



RED RIVER GREENWAY

METROCOG
FM REGIONAL TRANSPORTATION PLANNING ORGANIZATION

CONFLUENCE

TOOLE
DESIGN



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TABLE OF CONTENTS

CHAPTER 1: Introduction5

CHAPTER 2: Existing Conditions Analysis13

CHAPTER 3: Community Vision + Goals47

CHAPTER 4: Greenway Trail Assessment, Criteria, and Guidelines91

CHAPTER 5: Greenway Segment Alternatives123

CHAPTER 6: Implementation147

APPENDIX A: Right of Way Toolkit and Cost Estimates165



CHAPTER 1

INTRODUCTION

INTRODUCTION

Project Overview

In September 2021, the Fargo-Moorhead Metropolitan Council of Government (Metro COG) commissioned a master plan for the Fargo side of the Red River Greenway to build upon the past planning efforts and the momentum created through a series of property acquisition and buy-out occurring along the riverfront. The Design Team was led by Confluence, a landscape architecture, urban design and planning firm with offices in Fargo and eight other cities throughout the Midwest and Denver. Confluence partnered with Toole Design Group and AE2S to conduct the roughly 15-month project, which began in October 2021, and concluded in January 2023 with the adoption of this master plan.

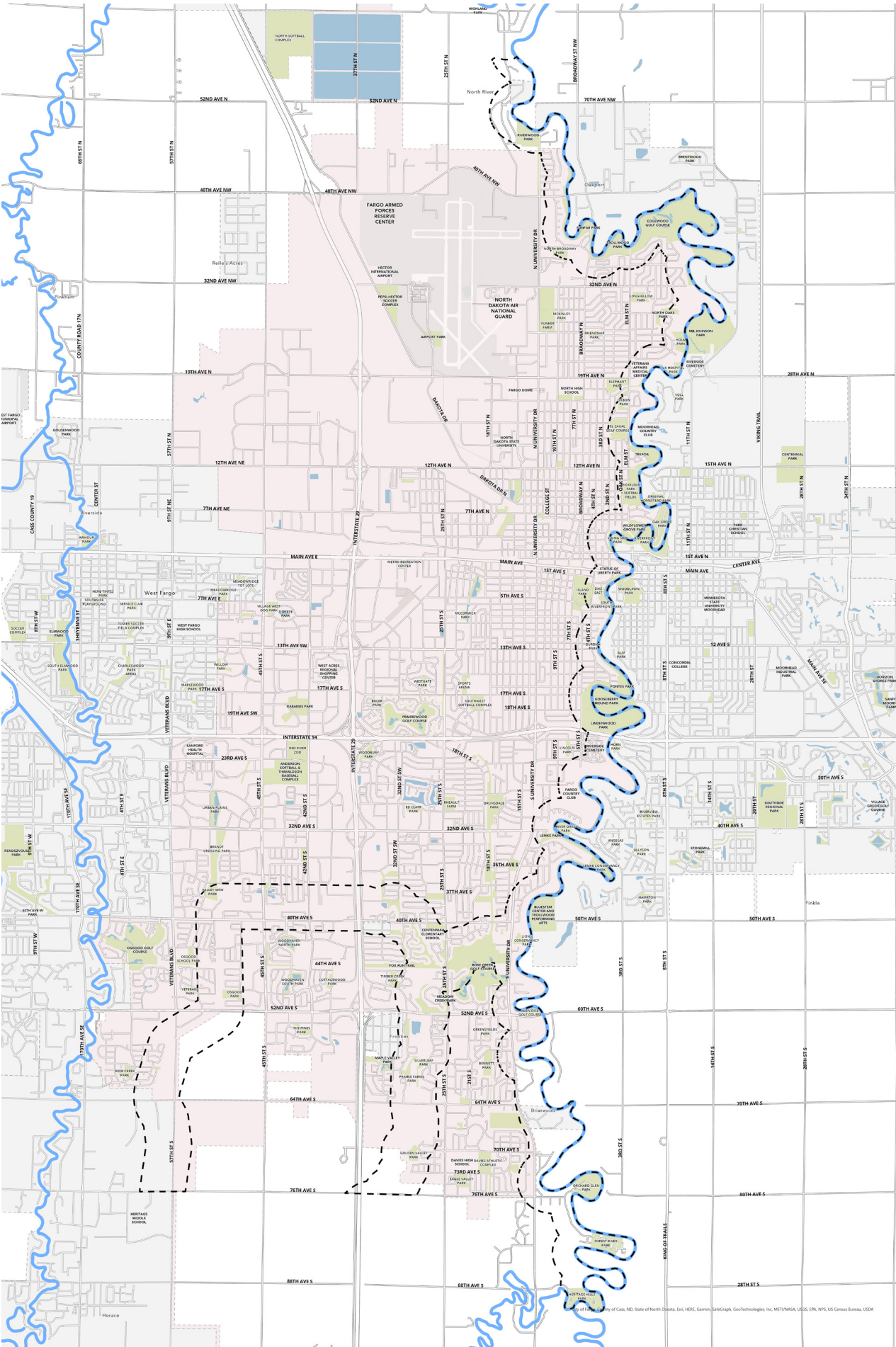
The Red River Greenway Master Plan takes a comprehensive look at the greenway's bicycle and pedestrian networks, parks, open spaces, natural areas, cultural areas, and analyze access to and from the greenway and its various nearby amenities. The master plan builds upon past planning efforts to lay out a plan for a safe, connected, equitable, accessible, and welcoming greenway experience for all types of users. Past plans from the last 15 years have laid a foundation for this important regional amenity. This plan provides the next level of detail and direction to help plan for the Fargo side of the Red River Greenway.

The master plan was created in collaboration with Metro COG staff and a Study Review Committee (SRC) composed of a collection of stakeholders, residents, government representatives, and advocacy groups working within the Fargo-Moorhead metro area.





Figure 1.1/ Red River Greenway Study Area



INTRODUCTION

The Red River Greenway Master Plan was created over the course of 10 main tasks, described below.

Task 1 - Project Management + Coordination Confluence

Task 2 - Data Collection + Existing Conditions

The Consultant Team conducted a review of the existing conditions of the Red River Greenway through a detailed

Task 3 - Community Engagement

A series of engagement opportunities were utilized during the planning process for the Red River Greenway Master Plan. This task overviews the engagement opportunities and summarizes the public input received.

Task 4 - Statement of Purpose

Statement of Purpose and Intent that summarizes key aspects of the project background and reflects a shared understanding of the core values and vision for future of the Red River Greenway system.

Task 5 - Goals + Objectives

Task 5 includes a vision statement that reflects the core values of the Red River Greenway Study based upon previous planning efforts, input from the SRC, members of the public, and key stakeholders. Additionally, a prioritized set of goals and objectives were created based on the same feedback and analysis.

Task 6 - Identification of Opportunities and Constraints

Task 6 includes a comprehensive site analysis to identify potential issues and opportunities that the Study Area presents. This includes an open space inventory, identification of gaps in the system, circulation, access and connections, pedestrian safety, surrounding land use, topography, and drainage patterns, variable river levels, flooding and view sheds. The site analysis was used to identify and divide the greenway into different segments based on distinguishing features.

Task 7 - Greenway Trail Assessment

Task 7 includes an in-depth examination of proposed existing and future identified trail connections to and within the study area and the surrounding region. It also examines the existing and proposed supporting infrastructure such as transit routes, bike and scooter share facilities, safe routes to schools efforts, and other alternative transportation planning that has occurred within the study area and region. The task also identifies existing plans and potential opportunities to strengthen the system with additional facilities that will help build a stronger and safer biking community.

Task 8 - Greenway Trail Criteria and Guidelines

Task 8 utilizes the most current AASHTO recommendations (2012 AASHTO Bike Guide developed by Toole Design to provide trail guidelines and criteria. Guidelines will ensure the trail features are integrated into existing or planned stormwater infrastructure and do not negatively impact these engineered features. The task provides best practices and guidelines for utilizing green infrastructure and natural drainage techniques to address stormwater issues within the Greenway Corridor.

Task 9 - Development of Alternatives

Task 9 includes the development of a variety of Greenway alternatives to enhance existing trail facilities and create new opportunities for active and passive recreation, cultural and interpretive amenities, ecological and natural environments all within the Red River Greenway Study. The alternatives will be a realistic and comprehensive list of locally supported implementable alternatives. Each alternative will be ranked using an overlay critical lens that evaluate and prioritize each of the alternatives based on the goals and objectives of the project, cost, equity, and accessibility.

Task 10 - Implementation

Task 10 includes the creation of an implementation plan that will serve as a blueprint to achieve the vision, goals, and objectives of the Study and meet the needs of Metro COG and the community. The Implementation Plan will be a living document that will be subject to improvement and growth as it is being implemented and as circumstances and opportunities may change. The implementation plan will include prioritization of policies and projects including proposed timeframes and strategies. Also included are planning level cost estimates, a toolbox for property acquisition as needed, and conceptual layouts for the highest priority or short-term projects, medium- and long-term implementation. Additionally, the plan will identify all state and federal grant opportunities, and explore current local funding mechanisms, best practices, and recommendations on how to fund the trails and greenway projects.

Figure 1.1 presents the study area utilized throughout the Red River Greenway Master Plan study.

INTRODUCTION

Plan Structure

Based upon the Red River Greenway Master Plan's tasks, a series of six chapters were created:

CHAPTER 1: INTRODUCTION

The Introduction provides background on the project scope, schedule, and structure for the rest of the plan.

CHAPTER 2: EXISTING CONDITIONS ANALYSIS

A series of maps identify opportunities and constraints within the study area for consideration. Existing conditions, ranging from points of interest to defining the segments within the study area, are presented in Chapter 2 as well.

CHAPTER 3: COMMUNITY VISION + GOALS

Public engagement, both in-person and virtually, was key in forming the recommendations presented throughout the plan. Key themes, goals, and summaries of all input is archived in Chapter 3.

CHAPTER 4: GREENWAY TRAIL ASSESSMENT, CRITERIA, AND GUIDELINES

Chapter 4 presents best practices for trail types and construction and identifies the gaps in access within the existing trail network. These gaps serve as the foundation for analysis in Chapter 5's identification of Segment Alternatives.

CHAPTER 5: GREENWAY SEGMENT ALTERNATIVES

Utilizing the gaps identified in Chapter 4, this section provides segment route alternatives throughout the study area.

CHAPTER 6: IMPLEMENTATION

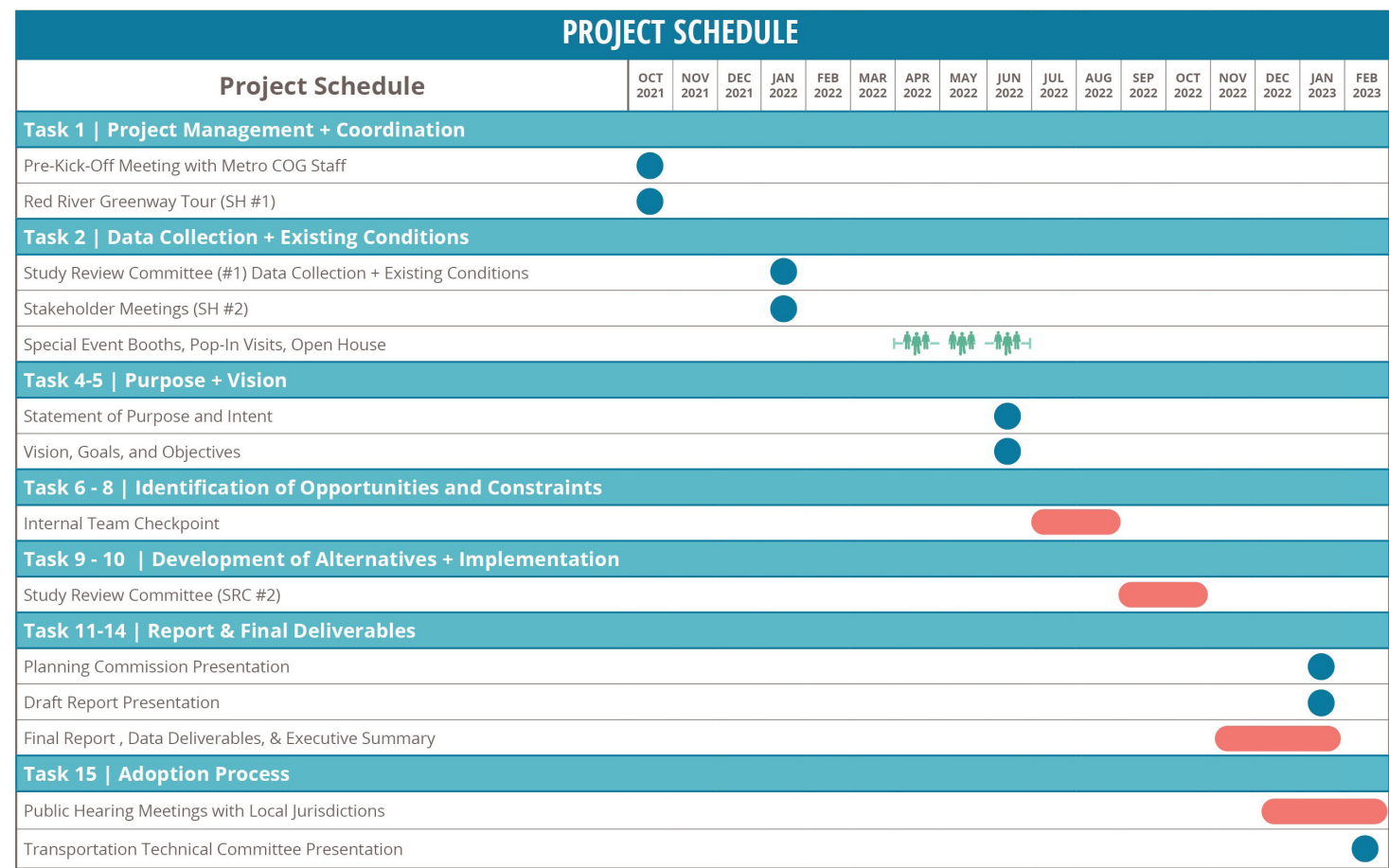
The Implementation chapter serves as a guidebook for prioritizing improvements, funding opportunities, and other decision-making tools.

INTRODUCTION

Project Schedule

The Red River Greenway Master Plan followed the project schedule outlined in Figure 1.2.

Figure 1.2 / Red River Greenway Project Schedule



CHAPTER 2

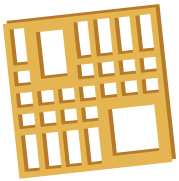
EXISTING CONDITIONS ANALYSIS

EXISTING CONDITIONS

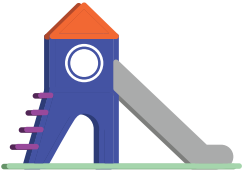
This chapter covers the following topics:



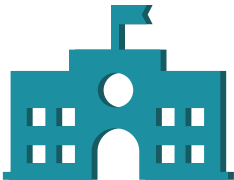
Existing Bike + Pedestrian Connectivity



Land Ownership in the Study Area



Existing Park Space in the Study Area



Existing Schools in the Study Area



Points of Interest in the Study Area



Transit + Vehicular Mobility in and around the Study Area



Introduction of Segments within the Study Area





EXISTING CONDITIONS

Red River Greenway Study Area - Base Map

Figure 2.1 shows the Red River Greenway study area, which covers approximately 7,203 acres or 11.3 square miles from Riverwood Park to Heritage Hills Park. The study area predominantly focuses on the Fargo side of the Red River stream centerline and also includes either side of Drain 27 and Drain 53.

The Red River Greenway study area covers a mix of rural, suburban, and urban development areas in the Fargo-Moorhead area. These varied levels of development impact the function and form of the greenway system that exists today and will help inform recommendations for changes, improvements and expansion of the system in the future.

Currently, the greenway system is made up of numerous parks and open space, shared use paths and nearby bicycle facilities and sidewalks that vary in their connectivity and access for adjacent neighborhoods.

Mix of public and private ownership makes for unique opportunities for completing a unified system.

Completing the system will involve:

- Fully connecting the greenway by filling in the gaps
- Building off-street trails
- Purchasing right-of-way and establishing new shared use paths



LEGEND

- [] Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space

This map of Fargo, North Dakota, illustrates the city's layout, including the Red River, major roads, and parks. Key features include:

- Red River:** Flows along the eastern and southern edges of the city.
- Parks:** Riverwood Park (north), Study Area (center), Downtown Fargo (south), Drain 27 (left), and Drain 53 (center).
- Major Roads:** 1st Avenue NW, 2nd Avenue NW, 3rd Avenue NW, 4th Avenue NW, 5th Avenue NW, 6th Avenue NW, 7th Avenue NW, 8th Avenue NW, 9th Avenue NW, 10th Avenue NW, 11th Avenue NW, 12th Avenue NW, 13th Avenue NW, 14th Avenue NW, 15th Avenue NW, 16th Avenue NW, 17th Avenue NW, 18th Avenue NW, 19th Avenue NW, 20th Avenue NW, 21st Avenue NW, 22nd Avenue NW, 23rd Avenue NW, 24th Avenue NW, 25th Avenue NW, 26th Avenue NW, 27th Avenue NW, 28th Avenue NW, 29th Avenue NW, 30th Avenue NW, 31st Avenue NW, 32nd Avenue NW, 33rd Avenue NW, 34th Avenue NW, 35th Avenue NW, 36th Avenue NW, 37th Avenue NW, 38th Avenue NW, 39th Avenue NW, 40th Avenue NW, 41st Avenue NW, 42nd Avenue NW, 43rd Avenue NW, 44th Avenue NW, 45th Avenue NW, 46th Avenue NW, 47th Avenue NW, 48th Avenue NW, 49th Avenue NW, 50th Avenue NW, 51st Avenue NW, 52nd Avenue NW, 53rd Avenue NW, 54th Avenue NW, 55th Avenue NW, 56th Avenue NW, 57th Avenue NW, 58th Avenue NW, 59th Avenue NW, 60th Avenue NW, 61st Avenue NW, 62nd Avenue NW, 63rd Avenue NW, 64th Avenue NW, 65th Avenue NW, 66th Avenue NW, 67th Avenue NW, 68th Avenue NW, 69th Avenue NW, 70th Avenue NW, 71st Avenue NW, 72nd Avenue NW, 73rd Avenue NW, 74th Avenue NW, 75th Avenue NW, 76th Avenue NW, 77th Avenue NW, 78th Avenue NW, 79th Avenue NW, 80th Avenue NW, 81st Avenue NW, 82nd Avenue NW, 83rd Avenue NW, 84th Avenue NW, 85th Avenue NW, 86th Avenue NW, 87th Avenue NW, 88th Avenue NW, 89th Avenue NW, 90th Avenue NW, 91st Avenue NW, 92nd Avenue NW, 93rd Avenue NW, 94th Avenue NW, 95th Avenue NW, 96th Avenue NW, 97th Avenue NW, 98th Avenue NW, 99th Avenue NW, 100th Avenue NW.
- Landmarks:** Fargo Armed Forces Reserve Center, North Dakota Air National Guard, University of North Dakota, and various schools and businesses.

The map also shows the locations of several parks, including Riverwood Park, Study Area, Downtown Fargo, Drain 27, and Drain 53. The Red River is shown flowing through the city, and the map includes a grid of streets and labels for various landmarks and parks.

EXISTING CONDITIONS

Existing Bicycle Facilities

Figure 2.2 shows the distribution of shared use paths (SUPs) and bicycle facilities throughout the Red River Greenway study area and the greater Fargo-Moorhead region.

Shared Use Paths

The Fargo-Moorhead region has an extensive shared use path network. However, the paths are not consistent and continuous along the Red River. Some areas, such as near Downtown Fargo between El Zagal Golf Course and Lindenwood Park have a fairly cohesive and connected shared use path system. Other areas, such as north of El Zagal Golf Course to Riverwood Park have paths within the parks along the river but do not have paths that connect the parks together. Often, on-street bicycle facilities are used to fill in these gaps in the system such as the sharrow bicycle route that extends between El Zagal Golf Course and Trollwood Park. Constructing new facilities within the study area provides an opportunity to link Fargo's many riverfront parks together with an off-street trail system that is comfortable for riders of all ages and abilities.

Bicycle Facilities

There are a variety of bicycle facilities present throughout the Fargo-Moorhead region. Facility types include: bike lanes, buffered bike lanes, separated bike lanes, sharrows, shoulder bike routes, and signed only bike routes. Cyclists wishing to traverse the entire Red River Greenway today must rely in part on these on-street facilities. In the future, these facilities will continue to serve in connecting people to the greenway and across constrained segments of the river corridor.

Bicycle / Pedestrian Bridges

The bicycle / pedestrian bridge locations are indicated with a blue icon. Some of the bridges are inland, away from the Red River, but three occur along the river and connect riders between the cities of Fargo and Moorhead. These include the bridge between Lindenwood Park and Gooseberry Mound Park, the bridge at Dike East Park, and the bridge between Memorial Park and Oak Grove Park. There are opportunities to add additional river crossings to connect shared use paths and destinations on both sides of the river. Bridges at M.B. Johnson Park, River Oaks Park, and the Bluestem Center for the Arts would give Fargo residents multi-modal access to these popular destinations.

Bicycle Repair Stations

Bicycle repair station locations are indicated with a yellow-orange icon. There are approximately ten bicycle repair stations located throughout the region, however, only one falls within the Red River Greenway study area, the repair station in Downtown Fargo. There are opportunities to add

additional repair stations at popular trailhead locations, such as regional parks with access to the greenway system.

Mountain Bike Trailheads

Mountain bike trailheads are shown on the map with a purple icon. The three locations of these facilities are the M.B. Johnson Park and Gooseberry Park in Moorhead and Iwen Park in Fargo.



LEGEND












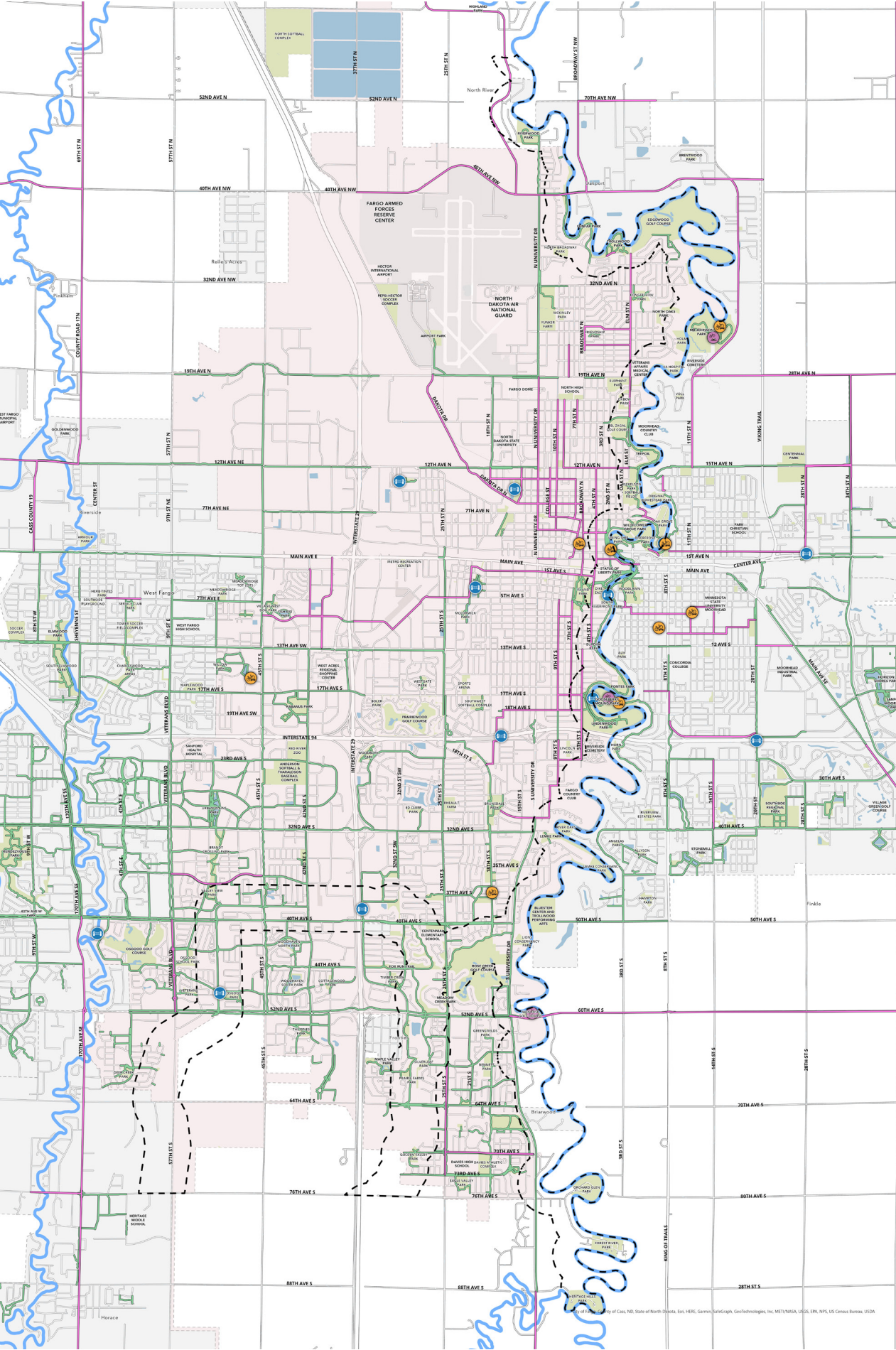
-  Red River Greenway Boundary
-  Fargo
-  Nearby Cities
-  Waterbody
-  River
-  Park Space
-  Bike Facilities
-  Shared-Use Paths
-  Bicycle / Pedestrian Bridge
-  Bike Repair Station
-  Mountain Bike Trailhead

Figure 2.2/ Distribution of Shared-Use Paths and Bike Facilities throughout the Study Area



EXISTING CONDITIONS

Pedestrian Network

Figure 2.3 shows the pedestrian network in the Red River Greenway and the greater Fargo-Moorhead region. This map mainly shows the location of sidewalks and shared use paths (SUPs).

