



Active Transportation ACTION PLAN

Bloomington, MN



Acknowledgement

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Learn more:

www.dot.state.mn.us/active-transportation-program

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Executive Summary

The Active Transportation Action Plan is the result of a planning effort from October 2022 to June 2023 funded by MnDOT. Bloomington's Planning Team included representatives from the City of Bloomington Engineering, Public Works, Public Health, Planning, Parks and Recreation, Community Outreach and Engagement, Fire and Public Safety and Sustainability.

This Action Plan builds from the City-wide network identified in the 2016 Alternative Transportation Plan. It further defines **strategies and actions** to guide the City in **making walking and bicycling safer and more accessible for people of all ages and abilities**. It serves as a **living guide**. It is intended to **be used, acted on and updated** to continue to create more sustainable and equitable streets by design. Concurrently, the City is updating the Neighborhood Traffic Management Program— an important counterpart to this Action Plan.

Foundational to this Plan, equity is infused into the goals and recommendations:

- **Access and Economic Mobility:** Make investments in neighborhoods/ areas of the City where residents rely on walking and biking the most
- **Safety:** Make investments along and across busy streets, especially undivided four-lane roads
- **Health and Connectivity:** Make investments in areas of the city that lack sidewalks, trails, bikeways and other active transportation links

A connected, safe and comfortable active transportation network ensures all people have equitable access and opportunity to contribute to a vibrant, age-friendly and healthy city.

What's Included in the Plan?

- 1 Introduction**
Why an Active Transportation Action Plan
- 2 Vision and Goals**
Guiding direction of the Plan
- 3 Our Streets Today**
How the Plan was developed; key insights from process
- 4 Building the Network**
Priority routes and projects and overarching recommendations
- 5 Best Practices**
Core concepts illustrated
- 6 Moving Forward**
A call to action



Introduction

SECTION 1

Why an Active Transportation Action Plan?

The City of Bloomington believes that walking, biking and rolling* are critical ways by which people of all ages and abilities reach the places they want to go, connect with the people they want to see and improve their physical and mental health. The City also identifies active transportation as an essential tool for improving environmental health and reducing the City's carbon footprint.

**Rolling refers to people using a wheelchair, stroller, scooter or other assistive mobility device.*

This Active Transportation Action Plan builds on work the City of Bloomington began in 2008 to plan for people walking, biking, and rolling. Specifically, this Plan prioritizes next steps the City can take to continue implementing the City-wide network identified in the 2016 Alternative Transportation Plan update. The City has made important progress on implementing the 2016 network, including conversion of Nicollet Ave from 4 to 3 lanes, addition of a multi-use trail along France Avenue and new connections to parks and park trails. However, much work remains to create a safe, comfortable and enjoyable environment for people walking, biking and rolling in Bloomington, including continuing to right-size undivided 4-lane roads, traffic calming measures, facility signage and intersection improvements.



Why Active Transportation?

Equity



Owning one car costs roughly **\$10,700 per year** (AAA, 2022). **2.6%** of Bloomington workers over 16 **do not have access to a car.**

Car ownership should not be a requirement for getting around safely and efficiently.

U.S. Census 2021 ACS 5-year estimates for Bloomington

Environment



Minnesota must **reduce transportation related greenhouse gas emissions by 80%** and **vehicle miles traveled by 20%** by 2050 to reach its climate goals.

Active transportation networks reduce dependence on driving to get around. Less driving means cleaner air.

Street trees add to active transportation users' comfort and help absorb and filter rainwater, reducing stormwater costs and urban heat gain.

"Statewide Pedestrian System Plan", Minnesota Department of Transportation, n.d.

Economy



Active transportation stimulates local economies through job creation, tourism and business development.

People walking and biking make more frequent trips than people driving, spending more money at local businesses.

"Walking the Walk; How Walkability Raises Home Values in U.S. Cities", Joe Cortright, n.d.

"Cyclists and Pedestrians Can End Up Spending More Each Month Than Drivers", Emily Badger, n.d.

Why Active Transportation?

*"Greenhouse gas emissions are harmful climate pollutants that threaten the health of our community and world. In Bloomington, transportation is the second largest source of climate pollution. **Active transportation such as biking, walking, and rolling are essential strategies to reducing greenhouse gas emissions and meeting our City's environmental goals.**"*

-Emma Struss, Sustainability Coordinator

Why Active Transportation?

Health & Wellbeing



Bike commuting at least **2 miles, 3 times per week** is linked to:

46% lower odds of **heart disease or diabetes**, **31%** lower odds of **obesity**, **28%** lower odds of **high blood pressure**, lower medical costs, and better quality of life.

"Active Transportation: Benefitting health, safety and equity", American Public Health Association, n.d.

Social Connection



"Humans are social creatures— we live in community. Individual health and wellbeing is intricately tied to the health of our communities and our interactions with others."

"How Do Our Social Networks Effect our Wellbeing", University of Minnesota, n.d.

Happiness



Researchers at the University of Minnesota have found **bicycling** to be the **happiest form of transportation**.

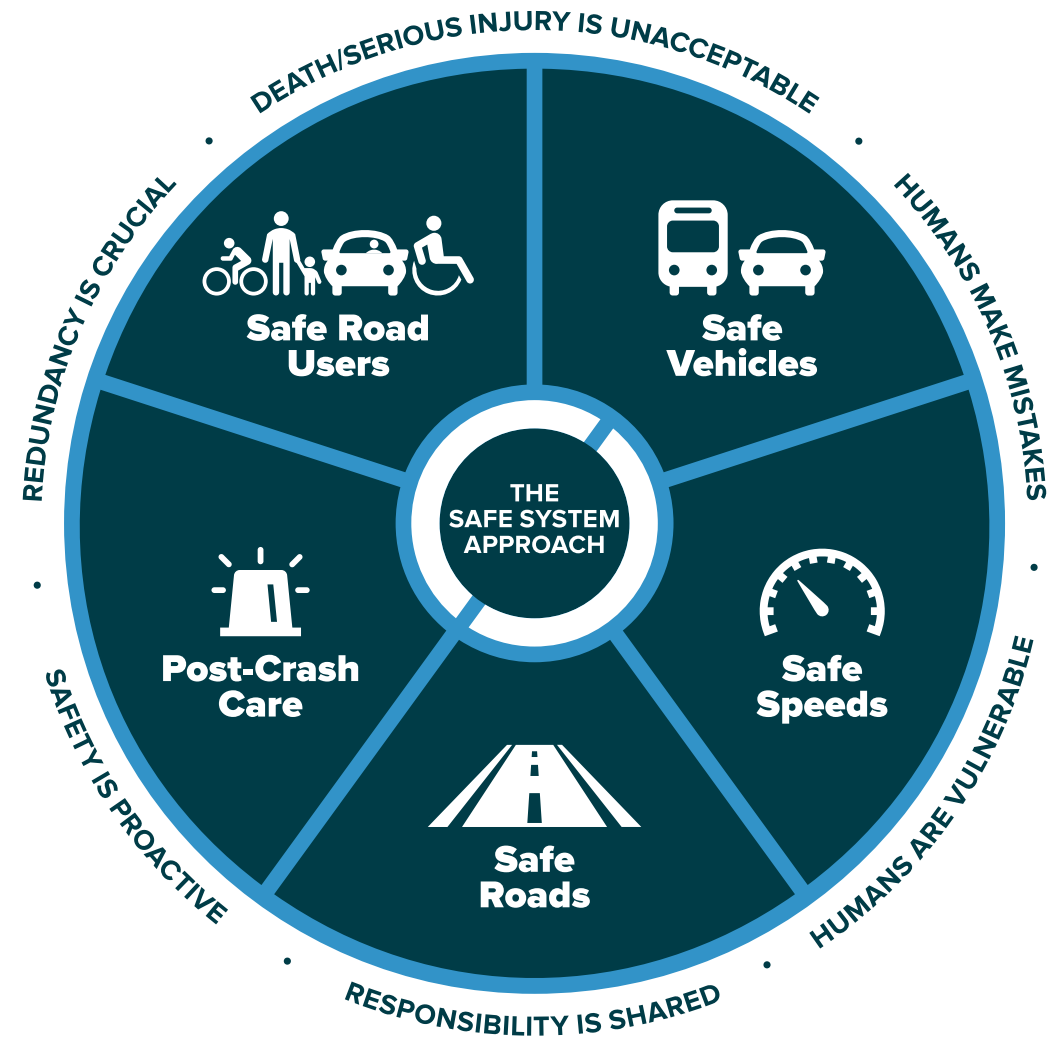
"U Of M Researcher: Biking Found To Be The Happiest Form Of Transport, Public Transit The Least", CBS News Minnesota, n.d.

Safe System Approach

More communities and agencies, including Minnesota Department of Transportation (MnDOT) and U.S. Department of Transportation/Federal Highway Administration (USDOT/ FHWA) are following a Safe System approach to traffic safety, which aims to eliminate fatal and serious injuries for all road users, including people walking, bicycling and rolling.

Safe System focuses roadway safety efforts on ways to effectively:

1. **Design for the people in the system**
2. **Manage vehicle speeds by design**
3. **Employ proactive tools to manage risks across an entire roadway network, especially for the most vulnerable users**
4. **Foster integrated, collaborative and coordinated action**



Source: FHWA

“ [MnDOT] can prevent traumatic life-altering, costly crashes by focusing on creating low-speed environments in population centers and around other destinations where people are likely to walk [and bike]. ” - Statewide Pedestrian Systems Plan

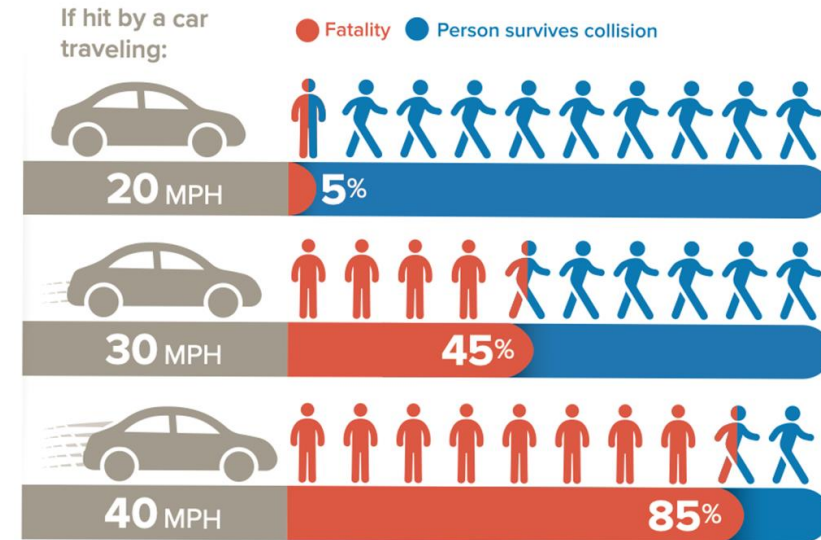
Making Safety a Priority Over Speed

This Plan focuses on designing safer streets to ensure all people have safer, more comfortable options and more transportation choices. Reducing driver speeds directly improves the safety of streets and sense of place.

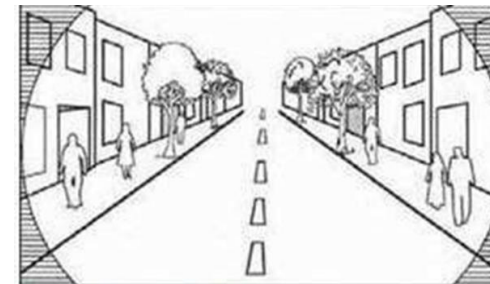
Why Speed Matters

The negative impact of motor vehicle travel speed on crashes that involve people walking and biking is well documented. For example, a person walking has a 95-percent chance of surviving the crash if struck by a person driving at 20 mph. The chances of survival decrease by almost 50 percent when the person driving is traveling only 10 mph faster. Traffic crashes that kill and injure people are a serious transportation and public health concern. **Communities throughout Minnesota are working Toward Zero Deaths as part of the statewide initiative to achieve zero traffic-related injuries and deaths, believing they are unacceptable and preventable.**

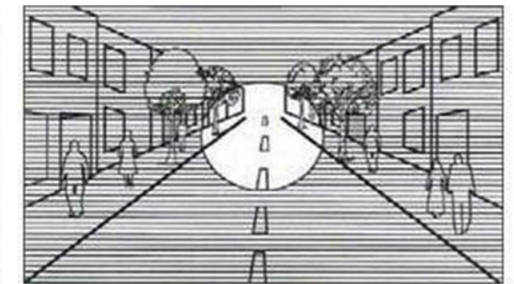
Lower speed streets better support businesses by increasing visibility. At lower speeds, drivers can see more of their surroundings and have more time to react, yield and stop for people crossing, parking and to avoid potentially fatal crashes.



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: <https://www.nts.gov/safety/safety-studies/Documents/SS1701.pdf>



Field of vision at 15 MPH



Field of vision at 30 to 40 MPH

Target Speed | Designing for Safe Speeds

Street Design Influences Behavior

The design of streets directly influences behavior. Most motorists drive to match the “design speed” of the road, using cues such as lane width, street texture, the distance between buildings, street trees, other edge features and sight-line distances rather than solely relying on the posted speed limit. In turn, streets should be designed to promote safety by taking a proactive design approach to ensure lower “target” speeds—the speed drivers *should* be going.

Historically, roadways have been designed by observing the operating speed of the majority of drivers and designing the street for that speed. This has resulted in design speeds that are often higher than the posted speed due to wide turn radii, wider travel lanes, clear zones and more.

Today, more communities are using “target speed”, a proactive approach to multimodal street design, by first identifying the speed they would like drivers to go and then implementing street design treatments to ensure the operating speeds of motorists are aligned with the target speed. This convention **helps ensure vulnerable users like people walking and biking are considered equally with motorists in the design of the roadway.**

Conventional Street/Highway Design

Operating Speed = Design Speed = Posted Speed

Proactive Multimodal Street Design

Target Speed = Design Speed = Posted Speed

Adapted from NACTO.org

Bloomington should consider designing their streets to achieve a target speed of 25 mph. A lower target speed is a key characteristic of streets in walkable, bikeable, mixed use, neighborhoods and commercial nodes.

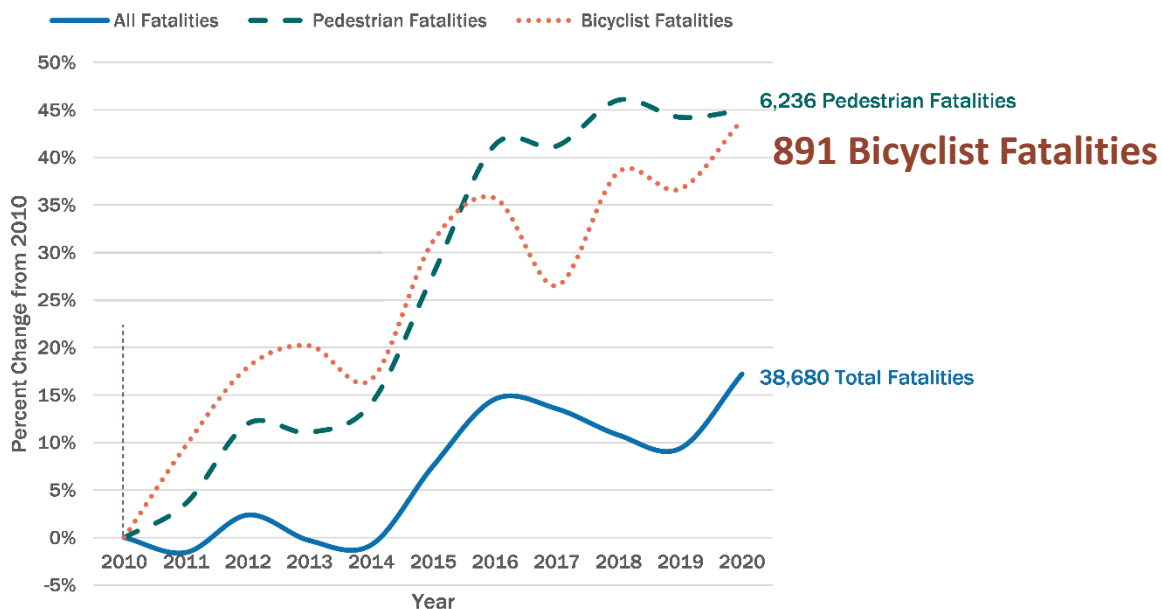
This Action Plan provides starter recommendations on how to start to bring the design speed more in line with the target speed through narrower lane widths, streetside landscaping, modern roundabouts and other traffic calming tools to create a safer and higher quality environment for all.

Read more on target speed: <https://nacto.org/publication/urban-street-design-guide/design-controls/design-speed/>

Safety is Not Shared Equally

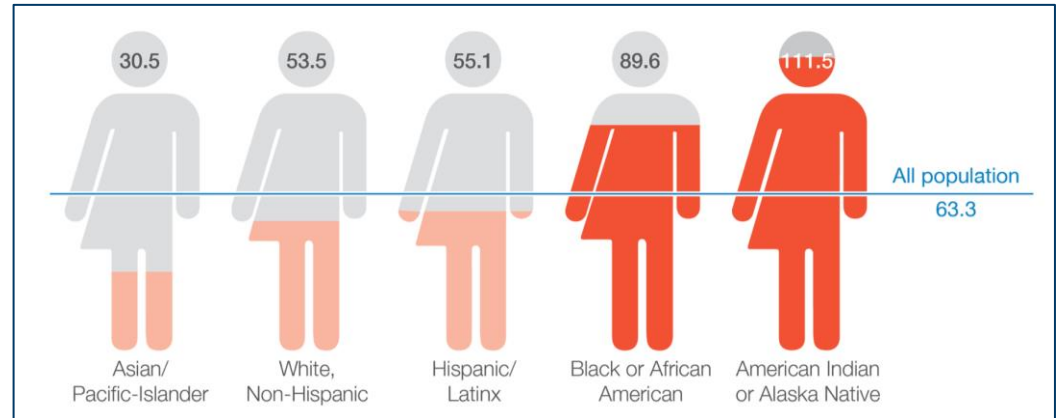
Addressing road safety for people who are most impacted helps achieve simultaneous goals of safety for all users, equity and climate.

We have a national road safety problem. Fatalities of people walking and biking have increased faster than total traffic-related fatalities between 2010-2020.

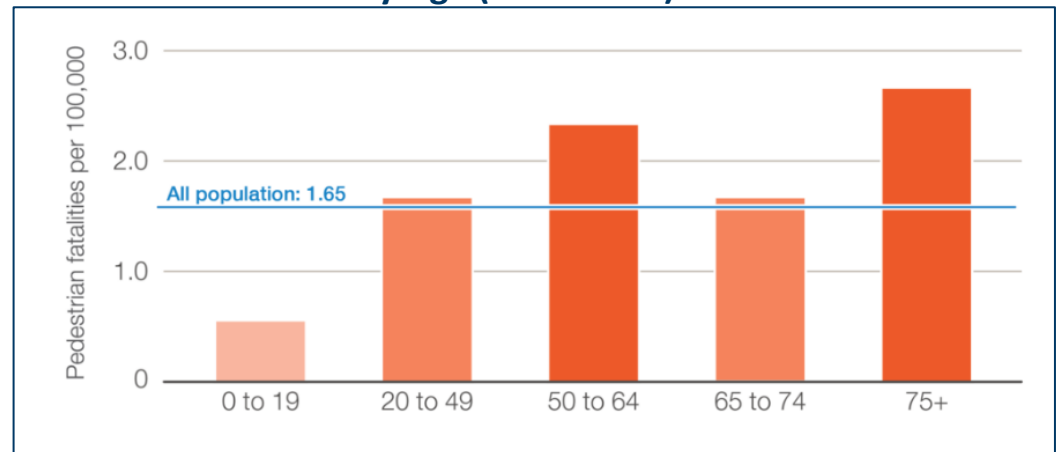


Source: US DOT

Relative Pedestrian Danger by Race and Ethnicity (2010-2019)



Pedestrian Fatalities by Age (2010-2019)



Older adults and people who are Black and American Indian are disproportionately represented in fatal crashes involving people walking.

Source: Dangerous by Design, [Smart Growth America](#), 2021

Safety is Not Shared Equally

Pedestrian and Bicyclist Traffic Safety

Source: MnDOT Crash Data (MnCMAT), 2023, 3-year summary

In a three-year period between 2020-2022:

28% fatal and severe injury crashes

28.3 percent of the 46 crashes involving pedestrians and cyclists were fatal and severe injury crashes, resulting in 3 deaths and 10 severe injuries on Bloomington streets.

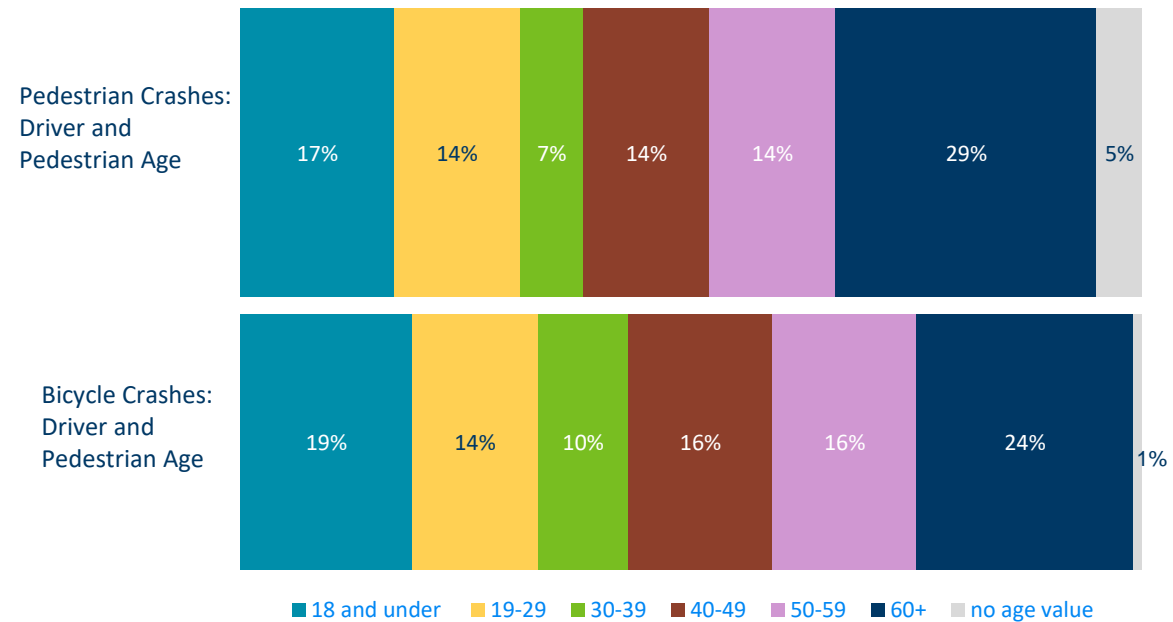
More crashes occur at intersections – Intersections account for 72% of crashes

71.7 percent of crashes involving pedestrians and cyclists occurred at intersections. Four-way intersections accounted for the largest share of pedestrian and cyclist crashes (48%). This finding supports the need to pursue actions that address intersection safety.

Crashes do not affect all age groups equally

Younger (18 and under) and older adults (60+) are most represented in pedestrian and cyclist crashes, including drivers' age. This finding supports the need to pursue actions that address safety for younger and older populations.

