



I-35 Connects

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MIC and MnDOT

# I-35 CORRIDOR PLAN

Executive Summary | November 2023

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Duluth-Superior  
Metropolitan Interstate Council  
*A Division of ARDC*



**BOLTON  
& MENK**



DEPARTMENT OF  
TRANSPORTATION



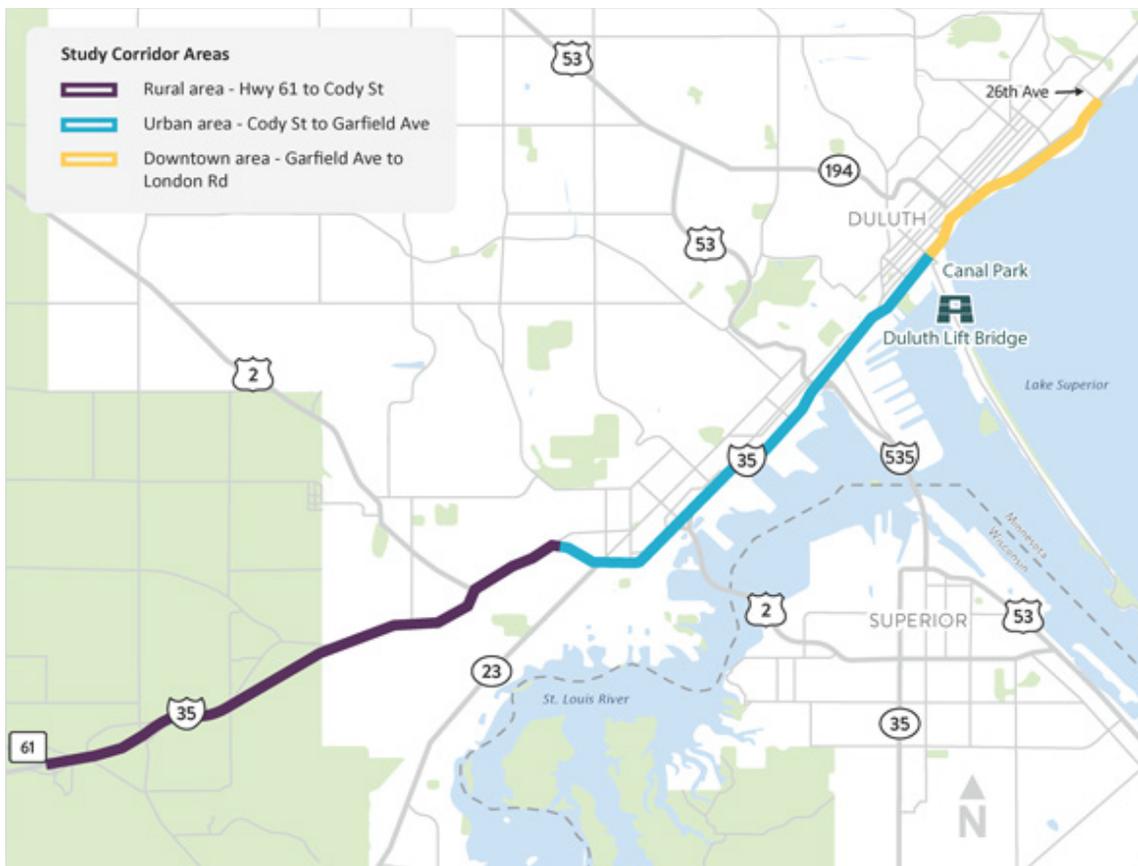
# CONTENTS

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- 3 INTRODUCTION
- 5 EXISTING CONDITIONS
- 7 FUTURE CONDITIONS
- 8 ALTERNATIVES ANALYSIS
- 15 PUBLIC ENGAGEMENT
- 22 IMPLEMENTATION

## INTRODUCTION

The Interstate 35 (I-35) Corridor Plan was developed from June 2022 through November 2023. The purpose of the Plan was to develop a corridor vision and implementation plan to identify and prioritize maintenance needs, investment strategies, and improvements for vehicles, freight, pedestrians, bicyclists, and transit users on and/or across I-35. The Plan assessed current and future conditions including land use, transportation infrastructure, people and goods movements, design and safety issues, and operational performance on I-35 from County Road 61 in Midway Township to 26th Avenue East in Duluth.