Shared Use Paths

The shared use paths are the same as shown on the previous page in Figure 2.2. These pathways are utilized by both bicyclist and pedestrians alike. Certain segments likely attract more or less of each user type. For example, some of the natural areas near the northern and southern ends of the system may appeal more to bicyclists looking for higher speed and lower pedestrian traffic. Alternatively, these areas may also be used by those seeking a relaxing walk through nature. Areas near Downtown Fargo and other high volume activity centers may experience higher rates of on-foot pedestrian traffic. In areas of high trail use, it can be beneficial to separate bicyclists from pedestrians by giving each a dedicated space to reduce conflicts.

Sidewalk Network

The existing sidewalk network is shown in blue in Figure 2.3. Sidewalks play an important role in expanding community mobility and provide a safer off-street option for pedestrians traveling along the greenway where gaps in the shared use path exist. Typical residential sidewalks do not have the adequate width or continuity needed to fully replace a shared use path system. Additionally, without proper wayfinding, users may find it difficult to make their way to a shared use path along the greenway system.

Generally, there is a fairly comprehensive sidewalk network within Fargo.



LEGEND









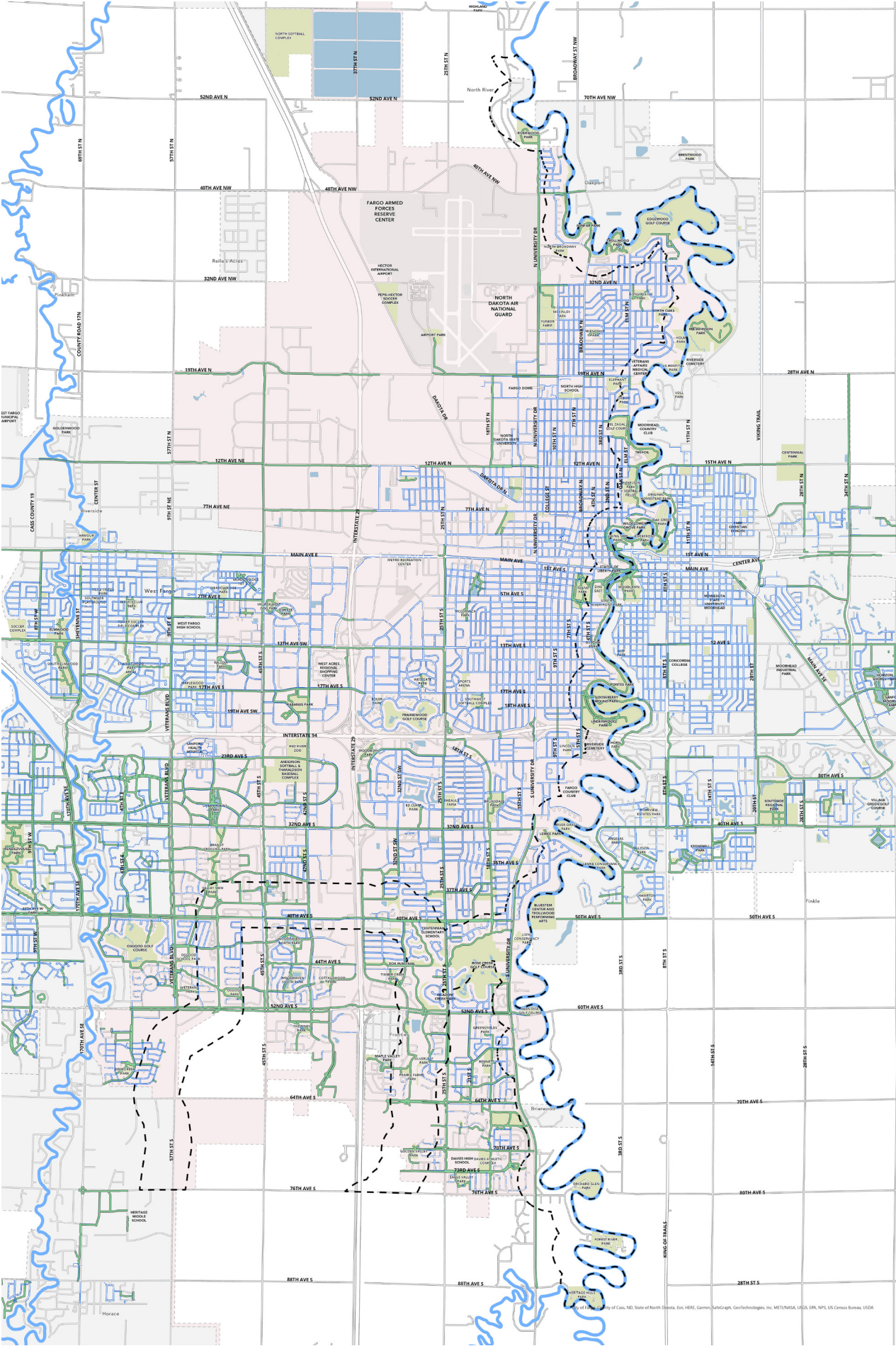
-  Red River Greenway Boundary
-  Fargo
-  Nearby Cities
-  Waterbody
-  River
-  Park Space
-  Pedestrian Network
-  Shared-Use Paths

Figure 2.3 / Pedestrian Network



EXISTING CONDITIONS

Land Ownership Map - Public vs. Private Ownership

Figure 2.4 shows the public ownership of land along the Red River Greenway and Drains 53 and 27. Publicly owned land, shown in purple, includes all land under the ownership of nearby cities, counties, states, and the United States government.

While there are large expanses of public land along the greenway system, numerous privately owned parcels populate the study area. Privately owned riverfront property makes a connection and cohesive greenway system more difficult to obtain but not impossible.

There are some challenging areas to pay attention to throughout the study area. These include:

- North of Trollwood Park
- Between Edgewood and the Fargo VA Hospital
- Around Riverside Cemetery and Fargo Country Club
- Various gaps between Iwen & 64th Avenue South and 76th Avenue South

Connecting these areas will require securing right-of-way or easements. An effort should be made to promote the value of the greenway to encourage cooperation of property owners.

Land Ownership Map - Buyouts in 2008, 2014, and 2022

In total, there have been approximately 284 acres of buy-out land along the riverfront divided among 362 parcels.

1994-2008

Between 1994 and 2008 there were 133 buyout parcels with a total acreage of approximately 110 acres.

2009-2014

Between 2009 and 2014 there were 161 buyout parcels with a total acreage of approximately 129 acres.

2015-2022

Between 2015 and 2022 there were 60 buyout parcels with a total acreage of approximately 32 acres.

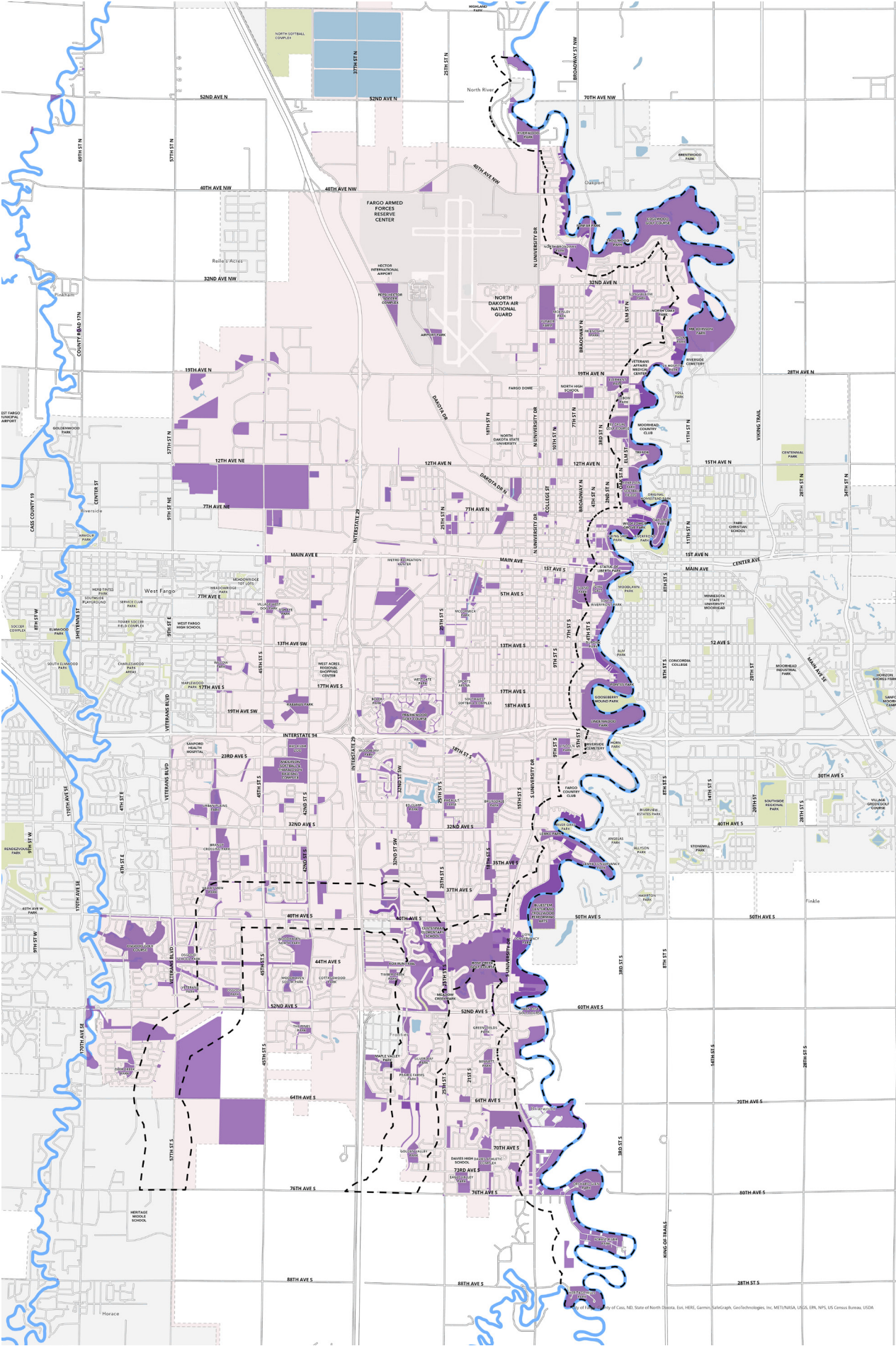
Note, several parcels are listed as buyouts but do not have a specific purchase year associated with them.



LEGEND

- [] Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- Public-Owned Land

Figure 2.4 / Public-Owned Land



EXISTING CONDITIONS

Parks Network

Figure 2.5 shows the park network within the Red River Greenway Master Plan study area as well as the greater Fargo-Moorhead region. There is an abundance of existing parks and open space areas surrounding the study area.

Neighborhood Parks

Neighborhood parks generally range in size from 2 acres up to 15 acres, though some will be larger or smaller depending on the community and neighborhood in which they reside. The neighborhood-serving parks act as social and recreational areas for nearby residents and are one of the basic units of a park system. These parks include:

- Holm Park
- VA Hospital Park
- Statue of Liberty Park
- South River Prairie
- Dike East
- Burdick Park
- Lemke Park
- Lions Conservancy Park

Community Parks

Community parks are designed to serve the entire community. The service to the community can come from their size, their function, or a combination of both features. They range in size from 16 to 100 acres. These parks include:

- Iwen Park
- Riverwood Park
- Funfar Park
- Trollwood Park
- Trefoil Park
- Oak Grove Park
- Heritage Hills Park
- Wildflower Grove Park
- Pontes Park
- Lindenwood Park
- Lemke Conservancy Park
- Orchard Glen Park
- Forest River Park

Special Use Parks

Special use parks are areas in which a specialized or single purpose activity takes place. The areas may be golf courses, amphitheaters, sports fields, or historical areas. Since the designation is based on use and not size, there is no set acreage minimum or maximums as these numbers will vary considerably.

- Edgewood Golf Course
- El Zagal Golf Course
- Mickelson Field & Softball Fields
- Iwen Disc Golf Course

Major parks within the drain section of the study area include:

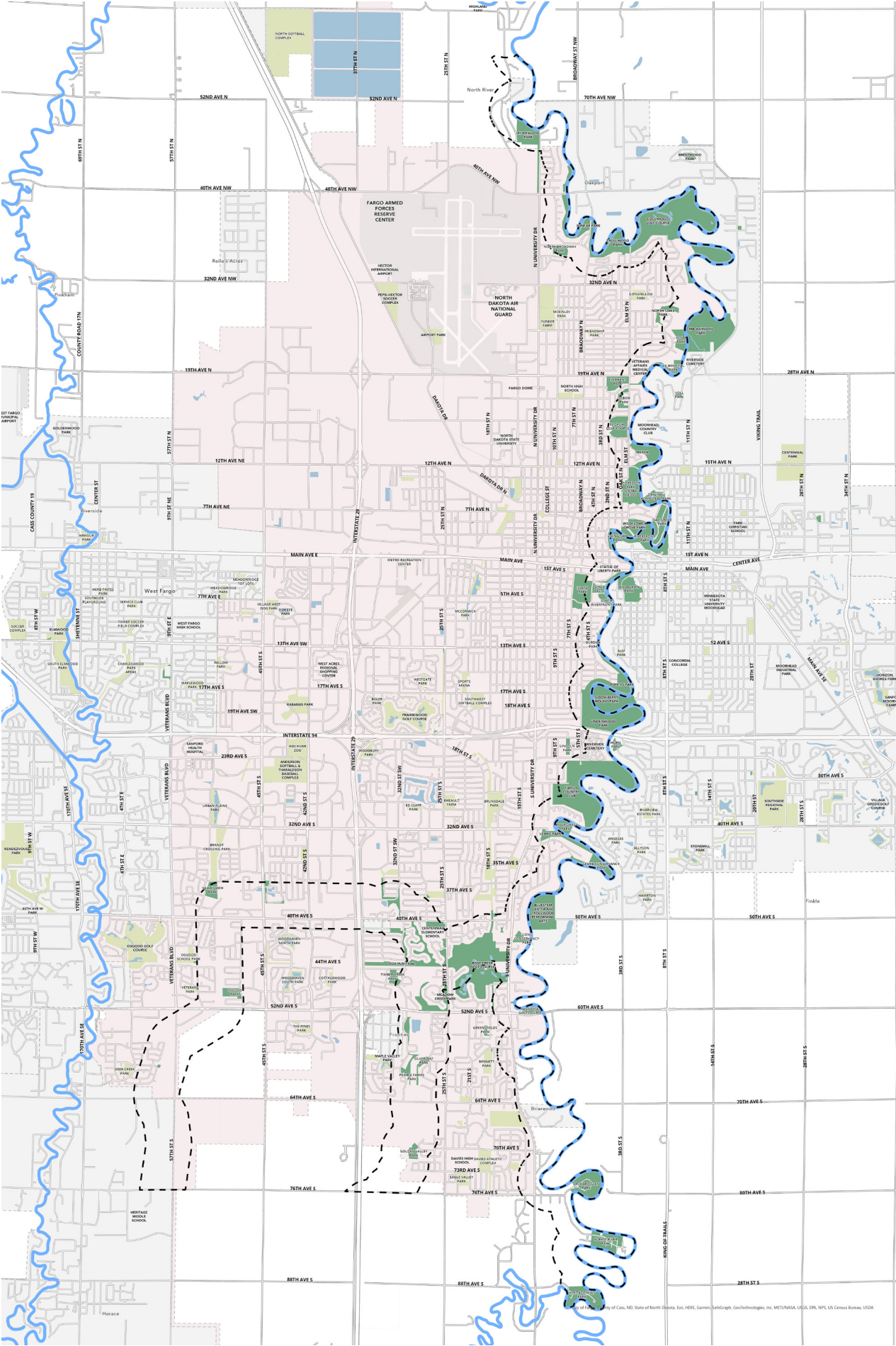
- Osgood Park (Neighborhood)
- Silver Leaf Park (Neighborhood)
- Golden Valley Park (Neighborhood)
- Meadow Creek Park (Community)
- Prairie Farms Park (Community)
- Valley View Park (Community)
- Rose Creek Golf Course (Special Use)



LEGEND

- Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- Parks in the Study Area

Figure 2.5 / Overall Parks Network throughout the Study Area



EXISTING CONDITIONS

Schools

Figure 2.6 shows the location of school facilities in Fargo, color coded by facility type. The main facility type categories shown include:

- Elementary Schools
- Middle Schools
- High Schools
- College / Universities
- Private Schools

Within the study area, there are three schools:

- Centennial Elementary School
- Oak Grove Lutheran School
- Independence Elementary School

If a further quarter-mile buffer of the study area is considered, there are an additional fourteen (14) schools.



LEGEND












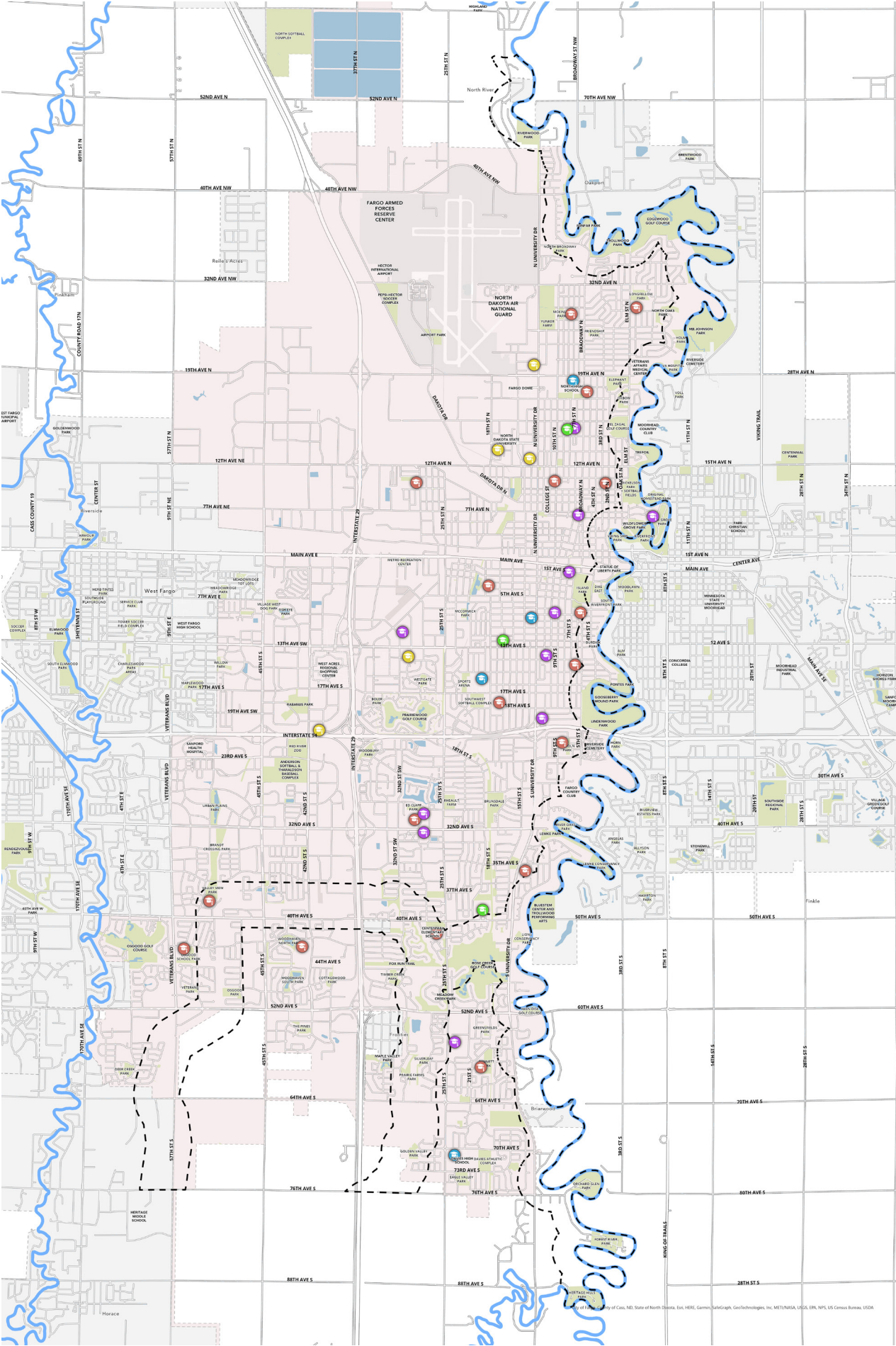
-  Red River Greenway Boundary
-  Fargo
-  Nearby Cities
-  Waterbody
-  River
-  Park Space
-  Elementary Schools
-  Middle Schools
-  High Schools
-  College/Universities
-  Private Schools

Figure 2.6 / Schools Located throughout the Study Area



EXISTING CONDITIONS

Points of Interest

Figure 2.7 shows various points of interest in or near to the Red River Greenway study area and the greater Fargo-Moorhead region.