People Involved in Pedestrian/Bicycle Crashes by Age (2020-2022)

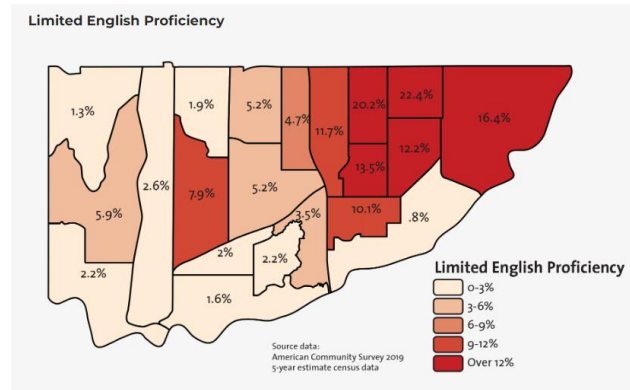
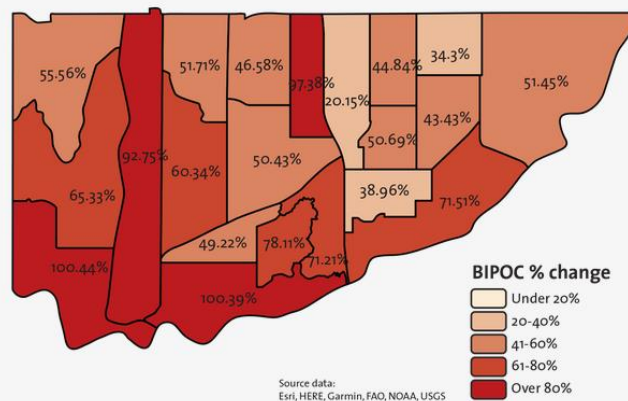


Bloomington is Becoming More Diverse

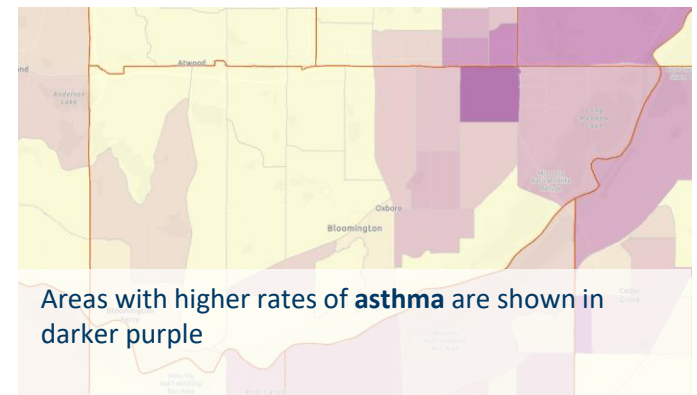
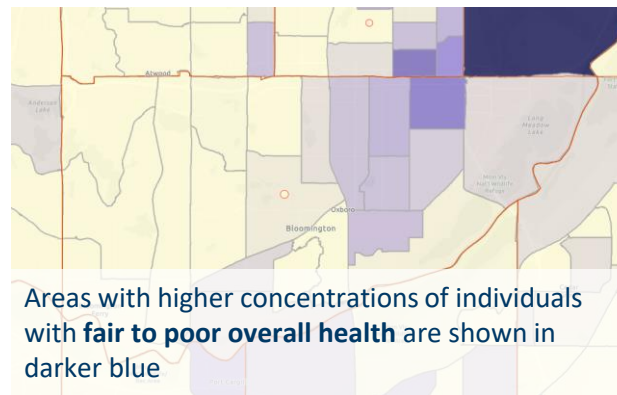
The percentage of Bloomington’s **Black, Indigenous, People of Color (BIPOC) population is 32 times what it was in 1970**. The growth of Bloomington’s BIPOC population varies across the city with areas of historically higher concentrations of white residents (in the south and west) seeing large relative growth in BIPOC population between 2010 and 2020 while areas in the north and east of the city with larger concentrations of BIPOC residents historically seeing less relative growth in the BIPOC population. Despite these variations across the city, it is important to note that **all areas of Bloomington are becoming more diverse**.

While Bloomington grows more diverse, there are **still disparities in health outcomes for BIPOC populations**. For example, the maps below show that areas with higher concentrations of limited English proficiency populations are also areas of Bloomington with higher asthma rates and higher prevalence of fair or poor health.

Change in Black Indigenous People of Color Population 2010 to 2020 Total and Percentage



Investment in the Active Transportation system in areas of the City experiencing health disparities can help provide more equitable health outcomes for BIPOC and immigrant residents.



Source: CDC Places. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>

Source: <https://www.bloomingtonmn.gov/cs/community-based-strategic-planning>

Advancing Equity

Active transportation not only provides more sustainable streets, but it creates more equitable streets, public spaces, by design.

People walk, bike and roll to meet their daily needs for many reasons: for exercise, to connect with friends, enjoy nature, access transit, get to work, school, the grocery store and more. All trips begin and end by walking –everyone is a pedestrian at some point of their day– even trips by bike, bus and car.

Focusing on the most vulnerable user – the pedestrian – ensures streets and land use connections are human-scale and designed for the needs of many. This is especially important for people with disabilities, children and older adults. **A connected, safe and comfortable active transportation network ensures all people have equitable access and opportunity to contribute to a vibrant, age- friendly and healthy city.**

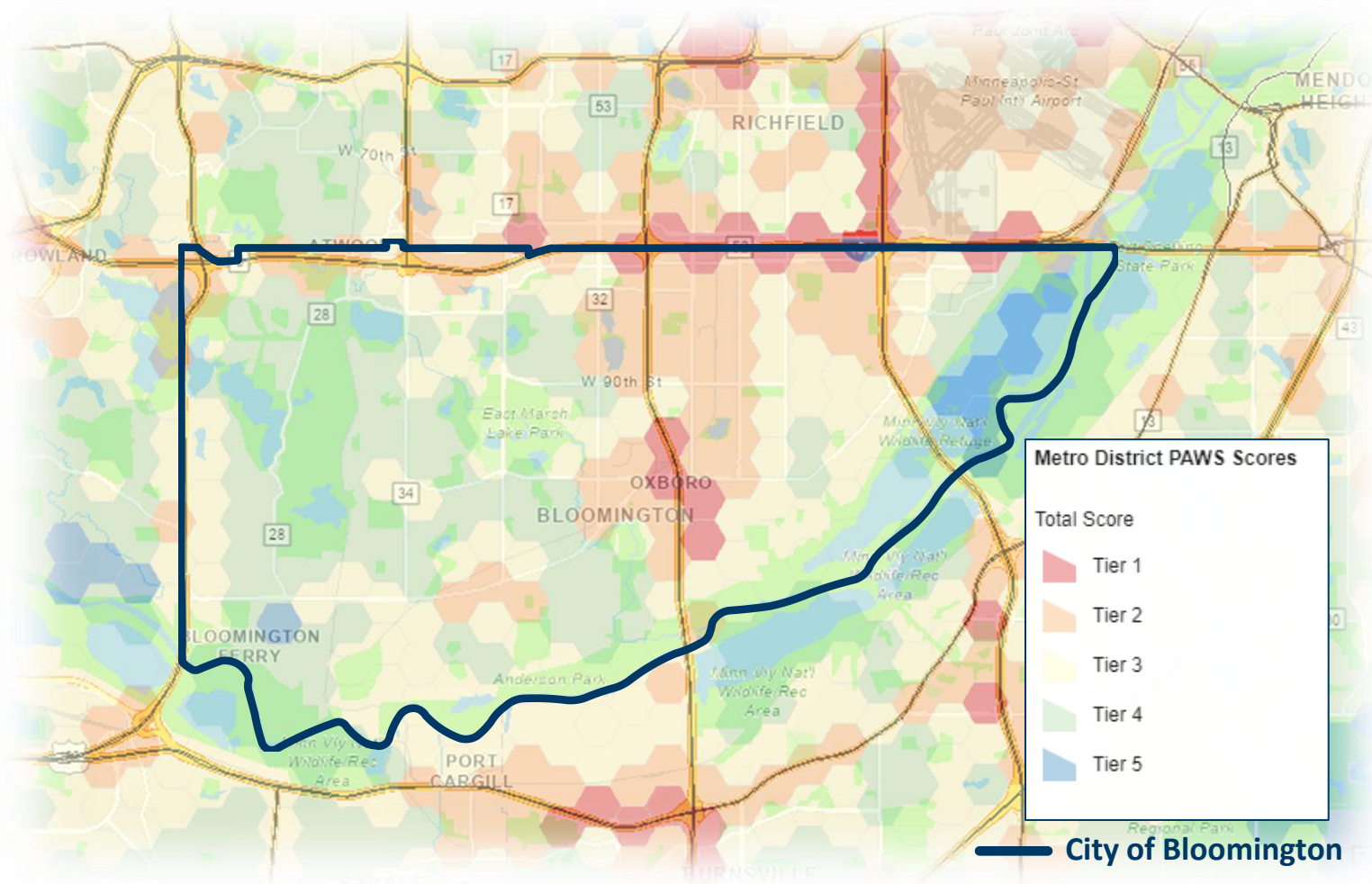
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- **Safety:** Make investments along and across busy streets, especially undivided four-lane roads
- **Health and Connectivity:** Make investments in areas of the city that lack sidewalks, trails or other active transportation links



This Plan uses a broad definition of pedestrian and walking. The terms “pedestrian” and “walking” includes people who travel on foot and use mobility devices such as wheelchairs, strollers and scooters. In addition, the term “rolling” is used to also include people who use mobility aid devices to move around Bloomington.

Where should we prioritize Active Transportation?



Priority Areas for Walking

MnDOT's Priority Areas for Walking (PAWs) tool considers 19 factors that indicate demand for walking and need for improvement to the walking environment and identifies areas where the safety and comfort of people walking should take priority over the convenience of people using other modes during project planning.

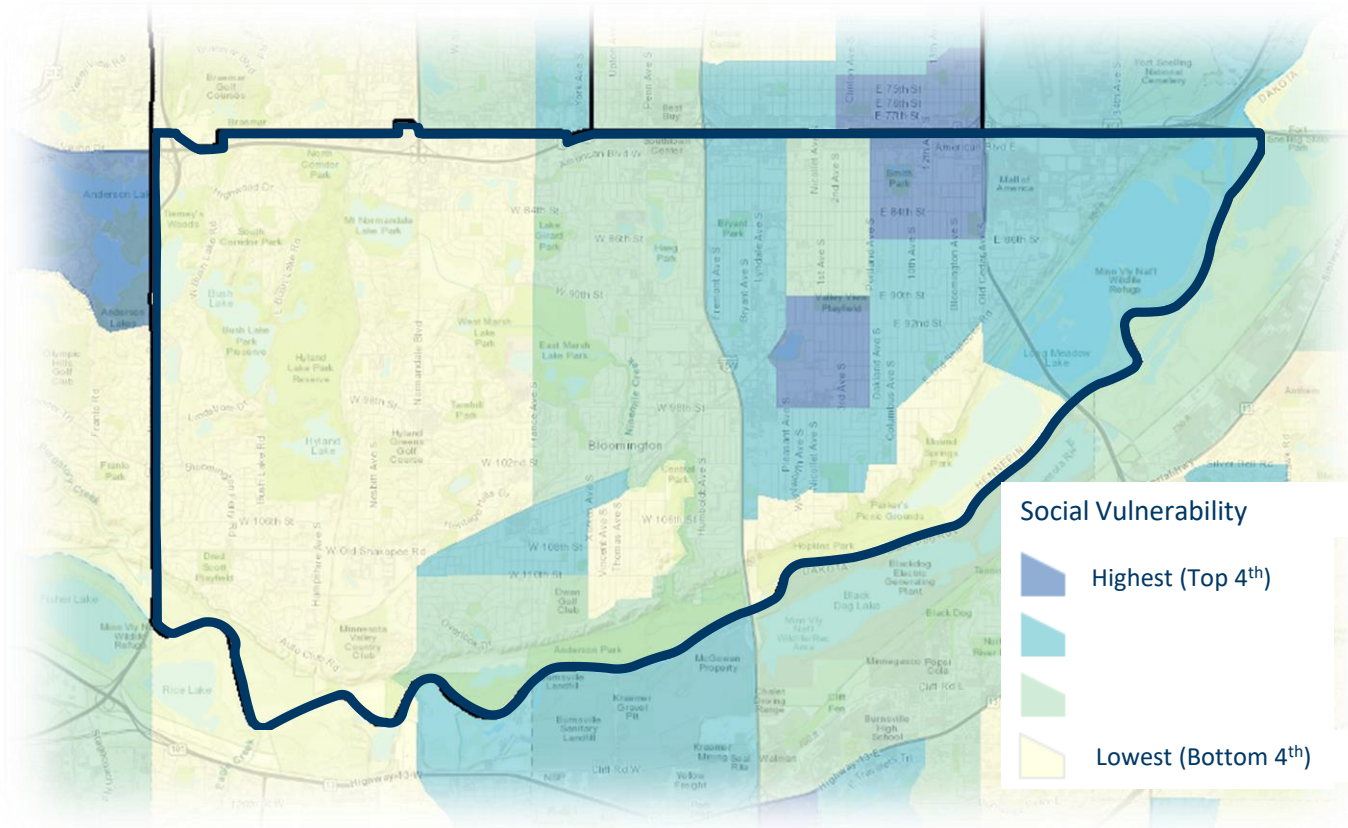
In the City of Bloomington the highest priority areas for walking (Tier 1 or Tier 2) are located on the northern edge of the City along I-494 and American Boulevard and along the I-35W corridor through the center of the City. Generally, the eastern half of the City is a higher priority for walking as compared to the west side of the City.

[PAWS Tool](#)

Where should we prioritize Active Transportation?

Social Vulnerability Index

The City of Bloomington Public Health department uses the Center for Disease Controls Social Vulnerability Index (SVI) to guide its work. The SVI ranks U.S. Census tracts based on 16 social factors including poverty, lack of vehicle access, and crowded housing to determine how socially vulnerable communities are. While the SVI was originally developed to help communities prepare and respond to hazardous events such as natural disasters, the SVI can help the City of Bloomington identify where to prioritize Active Transportation improvements.



Active Living by Design

Our zip code is a bigger indicator of our health than our genetic code. Active transportation is the most healthy and climate-friendly way to get around.

The design of streets and our built environment directly impacts the choices we make for how we get around.

People who live in neighborhoods with **sidewalks and/or trails** and traffic calmed streets are **47% more likely** than residents of areas without sidewalks/trails **to be active** for at least **39 minutes a day**.

Sallis, J., Bowles, H., Bauman, A., & et. al (2009). Neighborhood Environments and Physical Activity Among Adults in 11 Countries. *American Journal of Preventive Medicine*. <https://doi.org/10.1016/j.amepre.2009.01.031>

Street Networks

Well-Connected, Compact Street Networks Increase Walkability & Bikeability

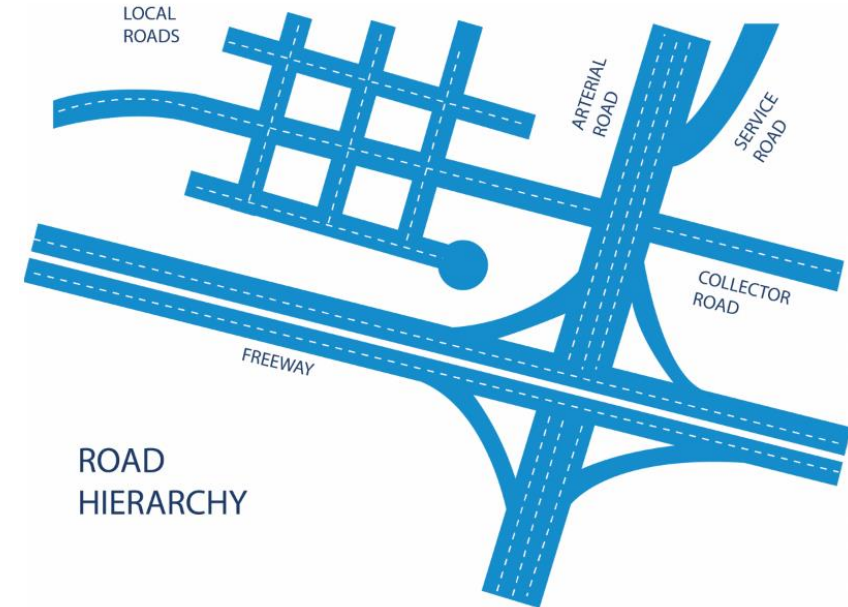
Well-connected streets with short block lengths (200-400 feet) are a key factor in enabling people to replace short car trips with walking, biking or rolling.

Studies find interconnected streets with a mix of destinations and land uses promote:

3-4 X times more people walking, biking or using transit to get to work (Marshall & Garrick, 2011)

50% ↓ decrease in vehicle miles traveled per capita (Marshall & Garrick, 2011)

Higher location efficiency: Housing and transportation costs combined are typically lower for people who live in compact neighborhoods with walkable streets, high access to jobs, transit and a wide variety of businesses. (H+T Index, Center for Neighborhood Technology)



▲ Auto-focused road hierarchy in suburban communities is designed to funnel traffic onto a limited number of routes.



▲ Traditional neighborhood grid – a human-scale network with a dense pattern of streets and intersections, providing all users route choice and convenience.

Active Living by Design

Street Design Influences Our Decision to Walk or Bike

A person's decision to walk or bike is influenced by many factors, including:

- Distance to destination
- Safety and comfort of route
- Convenient connections
- Visual interest of the route

People walking and biking are exposed and vulnerable when walking or biking directly adjacent to a high-speed vehicle travel lane. Vehicle noise, exhaust and the sensation of passing vehicles reduce comfort. Factors that improve comfort include greater separation from moving traffic and a reduction in speed through landscaping, bike lanes, sidewalks and more.



(Credit: Steve Price)

Street Networks & Active Transportation Principles

To provide transportation choice, equity and encourage active trips, routes must be:

Safe: Does the route minimize risk of injury and danger (both traffic and personal security)?

Comfort: Does the route appeal to a broad range of age and ability levels and are there user amenities (e.g., places to sit, protection from the weather)?

Coherent: How easy is it to understand where to go? How to navigate a crossing or an intersection? How connected is the network?

Direct: Does the route provide direct and convenient access to destinations?

Attractive: Is the route green, well-maintained, and celebrate local identity?

These Active Transportation Principles are founded in a Safe System Approach. The significance of each principle may vary from route to route and from person to person. For example, people walking or biking to the grocery store often prioritize directness whereas people out for a recreational bike ride value attractiveness and comfort more than a direct route. Regardless of trip type, safety is critical for all users, especially when ensuring children and elders have safe routes to school, parks and other places they want to go.

Street Networks

How Far Can You Walk or Bike in 20 Minutes in Bloomington?

Many trips taken by car are suitable for walking and biking due to their shorter length:

46% of all trips taken in a private vehicle are 3-miles or shorter in length

22% of all trips taken are 1-mile

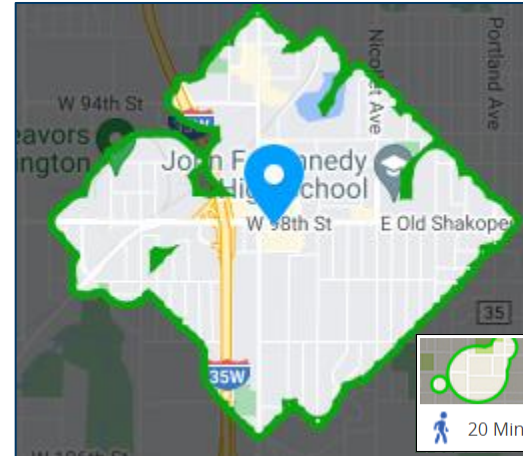
(National Housing Travel Survey, 2017)

TRAVEL TIMES

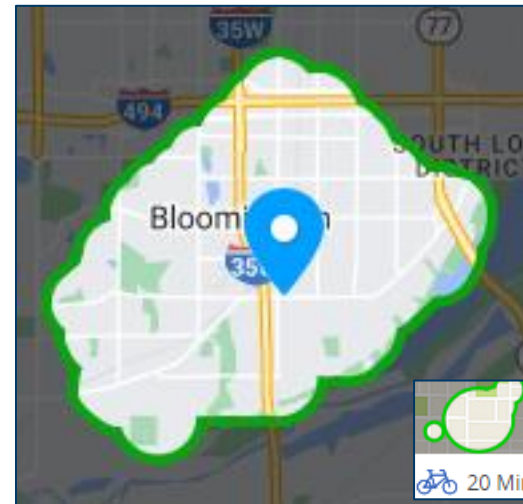
Mode	Distance	Time
Walk	¼-mile	5 minutes
Walk	1-mile	20 minutes
Bike	3-miles	18-20 minutes

The average time it takes someone to walk or bike to places within a ¼ mile to 3 mile distance. *Time based on average walking speed of 3 mph; average biking speed of 10 mph.*

Opportunity: Bloomington can shift short car trips to active trips (walk/bike) by focusing on the safety, comfort and convenience for people walking, biking and rolling along key routes.



Example of a 1-mile or 20 minute walk radius showing how far people can travel by foot from 98th Street and Lyndale Avenue if the quality of the street environment is safe, comfortable and convenient. (walkscore.com)

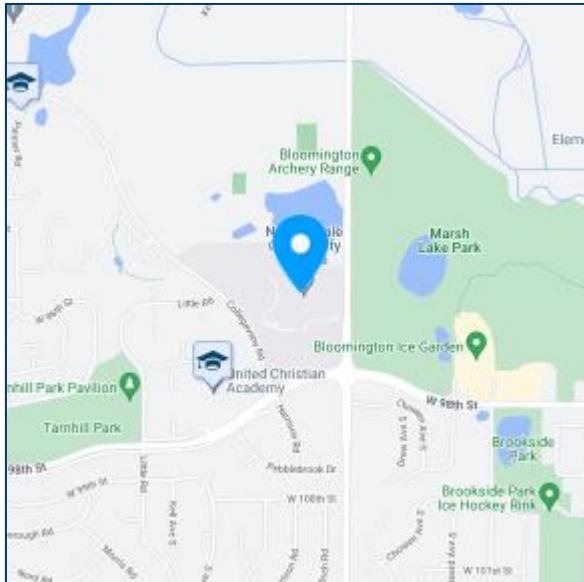


Example of a 3 mile or 20 minute bike radius showing how far people can travel by bike from 98th Street and Lyndale Avenue. (walkscore.com)

Street Networks

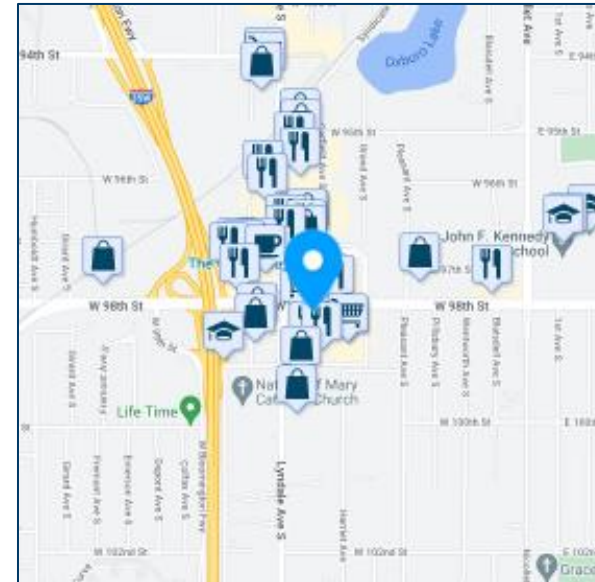
Well-Connected, Compact Street Network Promotes More Sustainable Land Use Practices & Economic Return

A comparison of two locations in Bloomington:



98th Street & France Avenue | Normandale Community College

Walk Score: **20** out of 100
Almost all trips require a car.