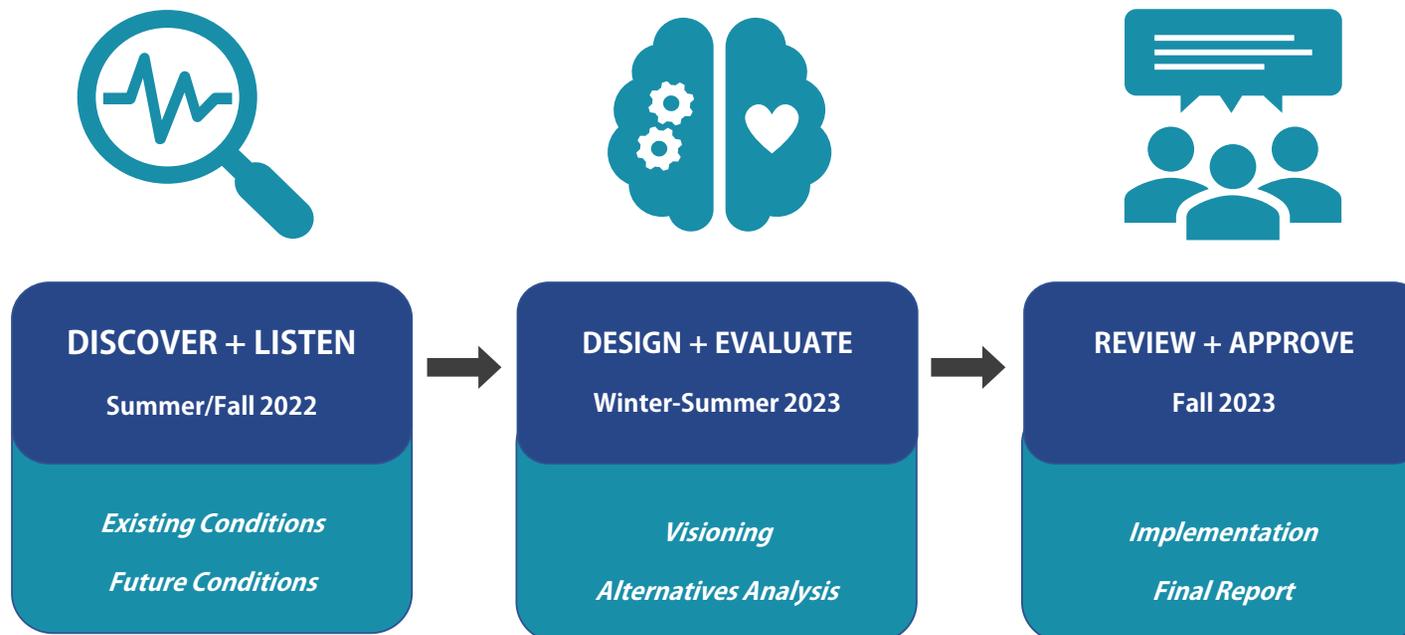


The Duluth-Superior Metropolitan Interstate Council (MIC) and the Minnesota Department of Transportation (MnDOT) led the I-35 Corridor Plan in cooperation with a Steering Committee. The Steering Committee included the lead agencies and St. Louis County, City of Duluth, City of Proctor, Midway Township, City of Superior, the Duluth Seaway Port Authority, the Duluth Transit Authority, and the Wisconsin Department of Transportation.

**The goals for this Plan were to:**

- Define an ultimate vision for I-35 that is innovative, realistic, fundable, and ensures safety, mobility, economic vitality, resiliency, and access for all modes of travel,
- Secure public and agency support for the ultimate vision, and
- Develop a detailed implementation plan outlining future improvements, sequencing, timing, cost and agency responsibility.

The study included three phases of work as outlined in the graphic below. Each of these phases is described in more detail in the remainder of the Executive Summary.



## EXISTING CONDITIONS

I-35 is the primary gateway to northeastern Minnesota (especially from the Twin Cities) and the major thoroughfare in the Duluth-Superior metropolitan area. I-35 has served the region for nearly 50 years as the last completed section of the National Interstate System. I-35 connects to US 2, TH 61, US 53, and I-535 within the study area, providing direct access to and between Duluth, northwestern Wisconsin, the Twin Cities, Minnesota's Iron Range, North Shore, and the Canadian border.

I-35 is among the most important, and historically controversial, infrastructure projects in the Duluth-Superior area. Recognizing this, this I-35 Corridor Plan is grounded in a comprehensive understanding of the Corridor's origins, how it interacts with local and regional land uses, how it supports, or inhibits, different modes of travel serving different purposes, and its role in the regional economy – particularly industrial, shipping, and tourism.

Key takeaways from existing conditions analysis of the 14-mile study area spanned the following observations:

- There are several segments of I-35 due for maintenance within the next 10-15 years. MnDOT desires to use the I-35 Corridor Plan to inform infrastructure replacement plans.
- The role and impacts of I-35 on surrounding areas are diverse. It provides critical interregional access and both defines and separates communities. While traffic operations-only metrics are generally "acceptable", there are identified influences on the surrounding communities presented by the presence of such a large piece of infrastructure.
- Much of the adverse impacts of the corridor – particularly connectivity barriers, safety issues, and land use separation - occur within neighborhoods with disproportionately high percentages of renters, those who don't own a car, or those who commute with modes other than cars.
- Unlike other Minnesota metro areas, Duluth's population and real estate markets have largely remained stagnant over the last several decades – a trend estimated to continue into the immediate future.

- I-35 is critical for freight access and goods movement from the mining and forestry industries in northern MN and to and from the Duluth-Superior Harbor, the largest Great Lakes port in terms of annual tonnage shipped, and its connections to nearby railyards for goods movement across the country. Freight stakeholders expressed the importance of reliable and safe movements along I-35 and at interstate access points. The I-35/Thompson Hill area was noted as a difficult area for freight trucks traveling southbound I-35 due the steep grade and lack of a truck climbing lane the entire length of the hill.
- Notable proportions of short (<2 miles) trips occur in the Cody, Fairmount, Spirit Valley, Downtown, Endion, and Congdon Park neighborhoods surrounding the interstate, indicating there may be demand for non-motorized travel across and along the corridor. Many of the existing pedestrian and bicycle crossings of I-35 are poorly lit, in poor condition, too narrow, or too close to traffic making many of these crossings undesirable and uncomfortable.
- With the exception of Canal Park during peak tourism and events, much of the study area experiences acceptable traffic operations during peak hours and throughout the day.
- All segments of I-35 within the study area experience crash rates above expected levels, included where interchange and ramp spacings and design are "substandard". The majority of ramp terminals and surrounding intersections operate either above the statewide average crash rates, or with a statistically significant deviation from the expected crash rate. In addition, 50-60% of all crashes occurred during times of inclement weather (i.e., rain, snow, ice, fog, etc.).

Additional details on the existing conditions analysis can be found in the Existing Conditions Chapter of the I-35 Corridor Plan Final Report.

## FUTURE CONDITIONS

A future conditions assessment was conducted that outlined population and land use assumptions along the corridor study area to inform the identification and evaluation of improvement opportunities. These findings were coupled with a recognition that there remain many unknowns on the future of vehicle traffic trends and impacts, including the continued ripple effects of COVID-era work from home policies, the future of the Northern Lights Express Rail Corridor, and Connected and Automated Vehicles, among many others.

Three travel mode scenarios were developed, offering a spectrum of potential outcomes to inform future traffic volume forecasts. Notably, minimal differences were seen across the three scenarios, likely stemming from the comparatively low growth in population and traffic demands anticipated along the corridor.