Points of interest shown on the map include:

- Bicycle / Pedestrian Bridges
- Bike Repair Stations
- Mountain Bike Trailheads
- Convention + Visitors Center
- Library
- Public Transit Terminal
- Amtrak Station
- Airport
- Golf Courses
- Cemetery / Church
- Dam
- Museum
- Theater / Cinema
- Public Safety Building (police / fire)
- Swimming Pool
- Sports Complex
- Public Building
- Event Center
- Schools
- Hospitals
- Downtown Fargo
- Disc Golf
- Baseball/Softball Fields
- University
- Campground

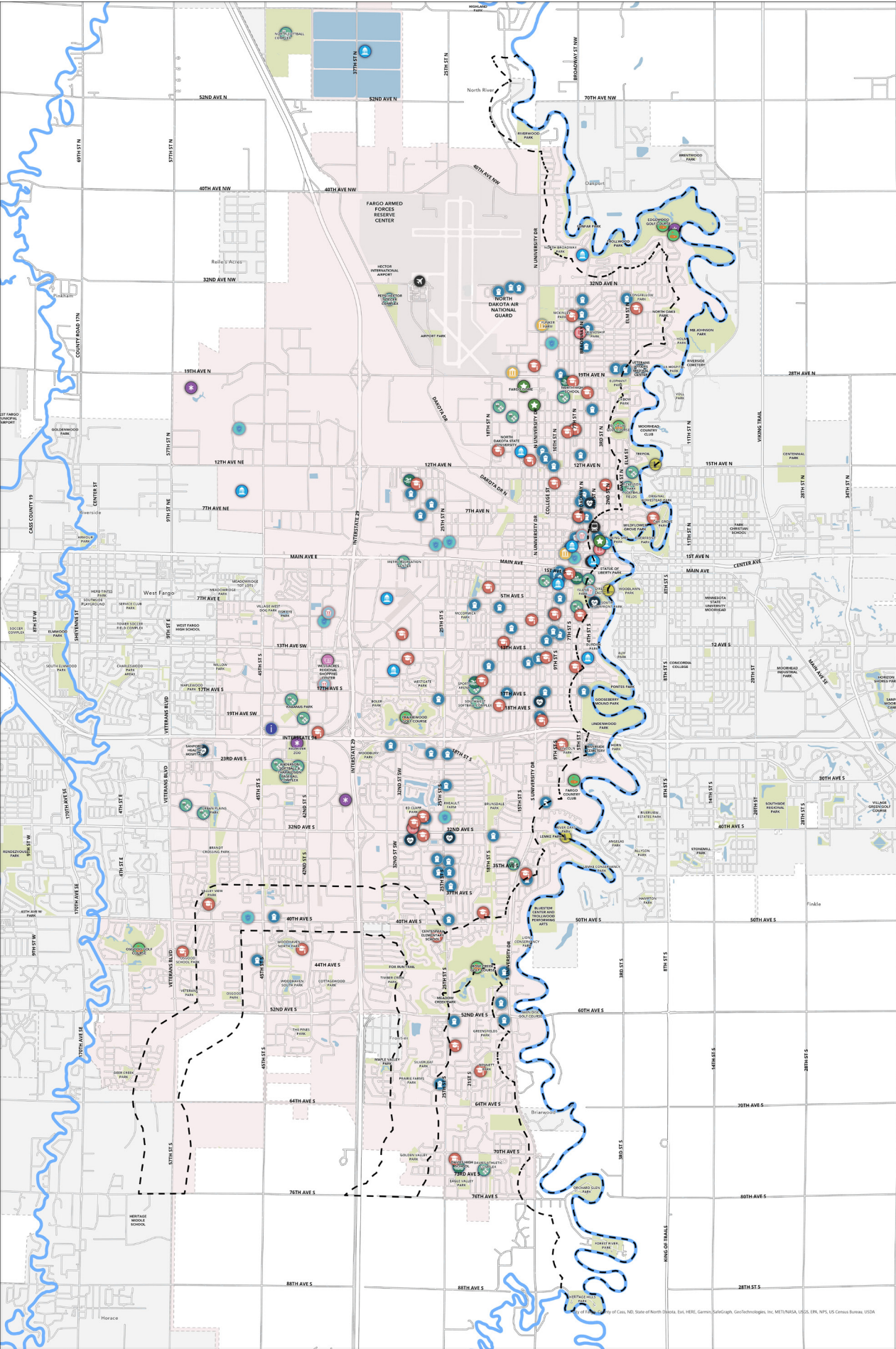
There are points of interest in Fargo throughout the planning boundary area, however, the most concentrated areas of points of interest are near Downtown Fargo. As a major hub of activity, entertainment, employment, and commerce this makes sense. The location of these various points of interest will help impact the trail amenities and features that are best suited to complement the nearby activity types and levels.



LEGEND

- Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- Museum
- Library
- School
- Hospital
- Public Building
- Public Safety
- Cemetery/Church
- Dam
- Transit
- Airport
- Swimming Pool
- Sports Complex
- Golf Course
- Regional Attraction
- Event Center
- Shopping Center
- Theater/Cinema

Figure 2.7 / Points of Interest



EXISTING CONDITIONS

Transit Network

Figure 2.8 shows the transit network in the greater Fargo-Moorhead region. Transit lines and stops are shown.

Transit routes included on the map include the following lines:

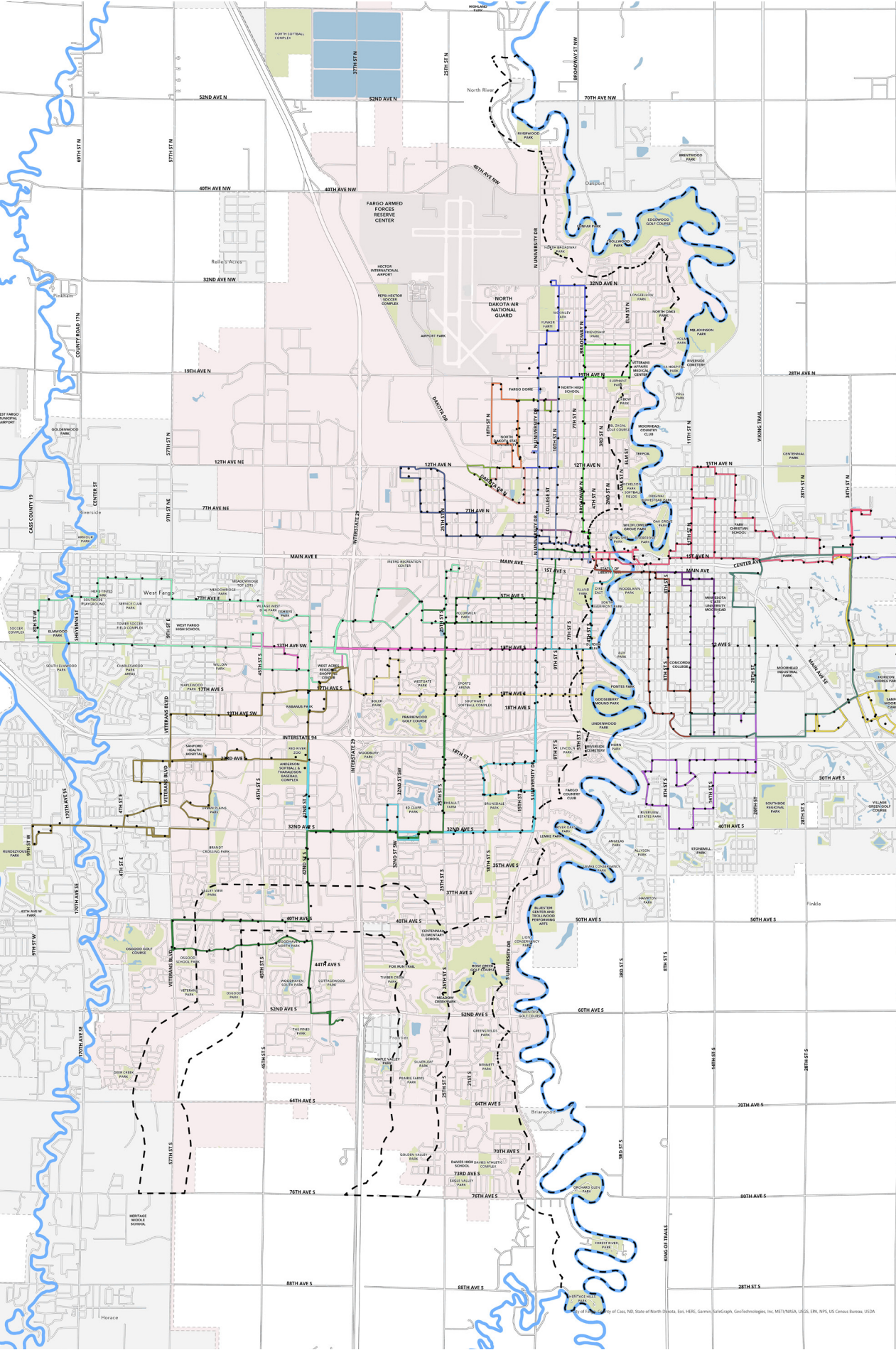
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 9
- Route 11
- Route 13
- Route 13u
- Route 14
- Route 15
- Route 16
- Route 17
- Route 18
- Route 20
- Route 24
- Route 31
- Route 32e
- Route 32w
- Route 33



LEGEND

- [] Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- Transit Stop
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 9
- Route 11
- Route 13
- Route 13u
- Route 14
- Route 15
- Route 16
- Route 17
- Route 18
- Route 20
- Route 24
- Route 31
- Route 32e
- Route 32w
- Route 33

Figure 2.8 / Transit Network In and Around the Study Area



EXISTING CONDITIONS

Vehicular Network

Figure 2.9 shows the vehicular network within Fargo by functional roadway classification.

Interstates

The two interstates within the planning area include Interstate 29 (north-south) and Interstate 94 (east-west). The Red River Greenway crosses Interstate 94 just south of Lindenwood Park. A shared use path goes through an underpass along 5th Street South.

Primary Arterials

The primary arterial roadways near to the Red River Greenway study area include University Drive South, Main Avenue, 2nd Street North, 1st Avenue N, 45th Street South, and 52nd Avenue South. Within Figure 2.9 these roadways are shown in dark red.

Minor Arterials

The minor arterials near the Red River Greenway study area include 40th Avenue South, Broadway North, 1st Avenue North, 2nd Street North, 7th Avenue North, 4th Street South, 40th Avenue South, and 25th Street South. The major collectors are shown in shown in light red in Figure 2.9.

Major Collectors

The major collector roadways near the Red River Greenway study area are shown in orange and include portions of University Drive South, when it becomes a collector roadway at the southern edge of Fargo.

Collectors

The collector roadways near the Red River Greenway study area are shown in yellow and include 4th Avenue North, 2nd Street North, 5th Street South, 5th Avenue South, 28th Street South, 32nd Street South, and 7th Avenue North, among several others. These roadways are shown in yellow in Figure 2.9.

Locals

There are many local roadways near and within the Red River Greenway study area, all of which are shown in blue in Figure 2.9.



LEGEND













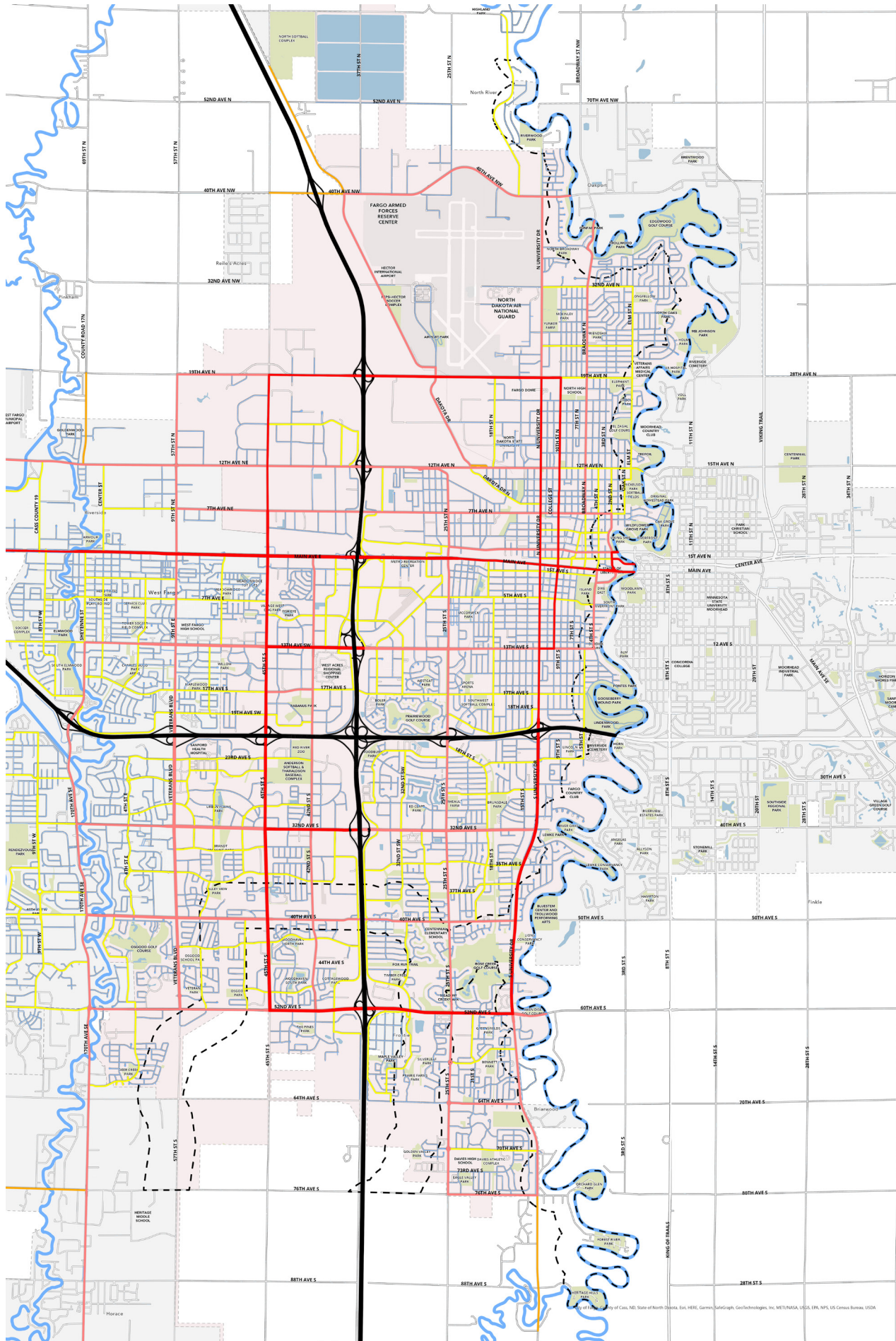
-  Red River Greenway Boundary
-  Fargo
-  Nearby Cities
-  Waterbody
-  River
-  Park Space
-  Interstates
-  Primary Arterials
-  Minor Arterials
-  Major Collectors
-  Collectors
-  Locals

Figure 2.9 / Street Network In and Around the Study Area



EXISTING CONDITIONS

Study Area Segments

The Red River Greenway study area has been divided into roughly five segments. Whenever possible, these segments were designed to match the work of previous planning along the Red River including the Moorhead River Corridor Master Plan completed in 2016.

Segment 1

Segment 1 runs from the northern edge of the planning boundary near Riverwood Park to 12th Avenue North. This segment has a mix of more natural / rural areas, plenty of parkland, and low-density residential land. The Hector International Airport is close by as is the Fargo Wastewater Treatment Facility.

Segment 2

Segment 2 is the smallest and runs from 12th Avenue North to 6th Avenue South. This segment includes Downtown Fargo and is the segment developed at the most urban density. In addition to Downtown Fargo, there are several large parks that occur along the greenway through this stretch including the Mickelson Field & Softball Fields, Oak Grove Park, and Wildflower Grove Park. Dike East Park also serves an important role as a trailhead in this segment.

Segment 3

Segment 3 runs from 6th Avenue South to 40th Avenue South near Drain 27 / the Rose Creek Coulee. Some of this segment has a fairly cohesive shared use path system, however, there is also a significant gap in the riverside system near the Fargo Country Club and Riverside Cemetery.

Segment 4

Segment 4 runs from 40th Avenue South to the southern edge of the study area at Heritage Hills Park. This segment includes a small portion of the Rose Creek Golf Course, and fully encompasses Lions Conservancy, Iwen, Orchard Glenn, Forest River, and Heritage Hills Parks. The segment has a larger presence of natural land compared to the other segments.

Segment 5

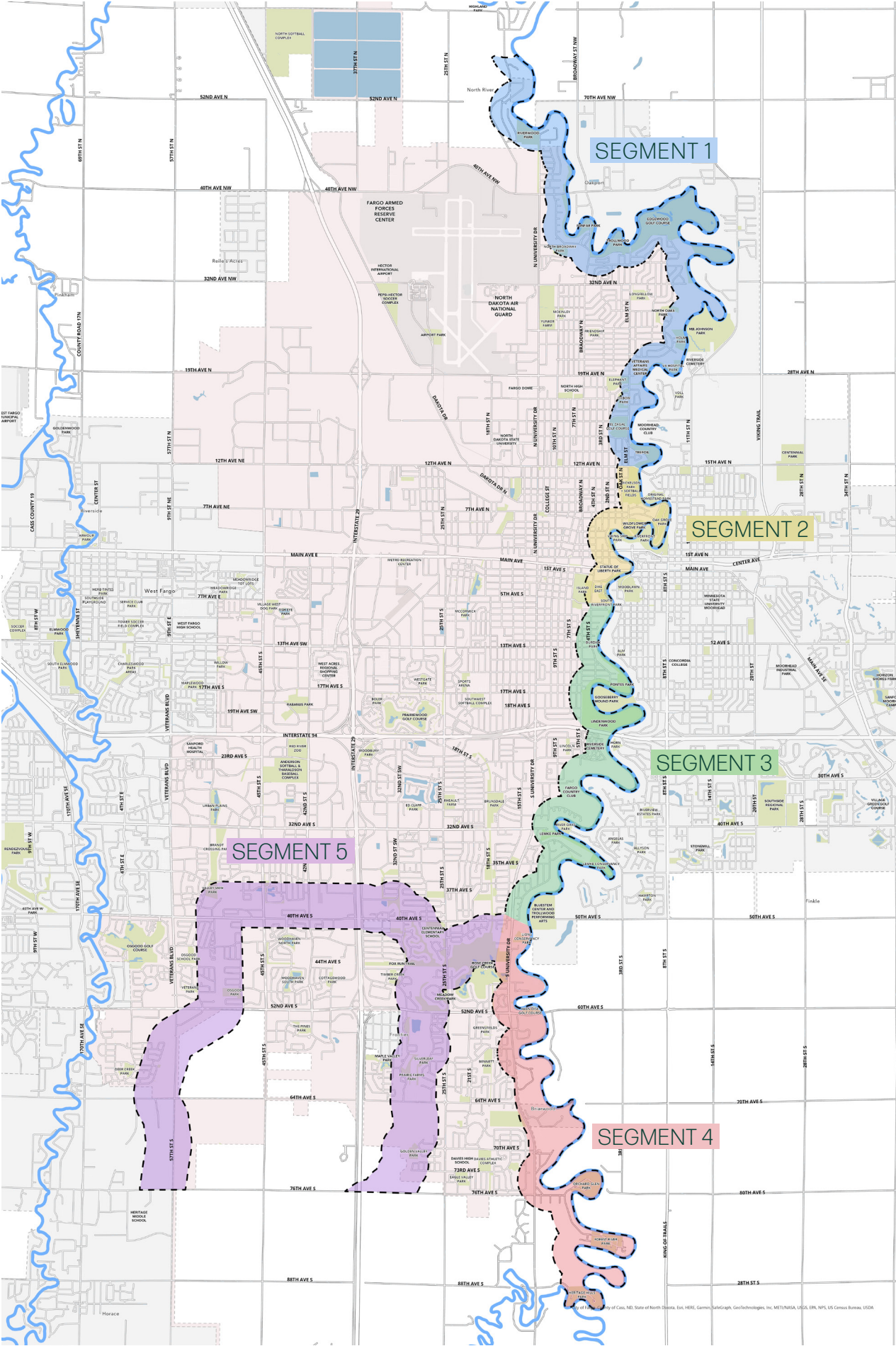
Segment 5 runs from the west side of South University Drive, near Drain 27 / the Rose Creek Coulee, and includes all of the drain area. This segment includes the majority of Rose Creek Golf Course, and has two “legs” that include both Drain 53 and 27. The overall character of development is more suburban.



LEGEND

-  Red River Greenway Boundary
-  Fargo
-  Nearby Cities
-  Waterbody
-  River
-  Park Space
-  Segment 1
-  Segment 2
-  Segment 3
-  Segment 4
-  Segment 5

Figure 2.10 / Segment Designations in the Study Area



Study Area Segment 1

Segment 1 runs from the northern edge of the planning boundary near Riverwood Park to 12th Avenue North. This segment has a mix of more natural / rural areas, plenty of parkland, and low-density residential land. The Hector International Airport is close by as is the Fargo Wastewater Treatment Facility.

Parks + Open Space

Segment 1 has several parks including:

- Riverwood Park
- Funfar Park
- Trollwood Park
- North Broadway Park
- Edgewood Golf Course
- Holm Park
- VA Hospital Park
- Oxbow Park
- El Zagal Golf Course
- Trefoil Park

Shared Use Paths

There are limited areas with riverside shared use paths including along Trefoil Park, El Zagal Golf Course, Funfar Park, and Trollwood Park. Most of the shared use paths in segment 1 remain disconnected with a large gap occurring between Edgewood Golf Course and El Zagal Golf Course.

Bicycle Facilities

The main on-street bicycle facility within study area segment 1 is a marked sharrow bicycle path along Elm Street North. There are some nearby roads with bicycle routes along the shoulder, a small area with a signed bicycle route near Trollwood Park, and a small section of bike lane along 12th Avenue North at the southern edge of the study area.

Points of Interest

There are several points of interest within Segment 1 of the study area, including several parks, two golf courses, and the VA Hospital.

Opportunities + Constraints

Opportunities

- Expand greenway along the riverfront to connect Edgewood Golf Course to El Zagal Golf Course area
- Opportunity to expand trail amenities into this segment area

Constraints

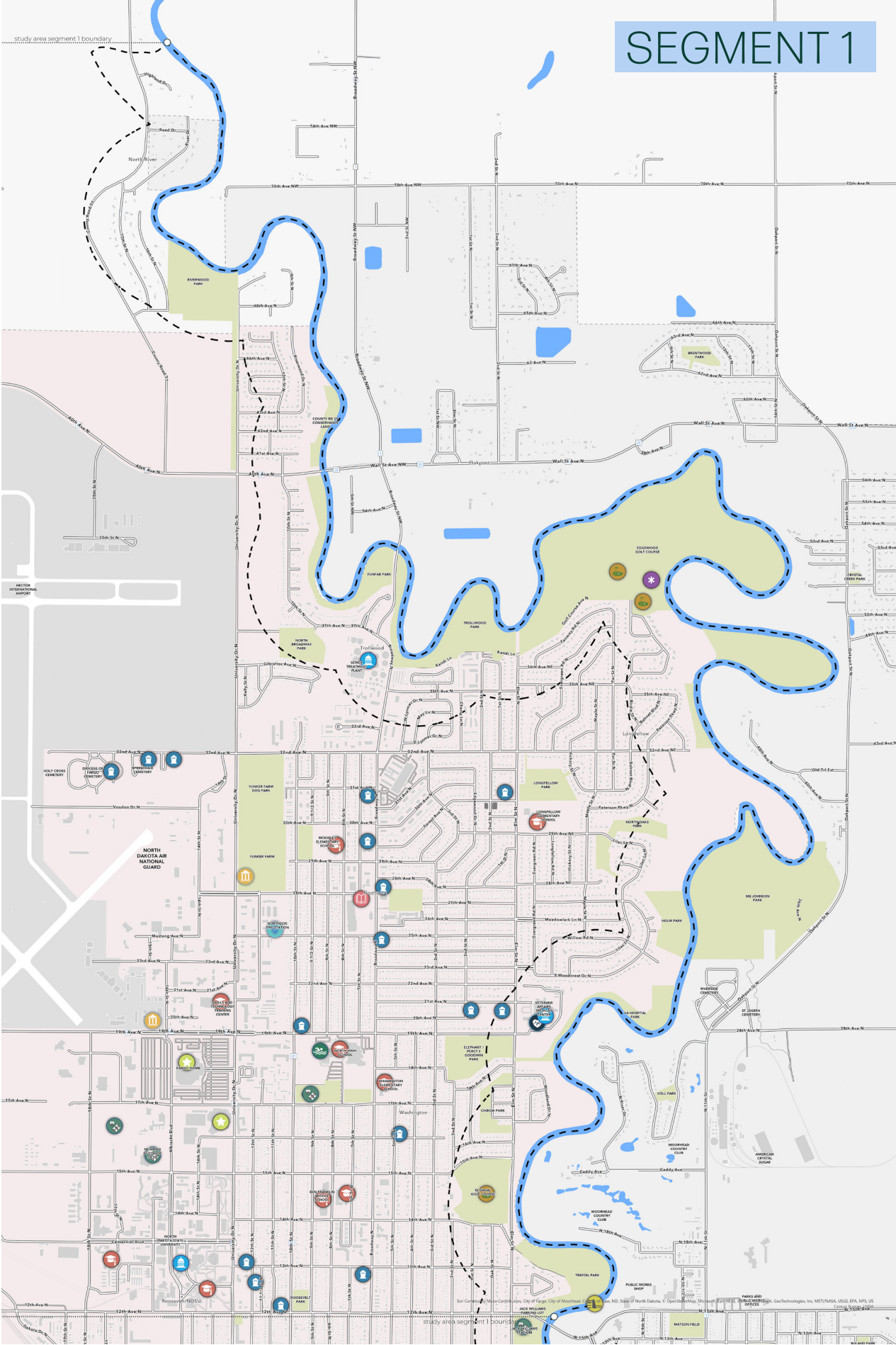
- Limited public property in key stretches of riverfront with large number of parcels
- Portions of the trail would need to be located within the twenty-five-foot flood elevation



LEGEND

- [] Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- Museum
- Library
- School
- Public Building
- Public Safety
- Cemetery/Church
- Dam
- Airport
- Swimming Pool
- Sports Complex
- Golf Course
- Regional Attraction
- Event Center

Figure 2.11 / Segment 1 Detailed Map with Points of Interest



Study Area Segment 2

Segment 2 is the smallest and runs from 12th Avenue North to 6th Avenue South. This segment includes Downtown Fargo and is the segment developed at the most urban density. In addition to Downtown Fargo, there are several large parks that occur along the greenway through this stretch including the Mickelson Field & Softball Fields, Oak Grove Park, and Wildflower Grove Park.