98th Street & Lyndale Avenue

Walk Score: **78** out of 100
Most trips can be accomplished on foot.

Walk Score tells how close a property is to popular and necessary amenities such as schools, grocery stores, parks, restaurants or medical services. Properties that have more of these amenities within a 5-minute walk are awarded a higher walk score, which can improve **property values**.

1 Point



increase in Walk Score raises **home values** between **\$500-\$3,000**
(CEO for Cities, 2009)

All Ages and Abilities

Who Are We Designing For?

As identified in the 2016 Alternative Transportation Plan and affirmed in this planning process, many local and county roads within Bloomington create a gap in the local and regional active transportation network due to several factors including high vehicular speeds, multi-lane undivided roads with no designated space for people on bikes, limited landscaped buffer space and complex intersections. In many cases, where there is space on-street for people to bike it is not marked as a legal bike lane, rather just as a paved shoulder.

Today, most of Bloomington's bike network caters to the "highly confident" bicyclist who will ride regardless of roadway conditions and bicycle facility. Highly confident riders represent the smallest category of people willing to bike.

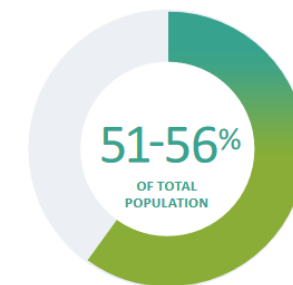
To maximize the potential for more people to bike, and achieve the plan vision, it is important to **design streets with the "interested but concerned" bicyclist in mind**.

Designing for this type of bicyclist will ensure a route and facility type that is lower stress and higher comfort to a wider audience, attracting more people of all ages and abilities.



Low volume, low speed residential streets become nice shared walking and biking streets with traffic calming tools such as neighborhood traffic circles.

INTERESTED BUT CONCERNED



"This is the bicyclist user profile that MnDOT typically considers when selecting a bicycle facility type."

- Minnesota Bicycle Facility Design Guide

Comfort Types of Bicyclists

Low Stress Tolerance

High Stress Tolerance



NO WAY
NO HOW

33%

People will not bike out of disinterest or inability to do so.

INTERESTED BUT CONCERNED

51-56%

People in this group would like to bike more, but do not feel safe on busy streets with fast moving traffic nearby. Biking on streets with fewer and slower-moving cars, or a space separated from vehicles, would help them feel more comfortable. National research and local survey data (page/slide 49) confirm **over half of the population are interested in bicycling more often** but are **concerned about having to share the road with motor vehicles. They would like lower stress street environments to bike.**

ENTHUSED &
SOMEWHAT CONFIDENT

5-9%

People who have been biking for transportation for some time. They are sometimes comfortable sharing the street with drivers, but would prefer to ride on streets with bike lanes or separated paths.

HIGHLY
CONFIDENT

4-7%

People who will ride regardless of roadway conditions and bicycle facility. Highly confident riders represent the smallest category of people willing to bike.

Comfort Types of Bicyclists

Low Stress Tolerance

High Stress Tolerance



INTERESTED BUT CONCERNED

ENTHUSED & SOMEWHAT CONFIDENT

HIGHLY CONFIDENT

WHAT IS TRAFFIC STRESS?

Bicycle Level of Traffic Stress (LTS) is a way to evaluate the stress a person bicycling may feel when they ride on a road close to traffic. It assigns a stress level to streets and bikeways based on factors such as:

- Traffic speed
- Number of travel lanes
- Number of vehicles
- Frequency of on-street parking turnover
- Ease of intersection crossings
- Presence of bike lanes
- Presence of physical barrier to bike lane

LTS 1

Most children will feel safe bicycling on these streets.

LTS 2

The “interested but concerned” adult population will feel safe bicycling on these streets.

LTS 3

Streets that are tolerable to “enthusiased and confident” riders who still prefer having their own dedicated space.

LTS 4

High stress streets with high speed limits, multiple travel lanes and limited or non-existent marked bikeways.

LTS LEVEL	DESCRIPTION	HIGHLY CONFIDENT BICYCLIST WILL RIDE	ENTHUSED & SOMEWHAT CONFIDENT BICYCLIST WILL RIDE	INTERESTED BUT CONCERNED BICYCLIST WILL RIDE
LTS 1		YES	YES	YES
LTS 2		YES	YES	Inviting to most adults, but demands more attention than might be expected from children
LTS 3		YES	Often, but more variability in level of comfort	NO
LTS 4		YES	NO	NO

Level of Quality

By functional classification, the streets pictured are all the same: arterials.

The streets designed to support the safety and comfort of people walking and biking, not only create places where people want to be, they also more safely and efficiently manage vehicle traffic.

Multi-modal streets are a win-win for all.

AUTO FOCUSED



PEOPLE & PLACE FOCUSED



Needs of Pedestrians



Basic Movement: People in motion require 3-4 feet for strolling width, which accounts for movement such as arm or baggage swing, swaying, moving around or over obstacles, pushing a stroller or using a walker.



Social Movement: Two people in motion require more strolling width for walking and socializing (6 feet).

Level of Quality for Pedestrians



The landscape boulevard (grass) or strip provides the added comfort, providing greater separation between children walking and people driving. The added benefit: kids can be kids, spilling over into a protected space.

A 6-foot sidewalk provides minimum space for children to walk in a group.

Strong edge treatments with the landscaping add to the comfort and separation of the sidewalk and parking lot.

A roundabout creates a lower stress, lower speed intersection crossing. People walking only need to cross one direction of travel at a time.



Where grade challenges exist or there is not enough room for a landscape boulevard a bike lane provides added comfort for people walking by creating more separation between sidewalk users and moving vehicles.

Putting it Together: High Quality Streets for All



Landscape median and edge lane markings help to further manage vehicle speeds.

On-street parking provides a traffic-calming effect.

Mixed-use building with residential units setback after the first story help create human scale.

Building provides “eyes on the street” supporting natural surveillance and making people feel watched over. Lighting also adds to a person’s sense of security.

Potential space for café style chairs and tables or benches to further activate the sidewalk.

Curb space buffer (3 feet) gives space to people getting in/out of parked cars.

Cycle track is a different concrete color to further differentiate space.

Landscape buffer zone separates people walking and biking. It provides space to better absorb rain water, store snow and access the street edge.

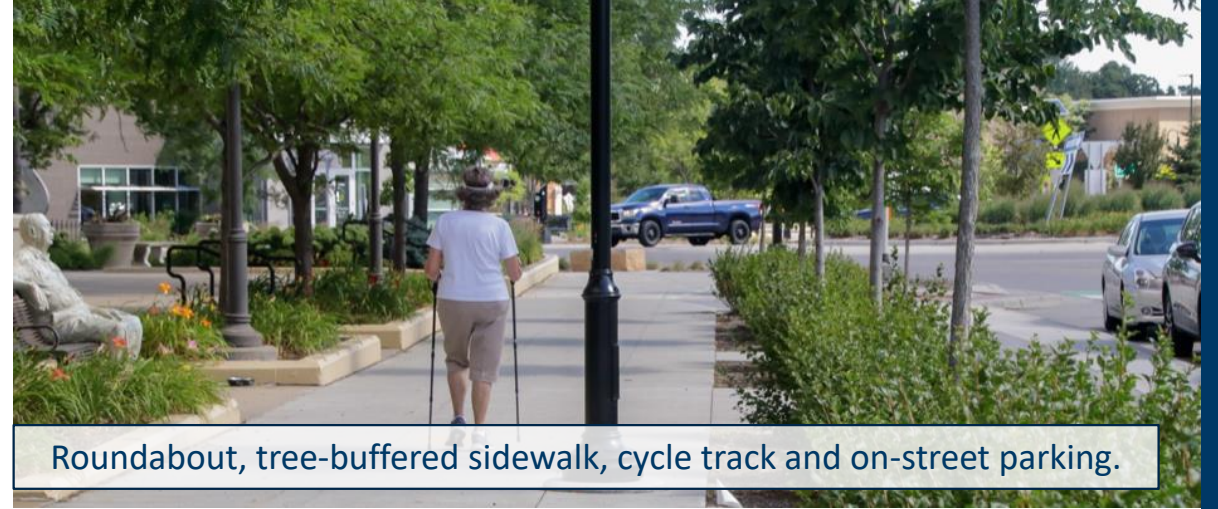
Wide commercial sidewalk (8-10 feet) allows for social walking.

Putting it Together

Successful streets that are safe for people walking and biking reduce the frequency and severity of crashes and minimize conflicts between users.

How street space is allocated plays a large part in managing speeds and ensuring streets are safe for all users, especially the most vulnerable. For example, narrowing, removing travel lanes and/or adding curb extensions reduces the amount of time people walking are exposed to potential conflict while crossing the street. Minimizing the crossing distance reduces the amount of time a motorist must stop while waiting for someone to cross. Narrowing and/or removing travel lanes also allows space to be reallocated for bike lanes, buffered bike lanes, fully separated paths or wider sidewalks. Installing intersection treatments like modern roundabouts or neighborhood traffic circles help manage speeds and are proven safety countermeasures, reducing the occurrence and severity of crashes.

Streets that are right-sized put people first and become even greater community assets. They are places where people want to walk and bike, rather than places where people can walk and bike if they must. In turn, more people choose to walk and bike.



Roundabout, tree-buffered sidewalk, cycle track and on-street parking.



Chicanes provide traffic calming and space for native vegetation.



Neighborhood traffic circle in winter.



Vision & Goals

SECTION 2

Vision and Goals

OUR VISION

Bloomington's Active Transportation system provides safe and convenient connections for people of all ages and abilities walking, biking and rolling.* It connects us to destinations, strengthens community life, celebrates our cultures, encourages wellness and improves environmental health.

** Rolling refers to people using a wheelchair, stroller, scooter or other assistive mobility device*

OUR GOALS

The Active Transportation system in Bloomington....

Transportation Mode Shift & Sustainability

- Increases the number of people making active trips by making it easy to choose walking, biking or rolling, over a personal vehicle trip
- Provides intuitive and direct connections to places people need to go
- Builds support and a culture for more biking, walking and rolling options

Safe & Enjoyable

- Reduces rates of pedestrian and bicycle crashes and fatalities
- Improves community character and social connections by creating inviting green streets and public spaces where people want to be
- Increases quality of life and physical activity by encouraging healthy movement

Equitable

- Prioritizes active transportation improvements in key transportation equity neighborhoods to ensure those who rely on active modes have the most access to them

How Will We Measure Our Goals?

Transportation Mode Shift & Sustainability

- Increases the number of people making active trips by making it easy to choose walking, biking, or rolling, over a personal vehicle trip
- Provides intuitive and direct connections to places people need to go
- Builds support and a culture for more biking, walking, and rolling options



Use and track ACS data reporting on Means of Transportation to Work (Table B08141) and National Community Survey mobility related questions



Measure the number/percent of residents who live within a 20-minute walk or 20-min bike of areas that have the greatest density of amenities.



Measure the number of active transportation events held (e.g. Open Streets); measure through a community survey what types of trips people are making (e.g. to work, school, shop, recreational), how frequent trips are made by active transportation modes and how people perceive their journey based on indicators such as safety, comfort and convenience (time)

Safe & Enjoyable

- Reduces rates of pedestrian and bicycle crashes and fatalities
- Improves community character and social connections by creating inviting green streets and public space where people want to be
- Increases quality of life and physical activity by encouraging healthy movement



Track and report annual rates of pedestrian and cyclists fatal and injury crashes



Document and report the number of new or enhanced community spaces, privately or publicly developed, created annually



Include a question in the annual survey related to how many minutes respondents spend walking or biking every week

Equitable

- Prioritizes active transportation improvements in key transportation equity neighborhoods to ensure those who rely on active modes have the most access to them



Define transportation equity priority areas/neighborhoods. Track the number and miles of Active Transportation improvements within or through these neighborhoods

Draft Measures



Our Streets Today

SECTION 3

How the Plan Was Developed



📷 Photos (clockwise from top left):

- Participants of a bike focus group.
- Walking workshop participants crossing Lyndale Avenue.
- Participants of a network planning workshop.

Four **planning team meetings, walking and mapping workshops, pop-up conversations** and **online engagement** with an interactive comment map and survey informed the development of Bloomington's Active Transportation Action Plan.

INSIGHT →

Process of discovery

In the first two planning meetings the team identified the vision and goals, discussed existing conditions and policy framework, and planned an online comment map, pop-up community conversations, and walking workshops to learn from the community and existing conditions.

IDEATE →

Turning key insights into actions

The planning team discussed and synthesized what they learned from existing conditions and community input to identify action steps for improving biking, walking and rolling in Bloomington.

ITERATE →

Putting the plan together

The planning team solidified priority projects, programs, and policies and documented them in this plan to provide the City with steps to continue implementing the 2016 Alternative Transportation plan and improving active transportation in Bloomington.

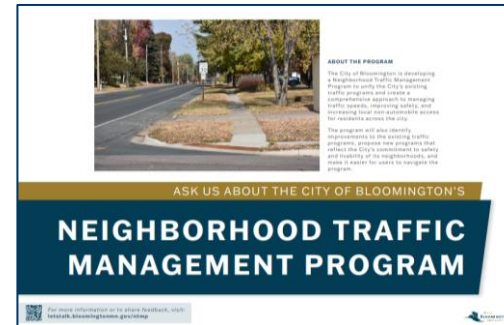
Policy and Plan Framework

FORWARD 2040 COMPREHENSIVE PLAN

Forward 2040 Comprehensive Plan guides all aspects of Bloomington's development and sets policies to support community vitality through parks, trails, housing, land use, transportation, water, sewer and emergency response resources.

This **Active Transportation Action Plan** builds on the 2016 Alternative Transportation Plan update by identifying actionable projects, programs and policies to help Bloomington come closer to realizing the network identified in 2016, which supports the broad community goals identified in the Comprehensive Plan.

EXISTING PLANS & POLICIES



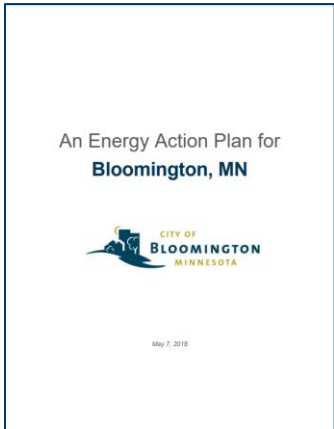
Alternative Transportation Plan – 2016 Update

This plan established a core bicycle and pedestrian network throughout the City and provides bicycle design guidance.

Neighborhood Traffic Management Program

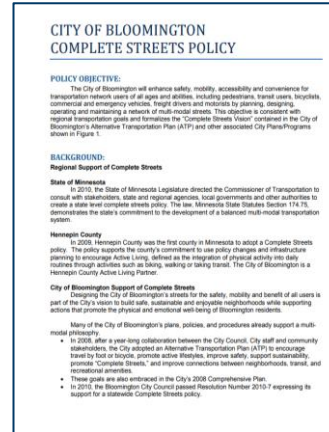
Under development in 2023, this program will create a comprehensive approach to manage traffic speeds, improve safety and increase non-automobile access on local streets. This is an important counterpart to the Active Transportation Action Plan.

Policy and Plan Framework



Bloomington Energy Action Plan

Adopted in 2018, the Energy Action Plan states Bloomington will: *“pursue all viable opportunities for promoting the elimination of vehicle emissions, including support for electric vehicles, increased public transportation, higher-density and mixed-use zoning, additional biking and pedestrian infrastructure, and telecommuting.”*



City of Bloomington Complete Streets Policy

Adopted in 2012, the policy is designed to *“enhance safety, mobility, accessibility and convenience for transportation network users of all ages and abilities, including pedestrians, transit users, bicyclists, commercial and emergency vehicles, freight drivers and motorists, by planning, designing, operating and maintaining a network of multi-modal streets.”*

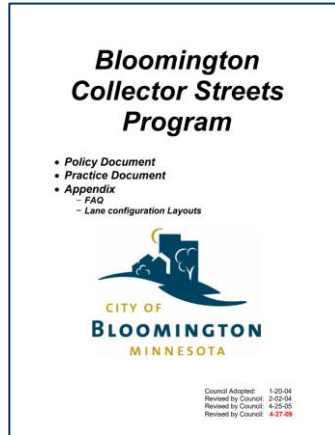
The policy emphasizes that complete streets can be **achieved in one project or incrementally** through many smaller projects.



Bloomington. Tomorrow. Together.

The City’s community based strategic plan for 2022-2027 to improving community and environmental health of Bloomington with strategic objectives for building trusted and connected relationships among residents, community partners and organizations.

Policy and Plan Framework



Collector Streets Program

Last revised in 2009, the Collector Streets Program sets the policy and practice for how collector streets are evaluated for striping configuration based on goals outlined in City Comprehensive Plan including minimizing levels of congestion within the City and on the surrounding system and providing a comprehensive, convenient and safer active transportation system to connect neighborhoods and improve the overall neighborhood quality of life.



Pavement Management Program

The Pavement Management Program sets the maintenance plan for City streets and trails with the goal of proactively keeping streets in good condition to reduce the overall maintenance cost of streets.

Transportation Demand Management Program

Bloomington's Transportation Demand Management Program (TDM) was adopted in 2009 to "promote more efficient utilization of existing transportation facilities, reduce traffic congestion and mobile source pollution, and to ensure that new developments are designed in ways to maximize the potential for alternative transportation usage." by requiring new developments of certain sizes or parking capacity to implement various strategies to encourage non-single occupancy vehicle trips to and from the development.

How are We Moving Today?

1.5% Walk

In Bloomington, 1.5 percent of commuters walk to work compared to 2.3 percent statewide. ACS, 2021 5-year estimates

2% Bike

2.1 percent of commuters bike to work in Bloomington compared to 1.5 percent statewide. ACS, 2021 5-year estimates

4% Transit

3.7 percent of commuters take transit to work compared to 2.7 percent statewide. ACS, 2021 5-year estimates

60% of transit commuters are below the poverty level

59.6% of workers 16 years or older who report taking transit to work are below the federal poverty level (\$26k for a family of 4 in 2021). ACS, 2021 5-year estimates

18% without a car

18.3 percent of people who walk, bike and use transit do have access to a car. ACS, 2021 5-year estimates

94% of transportation Greenhouse Gas (GHG) emissions

Transportation is the second largest source of GHG emissions in Bloomington with 38% of GHG emissions in Bloomington coming from transportation in 2020. Regional Indicators Initiative, 2021

85% near parks

84.9 percent of Bloomington residents live within a 10-minute walk (1/2 mile) of green space. City Health Dashboard, 2019

17% physically inactive

16.7 percent of Bloomington residents report being physically inactive in the past 30 days City Health Dashboard, 2019

11-15% of students inactive

11-15% of 5th, 8th, 9th, and 11th graders were not physically active for at least 60 minutes any day in the last week. This number rises to **13-20% for BIPOC students**. Minnesota Student Survey Interagency Team. Minnesota Student Survey (2022). Bloomington Public School District, MN: Minnesota Department of Education, 2022.

78% limited access to healthy food

78.3 percent of Bloomington residents live more than 1/2 mile from a large grocery store. City Health Dashboard, 2019

Where do we walk, bike and roll?

FACILITIES

Facility Type	Existing Mileage
Bikeable Shoulders	46.1
Sidewalks	240.9
Multi-Use Trails (sidepaths and paved and unpaved park trails)	83.7
Ped-Only Trails (in parks)	16.2
Total	386.9
Total city street centerline miles	342

City of Bloomington, 2023

LIVABILITY FACTORS

Category	Measurement
Avg. transit frequency	7 buses and trains/hour
Live within a 1/2 mile of park/plaza	85 percent
Live within a 1/2 mile of grocery	22 percent

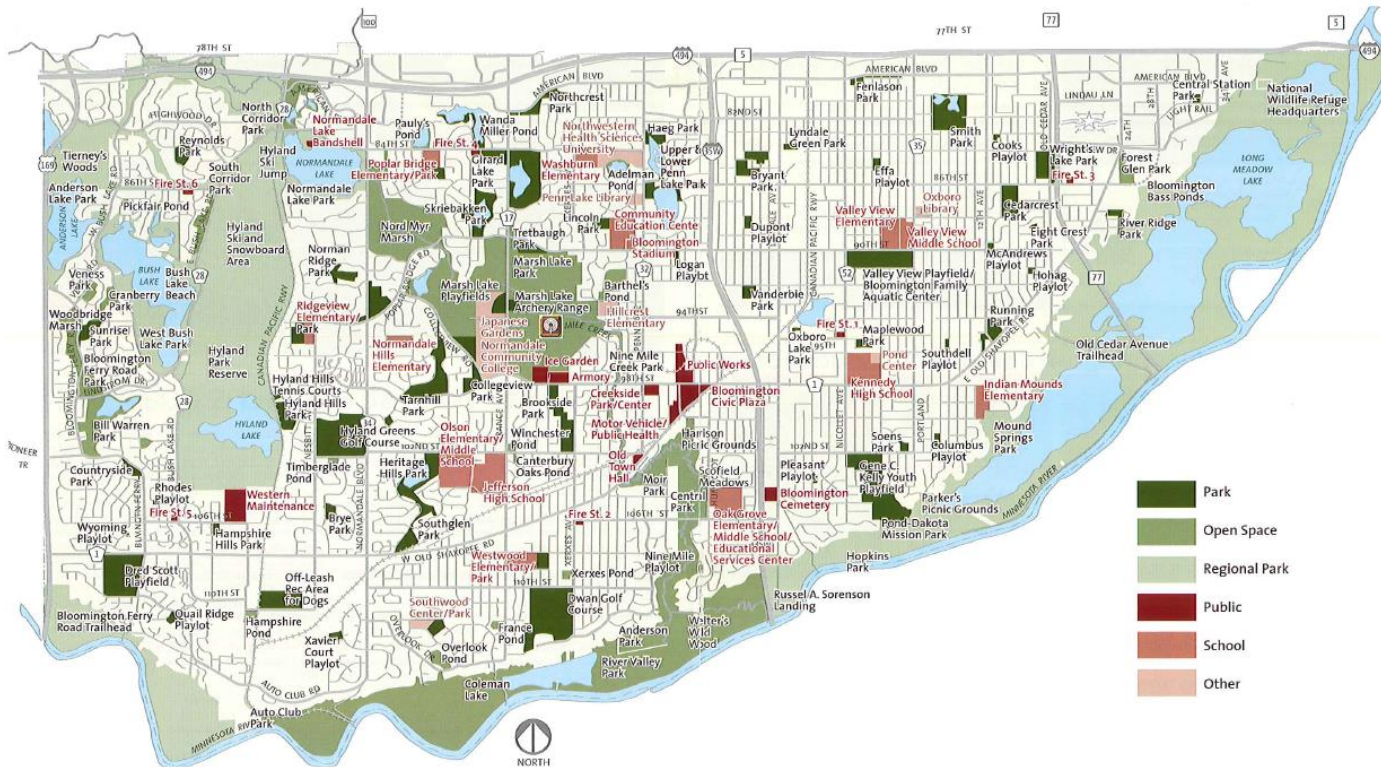
City Health Dashboard, 2019; AARP Livability Index



Many Bloomington residents live close to parks, making them a great destination to walk or bike to. The majority of Bloomington residents live more than ½ mile from a grocery store, which makes it harder to walk, bike, or roll to buy groceries due to greater distances, potential gaps in the active transportation network and challenges crossing streets.