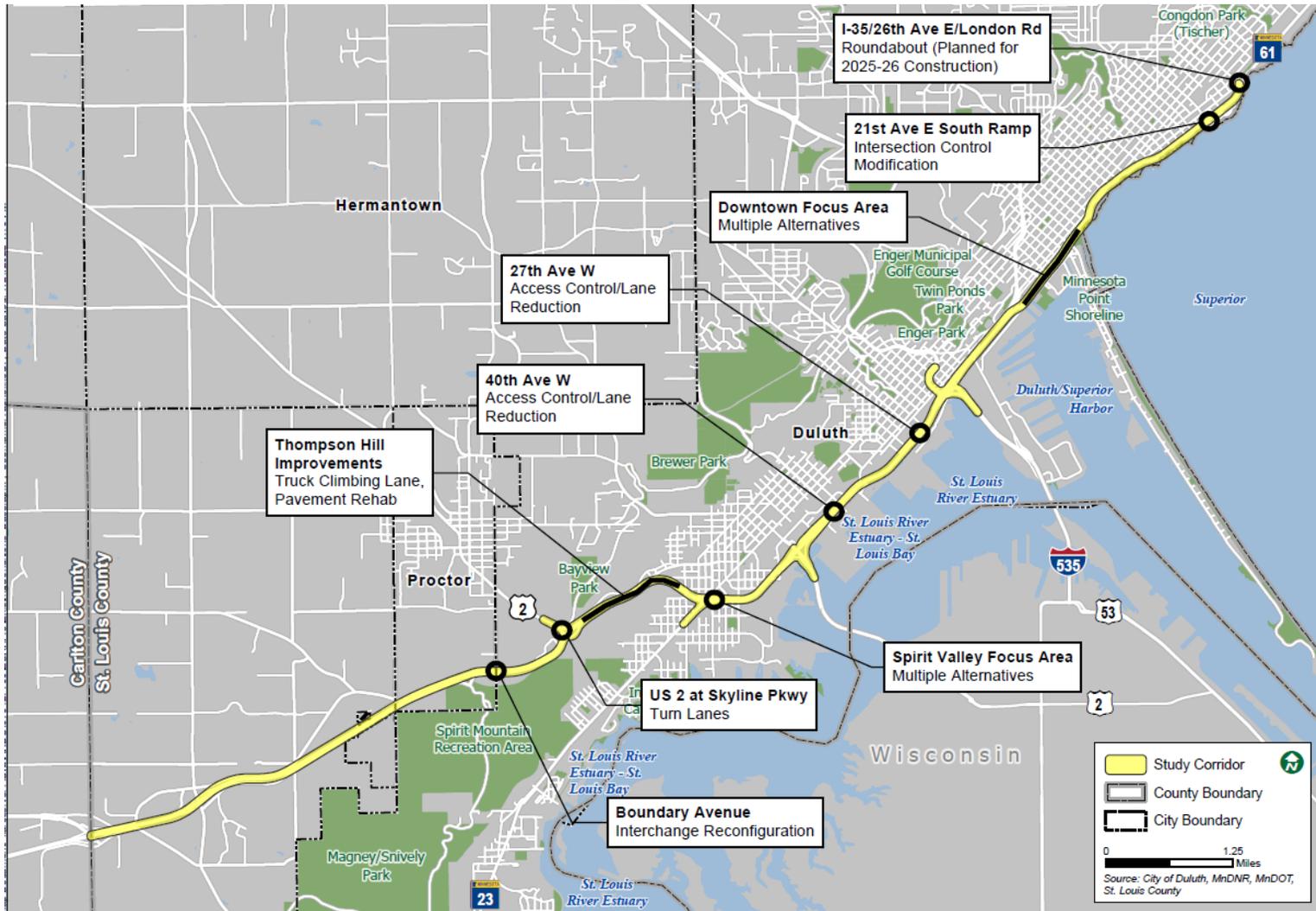
Anticipated future traffic conditions were contrasted with the existing infrastructure, which found that operations are estimated to continue being widely acceptable (LOS C or better), for nearly all adjacent intersections and the majority of corridor segments.

Additional details on the future conditions analysis can be found in the Future Conditions Chapter of the I-35 Corridor Plan Final Report.

## ALTERNATIVES ANALYSIS

The alternatives development process targeted problem areas where mobility, safety and comfort deficiencies were identified by the project team and through public engagement. A range of improvement alternatives were identified, in terms of size, scope, and cost, to remediate the identified issues.

