of all abilities and incomes. The system must provide access to key resources and amenities throughout communities.
- **Building to a maintainable scale:** Consider and minimize long-term obligations–don't overbuild. The scale of the system should reflect and respect the surrounding

MnDOT's Complete Streets Policy

Complete streets is an approach to road planning and design that considers and balances the needs of all transportation users. It's about the basics: improving the transportation system's safety and functionality for all users. Its main premise is nothing more than for people to get around safely and efficiently from point A to point B, using whatever mode of travel they choose.

The complete streets approach helps to maximize the use of public roadways and right-of-way to provide a comprehensive and connected multimodal transportation system.

physical and social context of the facility. The transportation system should affordably contribute to the overall quality of life and prosperity.

- **Ensuring regional connections:** Key regional centers need to be connected to each other through multiple modes of transportation.
- **Integrating safety:** Systematically and holistically improve safety for all forms of transportation. Be pro-active, innovative and strategic in creating safe options.
- **Emphasizing reliable and predictable options:** The reliability of the system and predictability of travel time are frequently as important (or more important) than speed. Prioritize multiple multimodal options over reliance on a single option.
- **Strategically fixing the system:** Some parts of the system may need to be reduced while other parts are enhanced or expanded to meet changing demand. Strategically maintain and upgrade critical existing infrastructure.
- **Using partnerships:** Coordinate across sectors and jurisdictions to make transportation projects and services more efficient.

Statewide Multimodal Transportation Plan

MnDOT's 20-year Statewide Multimodal Transportation Plan articulates policies, strategies and performance measures as a framework to help achieve the Minnesota GO vision over the next two decades. The Statewide Multimodal Transportation Plan serves as the framework plan for MnDOT's modal plans, as described below.

Modal Plans

The long-range outcomes for transportation in the state, as articulated in the Minnesota GO vision, may take up to 50 years to be fully realized and extend to an entire family of plans that provide direction for different modes of transportation (aviation, bikes, freight, highways, pedestrians, ports and waterways, rail and transit).

State Aviation System Plan

This plan identifies the goals, minimum system objectives, and performance measures in which serves as a guide to meet the demands for airport facilities throughout Minnesota to ensure safety and economic competitiveness

nationally and internationally, while managing available funding options.

Statewide Bicycle System Plan

The 2016 Statewide Bicycle System Plan presents MnDOT's vision and goals for bicycle transportation, implementation strategies, and performance measures to evaluate progress toward achieving this vision. The plan is one of Minnesota GO modal plans.

District 1 Bicycle Plan

This 2019 plan identifies bicycle investment routes for targeted improvements in bicycle facilities throughout the entirety of District 1.

Statewide Freight System and Investment Plan One of the Minnesota GO family of modal plans, the purpose of this 2018 plan is to provide an integrated system of freight transportation in Minnesota – highway, rail, water, air cargo, and intermodal terminals – that offers safe, reliable, and competitive access to statewide, national, and international markets.

District 1 Freight Plan

This 2019 plan was developed with local governments, private businesses, and members of the public to better understand the multimodal freight system and industry needs and issues so policy and programming decisions can be better informed throughout the 8-counties in this District.

Statewide Pedestrian System Plan

This Plan, currently under development and scheduled for completion in December 2020, will guide MnDOT's investments to improve places for people walking along and across the state's highway system and to make walking more desirable and accessible.

Statewide Port and Waterways Plan

This plan provides the current state as well as the historical development of Minnesota's waterways. Financial support, economic benefits, and opportunities for the future are described in the plan. It also maintains the strategies for preserving Minnesota's ports and waterways.

MnDOT's Context Sensitive Solutions

Context Sensitive Solutions is "the art of creating public works projects that meet the needs of the users, the neighboring communities, and the environment."

It integrates projects into the context or setting in a sensitive manner through careful planning, consideration of different perspectives, and tailoring designs to particular project circumstances.

CSS is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting.

Statewide Rail Plan

The 2015 update of this plan identifies priority rail corridors, programs, and projects that offer effective improvements or expansion for passenger and freight travel in and out of Minnesota.

Greater Minnesota Transit Plan 2010-2030

This is a 20-year strategic plan that sets forth directions for the future of public transportation in Greater Minnesota (outside the seven county metro area). It describes current challenges, examines future transit service needs and estimates future levels of funding that would be required to meet that need and establishes policies to guide future transit investments in Greater Minnesota.

Investment and Asset Management

Minnesota State Highway Investment Plan (MnSHIP)

The 20-Year Minnesota State Highway Investment Plan (MnSHIP) directs capital investment for Minnesota's state highway system.

District 1 10-Year Capital Highway Investment Plan (CHIP) 2019-2028

Each district CHIP includes an overview of the district, planned investments, and list of planned projects over the next ten years. The district CHIPs also highlight district investment strategies and projected 10-year outcomes based on the 10-year list of projects.

Transportation Asset Management Plan

This 2019 plan informs capital and operations planning efforts and serves as a planning tool to help MnDOT evaluate risks, develop mitigation strategies, analyze life cycle costs, establish asset condition performance measures and targets, and develop investment strategies.

Greater Minnesota Transit Investment Plan

This 20-year strategic plan provides direction for the future of public transportation in Greater Minnesota. The plan describes current challenges in the state, examines future transit service needs and analyzes future levels of funding to meet that need.

Greater Minnesota Mobility Study

This 2018 study considers vehicle and freight mobility investment needs on the National Highway System (NHS) throughout Greater Minnesota. Its primary goal is to identify locations with the greatest mobility or reliability issues and low-cost, high-benefit solutions for future investment consideration.