Where do we walk, bike and roll?

PARKS, CIVIC SPACES & SCHOOLS



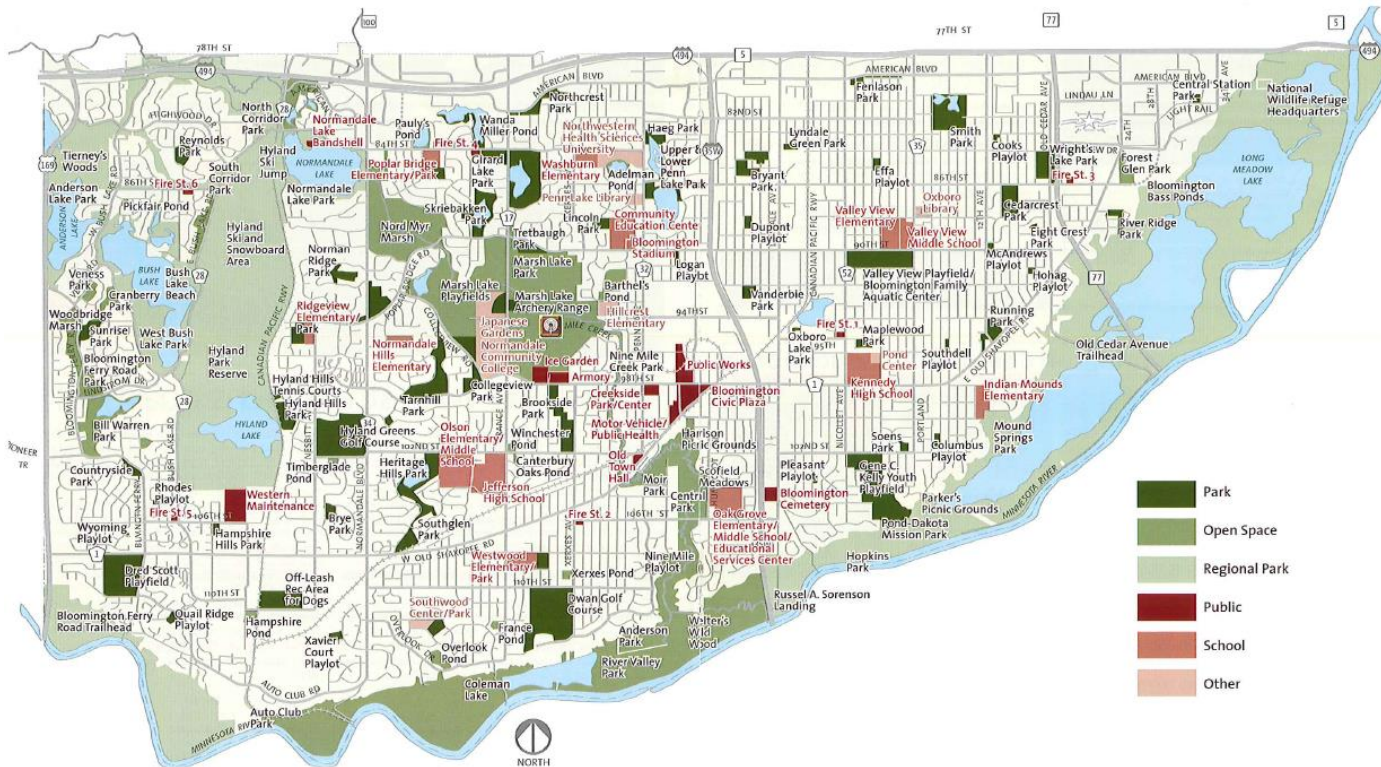
Source: Bloomington Parks and Recreation

Parks, open spaces, schools, and other **civic spaces** are important destinations for people walking and biking in Bloomington. There are **97 parks** and over **40 miles of off-road trails** in Bloomington’s park system. The Bloomington Park System Master Plan was adopted by City Council in 2021 and identifies 9 parks for the first round of planning and upgrades as part of the Master Plan. This will be the first redevelopment of Bloomington’s parks since the system was established in the 1950s and will respond to demographic and population changes in the City. The Park System Master Plan emphasizes the importance of **equitable access to parks** within the City.

A park system that is interconnected and accessible by walking, biking and rolling is important for all Bloomington residents to be able to enjoy these beautiful City resources.

Where do we walk, bike and roll?

PARKS, CIVIC SPACES & SCHOOLS



There are **24 public schools** and higher education institutions – **Normandale Community College** and **Northwestern Health Sciences University** located in Bloomington.

Bloomington Public Schools adopted a district wide Safe Routes to Schools Plan in 2014. The plan documents pedestrian safety concerns and sets strategies to ensure safe routes to schools. The School District walking boundaries are ½ mile for elementary (grades k-5) students and a ¼ (1.25) mile for secondary (grades 6-12) students.

A school system that is interconnected and kid-friendly by walking, biking and rolling is important to ensure the youngest residents can safely access the places they spend the majority of their time.

Source: Bloomington Parks and Recreation

Where do we walk, bike and roll?

PARKS



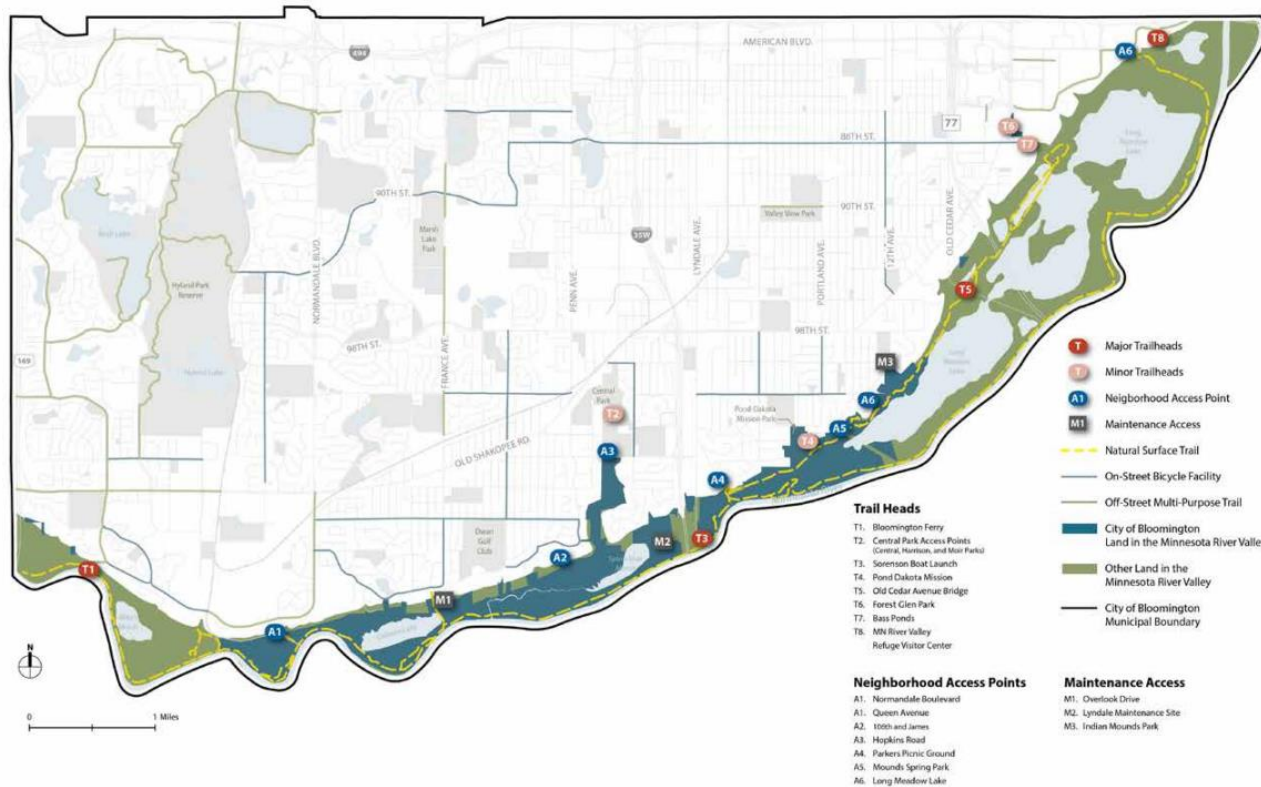
In addition to a robust City park system, Bloomington has a unique resource of **natural surface trails** (e.g dirt or gravel). The **Minnesota River Valley** and **Hyland-Bush-Anderson Lake Park Reserve** provide opportunities for mountain biking, hiking, snowshoeing, cross country skiing, and birding. The Minnesota River Valley alone provides **46 miles of trails** and comprises the entire **13-mile southern border** of the City. Bloomington serves as the gateway to these regional amenities. Bloomington also has a strong cycling culture with an active off-road cycling organization and Quality Bicycle Parts, a bicycle component manufacturer near Hyland-Bush-Anderson Lake Park Reserve.

These natural surface trail amenities, along with an active cycling culture, mean people want to ride their bikes in Bloomington. Additional bicycle amenities on Bloomington's streets would increase accessibility to the unique off-road cycling opportunities Bloomington offers.

Source: Minnesota River Valley Strategic Plan – City of Bloomington

Where do we walk, bike and roll?

PARKS



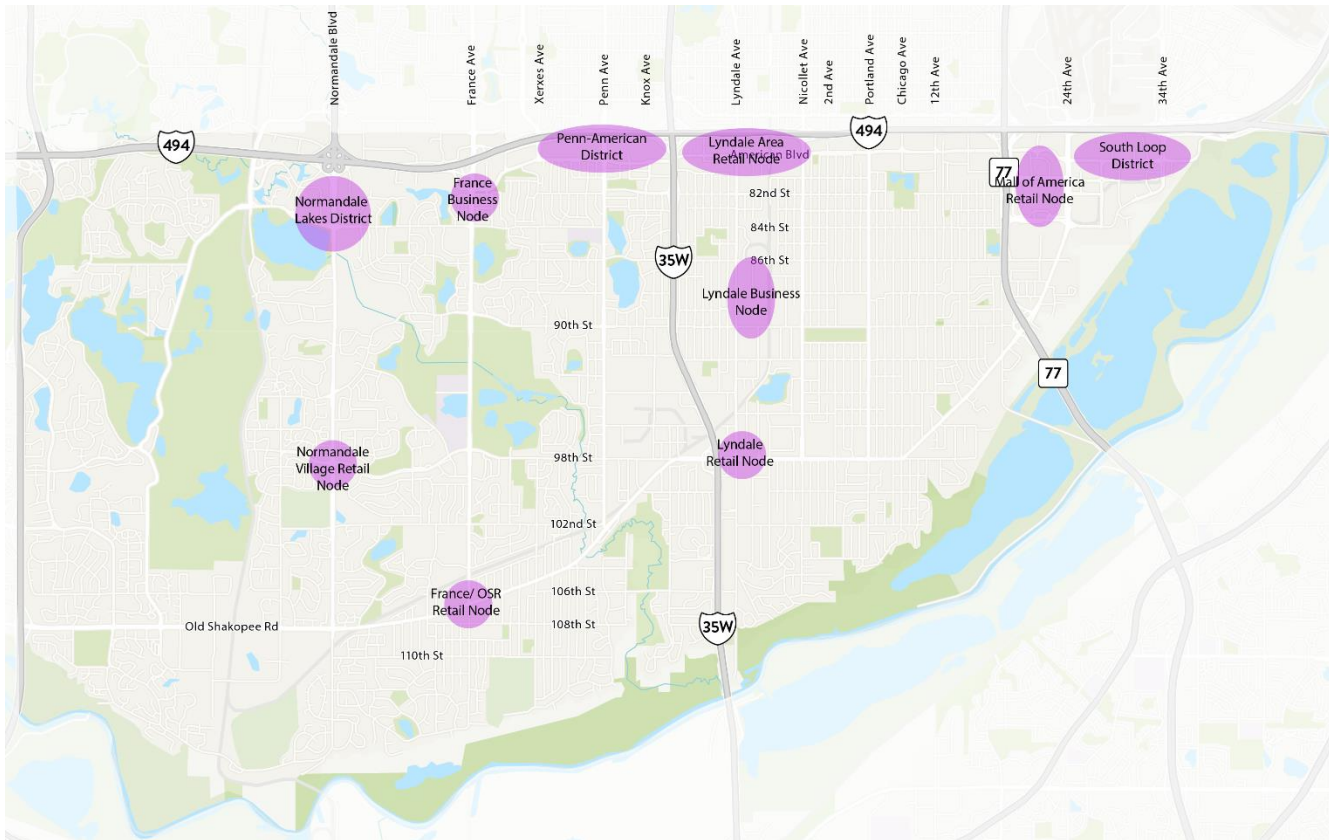
Source: Minnesota River Valley Strategic Plan – City of Bloomington

In 2016, Bloomington published the **Minnesota River Valley Strategic Plan** to enhance awareness and access to the River Valley while providing ongoing protection and stewardship. The Strategic Plan outlines the City's support for the **Minnesota Valley State Trail** – a 72-mile trail from Fort Snelling State Park to Le Sueur, MN under development by the Minnesota DNR. In 2018 the City entered into a cooperative agreement with the DNR to construct a segment of the 72-mile trail on Bloomington City property. One portion of the trail within Bloomington was completed in 2020 and another segment is designed and funded. The Minnesota Valley State Trail provides both **paved and an unpaved option for users.**

The City of Bloomington supports this design as it provides recreational opportunities in the largest natural area in the City to a broad spectrum of users.

Where do we walk, bike and roll?

RETAIL NODES



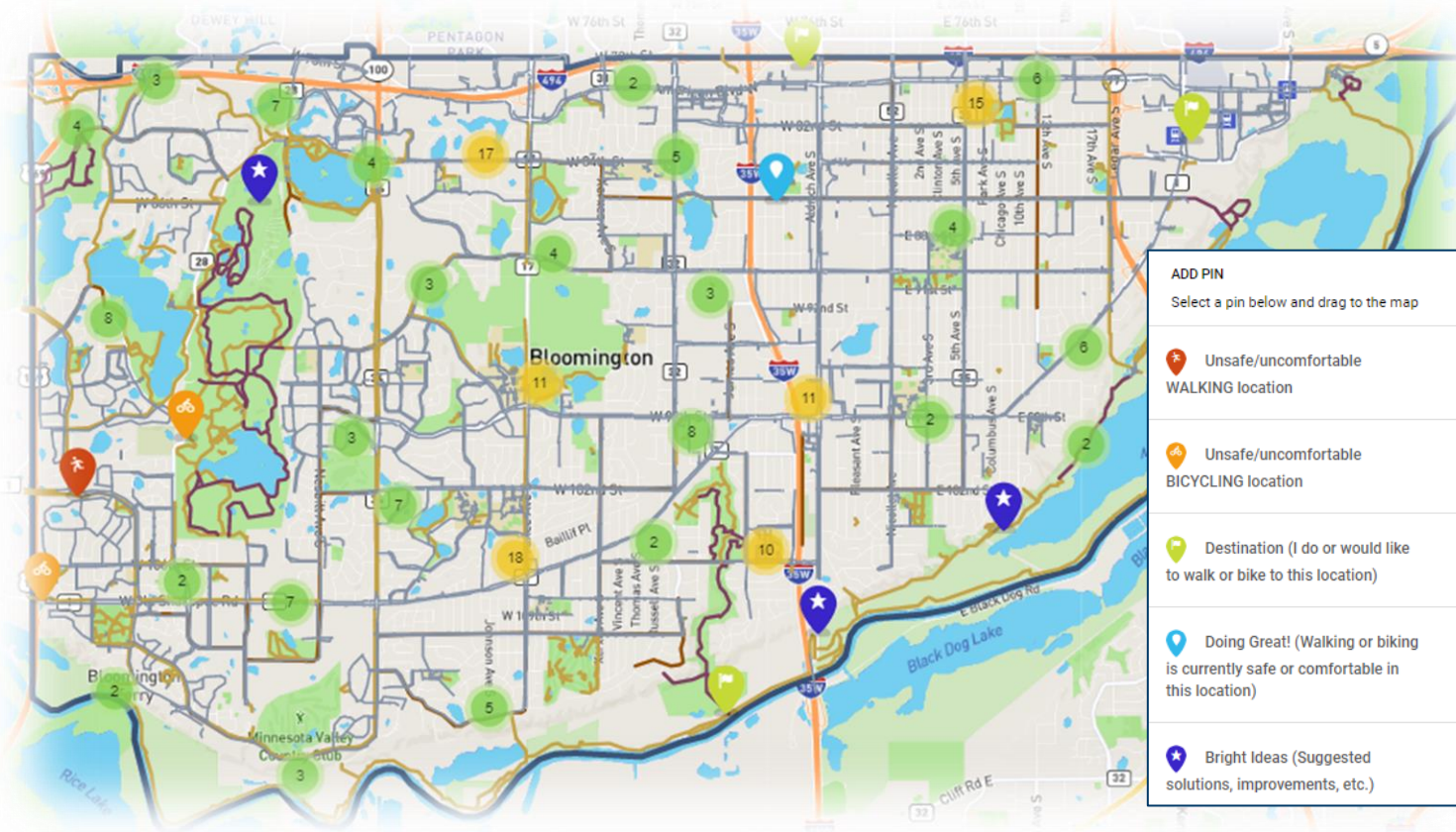
Bloomington's commercial retail nodes provide important destinations, like grocery stores, that people walk and bike to or would like to walk and bike to more often.

Land use and transportation partnership is key in order to provide increased and improved mode options and access and achieve sustainability goals while creating more attractive retail nodes that are business- and people-friendly.

All Season Mobility



What We Heard, Observed, Learned



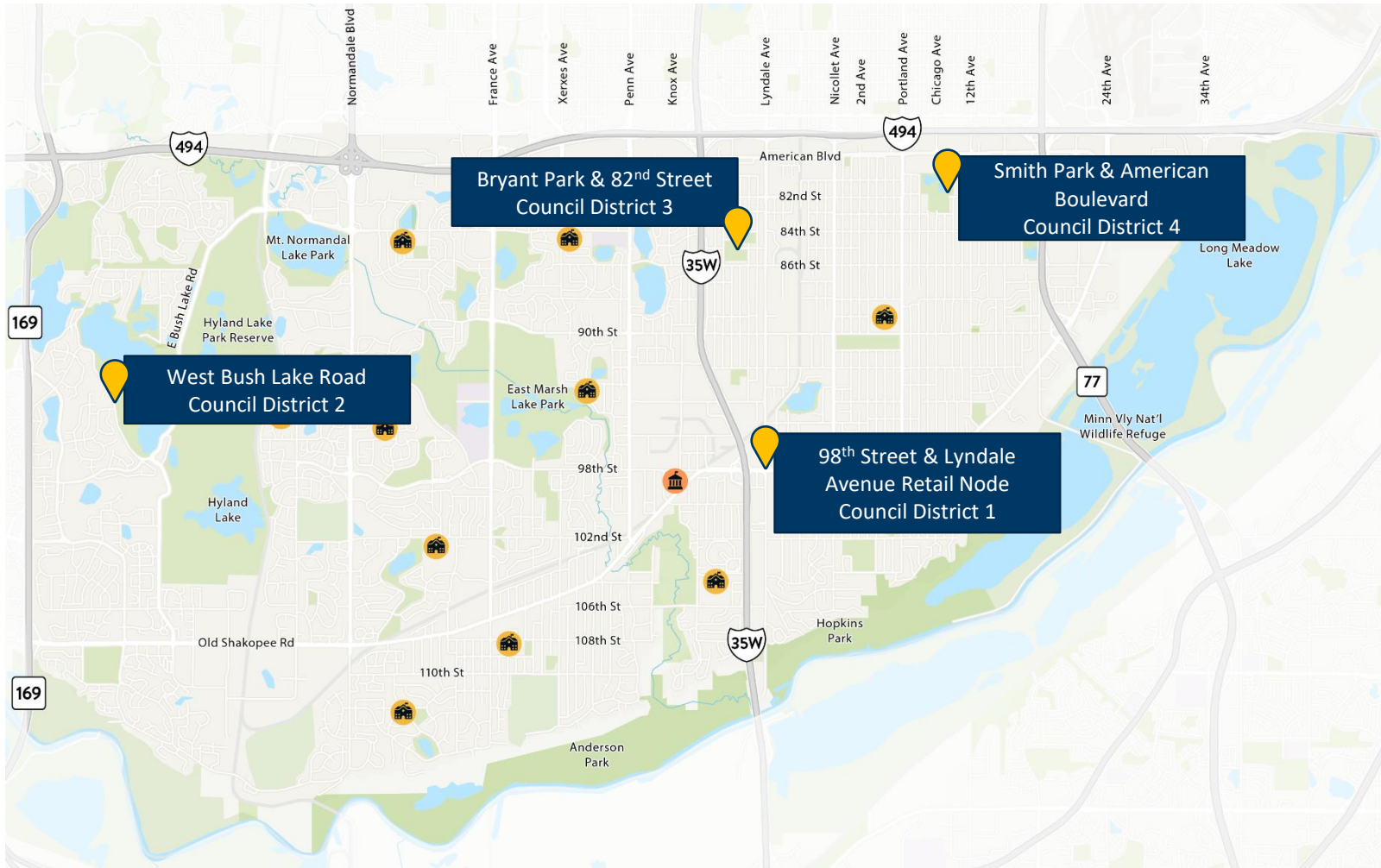
Let's Talk Bloomington Interactive Comment Map:

- Open: 12/1/2022 – 3/13/2023
- 147+ Comments
- Includes comments from in-person pop-up events at **Southgate Apartments and Creekside Community Center.**

“Active transportation will reduce car use and thus reduce traffic.”