### Range of Improvement Alternatives



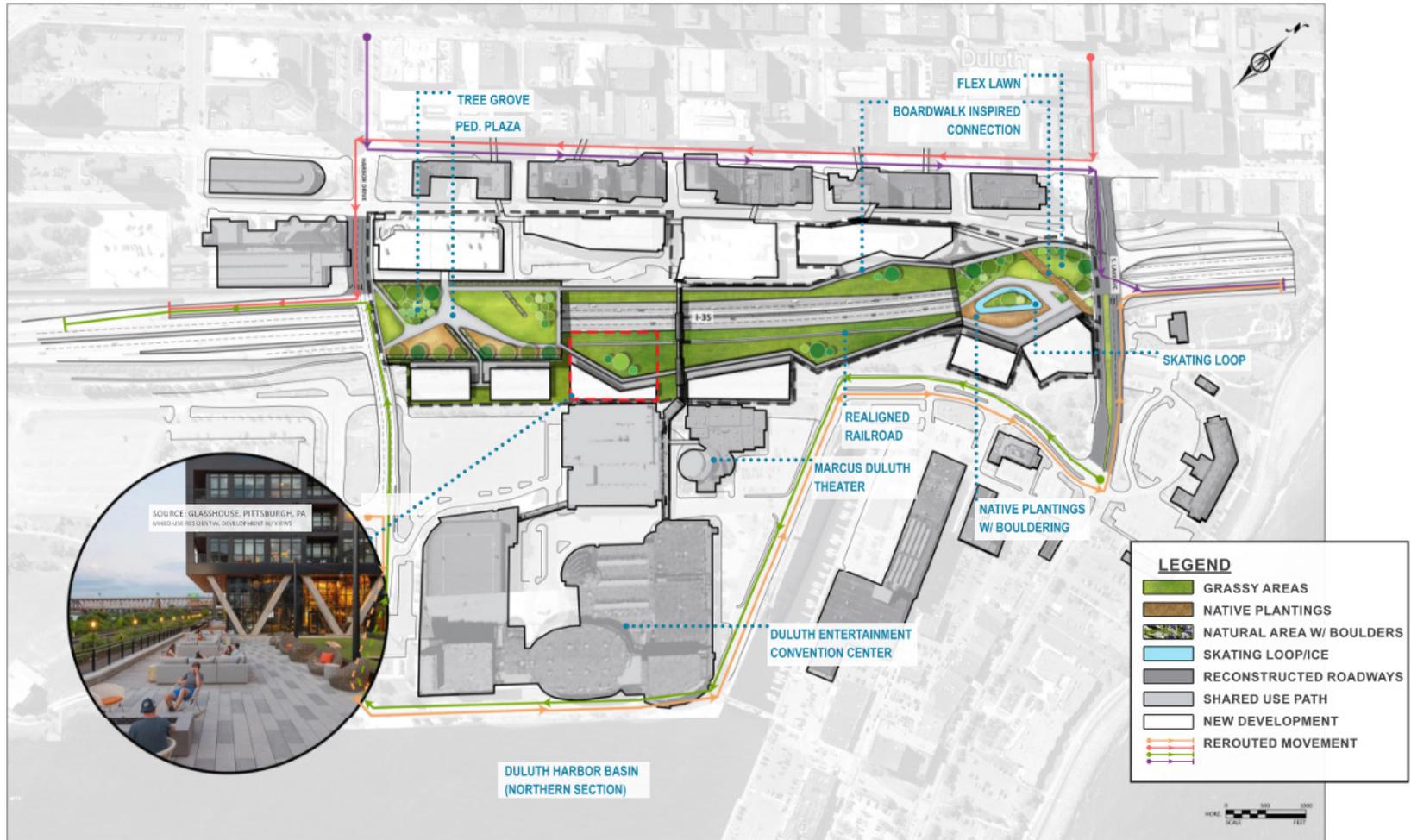
Alternatives were identified for the entire length of the corridor; however, three focal areas emerged through the analysis and from public engagement/interest:

- **Downtown (Lake Avenue and 5th Avenue)** – Three improvement concepts were developed and evaluated to enhance pedestrian/bike connectivity across I-35 from the Downtown and hillside neighborhoods to the waterfront. These included the Downtown Waterfront Collective's parkway concept, a concept improving the existing 5th Avenue and Lake Avenue interchanges, and a lid concept between portions of 5th Avenue and Lake Avenue.

## 5th Avenue and Lake Avenue Interchange Concept

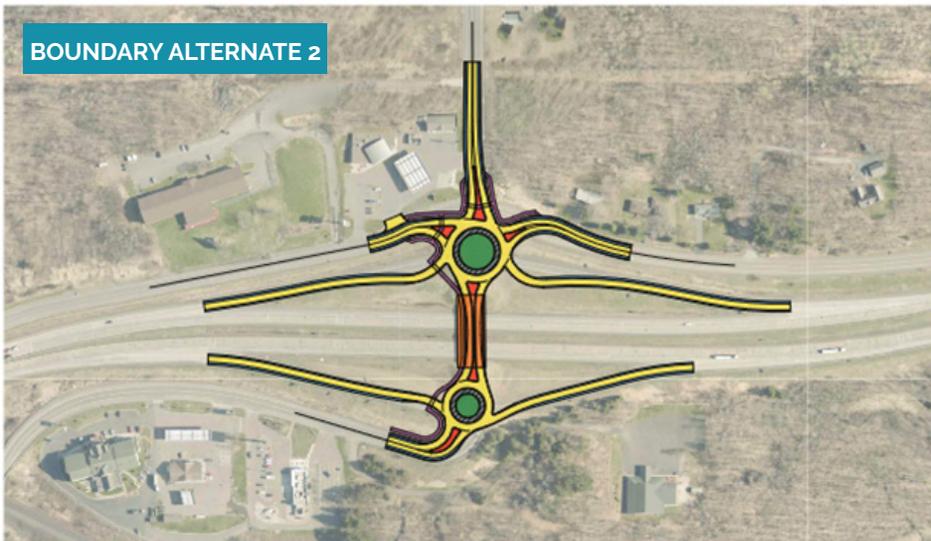
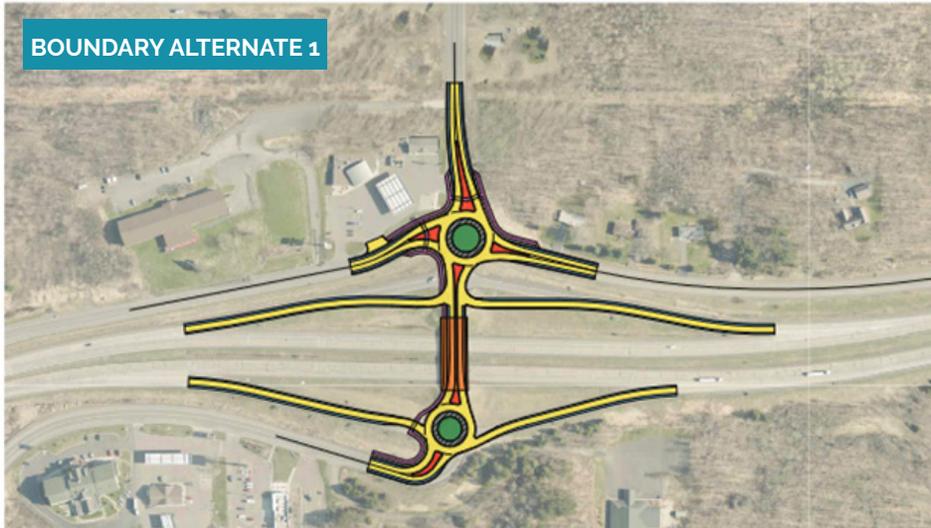