Safety

Strategic Highway Safety Plan

This plan was created to reduce the number of traffic fatalities and serious injuries on Minnesota's roadway as part of the Towards Zero Deaths initiative.

Other

Minnesota Statewide Regional ITS Architecture Plan

This 2018 plan provides a common framework for the planning, design, implementation, integration and operation of ITS throughout the state. It reflects the state's compliance with the National ITS Architecture and support system integration and coordination between different transportation stakeholders.

Wisconsin Transportation Plans

Long Range

Connections 2030

Connections 2030 is the long-range transportation plan for the state of Wisconsin, addressing all forms of transportation over a 20-year planning horizon: highways, local roads, air, water, rail, bicycle, pedestrian and transit. WisDOT officially adopted *Connections 2030* in October 2009.

Modal

Numerous plans, reports, and studies are considered and reflected in Connections 2030, including:

State Airport System Plan 2030

This plan provides a framework for the preservation and enhancement of a system of public-use airports adequate to meet the current and future aviation needs of the State of Wisconsin.

Bicycle Transportation Plan 2020

WisDOT encourages planning for bicyclists at the local level, and this plan provides guidelines for accommodating travel by bicycles when roadways are reconstructed, or new roads are built.

State Freight Plan

This 2018 plan links statewide transportation investments to economic development activities, guides implementation from planning to project development to programming and provides performance measures.

Wisconsin Pedestrian Policy Plan 2020

WisDOT this plan to provide a long-range vision addressing existing and emerging pedestrian needs over the next 20 years, with recommendations to meet those needs.

Wisconsin State Highway Plan 2020

This is a 21-year strategic plan which considers the highway system's current condition, analyzes future uses, assesses financial constraints and outlines strategies to address Wisconsin's preservation, traffic movement, and safety.

Wisconsin Rail Plan 2030

This plan establishes a vision for rail transportation through 2030, sets state rail policy, and presents priorities and strategies for investment.

Wisconsin Strategic Highway Safety Plan

This plan provides background and information about highway safety in Wisconsin and lays out strategies for the Wisconsin Department of Transportation (WisDOT) and its many safety partners to address key safety issues.

Local Coordination

Many of the MIC's member jurisdictions develop and maintain a number of planning documents to help guide coordinated development and investment decisions.

Regional Plans

Several planning initiatives from in and around the MIC area are relevant to the development of this document. While *Sustainable Choices 2045* does not include specific recommendations from individual community plans, it does

Connections 2030: Wisconsin's Vision for Transportation

- WisDOT envisions an integrated multimodal transportation system that maximizes the safe and efficient movement of people and products throughout the state, enhancing economic productivity and the quality of Wisconsin's communities while minimizing impacts to the natural environment.
- *Connections 2030* policies are organized according to seven themes:
- To preserve and maintain Wisconsin's transportation system
- To promote transportation safety
- To foster Wisconsin's economic growth
- To provide mobility and transportation choice
- To promote transportation efficiencies
- To preserve Wisconsin's quality of life
- To promote transportation security

incorporate community-level concerns into the LRTP's policies, goals and objectives. Current region-wide plans include:

Northern MN and Northwest WI Regional Freight Plan
This is a multimodal transportation planning effort that includes highway (commercial vehicle operations), rail, waterway, air cargo, pipeline, and intermodal transportation, and recommends improvements to freight movements specific to the region.

Douglas County Comprehensive Plan 2010-2030
The transportation element of the Douglas County Comprehensive Plan reviews the existing types of transportation choices in the county, and identifies applicable local, state, and regional transportation plans affecting Douglas County.

Coordinated Human Services Transportation Plans
These plans assess transportation needs for individuals with disabilities, older adults, and persons with limited incomes, inventory available services, and develop strategies to address the identified gaps in service for more efficient utilization of resources. Two of these plans have been developed in the MIC Planning Area:

Northeast MN and the Duluth Metro Area

Douglas County, WI and the City of Superior

Comprehensive Plans

MIC-area omprehensive Plans that provide an overall guide for growth while maintaining or improving quality of life for its residents by identifying future land use, utilities, green space and transportation needs. Current Comprehensive Plans

Imagine Duluth 2035

City of Superior Comprehensive Plan 2010-2030

City of Proctor Comprehensive Plan

City of Rice Lake Comprehensive Plan
(currently under development)

Canosia Township Comprehensive Plan

Duluth Township Comprehensive Plan

Lakewood Township Comprehensive Plan

Midway Township Comprehensive Plan

Specialty and Small Area Plans

Several recent local planning initiatives that are relevant to the MIC's planning outlook include:

MIC Plans and Studies

Canosia Township Trails Plan

Duluth-Superior Area Truck Route Study

Duluth-Superior Metropolitan Bikeways Plan

Duluth-Superior Port Land Use Plans

Duluth Township Trails Plan

Highway 23/Grand Avenue Corridor Study

I-35/Bayfront Area Traffic Modeling and Special Event Traffic Control Plan

Transportation Systems Management (TSM) Assessment of MIC Roadways in Minnesota and Wisconsin

City of Duluth Plans

Bayfront District Small Area Plan

Central Entrance - Miller Hill Small Area Plan

Gary/New Duluth Small Area Plan

Gary/New Duluth Health Impact Assessment

Higher Education Small Area Plan

Lincoln Park Small Area Plan

Lincoln Park Small Area Plan Health Impact Assessment

Miller Hill/Central Entrance Small Area Management Plan

Park Point Small Area Plan

Riverside Small Area Plan

Skyline Parkway Corridor Management Plan

Other Local Area Plans and Studies

Northern Lights Express Passenger Rail

St. Louis County Union Depot Passenger Rail Terminal Study