– Community Member

What We Heard, Observed, Learned



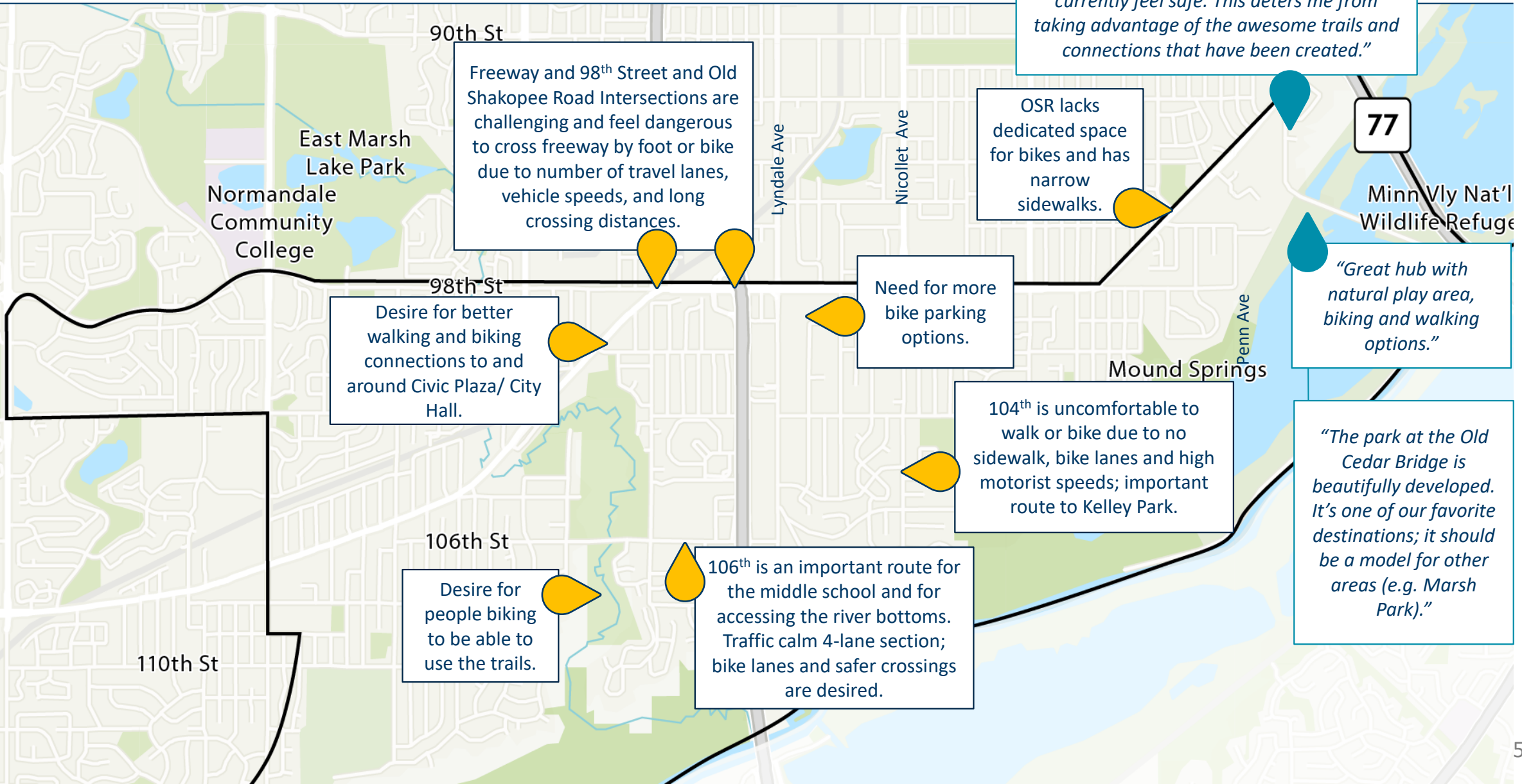
Walking Audits or Workshops:

- March 15, 2023
- 4 locations; 1 per Council District

A powerful tool for engagement, bringing together people with diverse perspectives and experiences—from city staff and elected leaders to community members with lived experience— to:

- Observe and deepen understanding of how active transportation users experience a street
- Tap into people’s knowledge of place
- Learn from the physical built environment
- Engage in meaningful dialogue

District 1



98th Street & Lyndale Avenue Retail Node



Complex Intersection Crossings

The intersection of 98th St and Lyndale Avenue is complex due to multiple travel lanes, turning movements and right-only channelized lanes which allow higher vehicle speeds. People walking or rolling need to cross over 84 feet, increasing the amount of exposure to a potential conflict.



Long Blocks

The marked mid-block crossing on Lyndale (pictured) is over 1,200 feet from the signalized intersection at 98th Street. People trying to reach a destination between these locations either walk out of their way or risk crossing multiple, high speed travel lanes to reach their destination more conveniently due to the long block and land use character. It lacks an advanced stop bar, telling motorists where to stop to keep sight lines open.



Garfield is Overbuilt for Cars

Garfield Avenue is overbuilt with 4-travel lanes. It is a candidate for a 4- to 3- or 4- to 2- lane conversion. The additional space can be reallocated for bike lanes and/or on-street parking.

98th Street & Lyndale Avenue Retail Node



Sidewalk Comfort

Landscape buffer with street trees provide a nice edge to the sidewalk, separating people walking from the road and parking lot, which makes the experience more comfortable and enjoyable.



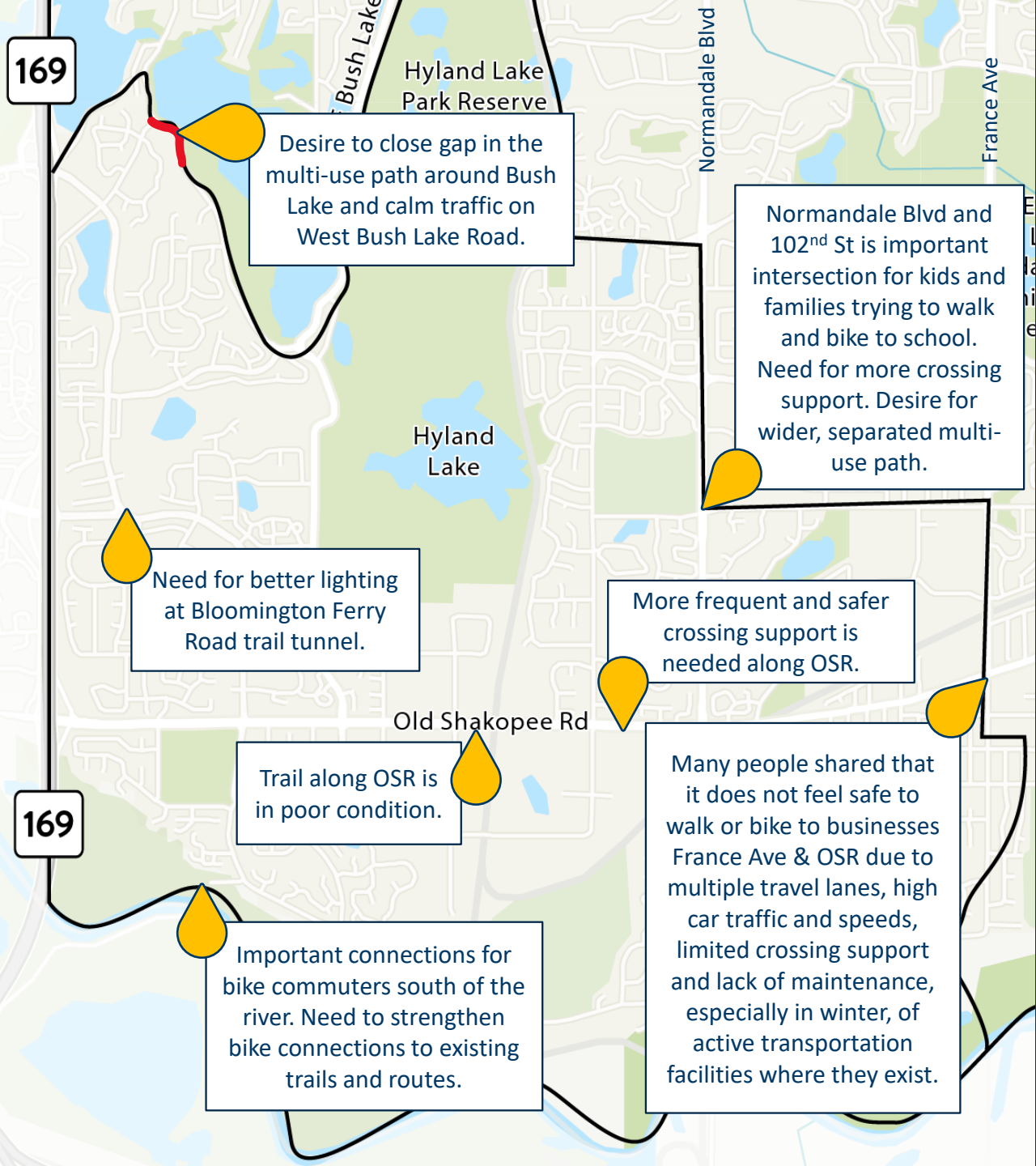
Attached Sidewalk (Curbwalk)

The attached sidewalk with no separation from moving vehicles makes walking sections of Lyndale uninviting and uncomfortable. It leaves no room for error by pedestrians.



Walking Audit Group

While there are destinations to walk to from the Park and Ride the long blocks, intersection crossings, lack of shade and set back buildings with large parking lots does not make a convenient, easy or inviting walking experience.



Desire to close gap in the multi-use path around Bush Lake and calm traffic on West Bush Lake Road.

Normandale Blvd and 102nd St is important intersection for kids and families trying to walk and bike to school. Need for more crossing support. Desire for wider, separated multi-use path.

Need for better lighting at Bloomington Ferry Road trail tunnel.

More frequent and safer crossing support is needed along OSR.

Trail along OSR is in poor condition.

Many people shared that it does not feel safe to walk or bike to businesses France Ave & OSR due to multiple travel lanes, high car traffic and speeds, limited crossing support and lack of maintenance, especially in winter, of active transportation facilities where they exist.

Important connections for bike commuters south of the river. Need to strengthen bike connections to existing trails and routes.

SUMMARY OF INTERACTIVE MAP COMMENTS & QUOTES

District 2

“There is no safe way to bike along Old Shakopee Road (OSR), and it’s hard to find alternatives, in part, due to the lack of through streets.”

“Crossing 4-lane sections of OSR doesn’t feel safe at the Rich Avenue/Rich Road jog, but it’s a more appealing option than adding ½ a mile to your ride and crossing 6 lanes and 2 slip lanes at Normandale.”

“Could pedestrian islands down OSR provide a safer way for people to cross, as well as provide traffic calming?”

“Flashing lights [at Kell Ave] alone do not make me feel comfortable crossing 4-lanes of traffic that often is going 45-50 mph.”

“Too far [to walk or bike] between Canterbury and OSR to cross France. Residents cross France between this stretch to get to Cub Foods, etc. Wild west driving due to five lanes and turn lanes all over the place.”

“This is my home block [103rd St]. There’s a beautiful bike trail on the other side of the 4-lane death road [France Ave] where cars fly over the hill at 50 mph, so I rarely bike on the trail because there’s no access where I need it. Sad!”

“We need a quality multi-use trail on 98th Street from Lyndale to Normandale. This is a transportation artery.”

West Bush Lake Road



High Speeds

There is limited space for people walking and biking along West Bush Lake Road. Traffic speed, narrow road and blind corners make it feel uncomfortable.



Trail Gap

People walk the painted shoulder today, which serves as the connection between the existing lake and park trail. People reiterated the desire (affirming 2016 priority) for a trail due to concerns with vehicle speeds and blind corners.



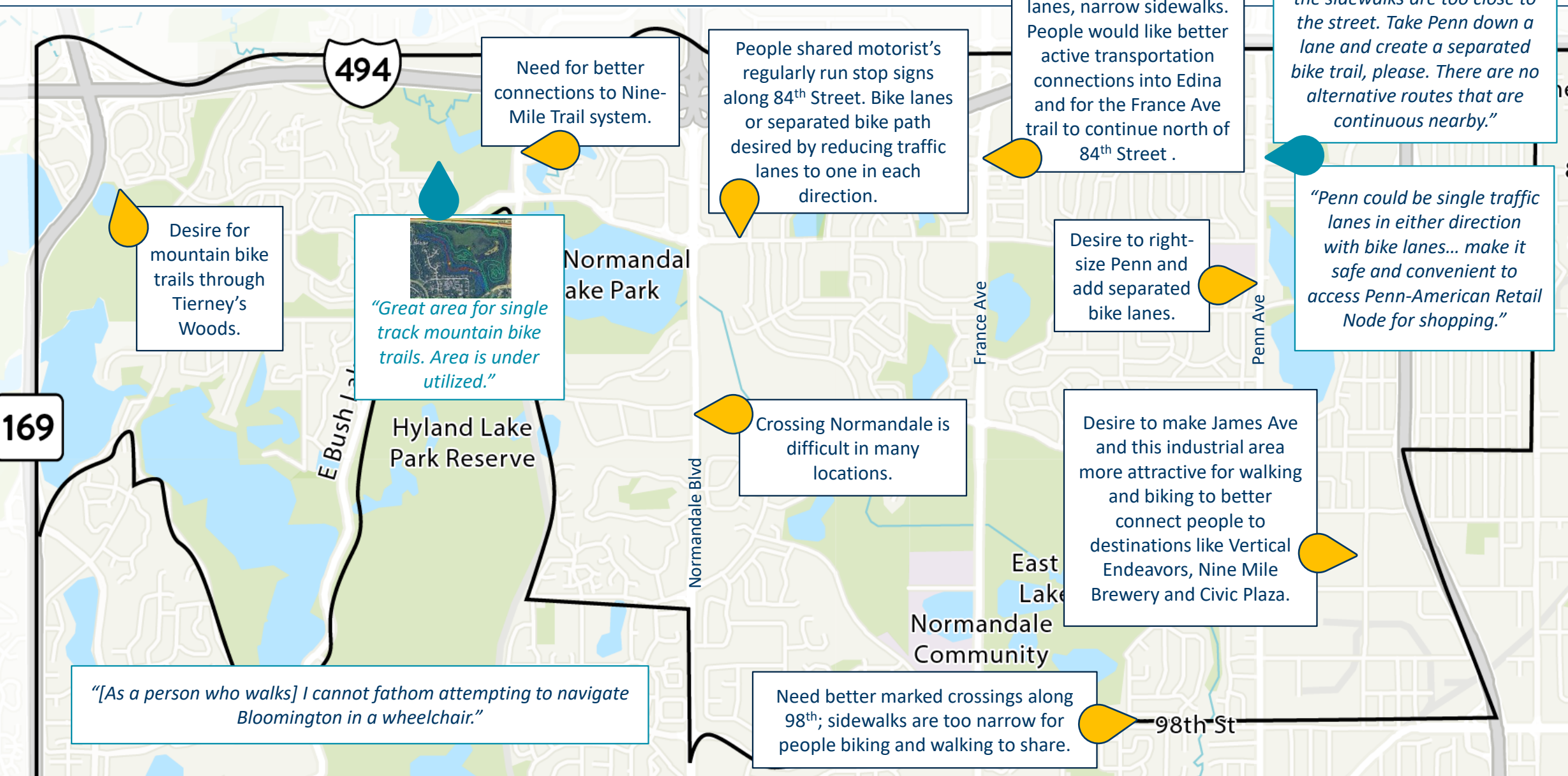
Sidewalk Gap

Missing sidewalks along Utah Avenue between Bristol Village Apartments and W. 101st Street. Paint can be used as an interim and lower cost solution, marking a walking space. Additional traffic calming applied, such as chicanes or neighborhood traffic circles, to manage speeds and create a neighborhood shared street environment.



Several Walking Audit Group Members

District 3



Bryant Park & 82nd Street



People Walk in the Street

Many neighborhood streets lack sidewalks and serve as important connections to parks and other destinations.



82nd is Challenging to Cross

It was shared that residents don't let their children walk to Bryant park, several blocks away, due to 82nd not feeling safe due to 4-lane road.



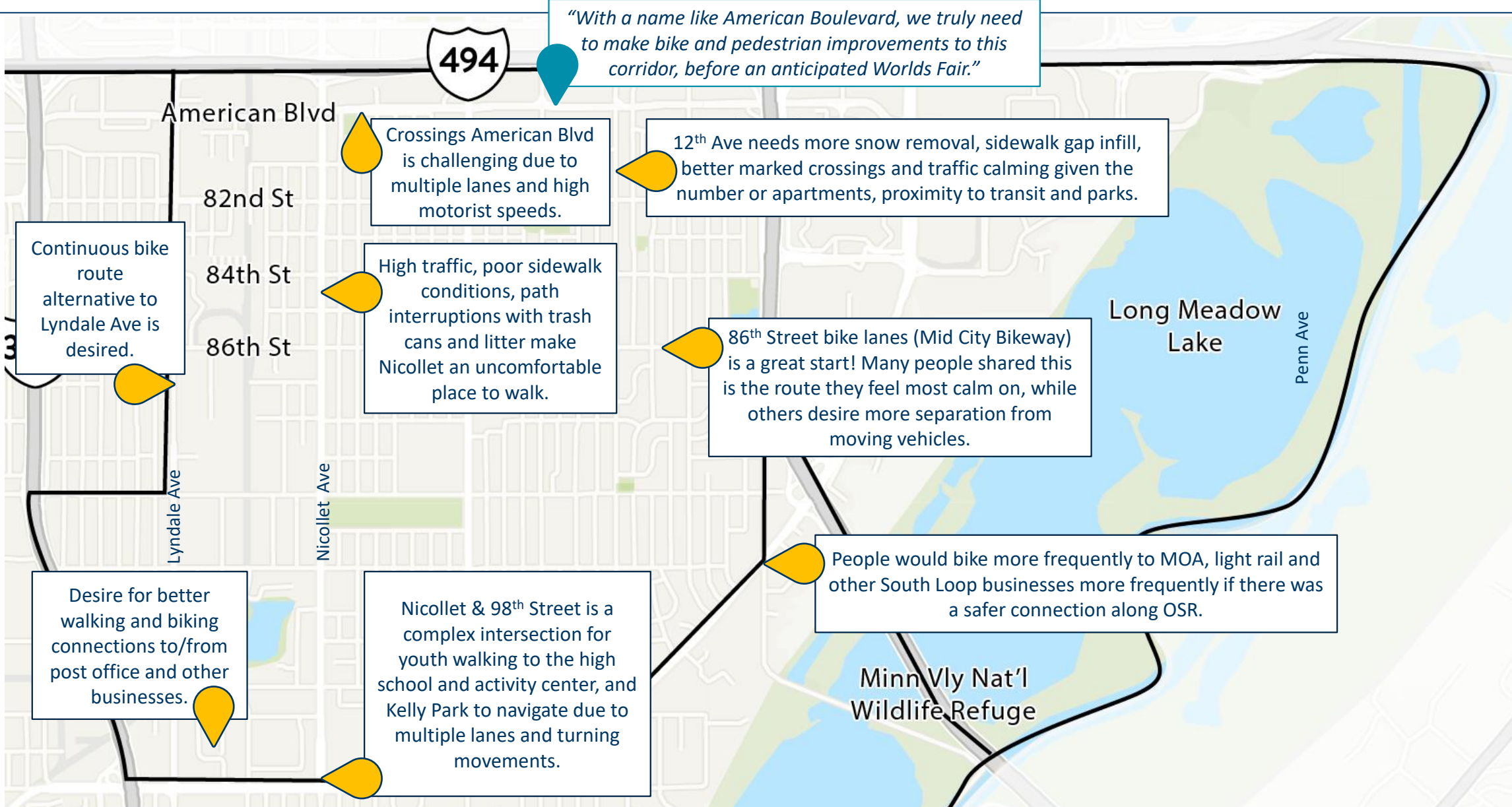
Human Traffic Circle

Traffic calming features, like the neighborhood traffic circle modeled by walking audit participants in the photo to the left, help manage vehicle speeds and create safer intersections by design. They can also signify the entrance to a park or neighborhood and establish a sense of place. With the right traffic calming approach, many neighborhood streets without sidewalks can become more comfortable walking and biking routes.



Walking Audit Group

District 4



Smith Park & American Boulevard



12th Street Missing Sidewalks & Marked Crossings

12th Street and 80th Avenue is a school bus stop. Many kids who live in the apartments need to walk along and across 12th Street. This spot makes a good candidate for a median crossing island.



Lack of Street Trees

Walking American Boulevard felt uninviting and unattractive due to the lack of street trees, speed and volume of traffic and large setback of buildings.



Park Utility Corridor

The trail section that exists today, while in need of maintenance, offers a quiet connection to/from American Boulevard, Smith Park and the neighborhood.



Walking Audit Group

“American Boulevard is the gateway to Bloomington and the State of Minnesota.”

– Tiffany Orth, Minneapolis Regional Chamber

What We Heard, Observed, Learned



Kennedy High School Pop-up:

“98th Street is really dangerous because of the speeds. Cars are close to the sidewalks. It would be nice if there was more space in between.” – Student

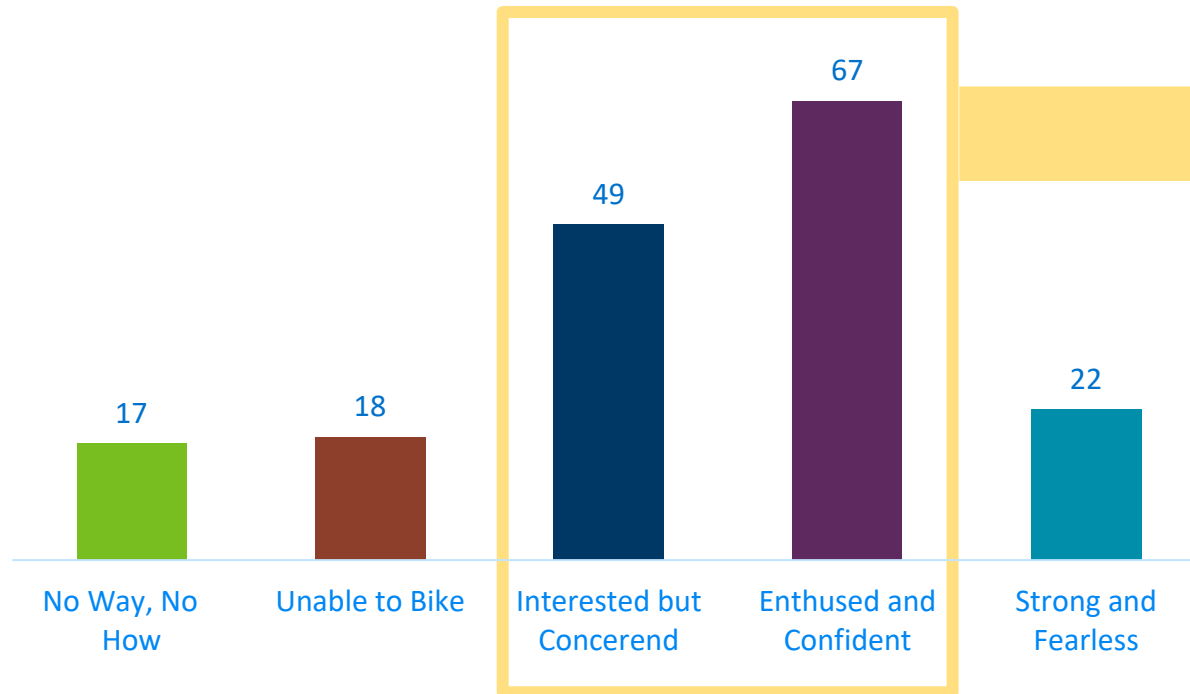
“It is hard to cross 98th Street to get to school or Kelly Park. There are very few good crossing locations and I don’t want to walk out of my way.” – Student

“Outside of school there are not many places for us to gather and hang out.” – Student

What We Learned | Survey

What Type of Bicyclist Are You?

Let's Talk Bloomington Online Survey (173 Responses)



67%
more people would bike with improved facilities

Approximately 39% of residents would be willing to bike if *some* on-street bike lanes and trails exist and an additional 28% would bike if *higher quality* facilities existed, such as separated bike lanes and off-road trails.