# Lid Concept

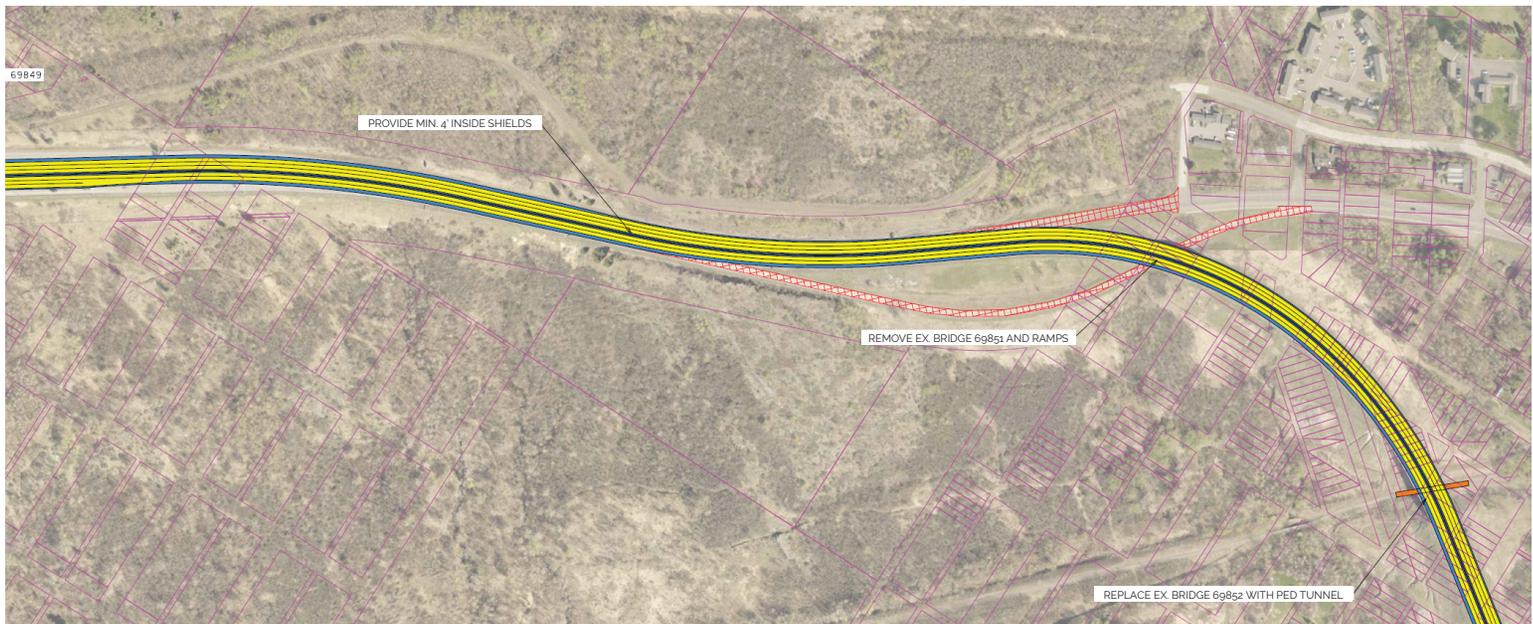
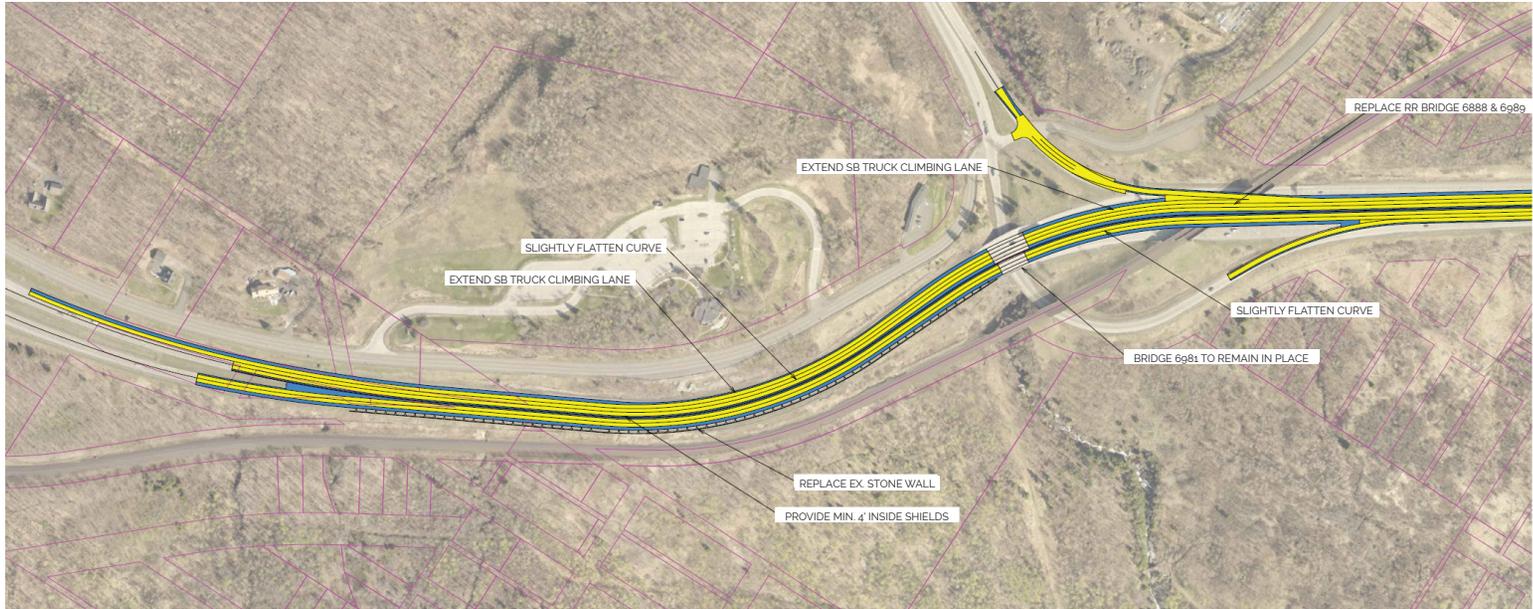


- **Thompson Hill through Central Avenue** – Improvement concepts were developed to modify the Boundary Avenue interchange, add a truck climbing lane for southbound I-35 on Thompson Hill through Boundary Avenue, remove I-35 access at Cody Street, and develop interchange alternatives at the Grand Avenue and Central Avenue locations to improve vehicular and bicycle/pedestrian safety, connectivity, and access.