Parks + Open Space

Segment 2 has several parks including:

- Mickelson Field & Softball Fields
- Oak Grove Park
- Wildflower Grove Park
- Statue of Liberty Park
- South River Prairie
- Dike East Park

Shared Use Paths

This segment has the most extensive network of existing shared use paths and trail access points. Concrete paths connect Trefoil Park to the sports fields to the south. A continuous path runs from Wildflower Grove Park down to the southern limits of the segment. The only existing gap occurs at Oak Grove Lutheran School.

Bicycle Facilities

Existing bike lanes that travel parallel to this segment occur on 4th Street North. There are multiple perpendicular bike routes that connect to the greenway. They occur at 12th Avenue North, 4th Avenue North, and Northern Pacific Avenue.

Points of Interest

Throughout Segment 2, there are several points of interest including sports fields, a school, Fargo City Civic Center, Fargo Public Library, and Fargo City Hall.

Opportunities + Constraints

Opportunities

- Currently, this is the most developed section of greenway
- Improve the visibility of connections to greenway from Downtown Fargo
- Expand trail network in Oak Grove Park
- Add greenway signage to identify nearby destinations
- Use pavement markings and wayfinding signage to connect trail segments at Oak Grove Lutheran School
- Crossing the river and connecting into existing Moorhead and shared use paths could be used as an alternative for a continuous riverfront trail

Constraints

- Private land ownership at Oak Grove Lutheran School limits ability for a continuous riverfront trail



LEGEND

- Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- 🏛️ Museum
- 📖 Library
- 🎓 School
- 🏥 Hospital
- 🏛️ Public Building
- 🏛️ Cemetery/Church
- 🌊 Dam
- 🚌 Transit
- 🏟️ Sports Complex
- ★ Event Center
- 🎪 Theater/Cinema

SEGMENT 2

study area segment 2 boundary

Tredwell Park

McCollum Field & Softball Field

11th Ave N

10th Ave N

9th Ave N

8th Ave N

7th Ave N

6th Ave N

5th Ave N

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Study Area Segment 3

Segment 3 runs from 6th Avenue South to 40th Avenue South near Drain 27 / the Rose Creek Coulee. Some of this segment has a fairly cohesive shared use path system, however, there is also a significant gap in the riverside system near the Fargo Country Club and Riverside Cemetery.

Parks + Open Space

Segment 3 has several Fargo based parks including:

- Burdick Park
- Pontes Park
- Lindenwood Park
- Lions Conservancy Park
- Lemke Park
- Lemke Conservancy Park

Segment 3 also has several private open spaces that impact the connectivity of public ownership along the Red River:

- Riverside Cemetery
- Fargo Country Club

Shared Use Paths

The northern half of segment 3 has a connected shared use path system along the riverfront that extends from South River Front Park to Lindenwood Park / Interstate 94. There is a bicycle/pedestrian bridge that connects to a path on the Moorhead side of the river between Lindenwood Park and Gooseberry Mound Park. There is also a shared use path along University Drive just outside the study area south of the Fargo Country Club, which can connect to the shared use path stemming from Lindenwood Park via a bike lane running along 5th, 9th, and 11th Streets.

Bicycle Facilities

The main bicycle facilities in the study area segment 3 are a set of bike lanes running along some of the north-south roads that run parallel to the Red River. Currently, these bike lanes provide much needed connections between Lindenwood Park and the shared use path that runs along University Drive South at 30th Avenue South.

Points of Interest

Points of interest within study area Segment 3 include several parks, a water treatment plant, Riverside Cemetery, and the Fargo Country Club. There are several elementary schools just outside of the study area.

Opportunities + Constraints

Opportunities

- Use on-street bicycle facilities to connect the greenway shared use paths around the cemetery and country club
- Lots of flat riverfront land for new shared use paths
- Develop a greenway trail connection between Lindenwood Park and 40th Avenue South
- Leverage potential opportunities along the Moorhead side of the river

Constraints

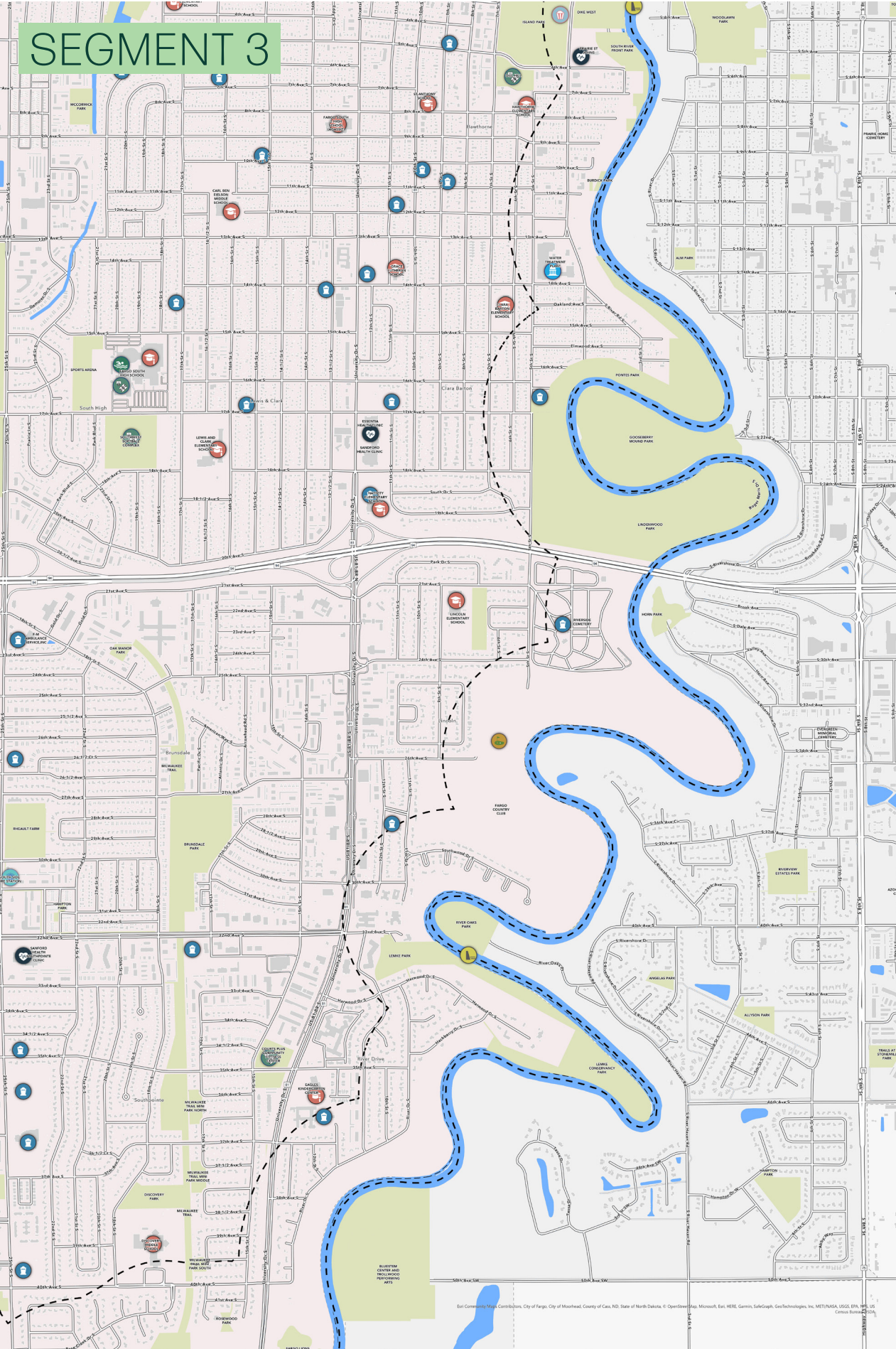
- Limited Interstate 94 crossing locations
- Private land ownership at Riverside Cemetery and Fargo Country Club limits ability for a continuous riverfront trail
- Much of the riverfront land south of the country club is floodplain
- Some remaining homes along the river require buyout or trail realignment



LEGEND

- [] Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- School
- Public Building
- Cemetery/Church
- Golf Course

Figure 2.13 / Segment 3 Detailed Map with Points of Interest



Study Area Segment 4

Segment 4 runs from 40th Avenue South to the southern edge of the study area at Heritage Hills Park. This segment includes a small portion of the Rose Creek Golf Course, and fully encompasses Lions Conservancy, Iwen, Orchard Glenn, Forest River, and Heritage Hills Parks. The segment has a larger presence of natural land compared to the other segments.

Parks + Open Space

Segment 4 has several parks including:

- Orchard Glen Park
- Forest River Park
- Heritage Hills Park
- Iwen Park

Shared Use Paths

An off-street shared use path on University Drive extends the full north-south extents of this segment. Multiple paths from adjacent neighborhoods extend to University Drive but do cross it. There are no existing shared use paths along the river in this segment.

Bicycle Facilities

There is one dedicated on-street bicycle facility that runs perpendicular to this segment along 70th Avenue South. Neighborhood shared use paths serves as the bicycle transportation network. Iwen Park also contains a five mile mountain bike and hiking trail.

Points of Interest

There are few specific points of interest within Segment 4 due to the undeveloped nature of the land in this area.

Opportunities + Constraints

Opportunities

- Buy out areas provide ample open space for shared use paths
- Upgrade University Drive crossings to improve connections with adjacent residential neighborhoods
- Connect off-street shared use paths to public lands along the river
- Connect the natural trail areas to each other

Constraints

- The majority of open space for trails is below the twenty-five-foot flood elevation



LEGEND

Red River Greenway Boundary

Fargo

Nearby Cities

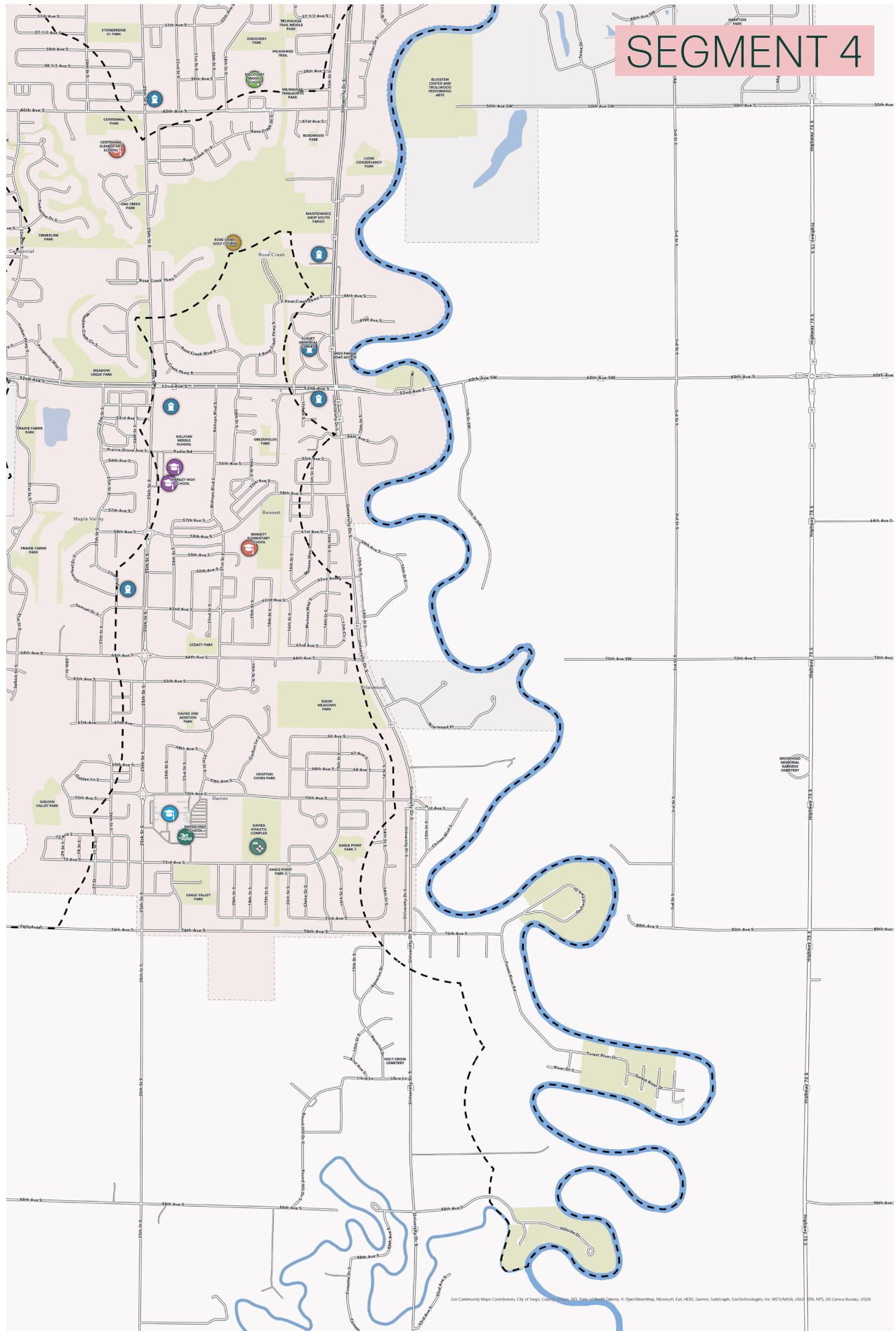
Waterbody

River

Park Space

Cemetery/Church

Figure 2.14 / Segment 4 Detailed Map with Points of Interest



EXISTING CONDITIONS

SEGMENT 5

Study Area Segment 5

Segment 5 runs from the west side of South University Drive, near Drain 27 / the Rose Creek Coulee, and includes all of the drain area. This segment includes the majority of Rose Creek Golf Course, and has two “legs” that include both Drain 53 and 27. The overall character of development is more suburban.

Parks + Open Space

Segment 5 has several parks including:

- Rose Creek Golf Course
- Meadow Creek Park
- Silverleaf Park
- Prairie Farms Park
- Golden Valley Park
- Valley View Park
- Osgood Park

Shared Use Paths

This segment contains more recently developed suburban residential neighborhoods with extensive neighborhood trail systems. The paths are more continuous along Drain 27 than Drain 53 since it's more developed. Many of the paths follow along major roadways and utilize underpasses at points of crossing to avoid conflicts between the motor vehicles and trail users.

Bicycle Facilities

There are no dedicated on-street bicycle facilities in this segment since the extensive shared use paths serves as the bicycle transportation network.

Points of Interest

Points of interest throughout Segment 5 include the Rose Creek Golf Course, Centennial Elementary School, and Independence Elementary School.

Opportunities + Constraints

Opportunities

- Plan future trail alignments before development happens
- Regional trail connection to Horace
- There are many shared use paths, but many are on-street shared use paths
- Potential to add more shared use paths as the drains are extended and developed south
- Need more trees throughout the trail network
- Should encourage a wider variety of trail materials
- Potential to add natural trails along and in the drains as opportunities arise

Constraints

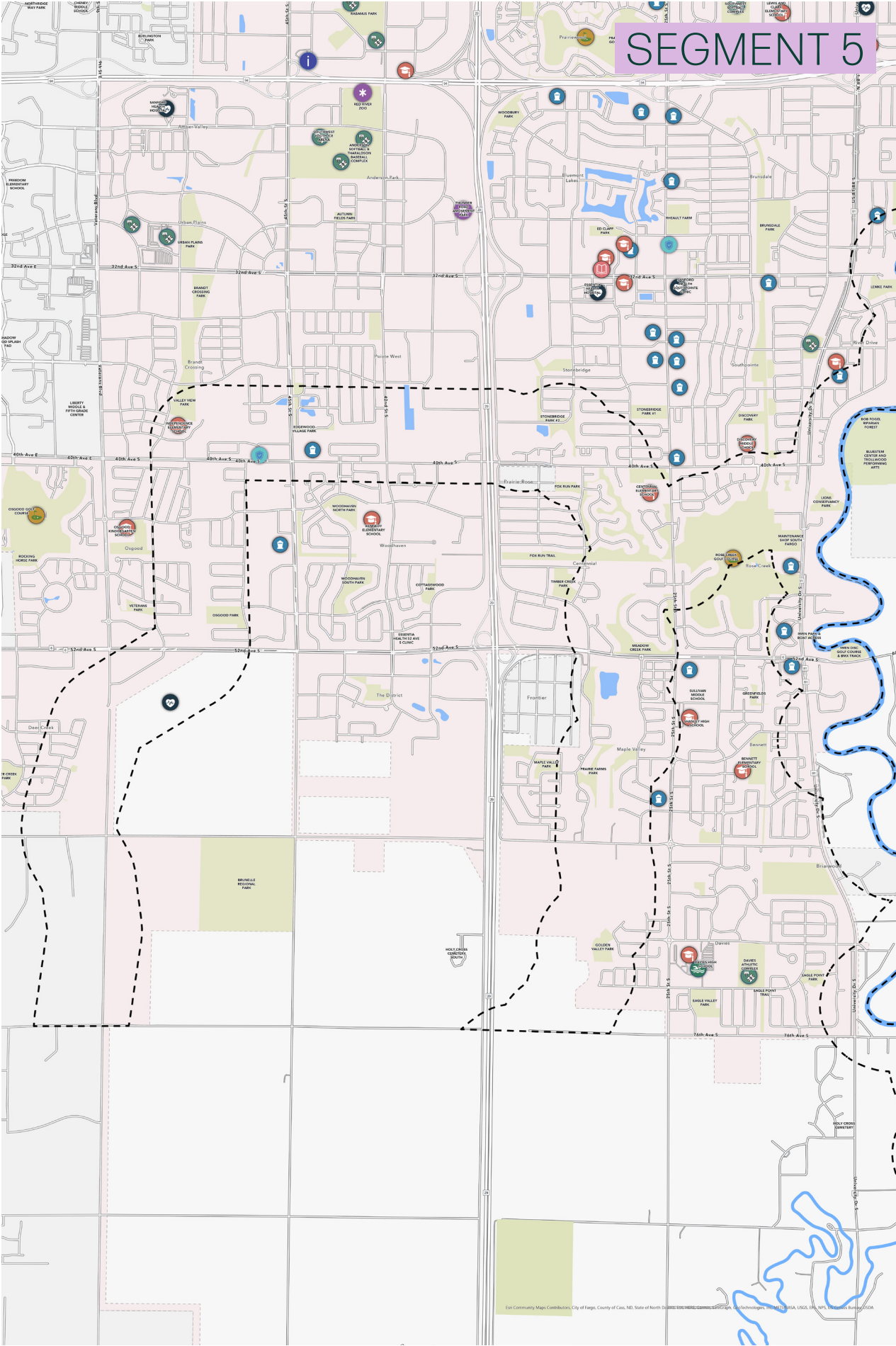
- Limited existing shade for trail users



LEGEND

- Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River
- Park Space
- 🎓 School
- 🏌️ Golf Course
- ⛪ Cemetery/Church
- 🛡️ Public Safety

Figure 2.15 / Segment 5 Detailed Map with Points of Interest



CHAPTER 3

COMMUNITY VISION + GOALS

ENGAGEMENT STRATEGY

The Red River Greenway is a regional amenity that extends beyond any one neighborhood or part of Fargo. Therefore, the engagement strategy for this master plan was designed to capture a wide audience across the Fargo-Moorhead region. Stakeholder interviews were held in one-on-one or small group sessions to encourage candid, in-depth feedback into the various issues and opportunities facing the greenway study area. A series of pop-up event booths were held at community events throughout Fargo to help capture input where people spend their recreation and leisure time. Lastly, an interactive engagement website was created to encourage specific comments directly on a map of the greenway study area. In combination, the feedback received from the engagement strategy is used to identify the most pressing local issues, opportunities, and preferences for the Red River Greenway.

The engagement strategy included the following elements:



Stakeholder Interviews



Pop-Up Events



Interactive Engagement Site





KEY STAKEHOLDER INTERVIEWS

Some of the best input often comes from one-on-one or small group meetings with key stakeholders, where candid discussions can occur regarding the various issues and opportunities facing a project. The selected key stakeholders should represent different aspects of a project such as frequent users of the greenway / trails, government entities, parks departments, or major landowners. These interviews can occur in-person or virtually using a video platform such as Microsoft Teams or Zoom. The following section identifies the groups and individuals met with as well as a summary of the major themes and takeaways from these important conversations.



Stakeholder Interview Groups

Below is a list of stakeholder groups the Consultant Team and Metro COG staff met with to hear more about opportunities and challenges facing the Red River Greenway. Groups included:

- User & Programming Groups
- Adjacent Jurisdictions
- Hydrology Authorities
- Parks Departments
- Fargo VA Hospital
- Historic and Cultural Groups
- Riverside Cemetery
- Study Review Committee
- Folkways

Each group meeting had a variety of participants attend. The non-staff and non-consultant individuals present for each group is provided below.