- **No Way, No How:** I am unwilling to bicycle even if high-quality bicycle lanes and trails exist
- **Unable to Bike:** I might be willing, but I currently cannot bike for one reason or another
- **Interested but Concerned:** I am willing to bicycle if high-quality bicycle lanes and trails exist
- **Enthusied and Confident:** I am willing to bicycle if some bicycle-specific lanes and trails exist
- **Strong and Fearless:** I am willing bicycle with limited or no bicycle-specific lanes or trails

What We Learned | Survey

As the City improves sidewalks, bike lanes and trails in Bloomington, what interests you the most? (1 being most interesting - 5 being least interesting)



- 1** Connecting residents to natural beauty and parks (*avg rank 2.01*)
- 2** Creating a safe and convenient access to community resources like grocery stores and appointments (*avg rank 2.42*)
- 3** Improving community well-being through activity (*avg rank 2.95*)
- 4** Creating routes to work or commute locations (*avg rank 3.33*)
- 5** Encouraging tourism and economic development (*avg rank 4.23*)

Which qualities are most important for sidewalks, bike lanes, and trails. (1 being most important - 5 being least important)



- 1** **Safety** – The design reduces chances for conflict and crashes with people driving motor vehicles and other trail users (*avg rank 1.57*)
- 2** **Comfort** – The design maximizes separation from motor vehicles so that people of all ages and abilities feel comfortable (*avg rank 2.8*)
- 3** **Coherence** – It's easy to understand how to get to my destination and how to get through intersections (*avg rank 3.13*)
- 4** **Directness** – It's the shortest route to get to my destination (*avg rank 3.57*)
- 5** **Attractiveness** – The look of the trail and surroundings are beautiful (*avg rank 3.91*)

Overarching Themes

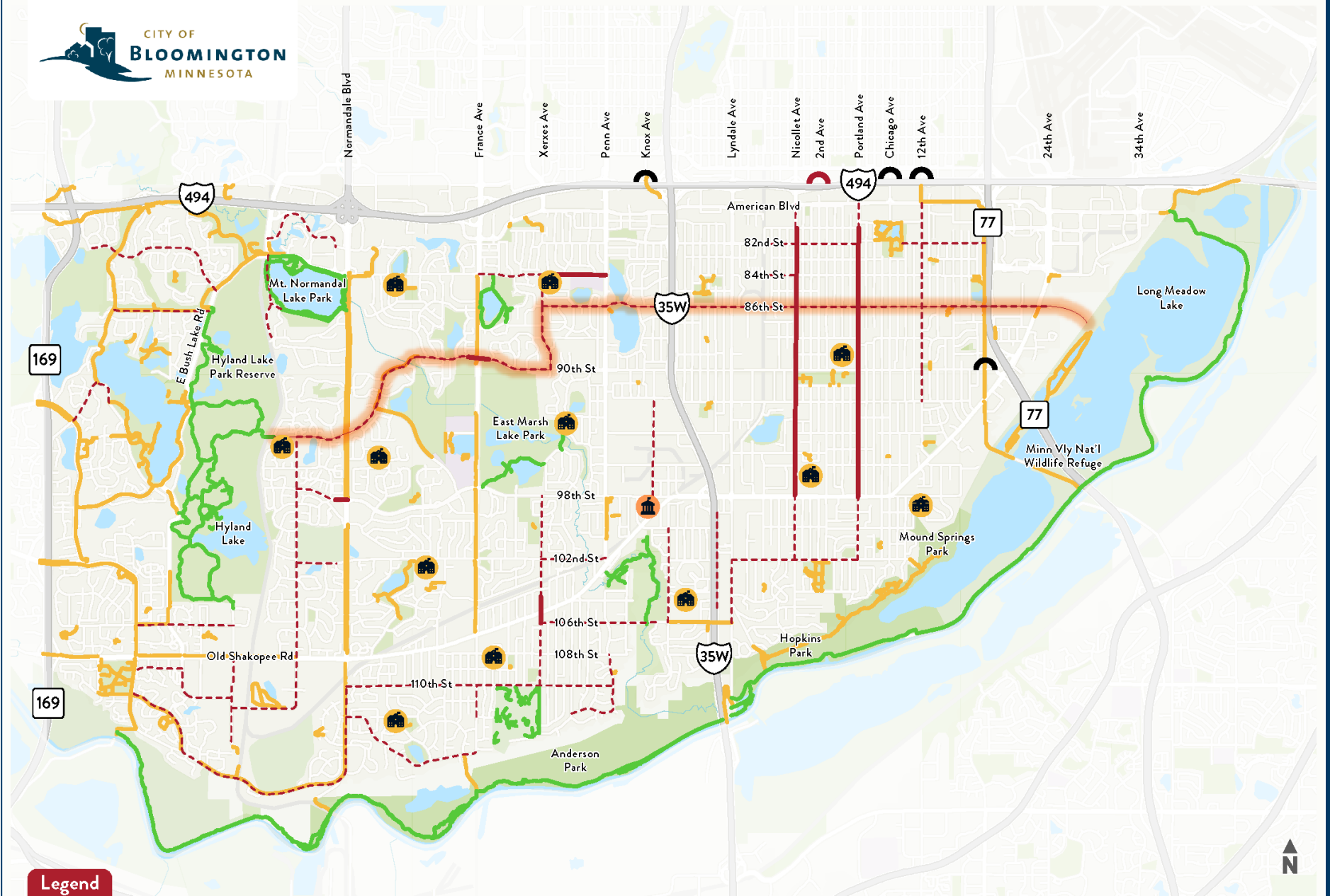
- Old Shakopee Road is an important southern route for all users. Today, walking and biking along and across is not safe, comfortable or convenient. It received the highest number of comments on the online interactive map.
- Walking to key retail nodes feels unsafe and uncomfortable, especially where sidewalks are missing or attached.
- Intersection concerns, including drivers not yielding at traffic control devices.
- 4-lane undivided roads are not comfortable to walk along or across.
- A continuous north-south bike alternative to Lyndale Ave is desired.
- Snow clearing of pedestrian facilities at intersections and corners is important.
- Many on-street bike lanes are not marked or signed as bike lanes and markings are dropped at intersections.
- Many traffic signals don't recognize cyclists, leading to long wait times at intersections.
- Interstate crossings lack safe or comfortable crossing facilities.

A group of people are gathered around a table in a meeting room. In the foreground, a woman with long dark hair is smiling and looking down at a map on the table. To her left, a woman with glasses is also looking at the map. In the background, other people are working at tables. The room has grey curtains and a door with an exit sign.

Building the Network

SECTION 4

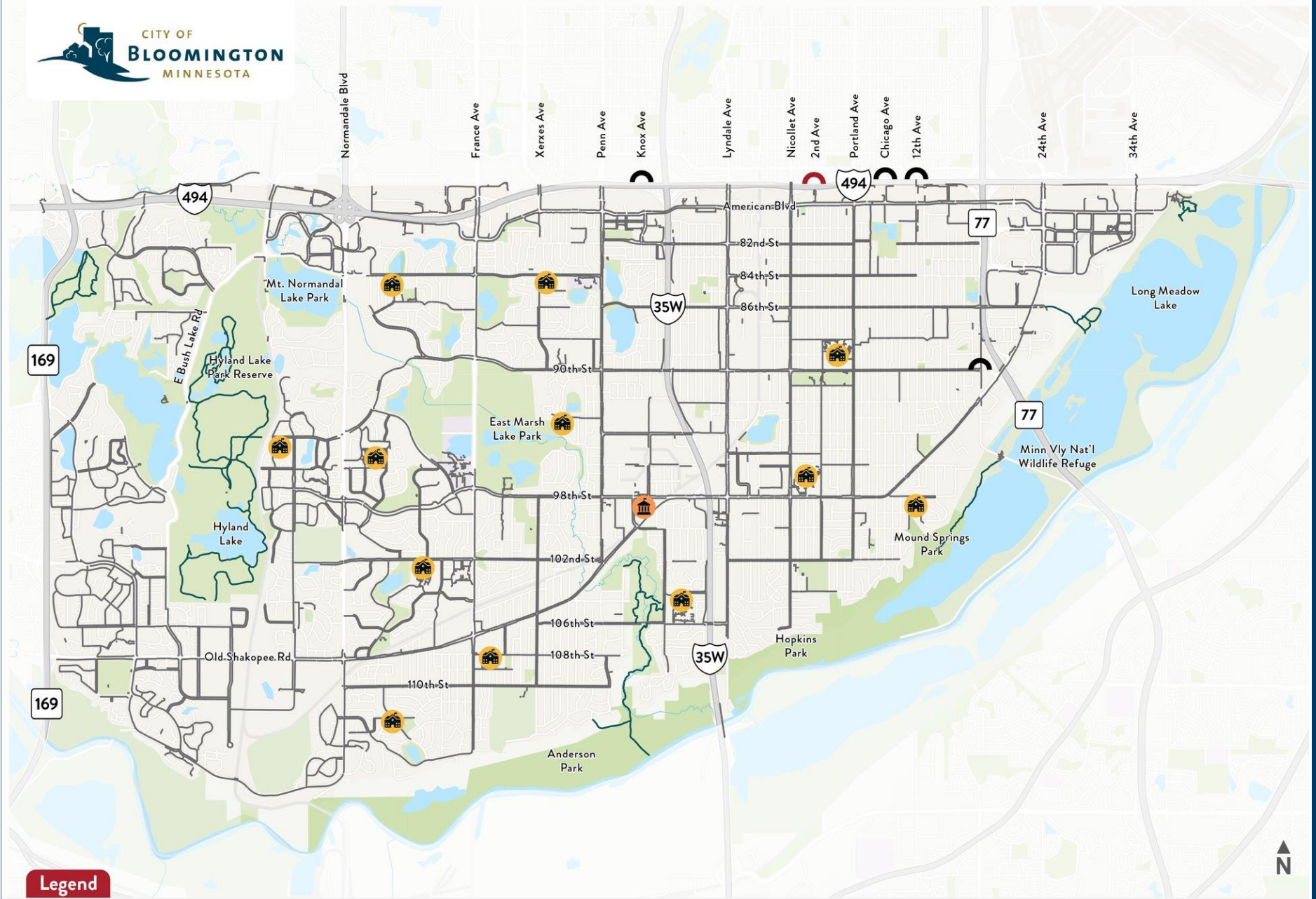
EXISTING NETWORK Bike Routes



Legend

- On-street Bike Shoulders
- Off-street Trails
- School Location
- Bloomington Civic Plaza
- Marked Bike Lane
- Park Trails
- Important Ped/Bike Freeway Crossing (Red = Needs Improvement)
- Mid-City Bikeway

EXISTING NETWORK
Sidewalks



Legend

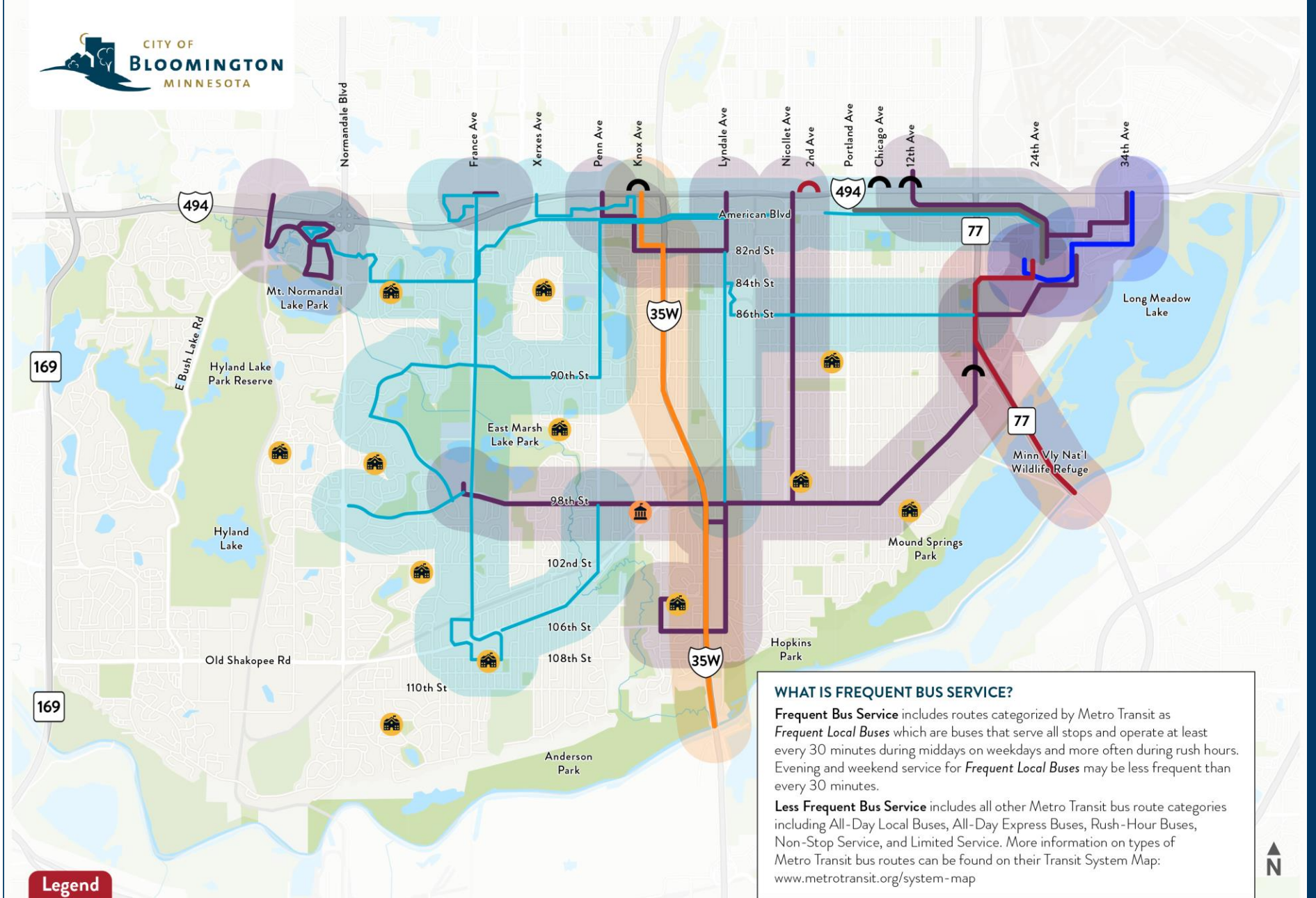
- Sidewalks
- School Location
- Bloomington Civic Plaza
- Important Ped/Bike Freeway Crossing (Red = Needs Improvement)
- Pedestrian Only Trails



EXISTING NETWORK

Transit Routes

Map depicts a ½ mile or 10-minute walk buffer around transit routes to illustrate the walkable radius or "walkshed" to transit.



Legend

- Frequent Bus Service
- METRO Orange Line
- School Location
- Bloomington Civic Plaza
- Less Frequent Bus Service
- METRO Red Line
- Important Ped/Bike Freeway Crossing (Red = Needs Improvement)
- METRO Blue Line

WHAT IS FREQUENT BUS SERVICE?

Frequent Bus Service includes routes categorized by Metro Transit as *Frequent Local Buses* which are buses that serve all stops and operate at least every 30 minutes during middays on weekdays and more often during rush hours. Evening and weekend service for *Frequent Local Buses* may be less frequent than every 30 minutes.

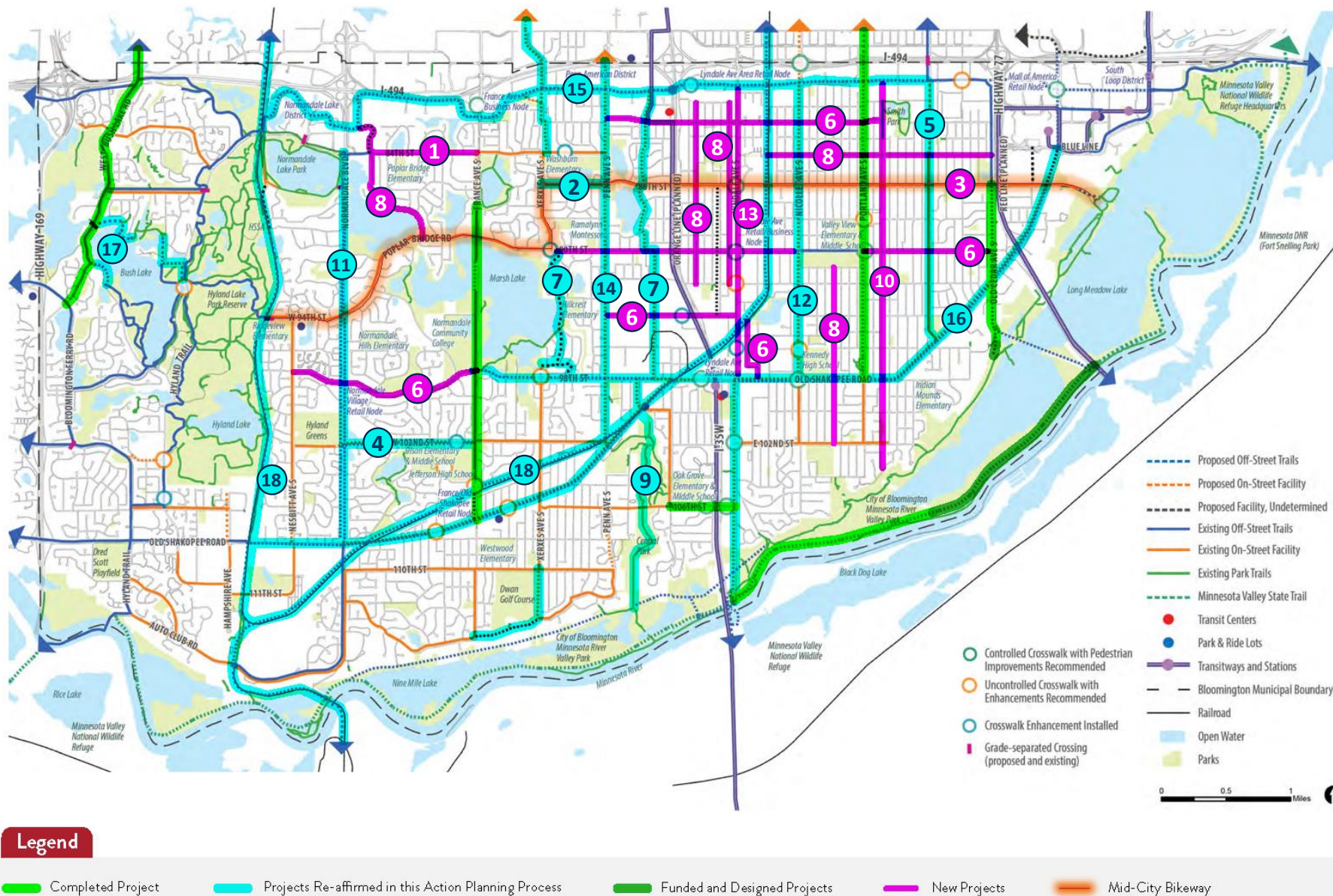
Less Frequent Bus Service includes all other Metro Transit bus route categories including All-Day Local Buses, All-Day Express Buses, Rush-Hour Buses, Non-Stop Service, and Limited Service. More information on types of Metro Transit bus routes can be found on their Transit System Map: www.metrotransit.org/system-map

PRIORITY NETWORK Active Transportation Routes

The priority routes identified in this planning process, build on the 2016 Alternative Transportation System Plan by identifying

- Completed projects
- Re-affirming projects
- Funded and designed projects
- New projects

to help Bloomington come closer to realizing the network identified in 2016.



Priority Projects to Advance Active Transportation Network

# on Map	Route	Action	Next Steps	Short-Term	Mid-Term	Long-Term
1	84 th Street Northern Spur of Mid-City Bikeway	<p>Close gap along 84th Street between France Avenue and Normandale Boulevard: right-size (4- to 3-lane conversion) to reallocate street space for bike lanes and provide median crossings to key destinations such as Poplar Bridge Playground.</p> <p>Annual Average Daily Traffic (AADT): 5,562 (near France) - 14,107 (near Normandale) vehicles per day* The City successfully right sized 84th between Penn and France with traffic volumes around 5,300 vehicles per day.</p>	<ul style="list-style-type: none"> Study and develop a plan for 84th Street; add in the next Capital Improvement Plan (CIP). Currently noted on the Pavement Priority Management 5-year projection for 2027. Do a pilot project using paint to restripe lanes and test intersection treatments such as mini roundabouts (after completion of the 494 project, 2026). Reconstruct the street with fully separated bike lanes (cycle track) and needed intersection treatments to improve the safety and flow of all users. 	✓	✓	✓
2	Mid-City Bikeway: 86 th Street between Penn and Xerxes	Mark and sign current “bike shoulder” as a legal bike lane to improve driver and cyclist awareness of the cross-city bike facility.	<ul style="list-style-type: none"> Install pavement markings and signage. Enforce to ensure no parking in bike lane. 	✓		
3	Mid-City Bikeway: Full Route	Prioritize Mid-City Bikeway as an All Ages, All Abilities primary east-west cycling route.	<ul style="list-style-type: none"> Seek funding to design and construct a fully separated bike lane (cycle track), addressing intersections and mid-block crossings to ensure pedestrians and bicyclists are fully accounted for. 			✓

*MnDOT Traffic Application Tool, Official AADT 2021. Note traffic counts are provided as a reference; they should be confirmed across sources (City and State) to ensure numbers are current and reflect any revisions.

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route/Project	Action	Next Steps	Short-Term	Mid-Term	Long-Term
4	102 nd Street Bikeway	<p>Close the gap in the bikeway network along 102nd Street between France Avenue and Normandale. <i>This segment was noted as a high priority for completion in the 2016 ATP and remains a high priority given that it is a key route to schools and parks.</i></p> <p>Annual Average Daily Traffic (AADT): approximately 5,000-5,200 vehicles per day*</p>	<ul style="list-style-type: none"> Prioritize 102nd Street for a corridor study and inclusion in Capital Improvement Plan (CIP). Do a pilot project using paint or other temporary treatments to right-size (4-to 3-lane conversion) as part of a corridor study. Reconstruct the street with fully separated bike lanes or multi-use trail and intersection and crossing treatments to provide an All Ages and All Abilities route to school and parks. 	 		
5	12 th Avenue Walk and Bikeway	Prioritize 12 th Avenue as a key walking and bicycling route.	<ul style="list-style-type: none"> Create a demonstration project crossing at 12th Avenue and 80th Street to better support kids walking to the school bus and park. Evaluate 12th Avenue for a demonstration project to test a shared walk/bike lane on one or both sides, to strengthen park connections. Fill sidewalk gap the length of the corridor; start by prioritizing the sidewalk gap on the east side of 12th between 80th and 84th Streets. 	 		

*MnDOT Traffic Application Tool, Official AADT 2021. Note traffic counts are provided as a reference; they should be confirmed across sources (City and State) to ensure numbers are current and reflect any revisions.