## Boundary Avenue Concepts



# Thompson Hill Concept



# Spirit Valley/West Duluth Interchange Concept



- **I-35 Mainline Intelligent Transportation Systems Improvements** – The majority of crashes on the I-35 corridor were found to occur during times of inclement weather (i.e., rain, snow, ice, or fog). This, coupled with the heavy seasonality of tourism traffic and large events causing unexpected congestion, led the project team to consider Intelligent Transportation System (ITS) improvements like curve warnings, surface warnings, anti-icing technology for bridge decks and variable speed limits. An ITS Corridor Plan/ Variable Speed Limit Study was funded through MnDOT's Innovative Ideas Program and is anticipated to begin in the winter of 2023-2024. This study will further define the feasibility and specifics of ITS improvements for the I-35 corridor.

The project team created scorecards for improvement alternatives that considered and compared livability, safety, mobility, impact, and cost for each improvement. The scorecards were shared with the public to solicit input on the benefits and impacts and to determine improvements for progression into the implementation plan.

Additional details on the range of alternatives and evaluation can be found in the Alternatives Analysis Chapter of the I-35 Corridor Plan Final Report.

## PUBLIC ENGAGEMENT

Public and stakeholder engagement was critical throughout the I-35 Corridor Plan. The study involved a diverse set of stakeholders ranging from vocal, well-organized interest groups to silent underrepresented populations, and from all modes of transportation and economic sectors. The segment of I-35 through Downtown has been the focus of calls for a major rethink of how this area operates, looks, and feels to better serve the community from a safety, livability, economic, and equity standpoint. Through the study, the West Duluth/Spirit Valley neighborhoods were found to have similar issues, needs, and desires for better connectivity and livability as the Downtown area. The City of Proctor and Midway Township areas expressed concern with interstate access and safety getting on/off at I-35 interchange locations. Freight and business stakeholders, while supportive of neighborhood connectivity needs, desired to also maintain and improve mobility and safety on I-35.

The I-35 Corridor Plan included multiple opportunities to engage with the diverse set of stakeholders at each stage of the Plan's development as summarized in the following sections.

## Phase I – Issues Identification

This phase of engagement solicited input from the public and corridor stakeholders on the existing issues, needs, and opportunities in the corridor. The following engagement activities occurred.

- Public Open House – 30 attendees
- Survey – 83 responses
- Focus Group Meeting
  - Resident Meeting - 14 participants
  - APEX/Freight Meeting – 10 participants
- Online Idea Wall – 93 responses
- Online Interactive Map – 119 comments
- Pop-Up Event – Downtown Duluth Sidewalk Days
- Stakeholder Presentations
  - Midway Township
  - West Duluth Business Association
  - Proctor City Council
  - MIC Technical Advisory Committee
  - MIC Policy Board

From May through November 2022, the team gathered information on the existing conditions and people's transportation experience along and across I-35 from County Road 61 in Midway Township to 26th Avenue East in Duluth. Although sentiments and desired outcomes vary among those engaged, there is a pervasive understanding that changes made to I-35 will have a high impact on the city of Duluth beyond transportation, and has the potential to impact industry, development, safety, and the environment. Some engaged in this first phase envision significant changes to I-35, seeing I-35 as a hinderance to connectivity and that significant modification to or elimination of the interstate in Downtown Duluth is an opportunity for development. Others highlighted the role I-35 plays in the local economy, its connection to the port, freight use, and tourism, and the desire to improve the interstate for those uses.

Although heavy traffic flow was not noted as a problem, improving driver safety was often mentioned. 'Messy' intersections and interchanges, blind mergers and driver speeds were all identified as challenges to roadway safety. Walkability and increased connectivity were mentioned in respondents' visions for the future of Duluth. Residents engaged in this phase expressed a desire that infrastructure improvements meet the needs of people who live along the corridor. Supporting tourism through these improvements is important to many respondents, but many also hope that tourism will not overshadow prioritizing community development and connectivity for residents.



## Phase II – Alternatives Development and Evaluation

This phase of engagement occurred in May and June 2023 and focused on gathering community feedback on the range of improvement concepts and evaluation.

- Focus Group Meetings
  - Freight and Business Meeting – 10 attendees
  - Resident Meeting – 17 attendees
- Public Open House – 51 attendees
- Online Survey – 366 responses
- Stakeholder Presentations
  - MIC Technical Advisory Committee
  - MIC Policy Board

Key themes from this phase of engagement included:

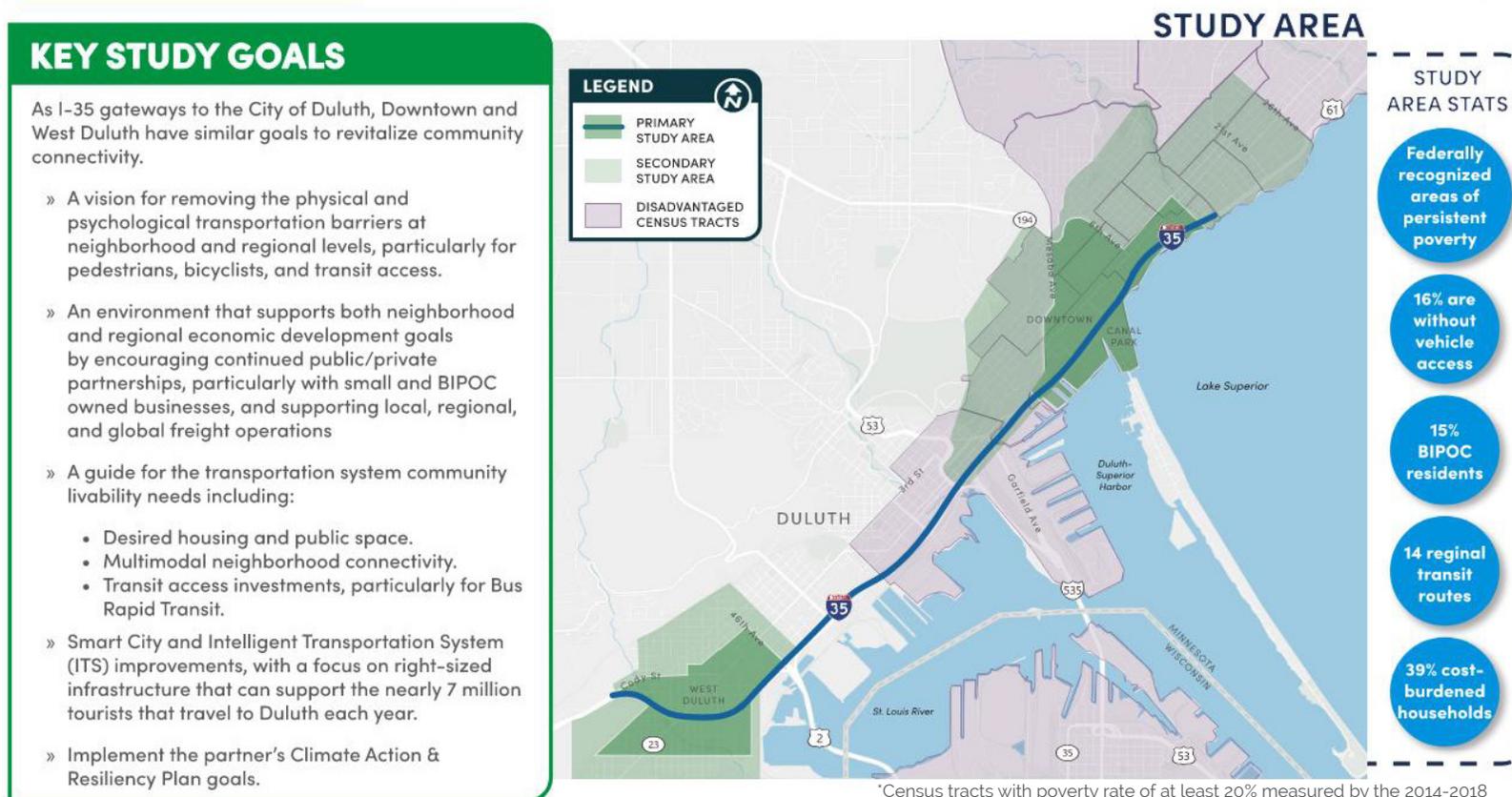
- Continued desires to prioritize pedestrian and bicycle movements in I-35 improvement designs.
- There were both advocates for and against freeway removal. Those for freeway removal, as illustrated in the Parkway Concept, felt this would provide more and better opportunities for pedestrian connectivity and reconnecting the community while demoting the priority on cars in the community. Critics of freeway removal expressed concern over negative impacts on traffic flow and event-related congestion that would occur.
- Lid Concept proponents felt a lid would accomplish all goals by capping the freeway to provide better connectivity and opportunities for economic development and better air quality. They urged for a larger cap to cover more area or the entire length between 5th Avenue and Lake Avenue.

- Freight users desired a balance of maintaining mobility and safety on I-35 yet seeking opportunities to better connect the community across I-35. Freight users supported the extension of a truck climbing lane on I-35's Thompson Hill to Boundary Avenue.
- West Duluth/Spirit Valley neighborhoods began to organize through the development of the I-35 Corridor Plan citing similar concerns to Downtown regarding the need for better connectivity, livability, economic reinvestment, and safety.



## Phase III – Implementation Plan

Based on public and stakeholder feedback on the I-35 Corridor Plan, the City of Duluth, MnDOT, and the MIC submitted a Reconnecting Communities and Neighborhoods (RCN) federal grant in September 2023. The goal is to secure additional planning funds from this federal program to further study and define the local needs of both the West Duluth/Spirit Valley area and the Downtown Duluth area to confirm and/or adjust I-35 recommendations and other transportation system investment needs in these areas. The study will consider future land use and redevelopment opportunities, economic feasibility, parks and public spaces, environmental sustainability, and neighborhood pedestrian/bike connectivity needs. Public engagement will be a critical component of this planning study to ensure a community-led vision and supported recommendations. The RCN grant awards are anticipated to be announced in Spring 2024.



\*Census tracts with poverty rate of at least 20% measured by the 2014-2018 American Community Survey. The study area exceeds that with 40% of incomes less than 85% of the federal poverty threshold.