Meeting #1 - User & Programming Groups

- Tom Smith, Owner, Great Northern Bicycle Company / Great Rides
- Aaron Romaine, Great Northern Bicycle Company
- Christine Holland, Executive Director, River Keepers
- Tim Krieg, Fargo Moorhead Trail Builders
- Tom Heilman, Fargo Moorhead Trail Builders
- Jon Walters, Founder, Nature of the North
- Sarah Hewitt, Director of Conservation, Audubon Dakota

Meeting #2 - Adjacent Jurisdictions

- Robin Huston, City Planner/Zoning Administrator, City of Moorhead
- Forrest Steinhoff, Assistant City Planner, City of Moorhead
- Jonathan Atkins, Traffic Engineer, City of Moorhead
- Brenton Holper, City Administrator, City of Horace
- Grace Puppe, County Planner, Cass County

Meeting #3 - Hydrology Authorities

- Kurt Lysne, West Fargo Office Manager/Senior Engineer at Moore Engineering, Southeast Cass Water Resource District
- Joel Paulsen, Executive Director, FM Diversion Authority
- Jason Benson, County Engineer, Cass County

Meeting #4 - Park Departments

- Holly Heitkamp, Parks and Recreation Department Director, City of Moorhead
- Tyler Kirchner, RLA/Project Manager, Fargo Park District
- Wade Frank, Park Board Chair, Horace Park District
- Dave Leker, Executive Director, Fargo Park District

KEY STAKEHOLDER INTERVIEWS

Meeting #5 - Fargo VA Hospital

- Shawn Bergan, Chief Engineer, Fargo VA Health Care System
- Brenda Schneider, Facility Planner, Fargo VA Health Care System
- Nathan Boerboom, Division Engineer, City of Fargo



Meeting #6 - Historical and Cultural Groups

- Jerry Christiansen, Accessibility Specialist, Freedom Resource Center
- Tia Braseth, Planning Coordinator - Community Development/Fargo Native American Commission Liaison, City of Fargo
- Precious Garpeh Dweh, Community Coordinator, Cultural Diversity Resources
- Janelle Moos, Advocacy Director, AARP ND
- Can Aden, Community Liaison Officer, Afro American Development Association
- Zak Amin, Program Manager, Kurdish American Development Organization (KADO)
- Dipshikha Sharma, State Refugee Health Coordinator, Refugee Services, North Dakota Department of Human Services



Meeting #7 - Riverside Cemetery

- Greg Gibb, Riverside Cemetery
- Katie Paxton, Riverside Cemetery



Meeting #8 - Study Review Committee

- Maegin Elshaug, Planning Coordinator, City of Fargo
- Christine Holland, Executive Director, River Keepers
- Jeremy Gorden, Transportation Engineer, City of Fargo
- Wayne Zacher, Local Governments Division, NDDOT
- Kristen Sperry, Planning & Environmental Program Manager, FHWA-ND



Meeting #9 - Folkways

- Joe Burgum, Folkways

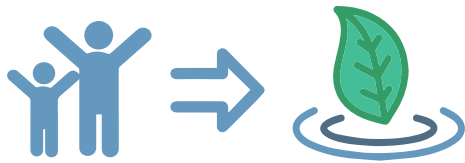


The following pages summarize the key takeaways heard from the key stakeholder interviews, which have been organized into eight main themes:

- Access
- Transportation
- Inclusivity
- Communication, Education, & Branding
- Partnerships & Funding
- Connectivity
- Land / Environmental Stewardship
- Amenities



KEY STAKEHOLDER INTERVIEWS



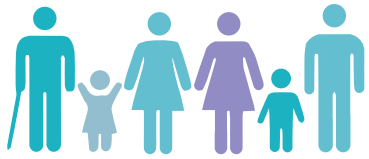
Access

- All people utilize and value the Red River
- Allow access to the Red River and integrate nature into people's life
- Add additional access points to the water trail via boat ramps and docks
- Red River provides relaxing access to nature
- Access to nature within walking distance for 70% of North Dakota population
- More places for kayak and canoe launches/access
- Private land ownership is a constraint for access
- Look for areas of land that could potentially be bought from private landowners, especially if it could provide a key trail connection between the greenway system and other parts of the City
- Buyouts are more feasible in areas that cannot be developed for commercial or residential use, but could be used as part of the greenway system
- Recreational connectivity
- Greenway should provide way to access the natural environment
- Need to make river access easier and more convenient and use the river itself more
- Want to see year-round access – cross country skiing, snowshoeing, etc.

Transportation

- Need a connected system for commuters that provides safe connections during summer and winter months
- Need amenities for commuters including lighting
- Greenway is not shortest route, but is the preferred route for alternative transportation commuting
- Greenway should be viewed as a utility
- MATBUS transit lines that run along Red River greenway corridor are needed
- River crossings needed for enhanced mobility
- Trails are the most popular amenity the public wants to see
- Transit stops should exist at parks and amenities along the greenway

KEY STAKEHOLDER INTERVIEWS



Inclusivity

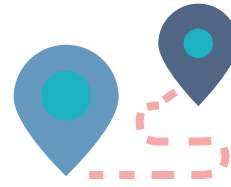
- All members of the community enjoy and appreciate the river in some capacity whether actively or passively
- Keep a family focus in mind
- Make the river more usable for all ages – people from 8-80 want opportunities
- Children can play, elderly can take walks and get exercise; families can have picnics and grill
- Active and passive recreation opportunities – not just for athletes
- Year round for people to access
- Corridor should be accessible and inclusive for all disabilities including wheelchairs, crutches, deaf, blind, etc.
- Opportunities for all wheeled sports
- Recognize and support indigenous and other diverse cultures and their relationship to nature and recreation
- Residents without access to backyards in the area use the river for socialization
- Greenway is particularly valuable for residents who don't have their own homes/yards – the river is an escape for them and an opportunity to be outside
- The river system can act like a large, public park and provide opportunities for socialization and exercise



Communication, Education & Branding

- Improve wayfinding to identify destinations that can be accessed from greenway
- Need more community awareness and education on available amenities and programming
- Beautification of the greenway needed to help create Fargo as a regional destination for recreation and athletes
- To keep talent and attract transplants, need to promote and expand outdoor offerings like the greenway
- Need to use applications, signage with QR codes, and wayfinding to promote the corridor
- Education and exposure. Branding. Public awareness of amenities that are available
- Rebranding the Red River as a vibrant natural feature of the FM urban area, as opposed to a flood hazard
- More opportunities for incorporating art, sculpture, and educational wayfinding and interpretive signage
- Greenway should be used to attract tourism / visitors from outside the region to the greenway, which can be advocated for locally and at the state legislator
- Need for stronger communication between the City and outside organizations
- Positive promotion of greenway and its benefits needed to help inform decision and policymakers since bicycle and pedestrian infrastructure is not always a priority

KEY STAKEHOLDER INTERVIEWS



Partnerships & Funding

- Trail maintenance will need to be an item that is explored between the City and volunteer groups.
- Some bicycle / pedestrian infrastructure has to be funded through competitive grants administered by the state and/or federal government
- Need funding and maintenance plan for proposed improvements
- Will need to identify partners for maintenance of any new amenities
- Continued stewardship and growth of partnership between FM Trail Builders and Fargo Parks
- Need buy-in and to create project champions to see greenway vision
- Consider a Red River Greenway Alliance group
- Local governments systems work well together – an opportunity to create an integrated regional system
- Consider creating a new entity with authority to govern as a way to attract funding sources and complete unrealized goals due to implementation funding issues
- Tying this master plan into other ongoing planning efforts including: FM Diversion Plan, Red River of the North Canoe and Boating Route Master Plan, Fargo Sports Complex, Bridge at I-94 project, 2021 Bike and Pedestrian Plan Update, Lindenwood Park District Road Plan, and Fargo SW Regional Growth Plan
- Identify the economic impact / metric or statistics on greenway and trails as tool to send to developers
- Competition between cities and across borders can cause issues
- Use the plan as a tool to attract grant money throughout the region
- Include a variety of sized projects that can be easily broken into segments when applying for grants or other funding

Connectivity

- Need to address pinch points and gaps in the system to create a cohesive, unified system along the river
- Fix the currently fragmented system by connecting all existing and future trails and other bike facilities
- There are areas of the greenway today that are not safe for all user types
- Need to emphasize safe bicycle / pedestrian crossings on streets along the greenway corridor
- Public acquisition of land has created more opportunity to expand trail and nature access
- Should strive for a continuous north-south corridor
- Plan should identify locations for future river crossings and provide sufficient information, which could help secure funding down the road
- Need more connections across the river to connect the two cities
- Moorhead applied and was denied a grant for a bridge at Bluestem / 40th Avenue South, which was a good opportunity to connect to Horace along drain 27
- Downtown permanent crossing will have the most political buy-in / potential for economic opportunity and is closer to lower-income populations
- Need a future crossing somewhere north
- Connectivity would allow greenway to be used for bike and marathon events
- Use the right of way for FM Diversion Project to enhance connections
- Varying setback requirements along different jurisdictions possible an issue
- Greenway connectivity along drains allows for continuous connection along Drain 27 from Horace to the Red River
- More neighborhoods connections and access points to the greenway are needed
- Known barriers include Riverside Cemetery and Fargo Country Club – both opposed to any trail system through their property

KEY STAKEHOLDER INTERVIEWS



Land / Environmental Stewardship

- Promote greenway recreation and connection opportunities that do not impact flood mitigation operations of the FM Diversion or drains
- Need to create a plan around the flooding with infrastructure that promote resiliency and accessibility
- It will be a challenge to deal with operation of drains, flood protection, and USACE regulations and permitting process
- Identify future sites/ areas along river for habitat restoration, limit habitat fragmentation, and promote the use of native plants and trees
- Plan should prioritize trails above 24' river elevation
- County owns many buy-out properties along river in flood prone land that should be used for passive uses
- Need to figure out process through FEMA for turning over land from buyouts
- North end of study area along Old County Road 31 can benefit the study as opportunities for land reclamation
- Park districts and City departments need to take the lead as advocates for development and pursuing greenway funding
- River needs to be maintained to help improve conditions for fishing and other recreation as well as flood protection



Amenities

- Downtown marker every quarter of a mile
- Fishing areas and events
- Interpretive signage and wayfinding with natural or historic information
- More bridges across the river
- Winter programming/seasonal programming
- Bike repair stations
- Trailheads with parking facilities and bathrooms
- Water trail / water trailhead
- Places to rest and picnic
- Campground along river
- Rental equipment for things such as snow shoes, kayaks, fat tire bikes
- Community art / art walk / public art
- Skating, cross-country skiing etc. options
- Trailheads / structured parking
- Lighting: solar bollard that can withstand flooding and create a transportation alternative in the winter
- Charging Stations
- Opportunity near Mid-America Steel Area and along the downtown corridor
- Lack of programming (youth and adult)
- Area for socialization (especially for people living in multi-family housing)
- Multi-seasonal, indoor and outdoor space, and flexibility is required
- Create places where people can sit, talk, and eat
- Flexible seating
- Outdoor fitness path
- Gathering space where parking is available
- Safe swimming place in the river
- ADA river launch
- Kayak or other equipment lockers
- Automated trail counting equipment
- More visible/accessible community gardens like the one in Oak Grove Park
- Power hookups in highly activated locations

POP-UP EVENT BOOTHS

To help capture diverse feedback, special pop-up event booths were set up at a series of community events and locations throughout Fargo. Bringing engagement opportunities to where people are or where they spend time helps to capture the input of those residents that may not typically attend an in-person public meeting. Often this can include younger residents or busy parents, both of which represent important active or potential users for a greenway system. The pop-up event booths help to spread awareness of a project and can be designed to receive feedback through quick engagement activities on the spot.

Pop-Up Events

Special pop-up events were held at several community events and locations throughout Fargo in the late spring and early summer 2022. The purpose of the pop-up events was to capture input from residents who may not have had the time, resources, awareness, or interest to participate with the online public engagement. Booths were set up at the following events/locations:

- Birding Festival / Saturday, May 14, 2022
- North Trollwood Park / Tuesday, June 14, 2022
- Lindenwood Park / Tuesday, June 21, 2022
- Night Bazaar / Thursday, June 23, 2022

Each event had representatives from the Consultant Team and Metro COG staff present to answer questions about the project. Participants were informed of and encouraged to participate in the interactive engagement website and to complete three short exercises at the booth.

The first exercise was a dot image voting exercise for different amenities that could be included along the trail or greenway. Participants were asked to place dots on the images that depicted amenities they most want to see in the greenway now and in the future.

The second exercise was a trail surface type rating exercise. Five different trail surface types were depicted along with a bar showing a rating from 1 to 5, with 1 meaning the surface type is definitely not appropriate for the greenway and 5 meaning the surface type definitely is appropriate for the greenway. Participants were given a blue sticker and asked to place it where they fell along the spectrum of 1-5.

The third and final exercise was a mapping activity. A map of the greenway was provided and participants were asked to write directly onto the map any ideas or comments for the entire study area.

The following pages summarize the input received from the four events.

POP-UP EVENT BOOTHS

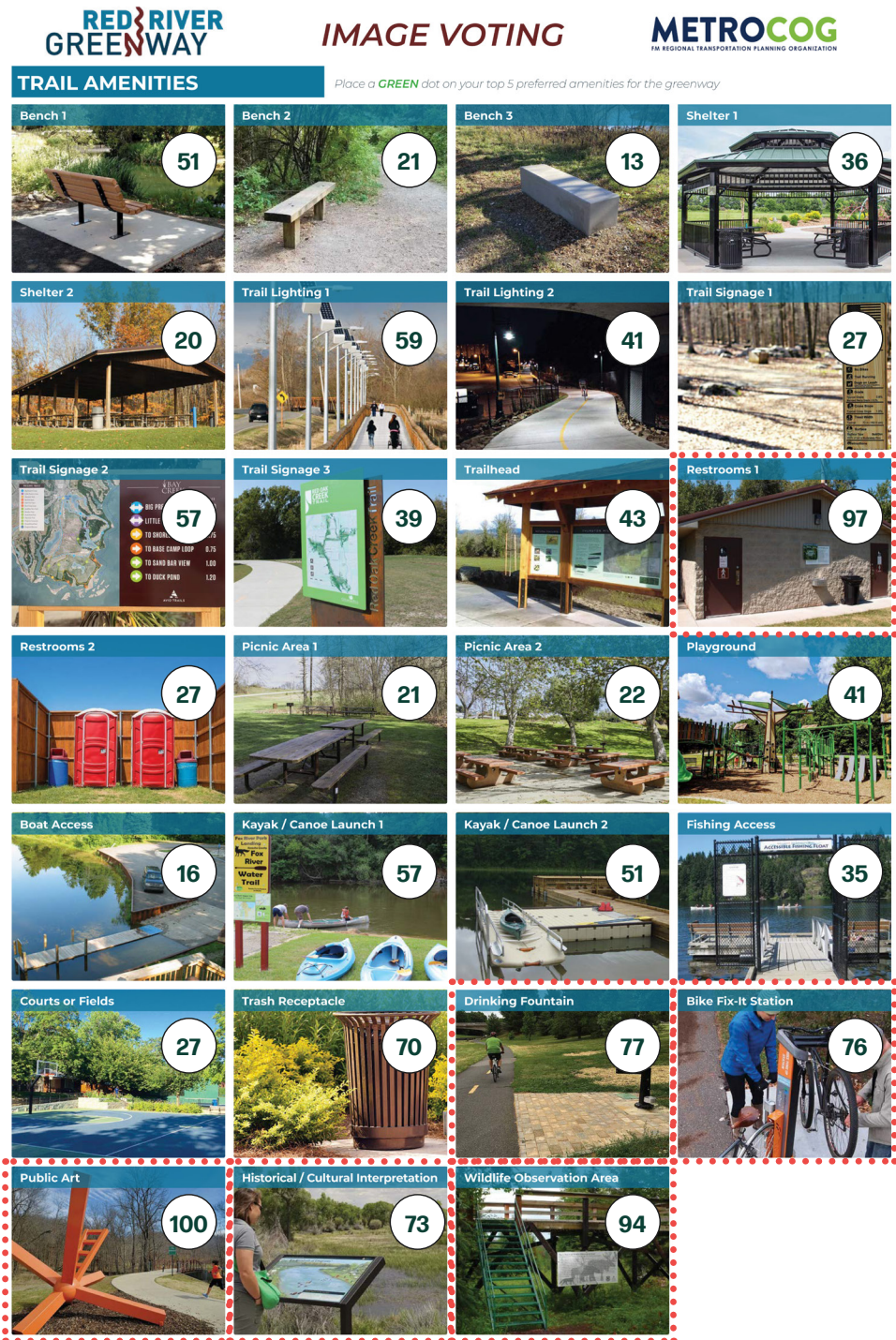
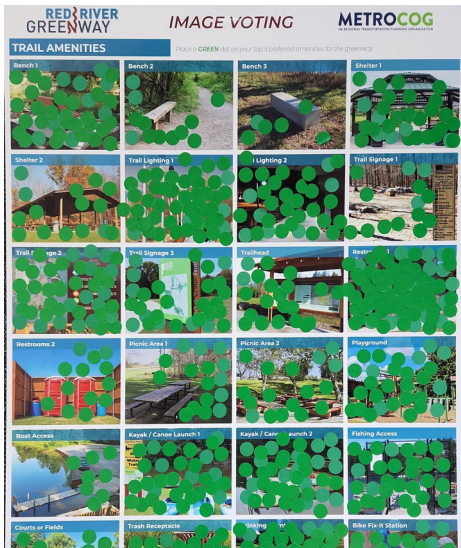
Image Voting - Trail Amenities

Figure 3.1 shows the estimated number of dots received for each trail amenity image over the four pop-up events. The most popular images are highlighted in red dots. This includes images of public art (100 votes), permanent restroom facilities (97 votes), wildlife observation areas (94 votes), drinking fountain (77 votes), bike fix-it stations (76 votes), and trash receptacles (70 votes).

The least popular images included certain bench seating, shelters, picnic areas, and river access points.



Figure 3.1 / Trail Amenities Pop-Up Event Booths Results Summary



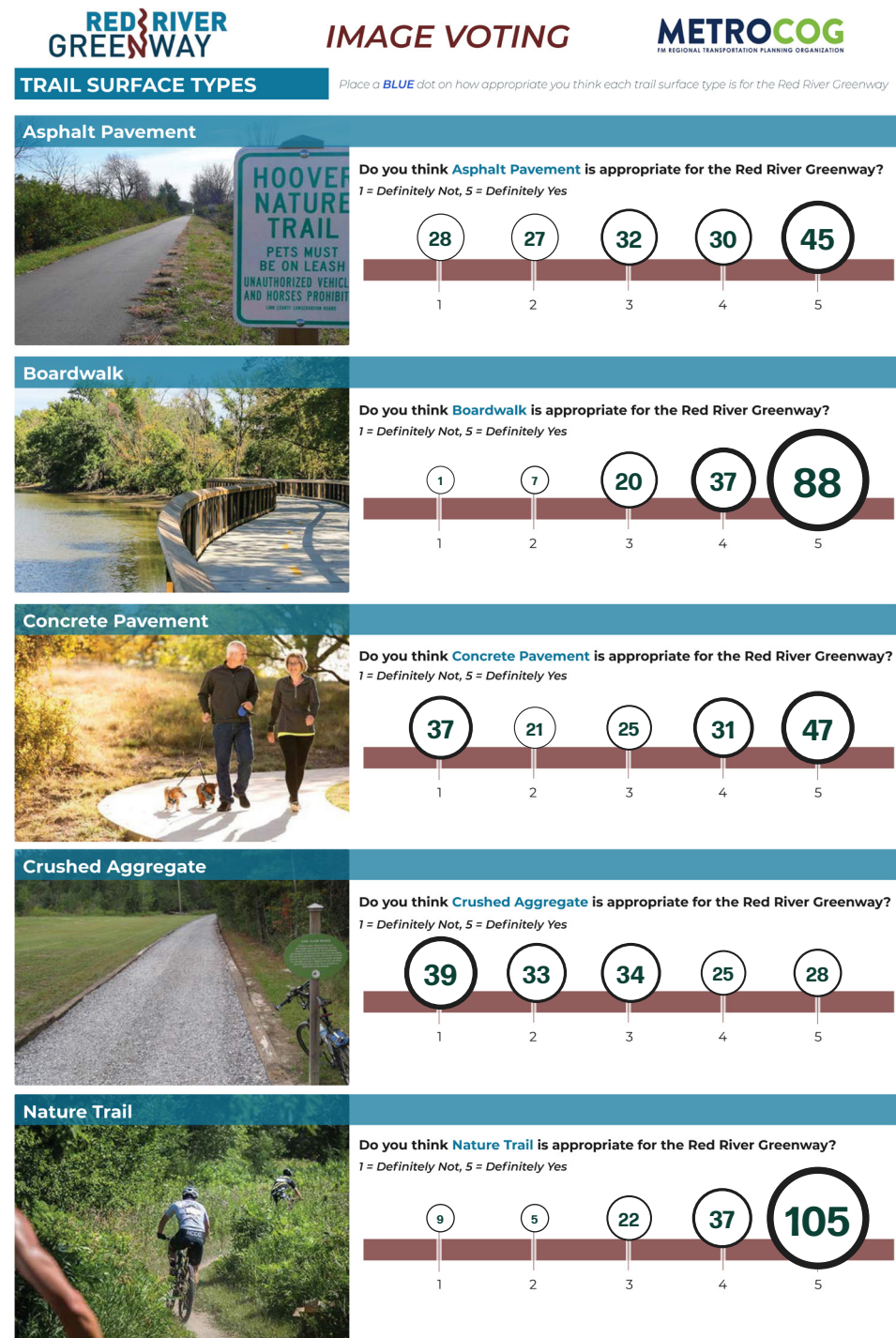
POP-UP EVENT BOOTHS

Trail Surface Types Rating

The second engagement activity at the pop-up event booths asked participants to identify how appropriate they felt different trail surface types were for the Red River Greenway using a blue dot. Each trail surface type had a bar showing 1 through 5, with 1 being definitely not appropriate and 5 meaning definitely is appropriate.

The two trail surface types with the highest number of 5s were Boardwalk and Nature Trail. Crushed aggregate and concrete pavement received the most not appropriate 1 ratings.

Figure 3.2 / Trail Surface Types Pop-Up Event Booths Results Summary



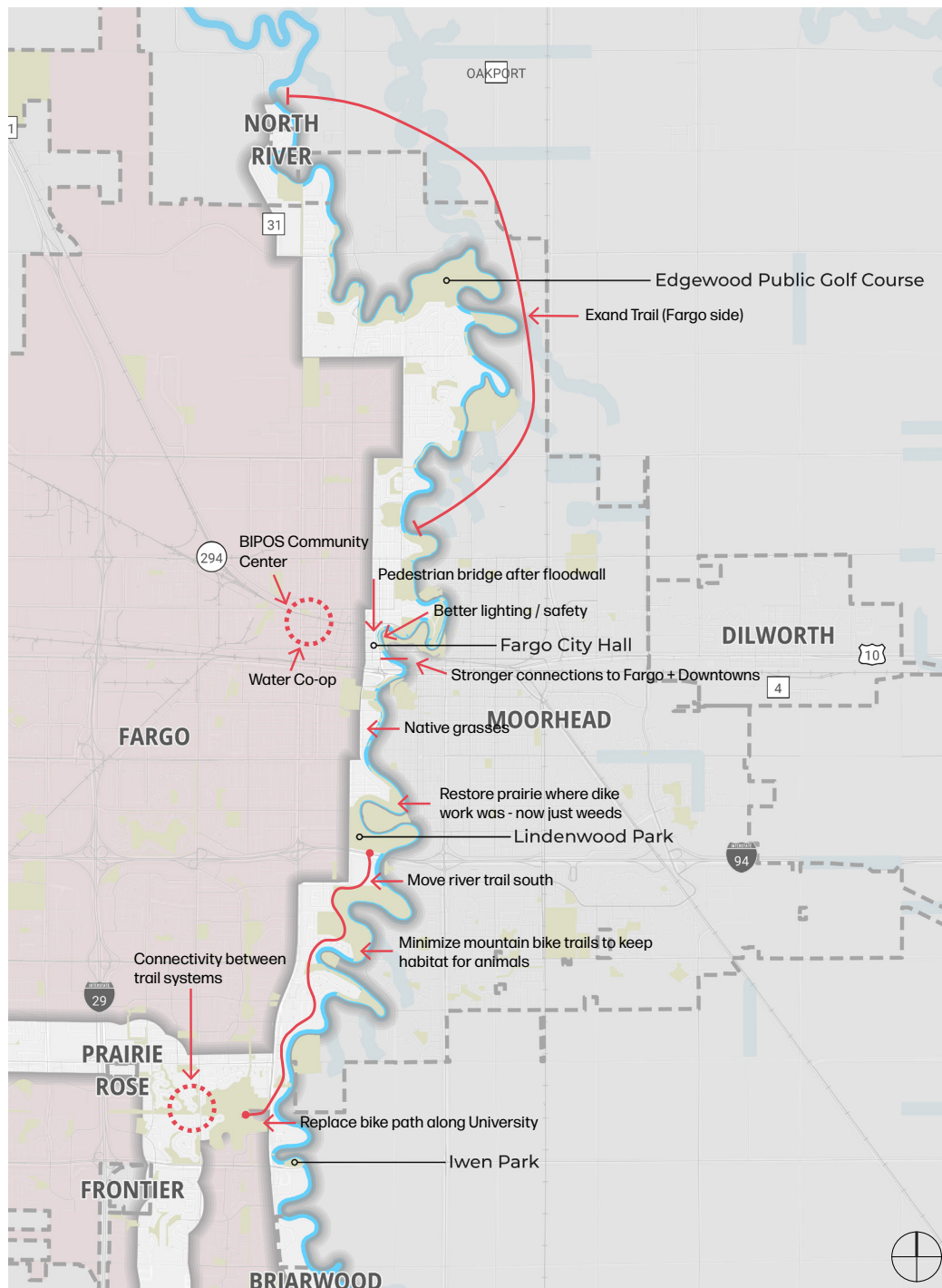
POP-UP EVENT BOOTHS

Mapping Activity

The final engagement activity available at the pop-up event booths was a mapping activity. Participants were asked to write directly onto a base map of the Red River Greenway study area. The handwritten notes were digitized and included in Figure 3.3 below. This was the engagement activity with the least amount of participation.

