

# Executive Summary

---

## Introduction & Background

This document presents the analyses and findings of a study done of the publicly owned surface transportation system in the Lincoln Park neighborhood in Duluth, Minnesota. The purpose of the study was to determine the existence of potential issues and opportunities regarding the future of motorized and non-motorized modes of transportation in the neighborhood. The objectives of the study were organized under the following perspectives:

*“Multimodal” perspective:* Pursuing improvements that give people the options to use different modes of transportation, or to combine different modes, to satisfy their trip needs.

*“Public investment” perspective:* Seeking transportation improvements while also appreciating and accounting for the financial realities associated with maintaining those improved assets into the future.

*“Future opportunities” perspective:* Scanning the horizon for opportunities to enhance multimodal transportation through future development and reconstruction, as well as using the present and near future to figure out ways to combine and finance such opportunities for implementation in more distant years.

This study was unique in that its development occurred alongside that of the City of Duluth’s Lincoln Park Small Area Plan (SAP). Findings from research and stakeholder engagement were shared between the efforts, ultimately influencing the recommendations of each other. As such, the recommendations

of from this study reflect the development of the city’s SAP and, in turn, the SAP has incorporated many of the recommendations of this study.

## Principal Findings

The Federal Highway Administration (FHWA) defines “multimodal” as: the availability of transportation options using different modes within a transportation system or travel corridor.<sup>1</sup> Although FHWA’s definition emphasizes the availability of transportation choices, this study also considers aspects of multimodalism regarding connectivity, integration, mobility, and the safety of those choices within and around Lincoln Park.

## Primary Recommendations

In general, this study calls for a coordinated effort among regional transportation partners (e.g. the City of Duluth, DTA, MnDOT, the MIC, and others) to create more multimodal opportunities and bring greater multimodal integration to the Lincoln Park neighborhood. The study proposes a number of strategies and actions to accomplish those objectives, including low-cost improvements, such as pavement markings, in the short-range and planning for larger-scale improvement projects, such as street redesigns, in the longer range. While it is not likely that every recommendation can be implemented, this study calls for regional transportation partners, including private developers, to work together in pursuit of opportunities to package improvements and

achieve cost savings.

## Limitations

This study was subject to limitations regarding both time and financial resources. As scoped, the project was conducted within a year, with limited staffing and relied primarily on existing data produced by secondary sources. As a consequence, support for some findings is stronger than others and is the reason that a number of the study's recommendations call for additional monitoring or data collection.

# Table of Contents

---

Executive summary .....	i
Glossary of acronyms .....	vi
1. Introduction & Background .....	1
Scope and purpose .....	1
Planning context .....	3
Study objectives .....	4
Study limitations .....	4
2. Stakeholder Input .....	5
Coordinated engagement .....	5
Project advisory committees .....	6
MIC stakeholder engagement strategy .....	6
Mapping and referencing the input received .....	9
3. Land Use, Demographics, & Growth Scenarios .....	14
Existing land use patterns .....	14
Demographics .....	23
Growth scenarios .....	25
Chapter conclusion .....	29
4. The Road Network .....	30
Network design & function .....	31
Access & connectivity .....	36
Travel demand & mobility .....	41

## Table of Contents *(continued)*

---

Network condition .....	48
Chapter conclusion.....	49
<b>5. The Freight Network .....</b>	<b>53</b>
Network design & function .....	53
Accessibility & connectivity .....	54
Travel demand & mobility .....	58
Network condition .....	63
Chapter conclusion.....	63
<b>6. The Transit System .....</b>	<b>65</b>
Service design & function .....	65
Connectivity, access, & demand .....	69
Future land use changes .....	76
Transit maintenance & operations .....	78
Chapter conclusion .....	79
<b>7. Active Transportation .....</b>	<b>82</b>
Sidewalk network .....	82
Bikeways network .....	87
Trails.....	93
Winter maintenance .....	96
Chapter conclusion .....	97
<b>8. Integration &amp; Safety .....</b>	<b>99</b>
Key multimodal corridors and intersections .....	99

## Table of Contents (*continued*)

---

Multimodal level of service (mmLOS) assessment .....	101
Assessment of crash data .....	102
Additional observations .....	107
Chapter conclusion .....	112
<b>9. Recommendations .....</b>	<b>114</b>
Explanation of the maps and tables .....	114
Recommendations focused on improvements for motor vehicles and heavy trucks .....	117
Recommendations focused on improvements for regular-route transit service .....	119
Recommendations focused on improving priority sidewalk segments .....	120
Recommended short-range (2016-2019) improvements for cyclists.....	122
Recommendations focused on reducing risks along 27th Avenue W between Superior Street and Michigan Street .....	122
Recommendations focused on creating improved connections between neighborhood activity centers .....	124
<b>Appendices .....</b>	<b>125</b>
Appendix A: List of maps, figures, and tables .....	125
Appendix B: Methodologies .....	136
Appendix C: Summary notes from open house meetings .....	140