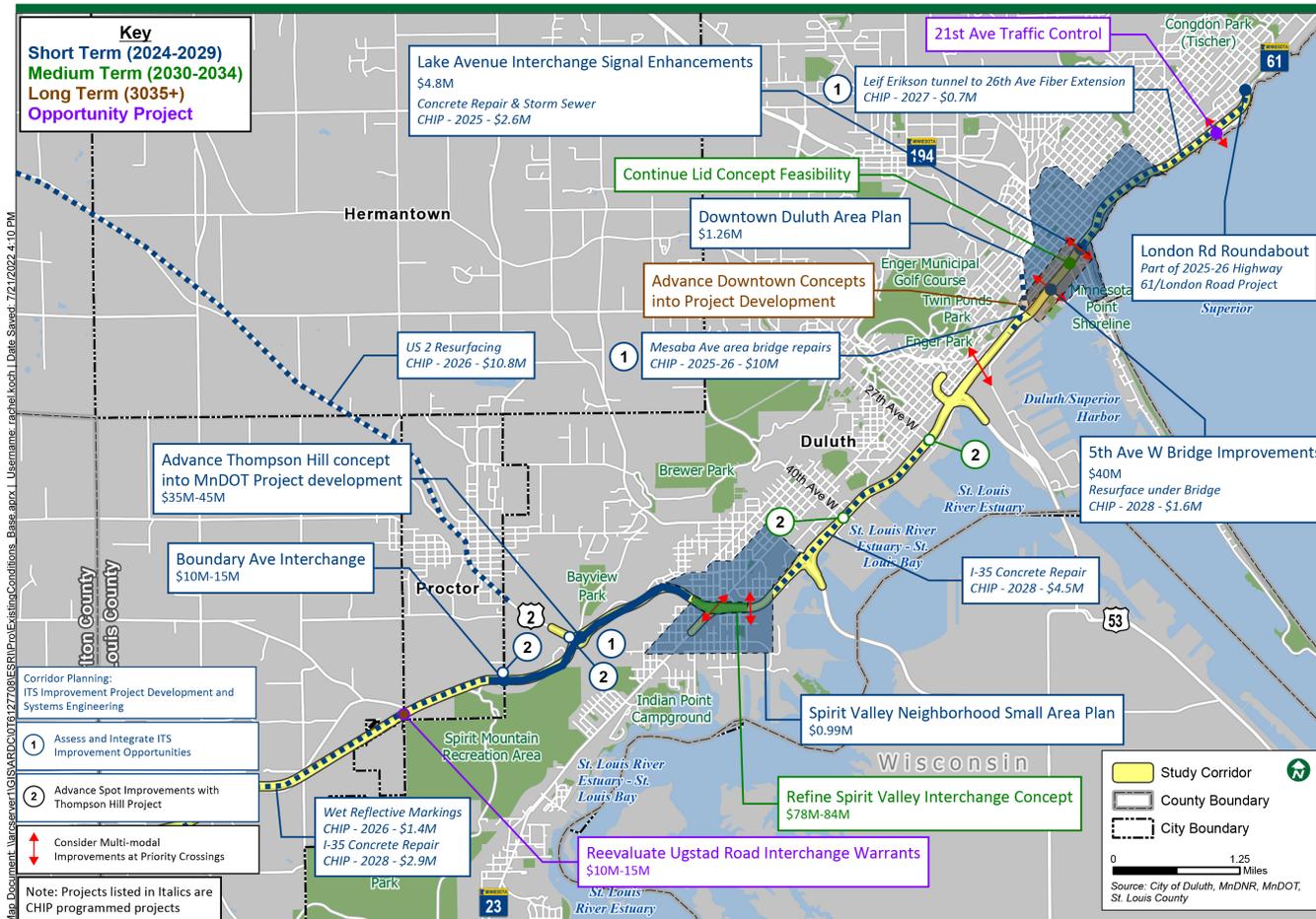
The project team held a workshop with MnDOT District 1 staff to further the scoping efforts for a future Thompson Hill project. The workshop focused on I-35 from Boundary Avenue through Central Avenue. A summary of the analysis is included in the report Appendix.

The final study report and implementation plan was shared on the project website and presented to the MIC's Technical Advisory Committee and Policy Board.

Additional details on the public engagement events and feedback collected can be found in the Public Engagement Chapter of the I-35 Corridor Plan Final Report.

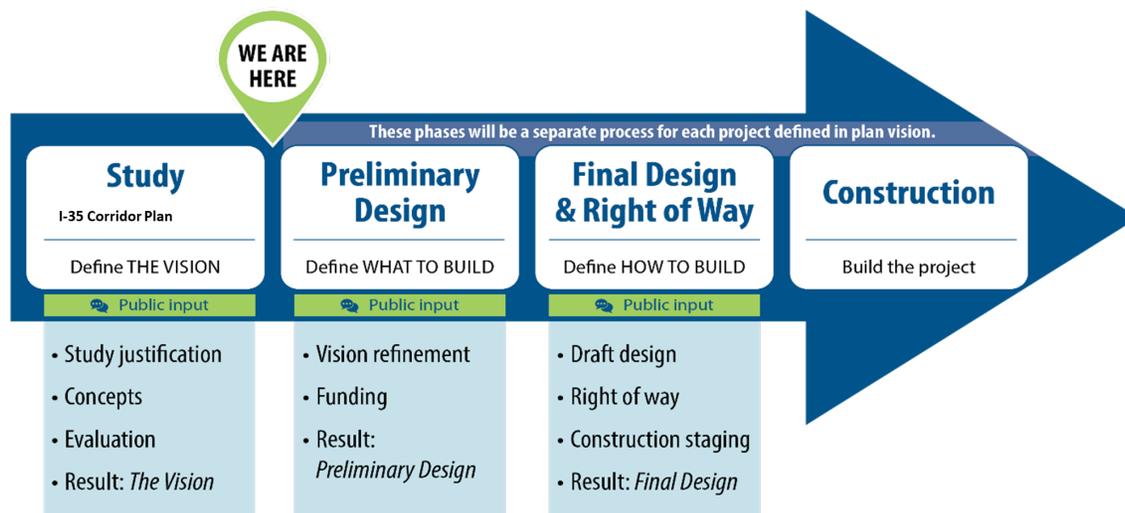
## IMPLEMENTATION

The I-35 Corridor Plan developed an Implementation Plan to ensure clarity and prioritization of the identified next steps and to align the implementation approach over time along the entire corridor. Improvements were delineated across Short Term (2024-2029), Medium Term (2030-2034), Long Term (2035+), and Opportunity-Driven timeframes, with suggested lead and support agencies, and sources of funding. The sequencing of these improvements was based on the timing of required maintenance, technical analysis, public input, and funding constraints/opportunities. The graphic below illustrates the recommended improvements within each implementation timeframe.



## NEXT STEPS

The I-35 Corridor Plan resulted in an overall corridor vision. Improvements are defined at a concept level and once funded, individual projects will be further developed with public input during the design phases.



Community and agency partners will need to continue to collaborate to write the next chapter of the I-35 corridor's future and to further study, design, fund, and implement the Plan recommendations over a multi-year period. This collaborative approach should ensure a coordination of efforts, alignment of resources, critical evaluation of future studies, and mutual-support in pursuing a future that seeks to balance outcomes for all.