Comments included recommendations related to pedestrian bridges / connections, areas that need better lighting or safety features, areas where native grasses or prairie restoration should occur, and specific trail recommendation areas along the Red River system.


Figure 3.3 / Mapping Activity Pop-Up Event Booths Results Summary



INTERACTIVE WEBSITE

To help reach a wider audience than any one public meeting could accommodate, an interactive engagement website was created using the Social Pinpoint platform. The website was designed to mimic the types of in-person activities that may occur at a traditional in-person workshop - all while people were in the comfort of their own homes and on their own timeline. The website was designed in a joint effort between the Consultant Team and Metro COG staff and was launched to the public in late April 2022. The website was closed for comments as of June 30, 2022.

Step 1 - Tell us about yourself





Tell us about yourself!
Take this short survey to help us understand how you use the greenway system
Please don't forget to push submit once you have entered your responses!
[Take the Short Survey](#)

Take the Title VI Survey (Optional)

Step 2 - Image Voting Exercise

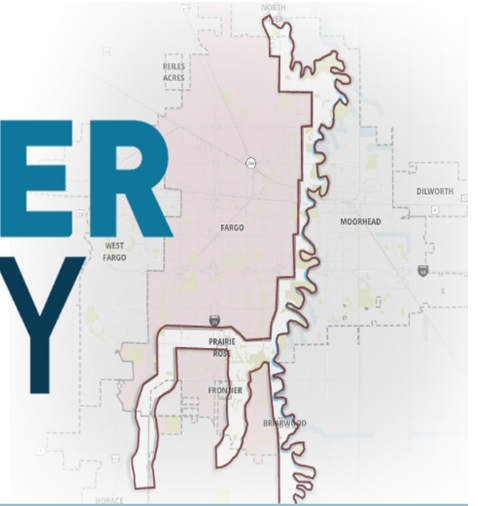
Follow the prompts below to help us understand your visual preferences for the future of the Red River Greenway! **Please don't forget to push submit once you have entered your responses!**

**Trail Surface Types**
Tell us what **trail surface types** you think are appropriate for the Red River Greenway. **Please don't forget to push submit once you have entered your responses!**
[Vote on Images](#)

**Amenities**
Tell us what **10 amenities** you most want to see along the greenway. **Please don't forget to push submit once you have entered your responses!**
PLEASE NOTE, you will need to scroll back up to the top of the image list to press submit on your selected 10 images.
[Vote on Images](#)

Note: The study area boundary presented to the public during the public input phase underwent revision during the trails planning phase. The maps in the previous and following chapters depict the latest version of the boundary.

RED RIVER GREENWAY



Welcome!

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) is updating the Red River Greenway Study and needs your help! This project builds upon the Moorhead River Corridor Master Plan (2014) and focuses on the **North Dakota or Fargo-side of the Red River**. The current greenway is comprised of undeveloped flood-prone, public, and private lands along the Red River.

With momentum building in the FM area for public trails and recreation, there has never been a more exciting time to get involved in the planning of the regional greenway system. **Metro COG is seeking input from the public through mid-June 2022.**

Drag to
comment



Idea!



Draw a trail
or path



New Trail
Amenity



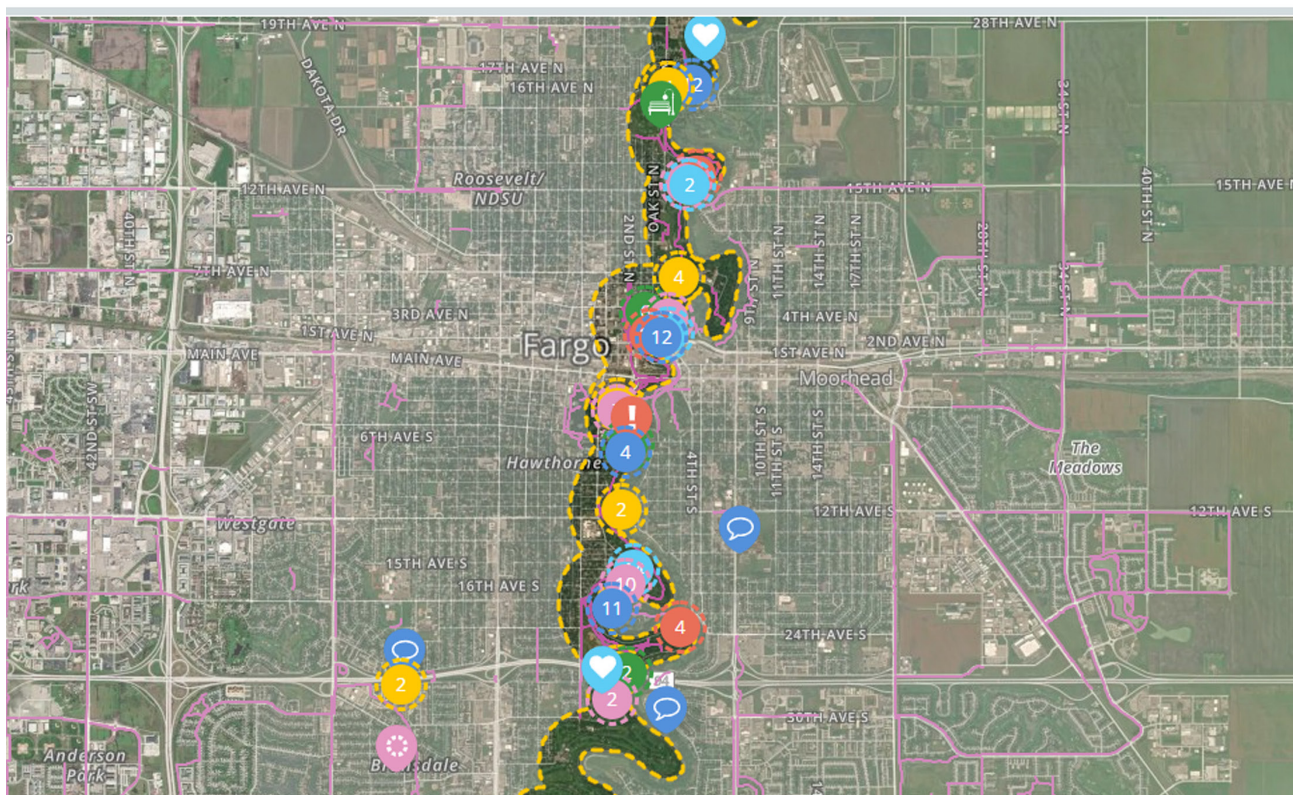
I don't feel
safe here



Favorite
Place



I access the
greenway
here



INTERACTIVE WEBSITE

Interactive Engagement Website

To assist in reaching a wide, diverse audience for engagement on the community preferences for the Red River Greenway Master Plan, an interactive engagement website was created using the Social Pinpoint platform. The Consultant Team worked with Metro COG staff to design a series of engagement exercises that would result in feedback useful to the master planning effort.

Engagement was divided into four main steps as outlined in Figure 3.4. Step 1 included a short survey to help understand participant backgrounds, use of the greenway today, and desires for the future. Step 2 involved two types of image voting exercises: one for trail surface types and another for general amenities desired for the greenway. Step 3 asked participants to rank a series of different possible greenway outcomes / priorities. Finally, step 4 was an Interactive mapping activity that allowed participants to comment directly onto a map of the greenway with different ideas or comments about the greenway.

Participation on the website was excellent. Overall, there were nearly 500 unique stakeholders that participated on the site. Just over 900 different people viewed the site at some point. There were nearly 280 mapping comments. Figure 3.5 summarizes the input received by step. The website launched to the general public in late April 2022 and remained open through June 30, 2022.

Figure 3.4 / Interactive Website Steps Summary

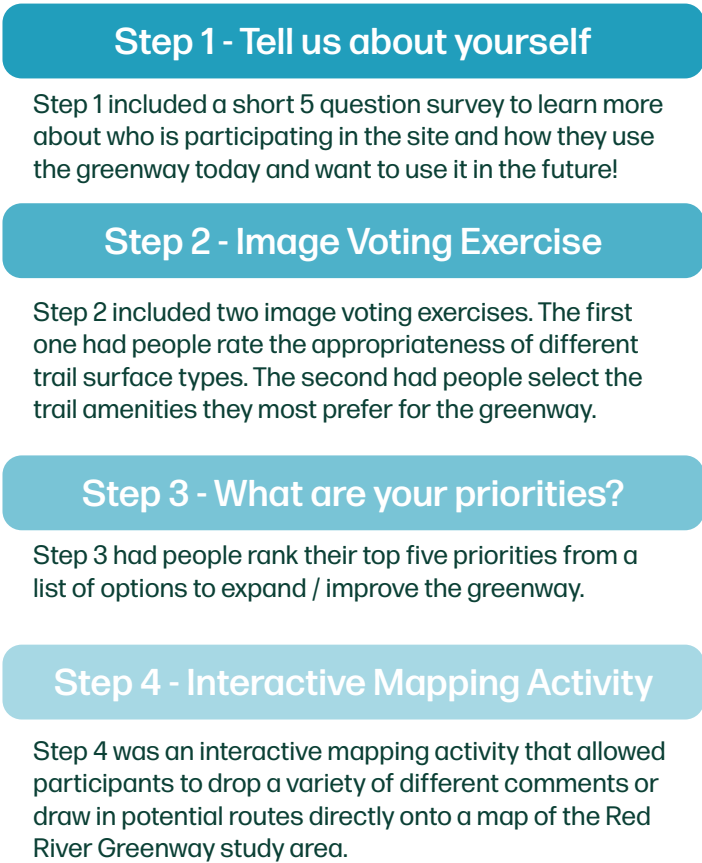


Figure 3.5 / Interactive Website Participation Summary Statistics

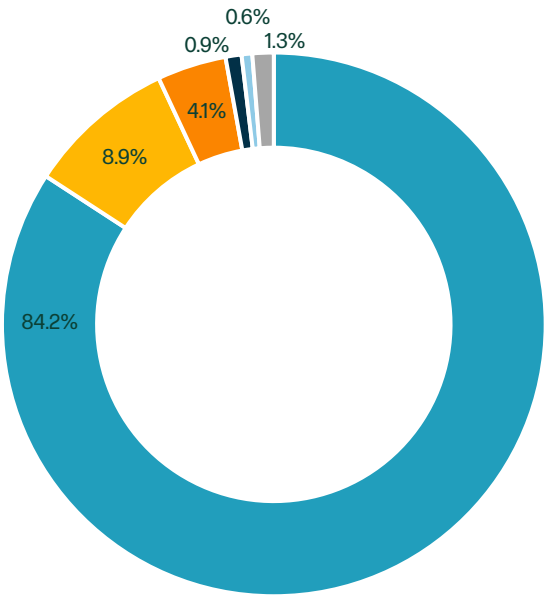
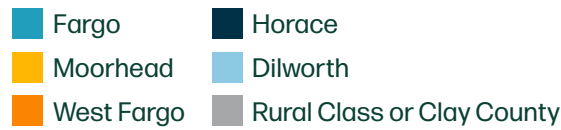


INTERACTIVE WEBSITE

Step 1 - Tell Us About Yourself

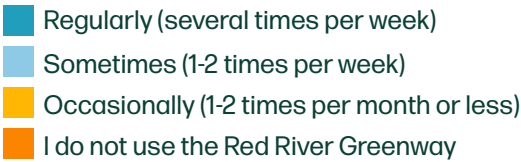
1. Where do you live?

The vast majority (84.2%) of respondents selected Fargo as their place of residence. This is an appropriate mix given that this project focuses on the Fargo side of the Red River Greenway. However, feedback from non-Fargo residents is also important because this is a regionally significant project.

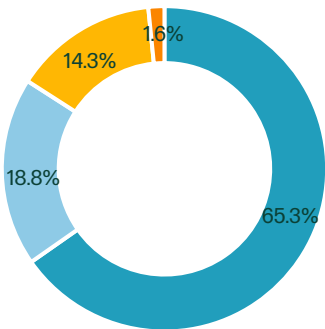


2. How often do you use the Red River Greenway during each season?

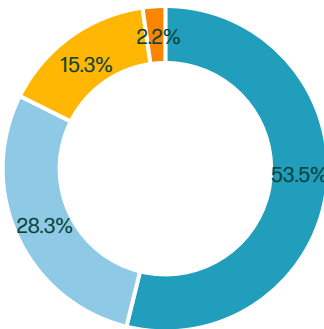
Perhaps unsurprisingly, use of the greenway varies significantly from season to season according to survey results. Summer brings the most consistent stated use of the greenway for survey respondents, with over 84% indicating they use the greenway regularly or sometimes during this time. Winter months saw a dramatic decrease in usage with the most common response being occasional use of between 1-2 times per month or less. Spring and Fall participation levels were similar with Fall having slightly more regular use - this slight variance may be related to seasonal flooding that occurs in the Spring months.



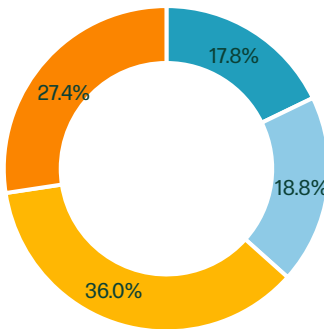
Summer



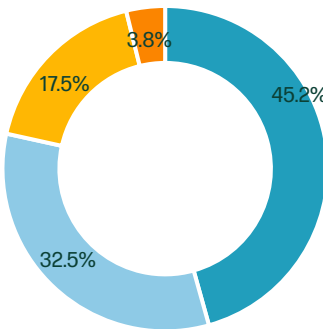
Fall



Winter



Spring



INTERACTIVE WEBSITE

Step 2 - Trail Surface Types

Step 2 included an activity that had participants rate how appropriate different trail surface types were on a scale from 1 to 5 with 1 being definitely not appropriate and 5 being definitely appropriate. Respondents were then given an opportunity to further explain why they did or did not think each surface type was appropriate. There were overall 246 responses to this activity.

The trail surface types included: Asphalt Pavement, Boardwalk, Concrete Pavement, Crushed Aggregate, and Natural Trails. There was a representative photo for each type along with a write-in response box.

Figure 3.6 summarizes the responses by trail surface type. Overall, crushed aggregate trails were the least preferred trail surface type, with over half rating them a 1 or 2 on the scale. Most felt this trail surface type was not as accessible to as many users from both a mode and ability level. For example, road bikes would not perform well here nor would

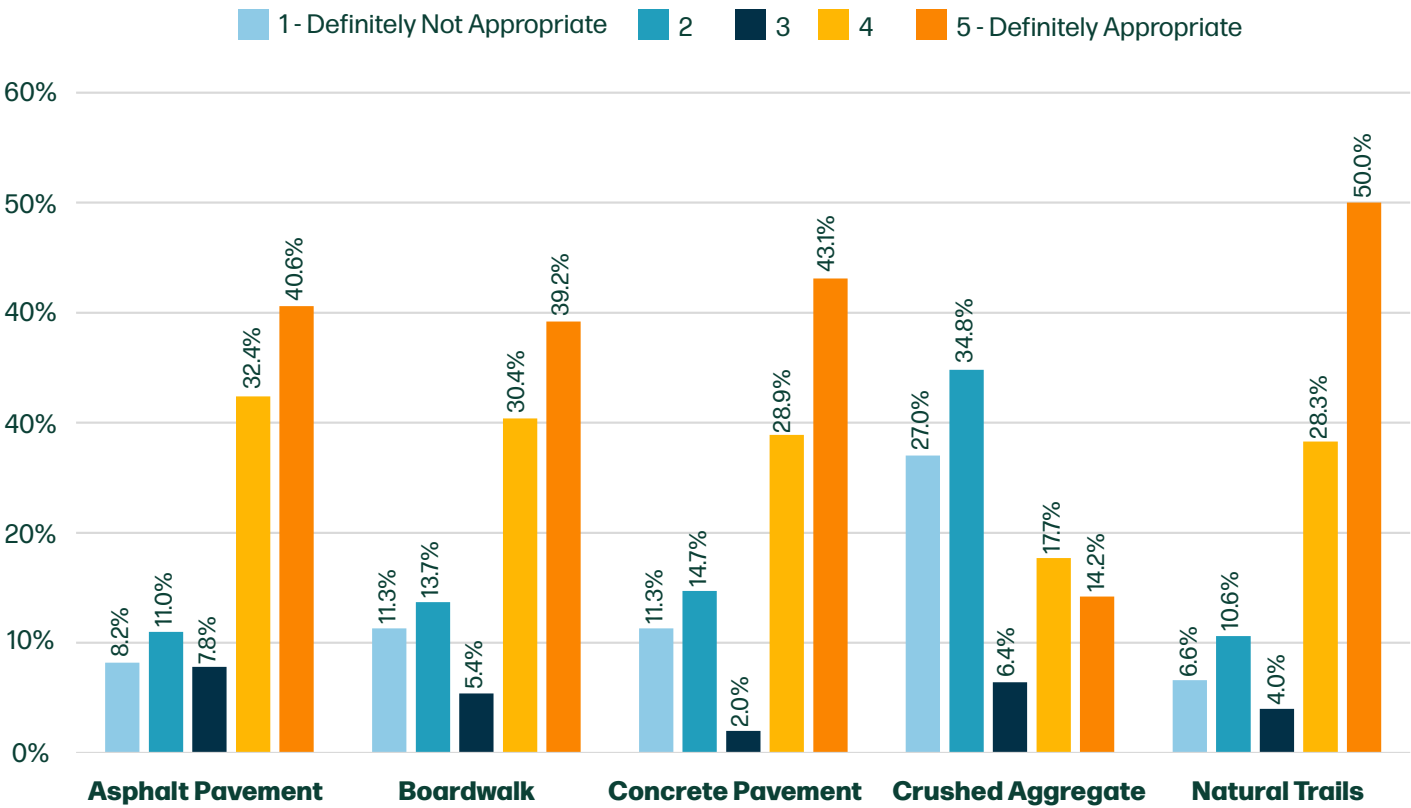
strollers. Additionally, many felt those in wheelchairs or with other ableness issues would not be as successful on this trail surface type.

Respondents were very drawn to the natural trails, but the write-in responses indicated that these would be more preferred as off-shoot spur trails rather than the main corridor surface type.

Boardwalk trails were also popular, but the write-in response indicated a desire for limited placement of these in special locations throughout different parts of the corridor or within open space along the river.

Asphalt or Concrete pavement were generally viewed as the most overall appropriate main trail surface type options from an access, durability, and maintenance perspective. Each had various pros and cons as are listed in the following pages.

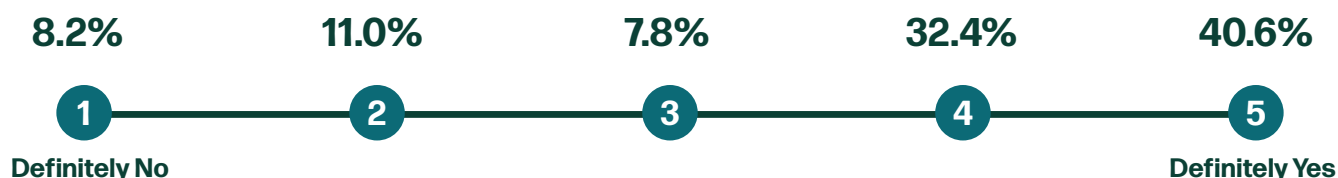
Figure 3.6 / Trail Surface Types Rating Summary



INTERACTIVE WEBSITE



Do you think Asphalt Pavement trails are appropriate for the Red River Greenway?



Additional Comments on Asphalt Pavement Trails:

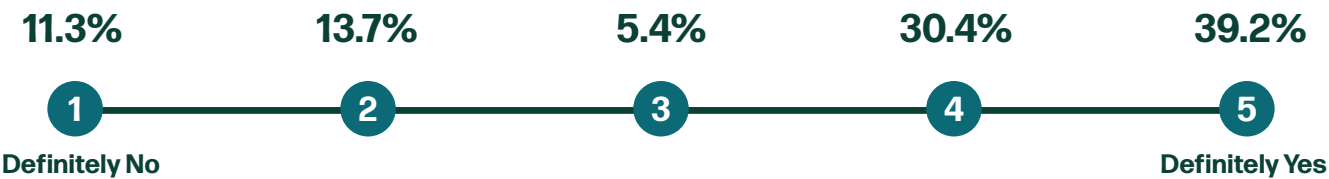
- Asphalt is rough, and it hurts to fall on it with a bike
- Asphalt provides the best all-around surface for trails. It is well suited to all wheeled sports, walking/running, etc. It is aesthetically more pleasing than concrete and is easier on joints for walking and running. Also, it is the only trail material suitable for rollerskiing.
- Biking and walking
- Cement where it floods
- Clean without holes
- Concrete and asphalt are equivalent in my opinion. I'd lean towards which is cheaper / requires less maintenance
- Construction of the asphalt trail along the entire length could ruin what's currently growing on the trail
- Easier to clean, but they do get cracked and broken along the edges
- Generally fine, cost effective
- Great for pedestrians and bicycles
- Hopefully not going to be affected by river slump/ flooding.
- I am not sure whether asphalt or concrete holds up better in our weather, but I would be concerned over maintenance
- I don't like running on sloped asphalt, but it is better than concrete

- I like how asphalt makes trails available to people with disabilities but also doesn't allow you to connect with nature
- I need it in North Fargo where we live. It would take too much taxpayer money to maintain
- It helps navigate through the area and to know I am not on someones land, plus it helps bobcats keep trails open during winter, etc.
- It's far more accessible than gravel
- Looks the best, more natural
- Ok if cracks are well maintained but this doesn't happen
- Softer under foot than concrete, and easily cleared of snow
- Surface type is not important to me as long as it is not slippery mud
- The environmental impact of asphalt is too severe
- There are better ways but black top is often more affordable at good for long flats
- These are fine up on the dikes, away from the shoreline
- They are usable by most/all forms of movement
- This would be great surface for most of the path
- Use asphalt or concrete depending on cost and maintenance concerns. Otherwise no preference between the two

INTERACTIVE WEBSITE



Do you think Boardwalk trails are appropriate for the Red River Greenway?