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route/Project	Action	Next Steps	Short-Term	Mid-Term	Long-Term
6	82 nd : Pleasant to Penn Ave 90 th : Old Cedar to Vincent Ave Garfield: 95 th St to 98 th St 94 th St 98 th St: Nesbitt to France	Re-evaluate and prioritize 4-lane undivided collector streets. AADT: Varies	<ul style="list-style-type: none"> Review and revise Collector Street Striping Reconfiguration Policy to ensure policy aligns with the Complete Streets Policy, and criteria reflects prioritizing the quality and comfort for pedestrians and bicyclists. 	✓		
7	North-South Bikeways or Bicycle Boulevards (<i>see Best Practices section, slide 88</i>)	Designate routes as main north-south low-stress bikeways or bicycle boulevards, including: <ul style="list-style-type: none"> I-35W Parallel Route <i>This segment was noted as a priority in the 2016 ATP and remains a high priority. It is a key route that connects residents to Minnesota River bridge crossing, Minnesota Valley Trail, City Hall and Orange Line transit facilities (including the Knox transit tunnel and trail).</i> Xerxes Route - Close gap between 90th and 98th Streets and north of 84th Street 	<ul style="list-style-type: none"> Create a plan to designate routes as bicycle boulevards, prioritizing people on bikes, by applying traffic calming tools, traffic management tools such as diverters and wayfinding and signage to maintain low volume and low vehicle speeds along the route and improve crossings for active transportation users. Implement treatments, such as signage and wayfinding and intersection or neighborhood traffic calming tools. 	✓	✓	

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route/Project	Action	Next Steps	Short-Term	Mid-Term	Long-Term
8	Neighborhood Traffic Calming	<p>Apply traffic calming tools and treatments to ensure residential streets create a shared street environment for people walking, biking and driving for:</p> <ul style="list-style-type: none"> Emerson Avenue: 80th ½ Street to 92nd Street Aldrich Avenue: 80th ½ Street to 93rd Street 3rd Avenue: Valley View Elementary to Gene C Kelly Playfields 84th Street: Old Cedar Avenue to Cub Foods Nine Mile Creek Pkwy/ Stanley Avenue: Poplar Bridge Road to American Boulevard 	<ul style="list-style-type: none"> Create a demonstration project to advance new tools, treatments and approaches to neighborhood traffic calming and to model neighborhood walk/bike shared streets. Consider starting with Emerson Avenue to address neighborhood speeding concerns and provide a safe route to parks and parallel bike route to Lyndale businesses. 	✓		
9	Central Park Trail	<p>Continue the development of plans to upgrade the existing pedestrian-only trail to a multi-use paved trail to support active transportation connections to/from the Civic Plaza and Minnesota Valley Trail, and provide a contiguous north-south route in conjunction with the bicycle boulevard parallel to I-35W.</p>	<ul style="list-style-type: none"> Identify and seek funding, in partnership with the Parks and Recreation Department, to reconstruct the trail. 	✓		

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route/Project	Action	Next Steps	Short-Term	Mid-Term	Long-Term
10	Park Avenue Utility Corridor	Create a multi-use greenway trail using the utility corridor along Park Avenue. <i>This is identified in the 2021 Parks Master Plan.</i>	<ul style="list-style-type: none"> Begin conversations with Xcel Energy for a multi-use trail 	✓		
11	Normandale Boulevard Trail	Repair and repave existing trails. <i>This segment was a priority for completion in the 2016 ATP and remains a priority given that it is identified on the Hennepin County Bicycle Plan and connects people to schools, parks and Mid-City Bikeway.</i>	<ul style="list-style-type: none"> Coordinate with Hennepin County to ensure trail and sidewalk repair and maintenance are programmed into next capital improvement cycle. 	✓		
12	Nicollet Avenue	<ul style="list-style-type: none"> Improve the comfort and access for people walking and biking to ensure an all All Ages and Abilities route. Ensure intersection treatments prioritize the safety of all users, especially the most vulnerable users. Consider intersection treatments such as modern roundabouts (e.g. at 98th Street) and protected bike intersections. 	<ul style="list-style-type: none"> Begin planning efforts with Hennepin County on the design and public process for the reconstruction of Nicollet Avenue (current CIP programming years 2028/2029). <p><i>Note: Hennepin County right-sized Nicollet from 4- to 3- lanes, which includes sections that carry over 10,500 vehicles per day.</i></p>	✓		

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route/Project	Action	Next Steps	Short-Term	Mid-Term	Long-Term
13	Lyndale Avenue	Reimagine and right-size Lyndale Avenue as a walkable, transit-friendly commercial corridor.	<ul style="list-style-type: none"> Develop a corridor implementation plan that encompasses the broader vision of the Gateway District and zoning code updates to reduce car-focus of the corridor through intersection treatments such as modern roundabouts, protected bike lanes, well marked mid-block crossings and wide sidewalks separated from moving vehicles with green boulevards (edge treatments). 		✓	
14	Penn Avenue	Right-size the 4-lane undivided arterial road.	<ul style="list-style-type: none"> Work with Hennepin County to develop short-to long-term strategies to improve crossings for people walking and biking. In partnership with Hennepin County develop a right-sizing plan, including intersection treatments to better manage safety and corridor flow, such as modern roundabouts. 		✓	
15	American Boulevard	Reimagine American Boulevard as the “entryway corridor” of Bloomington to welcome and better support walkability, reduce urban heat gain and spur transit-oriented development.	<ul style="list-style-type: none"> Partner with the Minneapolis Regional Chamber to begin conversations, build business buy-in and hold a charrette-style process to develop a corridor plan. 		✓	

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years

Priority Projects to Advance Active Transportation Network

# on Map	Route	Action	Next Steps	Short-Term	Mid-Term	Long-Term
16	Old Shakopee Road	Address barriers for active transportation users walking, biking and rolling along and across Old Shakopee Road.	<ul style="list-style-type: none"> Work with Hennepin County to perform a safety analysis to identify strategies to improve crossings and travel conditions along corridor for active transportation users. Develop a corridor vision. 		✓	
17	West Bush Lake Road	Close the gaps in Bush Lake Park trails missing links: south/west side of lake, north bay and north side. <i>As noted in the 2016 Alternative Transportation Plan, “the trail segment on the south/west side of the lake is a higher priority because it currently is a gap in the recreation and transportation system and there is no existing sidewalk or trail in this segment for pedestrians or cyclists to use.”</i>	<ul style="list-style-type: none"> Given the curve, typography and proximity to private property makes the trail connection on the south/west side of lake more complex. Continue to work to identify short- to long-term solutions. 		✓	
18	Rail Corridors	Identify strategies for a rail-with-trail greenway corridor.	<ul style="list-style-type: none"> Continue the conversation with partners like MnDOT, Hennepin County, rail authority, legislators to further seed the idea 			✓

Short-Term = 0-3 years | Mid-Term = 4-6 years | Long-Term = 7+ years



Overarching Recommendations

Action	Resource
<p>Update the City’s Complete Streets Policy</p> <ul style="list-style-type: none"> Establish an equity priority framework that prioritizes vulnerable street users (including people walking and biking, children, seniors, and people with accessibility needs) as the highest priority during project selection, implementation and evaluation. Incorporate green infrastructure. Create a Complete Streets checklist or scoring criteria for project selection. 	<p>Best Complete Streets Policies 2023, Smart Growth America: https://smartgrowthamerica.org/wp-content/uploads/2023/05/Best-Complete-Streets-Policies-2023_0425.pdf</p> <p>Complete Streets Policy Evaluation Tool: https://docs.google.com/spreadsheet/d/1GBukolWUzT3eFn_YbmlTfj84k9e54799/edit#gid=1887631769</p>
<p>Update Collector Street Program</p> <ul style="list-style-type: none"> Reflect City policies on Complete Streets and equity. Include mode shift –positively grow walking, biking and transit trips (a goal in this plan)—as a key strategy towards achieving citywide greenhouse gas emissions reductions. Incorporate active transportation performance indicators, such as level of comfort and level of quality, to more fully address the complex and often competing needs within the right of way, and the paradigm shift away from solely using level of service for vehicles and peak vehicle travel hour as performance indicators. For example, prioritize safe and sustainable street qualities for the most vulnerable users as opposed to not allowing any reduction in vehicle Level of Service (LOS) at intersections. 	<p>Designing for All Ages & Abilities Contextual Guidance for High-Comfort Bicycle Facilities, NACTO, 2017: https://nacto.org/wp-content/uploads/2017/12/NACTO_Designing-for-All-Ages-Abilities.pdf</p> <p><i>“Implementing Context Sensitive Design on Multimodal Thoroughfares A Practitioner’s Handbook,”</i> Institute of Transportation Engineers (ITE), 2017</p>



Overarching Recommendations

Action	Resource
<p>Develop a Street Design Guide that informs the planning and design of all future street projects and includes:</p> <ul style="list-style-type: none"> • Street typology takes into account the envisioned character of streets, including planned land use context (e.g. schools, parks, mixed-use retail nodes), street users and uses. This approach allows communities a different way of organizing street design guidance, while still allowing for the conventional functional street classification names (e.g. arterial or collector) for transportation system planning and funding purposes. The concept of a city-based street typology marries multi-modal and land use contexts; it is consistent with guidance from the National Association for City Transportation Officials (NACTO). • Clear guidance on how to accommodate all modes and create an All Ages, All Abilities multi-modal street network that supports the safety of all people. • Local and national best practices. 	<p>Howard County, MD Complete Streets Design Manual: https://www.howardcountymd.gov/public-works/resource/howard-county-design-manual-volume-iii</p> <p>Minneapolis Street Design Guide: https://sdg.minneapolismn.gov</p>
<p>Land Use Practice: Ensure future land use supports short trips—trips that are more likely to be made by walking, biking and rolling—through short blocks, link-to-node ratios to measure network connectivity, intersection density ratios to measure network compactness, reduction or elimination of parking minimum, Transportation Demand Management (TDM) strategies and more.</p>	
<p>Year-Round Maintenance: Continue to provide year-round maintenance to active transportation facilities to ensure transportation equity. Improve winter walking, rolling and biking through better corner clearing programs.</p>	



Overarching Recommendations

Actions

Address Citywide Speeds: Set lower posted speed limits; ensure designs achieve safer (lower) target speeds.

Evaluate 4-lane Undivided Streets: Prioritize safety conversions, potential design solutions include 4-to 3 lane conversions and use of proven safety counter measures such as the modern roundabout. Current 4-lane undivided streets for evaluation include, but not limited to:

- 82nd Street between I-35W and Pillsbury Avenue
- 84th Street between Normandale Avenue and France Avenue
- 90th Street between Penn Avenue and Old Cedar Avenue
- 94th between Penn Avenue and Lyndale Avenue
- Garfield Avenue between 95th Street and 98th Street
- 98th Street between Normandale Avenue and Old Shakopee Road
- 102nd Street between Normandale Avenue and France Avenue
- 106th Street between James Road and I-35W
- Penn Avenue (coordinate with Hennepin County)



Overarching Recommendations

Actions

Green the Streets: Reduce the negative environmental impacts of street design by decreasing the amount of asphalt or concrete (impervious surface) in favor of increasing green space.

- Include rain gardens, bioswales and vegetation, such as street trees, to reduce stormwater runoff and help treat water prior to enter local waterways.
- Increase tree canopy in the City right of way. Map the current street tree coverage and prioritize coverage where it least exists.
- Create a program to proactively install street trees or other landscape elements, including in parking lots and along edges of parking lots.



WALK

Overarching Recommendations

Actions

Focus pedestrian improvements along and across key commercial and transit corridors, including Lyndale Avenue, Old Shakopee Road and American Boulevard.

Improve City's policies and practices to ensure a higher level of comfort (e.g. greater separation between sidewalks and moving vehicles, street trees, places to sit) is given to people walking on collectors and arterials.

Create and improve pedestrian connections across regional barriers such as highways, railroads and rivers.

Partner with developers, utilities, property owners and City departments (e.g. Planning Department) to provide high-quality pedestrian and public space improvements, including better links to/from buildings, seating locations and other public space design amenities.

Expand walking education and encouragement programs in partnership with Bloomington Public School District, businesses, Bloomington Public Health, AARP and other local senior and disability advocacy groups.

Prioritize pedestrian and bicycle improvements near or connecting to schools and parks through this Plan and the City's SRTS and Parks Plans.



WALK

Overarching Recommendations

Actions

Prioritize Visibility and Safety of Pedestrians at Intersections and Mid-block Crossings: Modify traffic signal operation and improve pedestrian crossings at signalized intersections based on street context to apply strategies such as:

- Adjust and restrict vehicle turns at intersections with measures like right turn on red restrictions or leading pedestrian intervals where there is high pedestrian activity. See more guidance: [Minnesota's Best Practices for Pedestrian and Bicycle Safety](#)
- Shorten crossing distances with smaller turn radii to slow vehicles through the use of tools like curb extensions, median crossing noses and raised table crossings at channelized right turn lane.
- Develop criteria for adding marked and/or raised crosswalks, advance stop bar, pedestrian crossing islands and other crossing support at unsignalized intersections and mid-block crossing locations to reduce distance between signalized crossings. Identify locations for interim projects using paint and vertical delineation.
- Ensure future land development and public infrastructure investment incentivize short blocks (200-400 feet). Blocks greater than 500 to 600 feet should provide mid-block crossings.



BIKE

Overarching Recommendations

Actions

Design future bikeways to create an All Ages and Abilities Network using best practices that reflect the community and serve as an asset to people who may not currently bike (“interested but concerned” user type).

Increase network awareness and connectivity for people on bikes by marking and signing designated “bikeable shoulders” to bike lanes. Pass policy or council action to encourage the use of legal bike lane markings and enforcement (i.e. parking restrictions).

Prioritize neighborhood bike boulevards, greenways and shared streets as part of the Neighborhood Traffic Calming Program.

Enhance intersection design and safety practices for people biking by using best practices, such as:

- MnDOT Bicycle Facility Design Manual
- NACTO Urban Bikeways Design Guide

Establish practices to expand end of trip facilities (e.g. bike racks, covered bike parking).

Strengthen relationships with local and state bicycle advocacy groups to continue to build support for street improvements.

A photograph of four young women walking away from the camera on a sidewalk. They are all wearing backpacks. The woman on the far left is smiling and looking back over her shoulder. They are walking on a paved sidewalk next to a grassy area and a street. In the background, there are trees and houses, including a prominent blue house with white trim. The scene is set in a residential neighborhood during the day.

Best Practices

SECTION 5

About Best Practices Section

The recommendations presented in this Plan are based on evidence-based best practices in active transportation design. The following slides provide core concepts that state and national resources provide more guidance on, including:



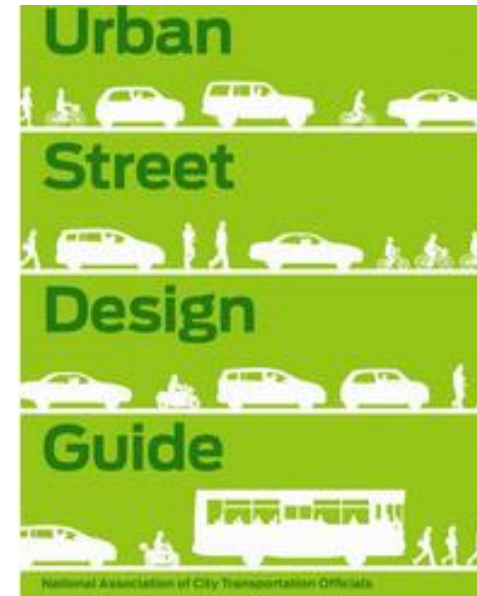
[Bicycle Facility Design Manual](#)

Minnesota Department of Transportation (MnDOT), 2020



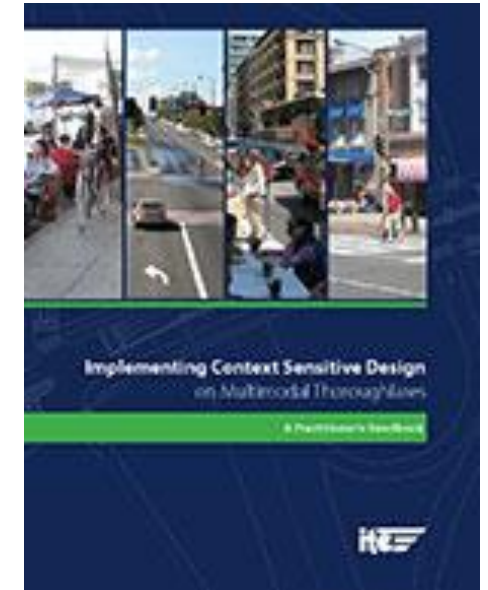
[Minnesota's Best Practices for Pedestrian and Bicycle Safety](#)

MnDOT, 2021



[Urban Street Design Guide](#)

National Association of City Transportation Officials (NACTO)



[Implementing Context Sensitive Design Handbook](#)

FHWA/ITE, 2017

Right-Sizing Streets

Suburban arterials can be transformed from auto centric to multi-modal streets that better support all roadway users, especially people of all ages and abilities.



Before



After



📷 Photos (top): Before and after of 66th Street & Nicollet Avenue intersection in Richfield, MN (over 23,500 vehicles per day). A modern roundabout manages traffic more efficiently while breaking the crossing distance into two 24-foot segments (versus over 60 feet before).

📷 Photos (bottom): 66th Street was right-sized from 4-to 2-lanes in pictured section with tree-landscaped center medians and left turn pockets. The additional space was reallocated for a fully separated (with landscape strip) bike lane, also called cycle track, next to the rebuilt sidewalk. Edge line pavement was used to mark travel lane edge to further manage motorist speeds and help preserve the edge of pavement. Section pictured carries over 12,000 vehicles per day.

Garden Corner Curves, Tualatin, OR

BEFORE



Sharp s-curve with no designated space to walk and bike.

AFTER



10-foot travel lanes, bike lanes, sidewalks and high visibility marked crossings create a safer curve for all modes.



Sharp s-curve on a hill with guard rail and no place to walk and bike.



An opening party for people to walk and roll the street and new 12-foot trail with bioswale buffer.

CALMING THE CURVES

Similar context to Bush Lake Road, the Garden Corner Curves corridor has around 4,000 vehicles per day, sharp high-speed s-curves and a highly constrained right-of-way. The biggest questions was "how to meet the goals of the project while limiting impacts and maintaining the character of the street space?"

Today, people walking and biking can safely share the route with people driving while on a separated multi-use path. Where the path transitions to on-street bike lanes for bicyclists, and sidewalks for pedestrians, high visibility marked crossings and rapid flash beacons were installed to better signal to motorists to expect people crossing.

In addition to the transportation benefits, a new culvert and fish passage was built over Hedges Creek.

"City of Tualatin Garden Corner Curves April 19, 2022", Wallis Engineering, n.d. Kulia, Josh.
"Hundred Turn Out for Graden Corner Curves Celebration" Tualatin Life.

Right-Sizing Streets

More communities are prioritizing a people-first approach to street design. To make streets safer for people walking, biking and driving, many communities are reallocating street space by reducing vehicle lane widths and removing lanes altogether. The gained space is reallocated towards wider sidewalks, bike lanes, separated bike lanes (or cycle tracks), street trees, on-street parking and more.

Right-sizing 5 or 4-lane streets to 3 or 2-lane streets works best on streets that have daily traffic volumes of 8,000 to 20,000 vehicles. As streets reach the higher traffic volumes additional intersection treatments, such as the modern roundabout, might be needed to more effectively manage vehicle traffic. See more guidance: [Minnesota's Best Practices for Pedestrian and Bicycle Safety](#)



Photo: Dan Burden

Parking /
curb zone

“park
assist” lane

10-ft travel lane

- Photo (above): Main Street in Hamburg, NY is a major state truck route carrying 12,000 vehicles per day. The town of Hamburg and NYDOT replaced four intersections with single-lane modern roundabouts, removed two travel lanes and narrowed the remaining lanes to 10-feet, allowing wider sidewalks, park assist lanes and additional street trees.

Right-Sizing Streets

Narrower Lanes: Narrowing lanes can reduce the operating speed of traffic while also providing the additional space needed for bikeways. Ten-foot-wide lanes have a positive impact on a street’s safety without impacting traffic operations. To support vulnerable users like pedestrians and bicyclists, streets should maximize buffer space and work to manage safe speeds for all by design. This often means using and marking buffer space rather than widened lanes to reduce side-swipe risks or allow large vehicle operating space (e.g. bus, fire truck, snow plow) without increasing design speeds. (National Association of Transportation Officials (NACTO))



Travel lanes could be as narrow as 10 feet. Narrower lanes and narrower street width are associated with fewer crashes.”

(MnDOT Technical Memorandum No. 17-12-TS-05 and No. 18-09-TS-06)

Context Sensitive: AASHTO’s *A Policy on Geometric Design of Highways and Streets*, commonly referred to as the “Green Book,” provides flexibility to use 10-foot-wide travel lanes in a variety of situations depending on operating speeds, volumes, traffic mix, design vehicle, horizontal curvature, use of on-street parking and street context.

Minnesota State Aid Standards (Part 8820.9941) note minimum lane width of 10 feet may be allowed on streets with bike lanes when design speeds are less than 35 mph and when all street factors are taken into account (e.g. bus route, traffic mix, land use). It also notes engineering judgment should be used.

“Ten-foot lanes do not result in an increase in crashes or reduce vehicle capacity on roads with speeds of 45 mph or less. Narrower lane widths can contribute to lower vehicle operating speeds, which can increase safety for all roadway users.” (FHWA Bicycle Selection Guide, 2019)

Modern Roundabouts

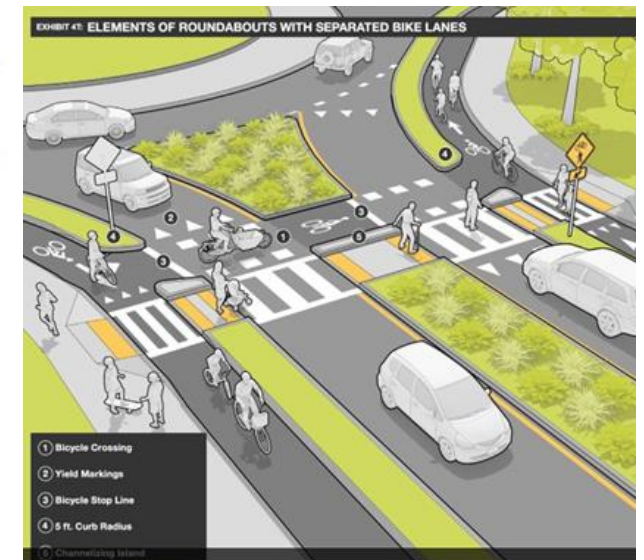
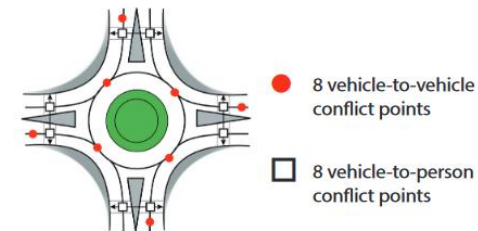
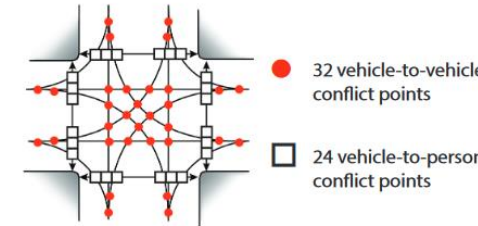
A SAFER CHOICE BY DESIGN

Modern roundabouts, including mini-roundabouts, are a Federal Highway Administration (FHWA) "Proven Safety Counter-Measure," creating a safer intersection for all users:

- 90% reduction in fatal crashes
- 75% reduction in injury crashes
- 30-40% reduction in pedestrian crashes
- 10% reduction in bicycle crashes
- 30-50% increase in traffic capacity

A single-lane modern roundabout can handle up to 25,000 vehicles per day (a mini-roundabout slightly less); a double-lane roundabout can handle up to 43,000 vehicles per day. When designed properly, roundabouts ensure motorists speeds of 15-23 mph, which increases drivers' ability to judge and react to other people driving, walking and biking. Roundabouts also create gateway treatments, providing space for local art and signage.

Given the safety benefits, many communities are adopting a roundabout first policy, requiring roundabouts to be considered first during intersection improvements.



- Photos (top to bottom right):
 - Domed mini-roundabout with curb extensions in winter (Detroit Lakes, MN).
 - Mini-roundabout with a painted rainbow creates a sense of arrival and welcome (Richfield, MN).
 - Single (and double) lane roundabouts have fewer vehicle-to-vehicle conflict points and vehicle-to-person conflict points than a signalized intersection.
 - Massachusetts DOT diagram showing guidance for roundabouts with protected bike lanes and crossings.