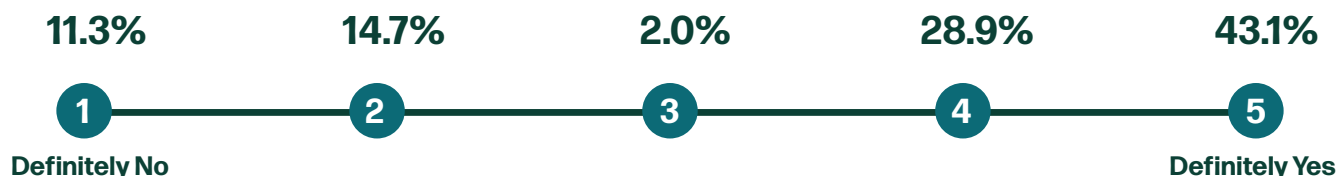
Additional Comments on Boardwalk Trails:

- Appropriate where it makes sense
- Beautiful! Impacts the entire area!
- Biking and walking
- Boardwalk may be suitable in limited locations where muddy surfaces or soil instability makes other surfaces less workable
- Boardwalks are good for the elderly, but other trail types work just as well in areas except close to the water. They should still be used sparingly so that the waterfront isn't too obstructed.
- Boardwalks would be great but high maintenance from flooding.
- Boardwalks would be nice in slow-to-dry/boggy areas
- Cool for short segments
- Flooding to obviously be considered; likely not a place for dogs so alternative routes would be good to allow others to pass
- I am concerned how the floods will impact boardwalks
- I like the look but not sure how it would hold up if the river floods
- Like, but know my friends in wheelchairs can't use them as well
- In some places, this would be a nice approach, but only where an asphalt or concrete trail doesn't work well for some reason
- I think it would be nice. Flooding would make maintenance very difficult each spring
- I would love to see boardwalks, but I am unsure on how maintenance will be with flooding
- Don't like to see wood used in areas subject to frequent flooding
- Love being as close to the river as possible
- More natural feel and hopefully keeps feet from getting wet in spring
- Natural and aesthetically pleasing. Could be build up, away from soil washout
- Not for bike access
- Not sure about durability or ease of snow removal
- Opportunity to experience the river up close
- Pleasing to the eye
- Short segments only
- Tend to rot over time
- Could provide some nice vantage points. I wouldn't want the entire system to be boardwalk, but sections. This surface type could also help with accessibility for wheelchairs, etc.
- This would be really neat in certain scenic sections, but does not need to be everywhere
- This would make some areas more accessible in the spring time when the water is high and the trails are too muddy
- Usable by most/all forms of movement and adds variety and interest to the space.
- Very appealing in wetland areas. Costly.
- While it may be nice to have this along areas of the Red River, it takes up a lot of room that isn't really available everywhere
- Would be beautiful!

INTERACTIVE WEBSITE



Do you think Concrete Pavement trails are appropriate for the Red River Greenway?



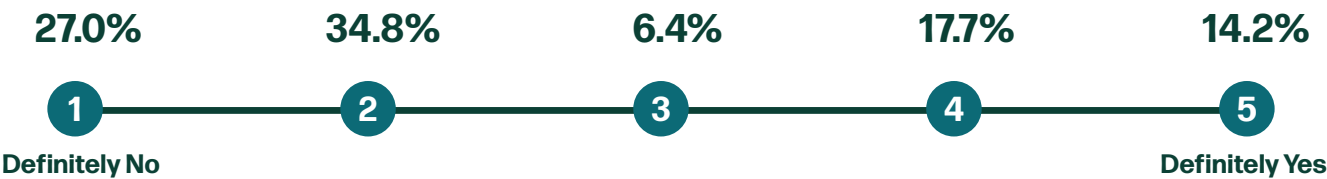
Additional Comments on Concrete Pavement Trails:

- Asphalt seems like it would be easier to repair than concrete
- Best for rollerblading
- Better for more suburban areas but a little too polished along the Red River
- Biking and walking
- Concrete and asphalt are equivalent in my opinion. I'd lean towards which is cheaper / requires less maintenance
- Concrete has limitations including cracks and expansion joints that are not ideal for many wheel activities such as skateboarding, scooters, and rollerskiing. Also, concrete is hard on the joints for walking and running. I also don't find it aesthetically pleasing in a park setting compared to asphalt
- Concrete is smooth and looks great and holds up well. It isn't the best for wilder, more forested areas
- Concrete is the best kind of trail
- Concrete or asphalt for bikers and runners
- Easiest to keep clean and holds up best along the edges.
- I am not sure whether asphalt or concrete holds up better in our weather, but I would be concerned over maintenance
- Hard to reach areas for concrete trucks.
- I don't care which kind of pavement, but there needs to be some kind of surface that can be cleared of snow for safe walking.
- If a budget isn't in place for chipping/ cracks in time it could look rough and be difficult to use
- If maintainable at best minimal cost
- I know it can be expensive but it lasts longer/stays cooler than blacktop
- I'm thinking this is the hardest surface of the options and isn't nice for the joints of walkers/bikers or dogs. Long lasting, not so hot on dog feet in the summer
- Usable by most/all forms of movement and does not heave like asphalt
- Use asphalt or concrete depending on cost and maintenance concerns. Otherwise no preference between the two.
- Very durable and easy snow removal

INTERACTIVE WEBSITE



Do you think Crushed Aggregate trails are appropriate for the Red River Greenway?



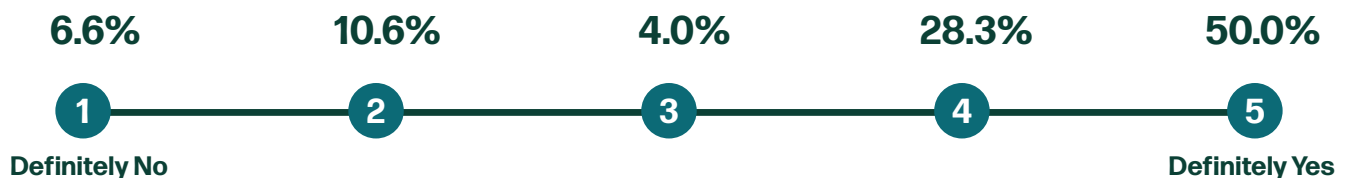
Additional Comments on Crushed Aggregate Trails:

- Could be okay if done like orchard glen park as a side trail
- Acceptable for bikes only, not suitable for strollers / rollerblades
- Would limit a number of wheeled activity sports. Also, I'm not sure how durable this would be
- Good for certain parts of the greenway closer to the river and which are used less by commuters
- Great for an ATV, feels more natural than concrete pavement
- Harder to maintain
- Hard for young kids on bikes and can't rollerblade on it
- Horrible for kids / hard to use a stroller
- Looks dangerous for bikes and potentially for wildlife as well
- Without budget to maintain it could start to look/ be rough quickly
- I have a son in a wheelchair, so this would not be an ideal surface
- I know it is easier to maintain, but it is tough on road bikes
- Nice option for biking/foot traffic while resulting in less run off
- It's just not as accessible for everyone
- Worry crushed bits would get washed away during flooding
- Low travel out of town. Pre-developed trails would have this
- Maybe in some places
- More natural but also more annoying to walk on
- Not as nice for biking, but ok for hiking
- Not comfortable or visually appealing
- Not for bike access
- Ok, but not preferred. Would rather see rubber track material
- Ok when dry; prone to developing ruts and puddles; snow removal?
- Only because they make great cross country ski trails in winter
- They suck to bike on
- Only in areas not prone to flooding
- Perhaps certain places
- So limited in it's use
- This may be more appropriate in more rural areas
- This might be fine for walking, but in any area where the river might overtop the trail during floods, this would be a beast
- Strongly dislike the raised edges - dangerous for bicyclists
- Through the woods perhaps
- Unsteady for some people
- Wasteful - would be washed away
- This would be really neat in certain scenic sections, but does not need to be everywhere.
- This would make some areas more accessible in the spring time when the water is high and the trails are too muddy
- Adds variety and interest to the space
- Very appealing in wetland areas.
- Costly
- Takes up a lot of room
- Would be beautiful!
- Would it be for fishing?

INTERACTIVE WEBSITE



Do you think Natural trails are appropriate for the Red River Greenway?



Additional Comments on Natural Trails:

- More natural but also less relaxing, have to worry about bugs and animals more. Feels unofficial
 - I love natural trails the best but a paved trail would be used by the most people and I assume easier to keep free of snow
 - As long as they are wide and well maintained, easy to identify, this is simple and great
 - Difficult unless one way traffic
 - Would be awesome for mountain bikers and trail runners
 - I'd love to have these branching off to explore but not necessarily a part of the main corridor
 - I don't know where this could possibly work well within this project
 - I don't like seeing more and more of our planet paved, but at the same time, I love bicycling on paved paths
 - If accessibility weren't an issue this would be my preference
 - I find benefits to natural trails, but as off shoots
 - If walkable, yes, but need separation from mountain bikers
 - I have mixed feelings on this. I love nature trails but am concerned about the need for wildlife / riparian woodlands
 - Worry about how impractical they are during the wet months
 - I like these, but they're often muddy and unusable. If available in addition to a more weather-friendly path, I'd be all for it!
 - I LOVE the area like this by the Main Avenue bridge. Please keep!
 - In some areas - maybe next to another option?
 - I would guess flooding would ruin natural trails
 - I would love to see more nature trails in the FM area
- nature. Hiking trails that dip off the paved path would be a fun
 - Less man made feel, maybe feel more in nature with this option.
 - Love that this connects you to nature
 - Maybe; great fun when dry; when wet, RRV mud is awful!
 - Maybe use for short-term connections until paved paths funded
 - Meh, We have enough. We need a continuous bike path
 - More connected pedestrian and biking trails would be helpful
 - Would be fantastic for leisure, tourism, and commuting
 - Very appealing if through wooded area
 - Natural trails lead to people thinking they can make their own trails and going places where they will disturb wildlife
 - Natural trails nice as long as well-maintained and accessible
 - Nature trails are hard to find around here, would be a fun addition
 - Nature trails are nice, but with the muddy soil, can be somewhat limited during any wet weather
 - Nature trails would be great as a spur which veers off from the main trail. It would also be useful as a parallel path for runners
 - Nice addition for paths off the main paths
 - They're fun. Great mini adventures for little kids
 - Unable to road bike. Harder to maintain
 - Very limited to mountain bikers and too narrow for bikers + hikers
 - Wide grass trails that can be groomed for cross country skiing should also be considered
 - Yes!!! We need to be able to connect the southern parks (Iwen) to the northern parks (M.B. Johnson) with nature trails

INTERACTIVE WEBSITE

Step 2 - Amenity Image Voting

The second activity in Step 2 asked participants to select the top 10 amenities most suitable for the Red River Greenway. Respondents were given the option of nearly 30 different amenity types ranging from benches to trailheads to public art. Figure 3.7 shows the number of votes received per amenity out of 178 total respondents.

The most popular amenities included:

- Trash Receptacles
- Restrooms
- Benches
- Trail Signage
- Trail Lighting
- Historic / Cultural Interpretive Signage
- Drinking Fountain
- Playground

The following page shows the images used to depict each of the most preferred amenities.

Least preferred amenities include certain options for benches, restrooms, and boat access.

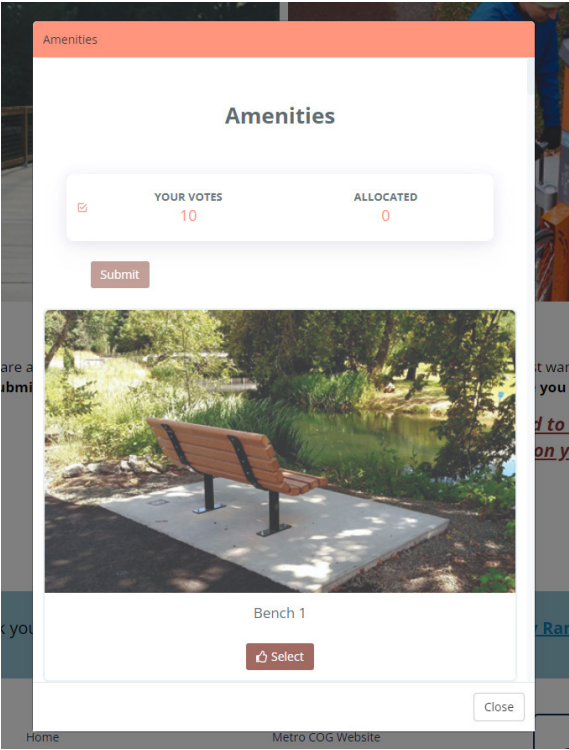
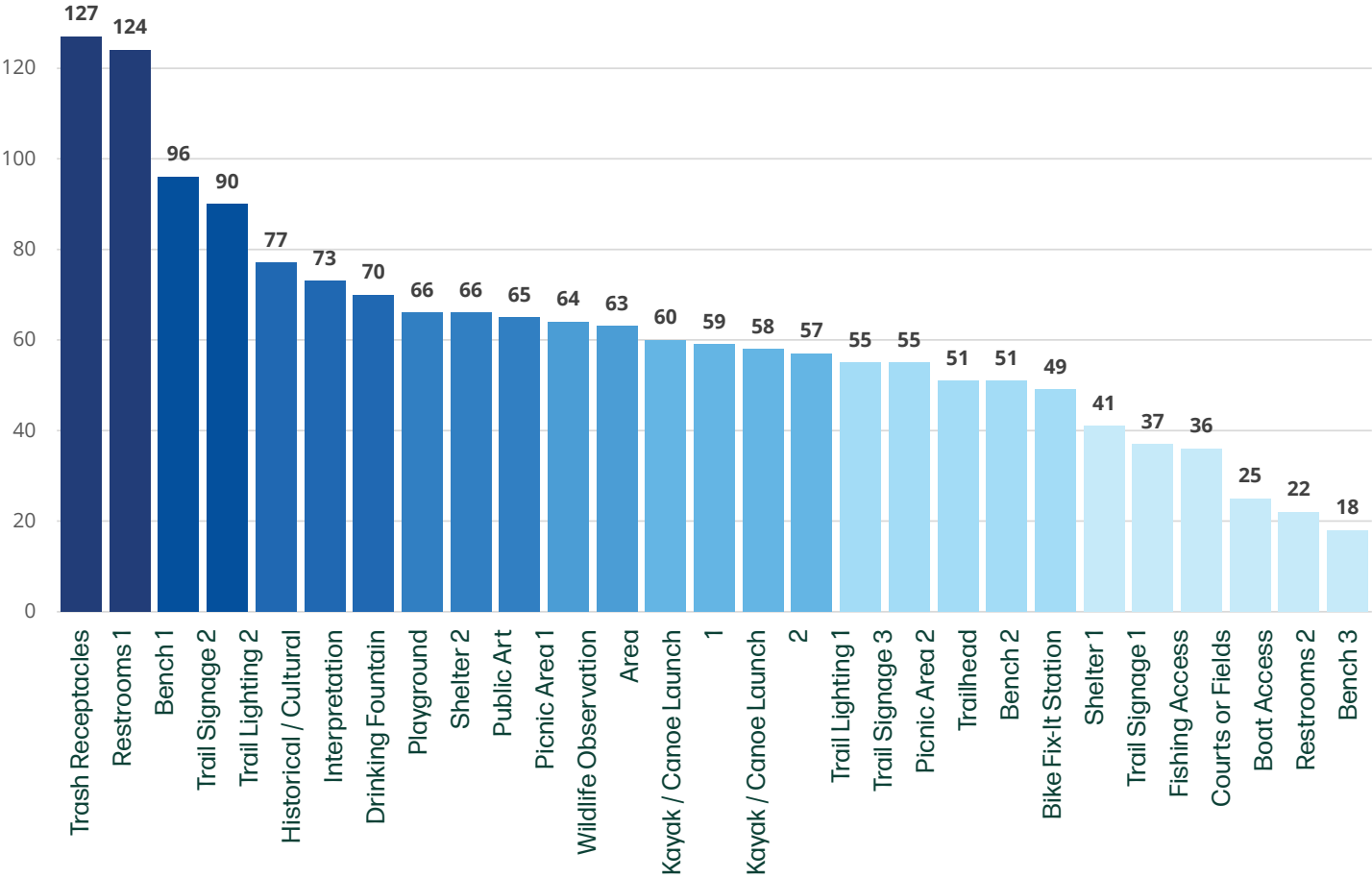


Figure 3.7 / Amenity Image Voting Response Summary



INTERACTIVE WEBSITE

Most Preferred Amenity Images by Total Number of Votes



INTERACTIVE WEBSITE

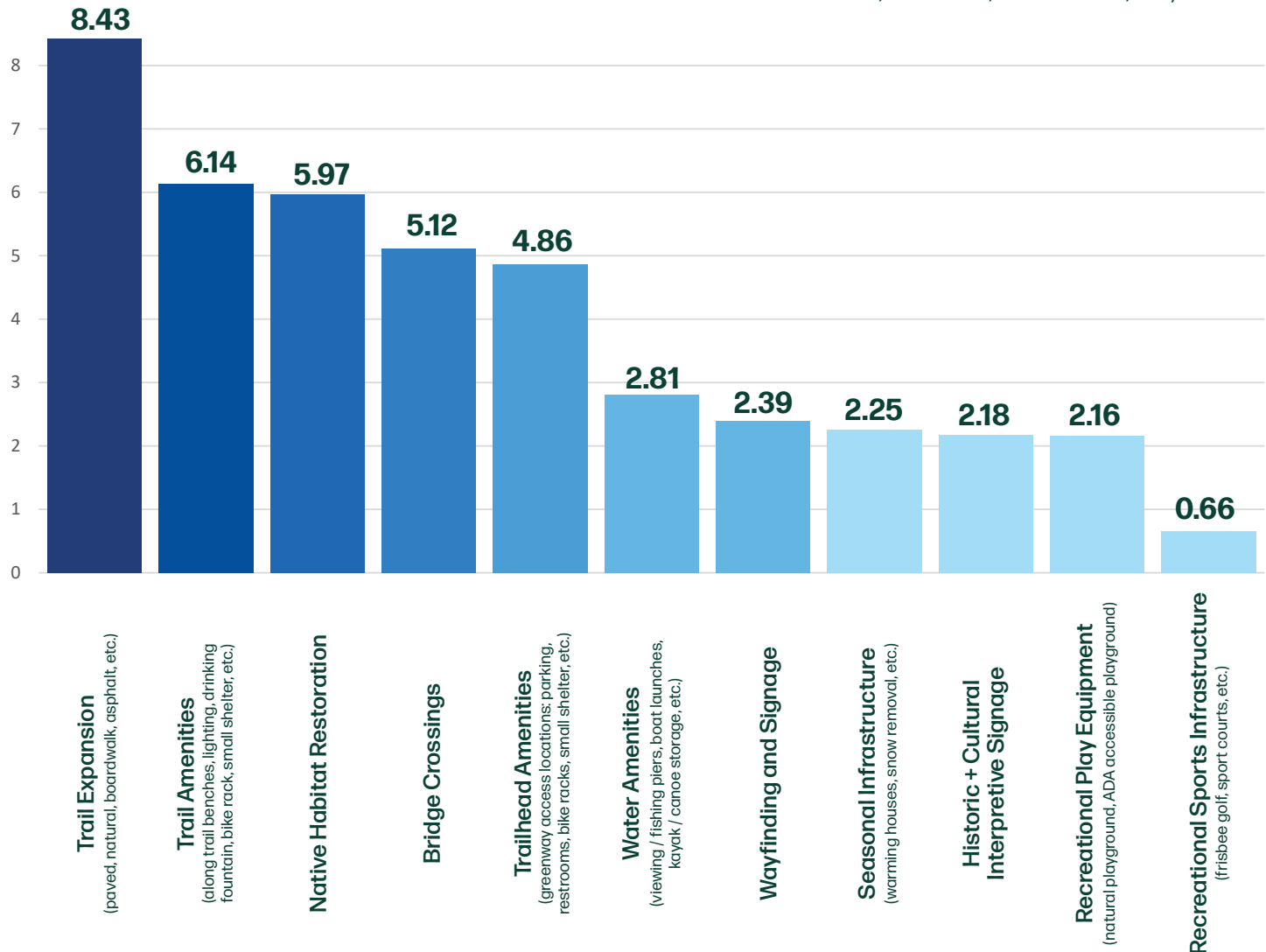
Step 3 - Priority Ranking Exercise

Step 3 asked the 155 respondents to rank the top five priorities for the Red River Greenway Master Plan to consider from a list of eleven. Figure 3.8 summarizes the rankings.

The most consistently highest ranked priority was Trail Expansion for paved, natural, boardwalk and asphalt trails. Trail Amenities and Native Habitat Restoration were the close second and third highest ranked priorities. Under Trail Amenities, this included all amenities that would be found along trails such as benches, lighting, drinking fountains, bike racks, or small shelters.

At the lower end of the spectrum was Historic + Cultural Interpretive Signage, Recreational Play Equipment, and Recreational Sports Infrastructure, however, Water Amenities, Wayfinding and Signage, and Water Amenities were all ranked similarly low.

Figure 3.8 / Priority Ranking Results Summary



Top Five Priorities

- 1 **Trail Expansion**
Paved, natural, boardwalk, asphalt, etc.
- 2 **Trail Amenities**
Along trail benches, lighting, drinking fountain, bike rack, small shelter, etc.
- 3 **Native Habitat Restoration**
- 4 **Bridge Crossings**
- 5 **Trailhead Amenities**
(greenway access locations: parking, restrooms, bike racks, small shelter, etc.)

INTERACTIVE WEBSITE

Step 4 - Mapping Activity

Step 4 was an interactive mapping activity that encouraged participants to drop comments directly onto a map of the Red River Greenway study area. There were five drag and drop comment types and one route drawing tool, which allows participants to sketch in a line / route showing a possible new path or trail connection. Overall the map had 279 comments.

The most commonly selected comment was Idea! with 24.7% of all comments. The route drawing tool for Draw a trail or path was also popular with 21% of all comment types. A summary of each comment type is included on the following pages.