Protected Intersections

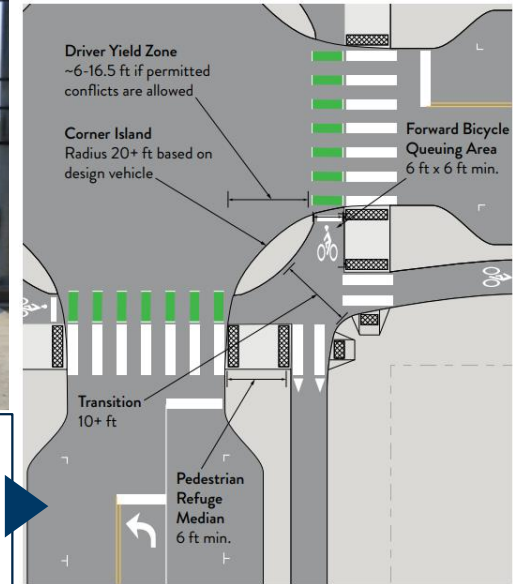
DEDICATED SPACE FOR EACH MODE

Protected intersections provide dedicated space for each mode of travel: walking, biking and driving. They can be implemented at stop-controlled or signalized intersections and are most often used with separated bike lanes, but may be used with conventional bike lanes, paved shoulders, or even shared lanes. A variation on the standard protected intersection can also be designed for two-way bicycle traffic on one side of the road.

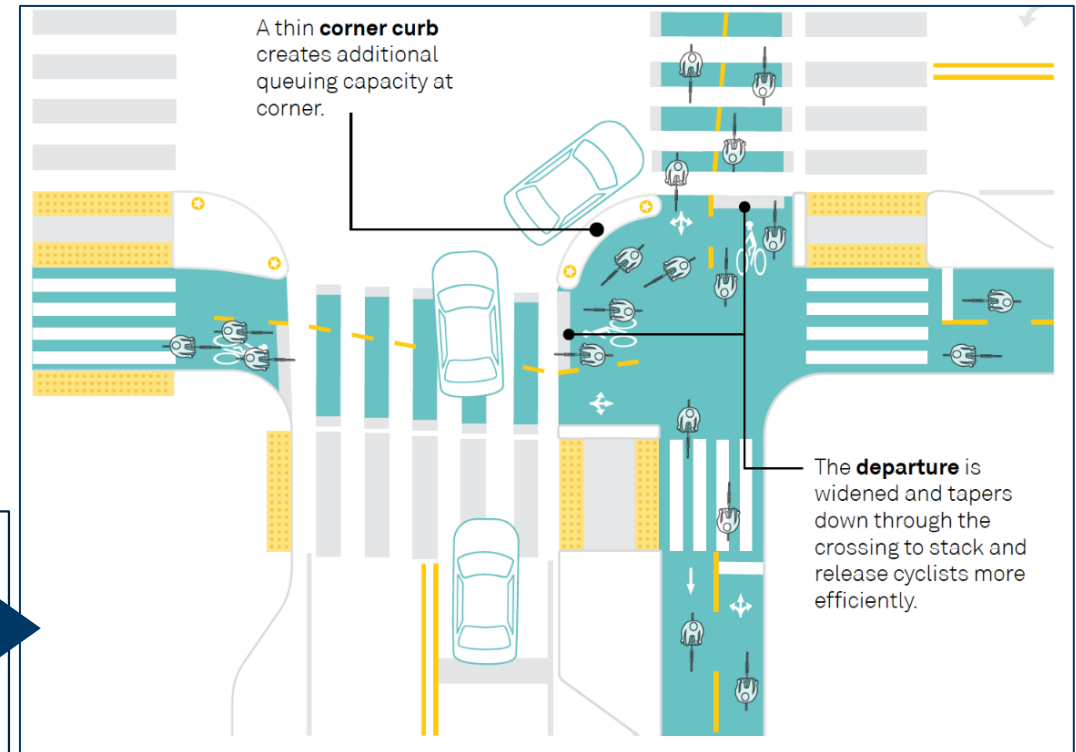
Benefits include:

- Provide clear right-of-way assignment between modes
- Maintain physical separation between bicyclists and motor vehicles through an intersection
- Place queued bicyclists in front of and in clear view of drivers
- Improve visibility of bicyclists for motorists' while turning
- Clearly define pedestrian and bicycle operating spaces
- Reduce pedestrian and bicycle crossing distance
- Reduce motor vehicle turning speed

Source: MnDOT Bicycle Facility Design Manual, 5-37 and 5-38.



Key features include a corner island, forward bicycle queuing area, driver yield zone and pedestrian refuge median.
Source: MnDOT Bicycle Facility Design Manual



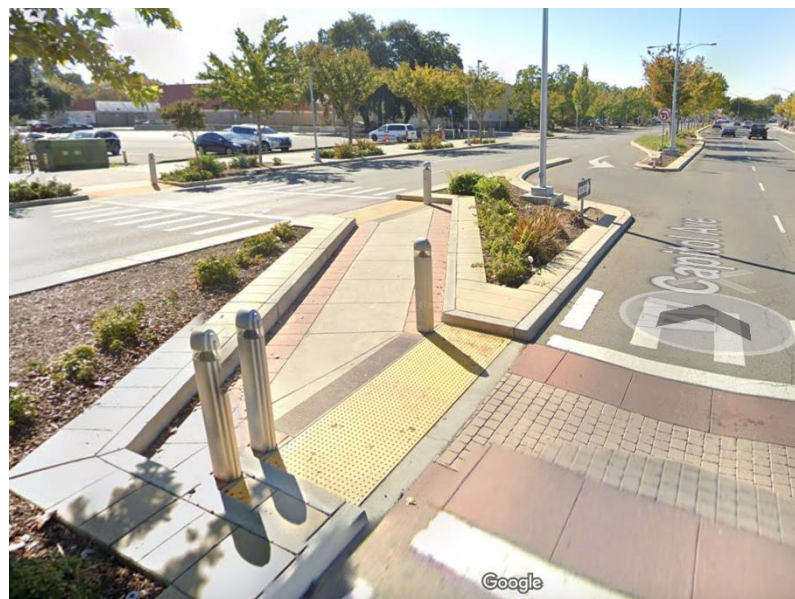
Alternative design for two-way bicycle traffic on one side of the road.
Source: NACTO, "Don't Give Up at the Intersection" [Variations | National Association of City Transportation Officials \(nacto.org\)](https://www.nacto.org/publication/intersections-variation/)

Crossings

High visibility marked crossings are needed to help mark potential conflict zones and ensure all users understand how to safely yield and stop for each other. There are different levels of treatments depending on the crossing context and complexity (e.g. motorist speeds, volume of traffic, number of lanes, signal control). See more crossing guidance: [Minnesota's Best Practices for Pedestrian and Bicycle Safety](#)



Where bicyclists need to stop, a lean bar is a helpful amenity.



Z-Crossing Island breaks long complex crossings into two simpler crossings. An angle in the island positions people to face oncoming traffic before crossing. It also provides storage space for bikes.



Raised Table crosswalks work well at side streets or driveways to give people walking or biking priority, reinforce motorist stop location, slow motorist turning speeds and increase motorist yielding behavior.

Street Trees

Street trees greatly improve active transportation users level of quality. They also provide traffic calming and environmental benefit:

- **Improve Safety:** A well developed tree canopy can reduce traffic speeds by 5 to 15 mph
- **Reduce storm water runoff:** Trees absorb 30% of precipitation through their leaves and another 30% through their roots
- **Cool Environment:** Pavement can increase temperatures by 3 to 7 degrees, which increases energy costs and urban heat gain. Tree shade can reduce energy bills by up to 35%

(Street Trees | A Livability Fact Sheet. AARP, 2014. <https://www.aarp.org/livable-communities/info-2014/street-trees-fact-sheet.html>)



Green Infrastructure



The surface of the Jackson Street (St. Paul, MN) two-way grade-separated bikeway (or two-way cycle track) is a porous asphalt that helps with stormwater management, winter maintenance and rideability. The landscaped buffers are bio-filtration basin and tree trench systems to provide filtration of stormwater runoff and snow storage in the winter.



Bloomington Parks Department has started tree nurseries to meet city climate, park and street tree planting goals.



Curb extensions (or bump-outs) provide space for rain gardens, native plants and snow storage while reducing crossing distances for people on foot.

Safe Systems: When to Mix, When to Separate?

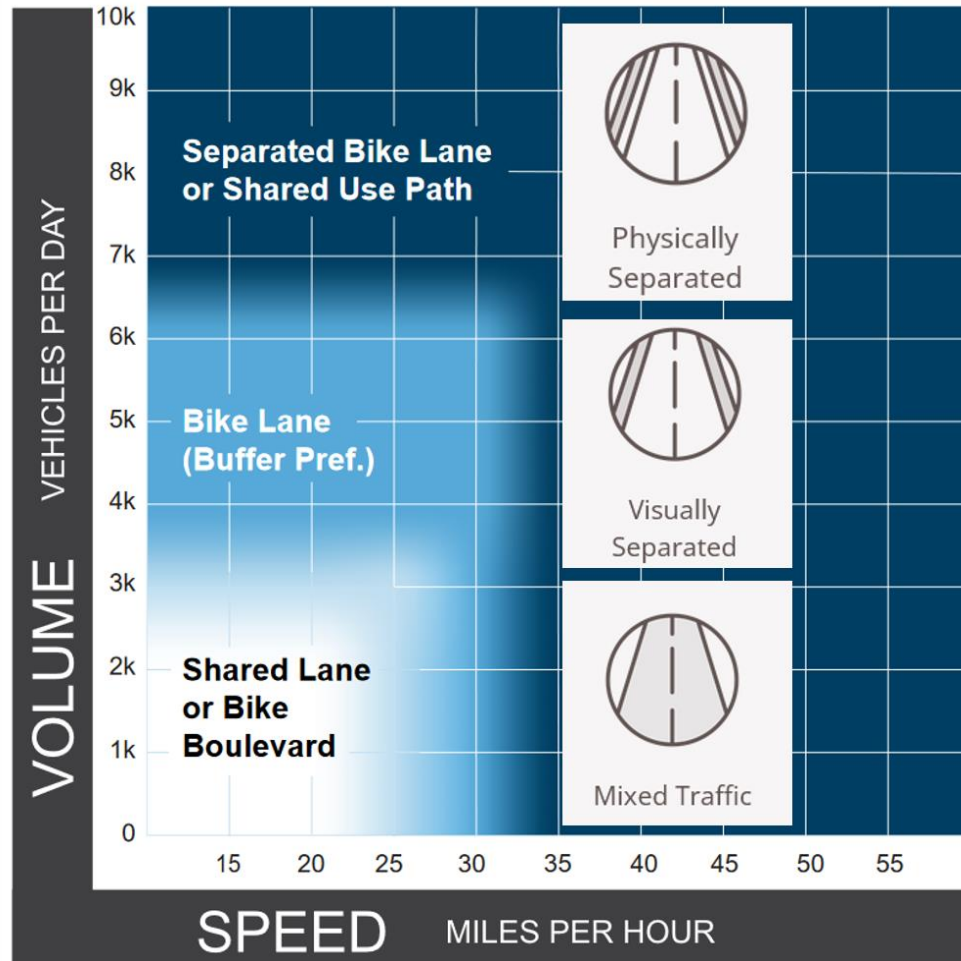


Chart adapted from *Federal Highway Administration Bicycle Selection Guide (2019)*.
Note: Chart assumes operating speeds are similar to posted speeds. If they differ, operating speed should be used rather than posted speed.

SELECTING BIKEWAY FACILITIES

A key aspect to ensure safer roads by design is **separating users in the street space**.

The **greater the vehicle speed** and the **higher the vehicle traffic**, the **greater the physical separation** needs to be between people driving and people biking.

Separate and protect people from moving traffic when **vehicle speeds are above 20 mph**. This can be done visually with painted bike lanes or buffered bike lanes or physically with bikeways fully separated by curbs, street trees, on-street parking and more.

A **shared street environment**, where users are mixed, can be created for **people biking and driving** when **target speeds are at or below 20 mph** and **vehicle volumes are relatively low**. This is a common environment on neighborhood residential streets.

Bicycle Boulevard

Bicycle boulevards are **low-volume** and **low-speed** neighborhood **residential streets** that **prioritize people walking and bicycling**, and discourage motor vehicle through traffic. Street design elements are mixed and matched along the corridor to:

- Reduce or maintain low motor vehicle volumes
- Reduce or maintain low motor vehicle speeds
- Create a direct, coherent (logical) and continuous route
- Create access to key community destinations
- Create comfortable and safe intersection crossings
- Give priority to people walking and cycling, reducing delay

Combined, these treatments create an **attractive, convenient and comfortable shared street environment** that is welcoming to people of all ages and abilities walking and bicycling.

A MIX OF DESIGN ELEMENTS



Bike Lanes

SAFER STREETS FOR ALL

Cities investing in bicycling infrastructure—from bike lanes to fully separated bike lanes (or cycle tracks)—achieve environmental and safety advantages through the increase of bicycle use. Bike lanes are one of FHWA’s Proven Safety Countermeasures to achieve the road safety goal of reducing roadway fatalities and serious injuries.

Conventional bike lanes designate an exclusive space for people biking through the use of pavement markings and signage. Benefits:

- Increases bicyclist comfort
- Creates visual separation between people biking and driving
- Increases predictability of bicyclist and motorist positioning and interaction
- Visually reminds motorists of bicyclists’ right to the street
- Improves comfort for pedestrians by providing a buffer to the sidewalk, further separating people walking from moving vehicles
- Improves emergency response by providing space for motorists to pull over
- Supports more compact intersections by improving the effective turning radius for large vehicles while maintaining shorter crossing distance for people on foot

SAFETY BENEFITS

Bicycle lane additions provide:

49% ↓ in total crashes on 4-lane undivided collectors and local roads due to dedicated space and lane reduction.

30% ↓ in total crashes on 2-lane undivided collectors and local roads due to dedicated space.

Separated bicycle lanes (or cycle tracks) provide further safety benefits and are more comfortable to people of all ages and abilities due to the greater separation between people biking and driving.

Sources:

- <https://highways.dot.gov/safety/proven-safety-countermeasures/bicycle-lanes>
- <https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/>
- <https://www.aarp.org/content/dam/aarp/livable-communities/livable-documents/documents-2014/Livability%20Fact%20Sheets/Bicycling-Fact-Sheet.pdf>

Sidewalk Prioritization

The table provides key considerations to further guide conversations, analysis and decision-making to advance the vision for *an attractive, safe and comfortable sidewalk and bikeway network that supports all ages and abilities.*

Key Factors to Guide Sidewalk & All Ages and Abilities Bikeway Prioritization

Factor	Potential Measure	Other Considerations
Routes to School	½ mile walkshed to all K-12 Bloomington Public Schools	Based on the school district’s walkshed of ½ mile for elementary schools. A mile and a quarter (1 ¼) radius could be used for primary (grades 6-12) schools.
Connections to Transit	Walksheds to frequent transit stops: <ul style="list-style-type: none"> • Frequent bus • Bus Rapid Transit • Light Rail • Transit hubs 	<ul style="list-style-type: none"> • <i>Consider ¼ to ½ mile from transit stops.</i> • <i>Ensure all frequent transit routes have sidewalks, reference Metro Transit System Map</i> • <i>Many high frequency transit corridors in Bloomington are the same corridors where people want to bike, walk or visit for shopping and other daily needs. Design the right of way to support all these activities.</i>
Connections to Parks	Walksheds within a ¼ mile to all parks	<i>Ensure sidewalk connections link to key access points (edges) of parks</i>
Connections to Retail Nodes	½ mile to 1 mile	<i>Make sure all routes that go to and through designated mixed-use retail nodes of the City have sidewalks. Prioritize detached sidewalks, meaning there is a landscape boulevard space. Provide separate bike lanes (cycle track) or parallel bike routes with connections to/from shopping areas.</i>

Sidewalk Prioritization

Key Factors to Guide Sidewalk & All Ages and Abilities Bikeway Prioritization

Factor	Potential Measure	Other Considerations
Traffic Safety	Speed data, crash data, traffic volumes	<i>What is the vehicle traffic mix (e.g. high percent of trucks)? What are the traffic operating speeds? Where are there road safety concerns (e.g. blind corners, s-curves, hill crests, crossing locations)?</i>
Equity	Social Equity Framework and Vulnerability Index	<i>How does the location and design of the facility ensure children and older adults can safely and comfortably access and enjoy the facility? People with disabilities? People of color or low income individuals and families? Children are typically less visible to motorists and lack both street experience, as well as, cognitive or physical maturity to recognize and anticipate potential conflicts. Designing for the youngest members of the community is the hardest, but ensures safer streets for all. If people walking, running, rolling and biking are expected to share the same trail/path space how are conflicts between active transportation users minimized?</i>
Community Goals	Comprehensive Plan, Climate Action Plan, Public Health Data	<i>How does the project advance community goals in addressing climate change, health and well-being, mode shift, natural space/habitat restoration, social and transportation equity and more?</i>

CORE CONCEPTS

Placemaking

ACTIVATING PUBLIC SPACES

Great public spaces are places where people of all ages, abilities socio-economic backgrounds can access and enjoy. Placemaking is both an overarching idea and a hands-on approach to actively ignite the creativity and leadership of the community. To activate parks, plazas, trails and downtown communities are adding moveable chairs, games, pop-up events and other through low-cost temporary demonstration projects. Bloomington has an active creative placemaking program in the South Loop: <https://www.bloomingtonmn.gov/pl/creative-placemaking>



Examples of creative place making in Bloomington's South Loop. <https://www.bloomingtonmn.gov/pl/creative-placemaking>

Winter Maintenance

The design and maintenance of streets and pedestrian and bike facilities directly impact people's decision to walk or bike, especially in winter. People biking, walking or using a mobility aid device are susceptible to the negative impacts of delayed maintenance. They are discouraged from venturing outdoors when snow and ice impede their ability to access their destination.

Winter maintenance is a factor for the design of active transportation improvements throughout Bloomington. Bloomington should continue to take pride in how it clears sidewalk, trails and bikeways while also seeking to improve clearing programs, especially at corners, transit locations and intersections.

Being a winter city calls for the City to continue to work with other road partners, residents and business owners in creative solutions to addressing winter maintenance challenges.

Resource: [Winter Maintenance](#), Toole Design (2019)



The separated bikeway (pictured) in Edmonton, Canada provides space for snow storage while increasing the sense of comfort for people biking.

Photo source: [globalnews.ca](#)



Photo from a Bloomington resident winter biking along Old Shakopee Road near France Avenue.

Moving Forward

SECTION 6



Next Steps

1) Build momentum and participation by doing low-cost, quick build projects or events to raise awareness.

Taking incremental steps to demonstrate change helps projects get realized much faster than the typical street design process allows. This saves money and time in the long run and builds momentum and public appetite for permanent change.

- Use paint or temporary devices! When and where possible test curb extensions to tighten curb radii to slow turning motorists and shorten crossing distances. Or test narrower travel lanes (10-feet) in order to paint a buffer to bike lanes, providing more visual separation between people biking and driving.
- Sign and use pavement markings to mark on-street bike lanes.
- Identify a priority project from this plan that is a candidate for a demonstration project. Work with community members to further test and refine ideas. Consider testing traffic calming tools along Emerson Avenue or a pedestrian crossing island at 12th Avenue and 80th Street.

2) Continue to organize and advocate for this plan.

- Adopt the Plan.
- Share it with partners.
- Continue to coordinate Hennepin County and other agencies to further corridor and street design in support of active transportation.

3) Put the plan into action! Actively use this plan as a living guide and start to program studies (i.e. American Boulevard, Lyndale Avenue and Old Shakopee Road), update practices and implement other low-cost action items to advance Bloomington's active transportation network for all ages and abilities.

Source	Funds	Purpose
FHWA	Safe Streets and Roads for All (SS4A)	Low-cost infrastructure; education; monitoring and evaluation
FHWA Reconnecting Communities Pilot	Reconnecting Communities Pilot (RCP)	Creating connections across highways
MnDOT Active Transportation Program	Infrastructure Grants, Planning Assistance, Quick Build/Demonstration Projects	Support active transportation capacity building and facilities
MnDOT Safe Routes to School	Planning Assistance and Boost grants	Support current SRTS plans and programs
MnDOT Safe Routes to School	Infrastructure Funds	Construct sidewalks; improve crossings
MnDOT (Federal funding)	Transportation Alternatives (TAP)	New pedestrian and bike facilities
MnDOT	State Aid for Local Transportation (SALT)	Highway projects
Metropolitan Council	Regional Solicitation	Multi-modal infrastructure projects that focus on outcomes like moving people more effectively, managing congestion, safer streets for people walking and biking and improving air quality
MN DNR	Regional Trail Grant	Motorized, non-motorized and joint trail usage
MN DNR	Outdoor Recreation Grant Program	Matching grant for the cost of acquisition, development, and/or redevelopment of local parks and recreation area
MN DNR	Local Trail Connections Program	Supports acquisition and development of trail linkages
MN DNR (Federal funding)	Federal Recreational Trail Program	New trails, trail maintenance and trailhead construction
Greater Minnesota Regional Parks and Trails Commission	Parks and Trails Legacy Grant Program	“Regionally Designated” parks and trails can be funded
Legislative-Citizen Commission on Minnesota Resources (LCCMR)	Environment and Natural Resources Trust Fund (ENRTF)	Activities that protect, conserve, preserve and enhances Minnesota's air, water, land, fish, wildlife and other natural resources

State and Federal Funding for Active Transportation

In addition to local Capital Improvement Program funds, local jurisdictions may seek state and federal funding to assist with development of the active transportation network. Most programs involve applying through one of these agencies:

- Federal Highway Administration (FHWA)
- Minnesota Department of Transportation (MnDOT)
- Minnesota Department of Natural Resources (MNDNR)
- Greater Minnesota Regional Parks and Trails Commission (GMRPTC)
- Legislative-Citizen Commission on Minnesota Resources (LCCMR)

Grants are sometimes also available through organizations that support economic development and tourism, public health, and conservation and the natural environment. Private donations are popular for projects that support community recreation and well-being.

A Call to Action

COMMUNITY CHARGE

The City of Bloomington is working to make improvements in its active transportation network to reach climate, equity, community health and safety goals. The time is now to take bold action towards a street design paradigm that puts people and place first over the sole movement of automobiles.

Continue to prioritize active transportation improvements, like sidewalks, bikeways, trails, crossing and traffic calming measures near schools, parks and retail nodes, so more people feel comfortable walking, biking and rolling. Apply a Safe System Approach and Complete Streets to ensure corridors in Bloomington serve the needs of all people.

The City cannot reach these goals without the support of you, the residents of Bloomington. It takes everyone to make streets safe and inviting for our youngest and oldest, and everyone in between. Whether it means driving safer speeds, walking your child to school, rolling to a health appointment or bicycling to pick up your groceries, our streets are public spaces that should be safe, comfortable and inviting for all.

"As we work to be an enduring and remarkable community where people want to be, that starts with a healthy and accessible community. Our success in moving this plan along will have huge impacts on making Bloomington a place where people want to be, in part because we made it easier, safer and healthy for you to be here. The health, societal and economic benefits of this work are enormous when you think about 70% of what creates individual health is impacted by this work."

-Nick Kelley,
Bloomington Public Health