Comment Types

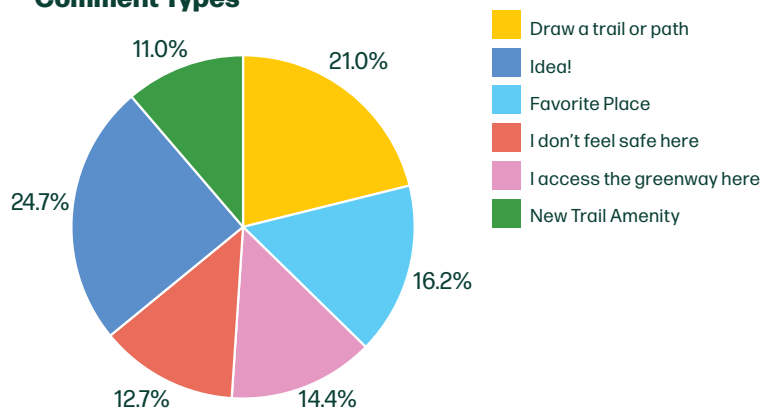
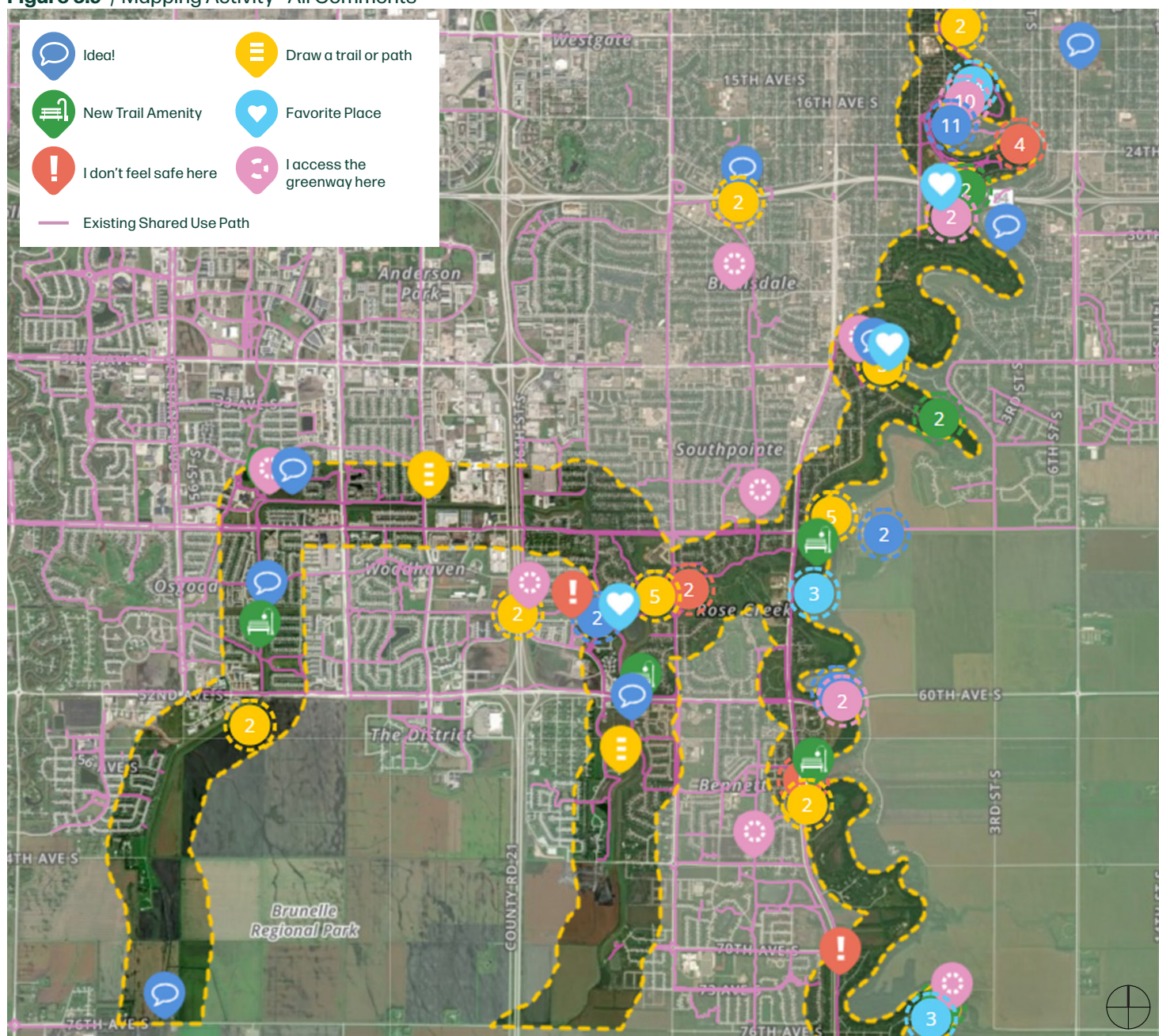


Figure 3.9 / Mapping Activity - All Comments



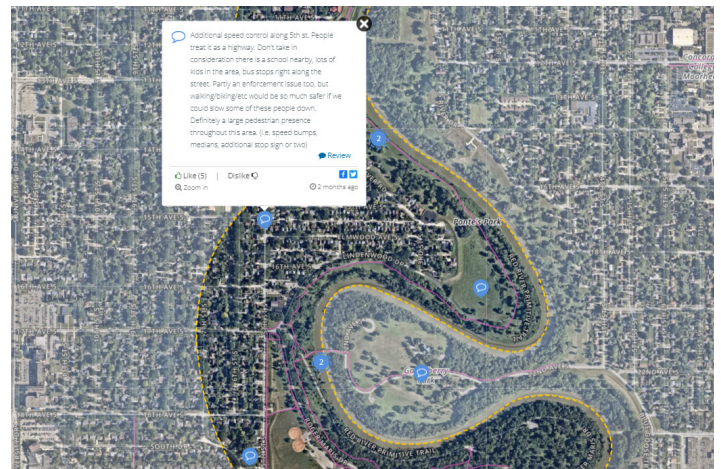
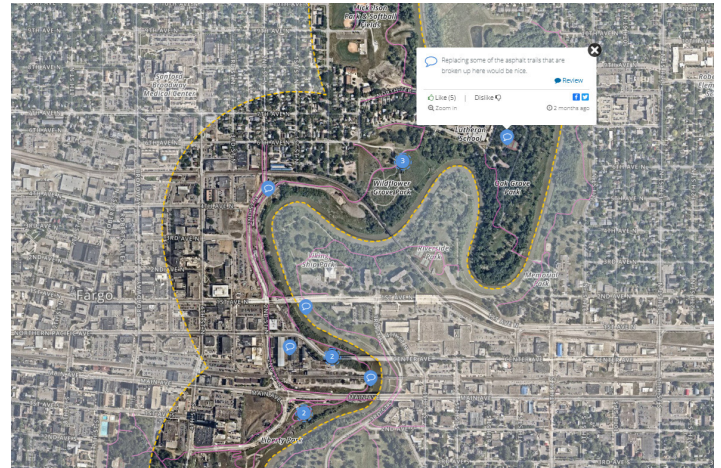
INTERACTIVE WEBSITE

Mapping Activity - Idea Comments

- Connect to the Diversion Trail to form a full enclosed loop around the FM area
- Need to discourage people from climbing the riverbanks and entering private yards
- Don't add a trail near the Edgewood Golf Course if it will remove trees - already lost enough due to golf course
- Pedestrian bridge at terminus of 32nd Avenue Northeast
- Make a park at the open space south of 32nd Avenue Northeast
- Some don't want more parks/foot traffic in north Fargo
- Island south of 32nd Avenue Northeast - could be a good park, campsite, bike trail etc.
- Dead end street on Woodcrest Drive is the perfect location for trail access for a ped bridge between Fargo and M.B. Johnson Park
- Lack of trail by VA Hospital makes connectivity difficult
- Putting paths into places that flood every year (north of El Zagal) doesn't make sense
- Trefoil Park could use a water fountain, should still have a bathroom available
- Replace some asphalt trails near Oak Grove Park
- Wildflower Grove Park - lighting should be solar powered and motion activated, pave parking lot
- More habitat restoration along the greenway
- Public art and lighting along trail near downtown
- Former Mid-America Steel Site could be used for restrooms, boat launch or outdoor concert space
- Liberty Park - has zero use today - could be a pollinator garden or small outdoor concert venue
- Some comments about safe needle exchange / receptacles with mixed reviews
- Bat houses
- Burdick Park - Idea for unique playground, area usually very muddy or under water - boardwalk?
- Pontes Park - Super under-utilized park - could be a cool sculpture park, or picnic area with amphitheater
- Pedestrian Bridge to Gooseberry Park - bridge is nice but area not usable for several months every year making it annoying or impossible to enter the Moorhead Greenway
- Lindenwood Park - splash pad, safety gates around playground
- Think of Moorhead and Fargo's greenways as partners not competitors



Idea! Comment Summary



- Signage about trash pick-up etc.
- Want to be able to cross the river at Bluestem Center for the Arts / at 40th Avenue South
- Iwen Park could use a dog park, area south of park could use a larger boat landing and parking lot
- Open space near river south of 52nd Avenue South - Could be used as a park with dog park, nature playground
- Combine Orchard Glen Park and Forest River Park into one large regional park
- Forest River Park - Needs better lighting and established path to the kayak launch
- Restore native prairie / grasses near detention ponds and new trails
- Drain trails overall could be made more lively with plants, native grasses, trees and amenities
- Utilize Drain 27 ROW for trail - could provide regional connectivity

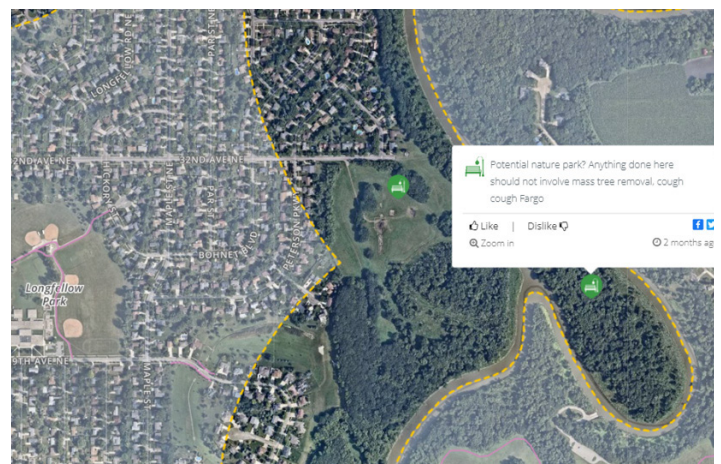
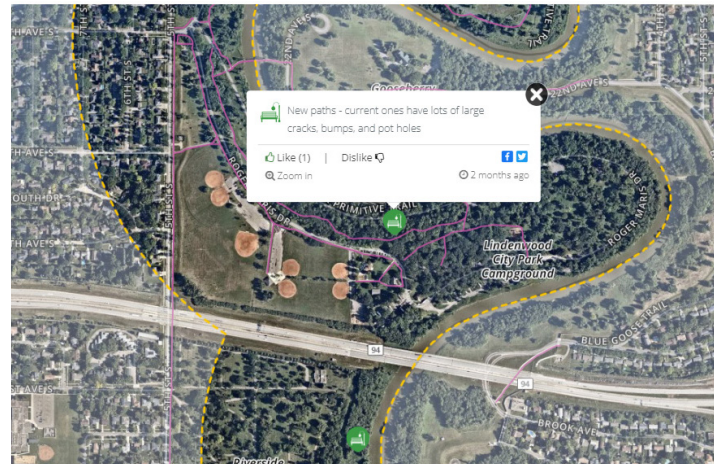
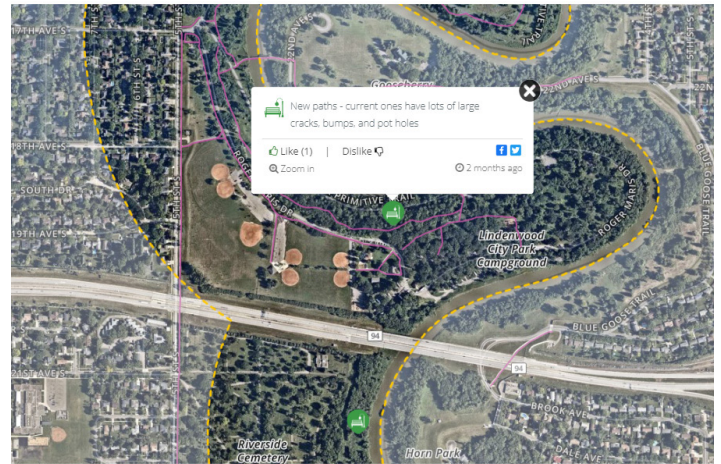
INTERACTIVE WEBSITE

Mapping Activity - New Trail or Amenity Comments

- Northern edge of greenway planning boundary needs a trailhead of some sort to start off the whole system, with small parking area etc.
- Riverwood Park needs a water fountain & public restroom
- Trollwood Park should have year-round bathroom facilities
- Bridge to connect Fargo side to Probstfield Farm
- Open space at terminus of 32nd Avenue Northeast & Eagle Street Northeast could become a floodable park with amenities
- Tree filled area north of M.B. Johnson Park on Fargo side could be a good nature park
- El Zagal Golf Course Parking lot should be a trailhead for new trail from El Zagal to Edgewood Park
- Wildflower Grove Park needs recreational amenities or community gardens / fruit trees
- Curved area north of Viking Ship Park near 4th Avenue North could be a great spot for a shade or gazebo structure
- Trail near Downtown is a good place for public art
- Liberty Park needs to post instructions on how to appropriately use the greenway / trail. Could become a calisthenics park.
- Dike East Park / Dam Area should contain gathering space, areas for picnic tables, benches, playground, or historical information
- Dike East Dog Park needs a drinking fountain for humans and dogs
- Burdick Park could use a bathroom facility
- Lindenwood Park needs new paths, current ones have large cracks, bumps and pot holes
- Bridge needed near River Oaks Park at Harwood Drive
- Lions Conservancy Park needs restroom facilities
- Dog Park near 13 Street South / University Drive & 59th Avenue
- Orchard Glen Park could use a water fountain / porta potty
- Forest River Park is a wonderful park, but bathrooms would make it even better
- Trail south of 52nd Avenue South needs garbage cans
- Wayfinding Signage along ditch trail north of 52nd Avenue South near 50th Avenue South



New Trail Amenity Comment Summary



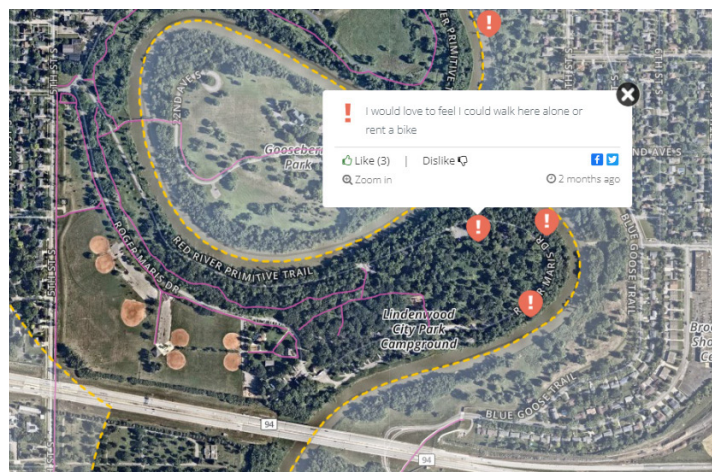
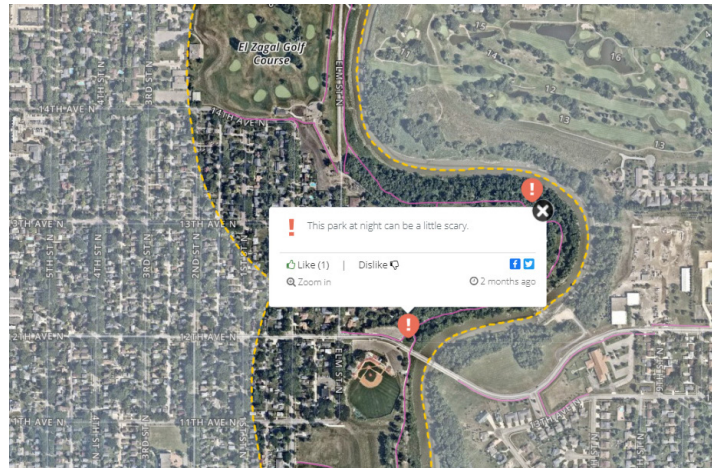
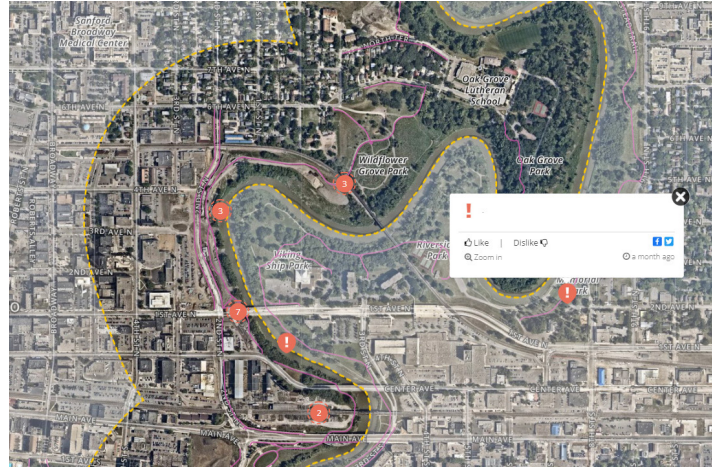
INTERACTIVE WEBSITE

Mapping Activity - I Don't Feel Safe Here Comments

- Broken sections of trail between Trollwood Park and Sewage Treatment Plant
- Trefoil Park – constant mud from flooding makes trail unsafe and area can be a little scary at night
- Railway trail overpass near Wildflower Grove Park - there are often people and debris under the bridge, which makes users feel unsafe. Bridge condition is questionable as well.
- Trail access at 4th Avenue & 2nd Street North - traffic on nearby roadway is too fast, trail access point for loiterers / “camping”
- Trail access at 1st Avenue North & 2nd Street North - homeless camps under the bridge and need better crosswalks on the nearby streets. Poor lighting makes the area feel sketchy
- Steel Yard Area - need better lighting, someone felt they were once followed there
- Dike East Park / Dog Park - people loitering / not in right state of mind, have found syringes nearby
- Lindenwood Park - multiple comments about not feeling safe at night here
- Trail north of Rose Creek Golf Course
- Trail curve south of Centennial Park - bikes need a speed limit / to slow down here
- Trail in Fox Run south of 46th Street - trail in poor condition so people end up on the street
- South end of greenway system is overall older and bumpier with lots of potholes
- Trail along 13th Street South / University Drive - trail is too close to the road based on nearby car speeds, in desperate need for replacement
- Trail along South University Drive & 70th Avenue South is bumpy and damaged



I Don't Feel Safe Here Comment Summary



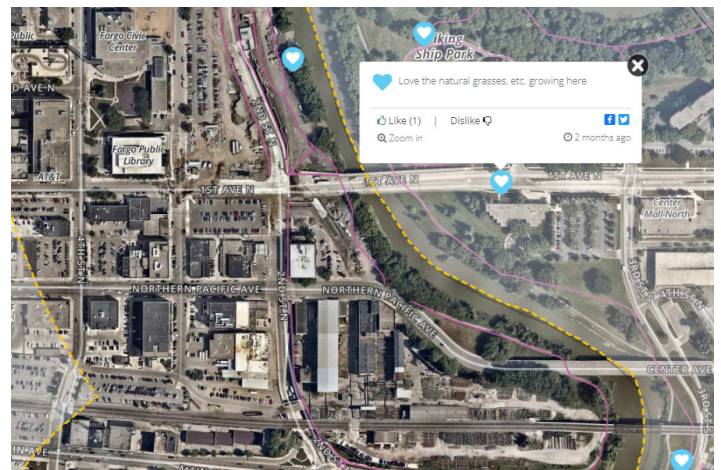
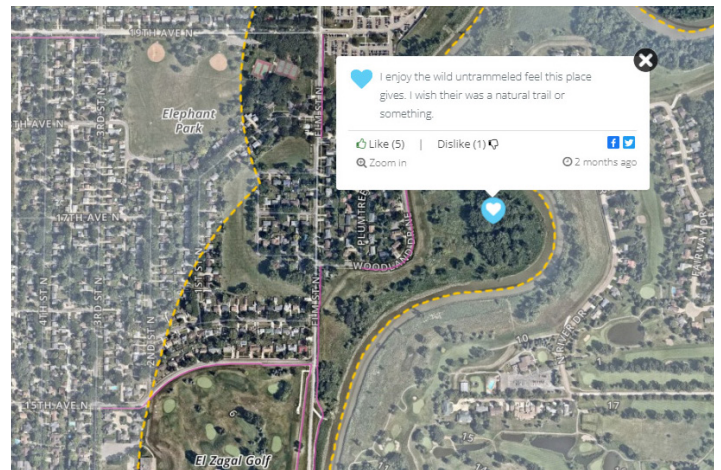
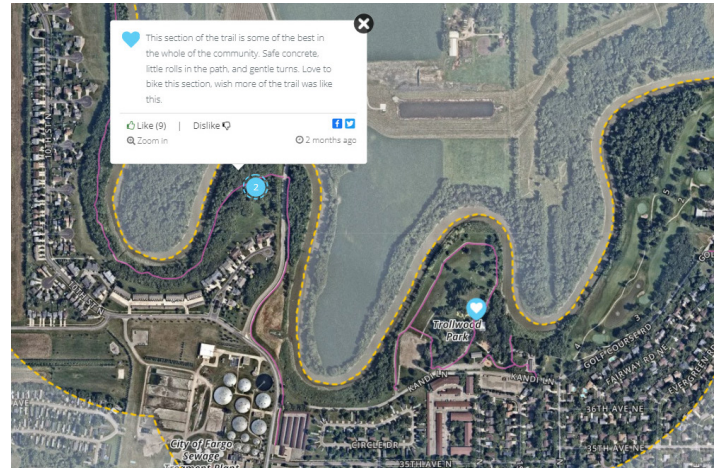
INTERACTIVE WEBSITE

Mapping Activity - Favorite Place Comments

- Pontes Park (6)
- Lindenwood Park (3)
- Orchard Glen Park (3)
- Forest River Park (3)
- Area near Trollwood Park (2)
- Oak Grove Park (2)
- North 40th Avenue / Wall Street Ave North (great birding and wildlife watching)
- M.B. Johnson Park
- Area between Elephant Park and El Zagal Golf Course - tree area
- Trefoil Park
- Mickelson Field & Softball Fields
- Wildflower Park
- Area across from Viking Ship Park
- Dike East Dog Park
- Cross-country skiing trails near south side of Dike East Park
- Riverside Cemetery
- Lions Conservancy Park
- Iwen Park
- Heritage Hills Park
- Centennial Park / trail to the south



Favorite Place Comment Summary



Note, number in parentheses indicates the number of times this area or comment was mentioned

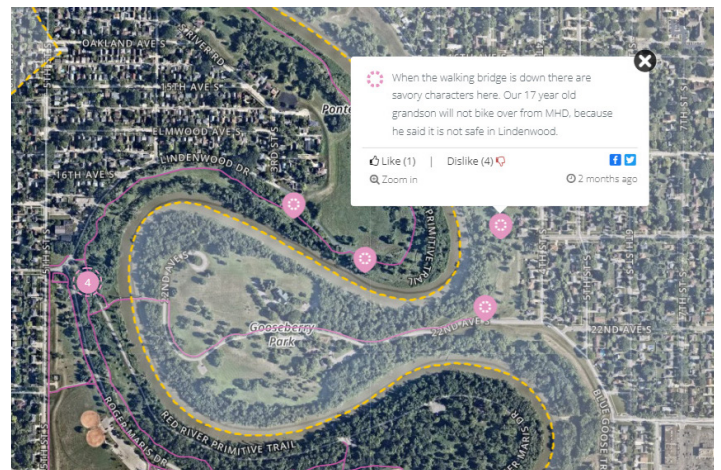
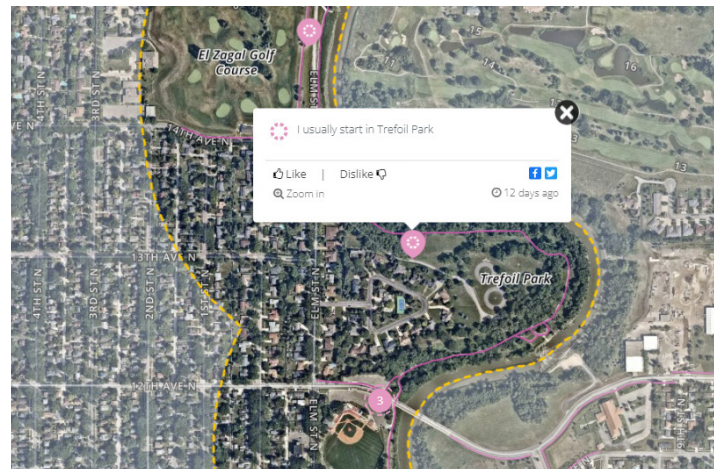
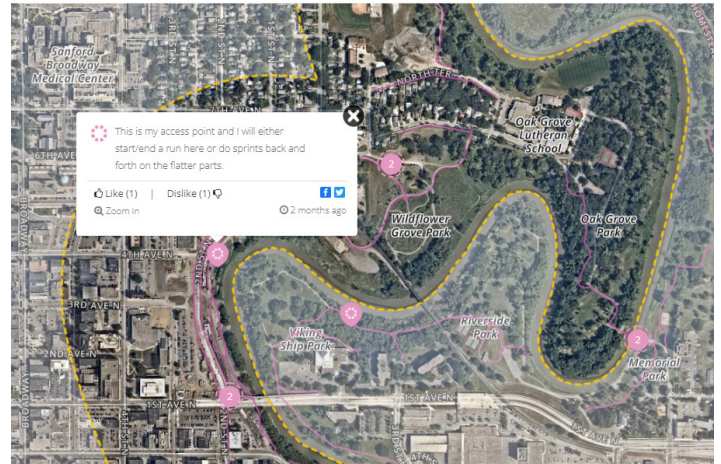
INTERACTIVE WEBSITE

Mapping Activity - I Access the Greenway Here Here Comments

- Dike East Park (5)
- Lindenwood Park (5)
- 12th Avenue North / 15th Avenue Bridge / Trailhead (3)
- Downtown (3)
- Wildflower Grove Park (2)
- Trefoil Park
- Liberty Park
- Island Park
- 13th Avenue South & 4th Street South Trailhead
- 32nd Avenue near South University Drive
- Milwaukee Trail South Park trailhead
- 64th Avenue South
- Brandt Crossing Park / Independence Elementary School area



I Access the Greenway Here Comment Summary



Note, number in parentheses indicates the number of times this area or comment was mentioned

INTERACTIVE WEBSITE

Mapping Activity - Draw a Trail or Path Comments

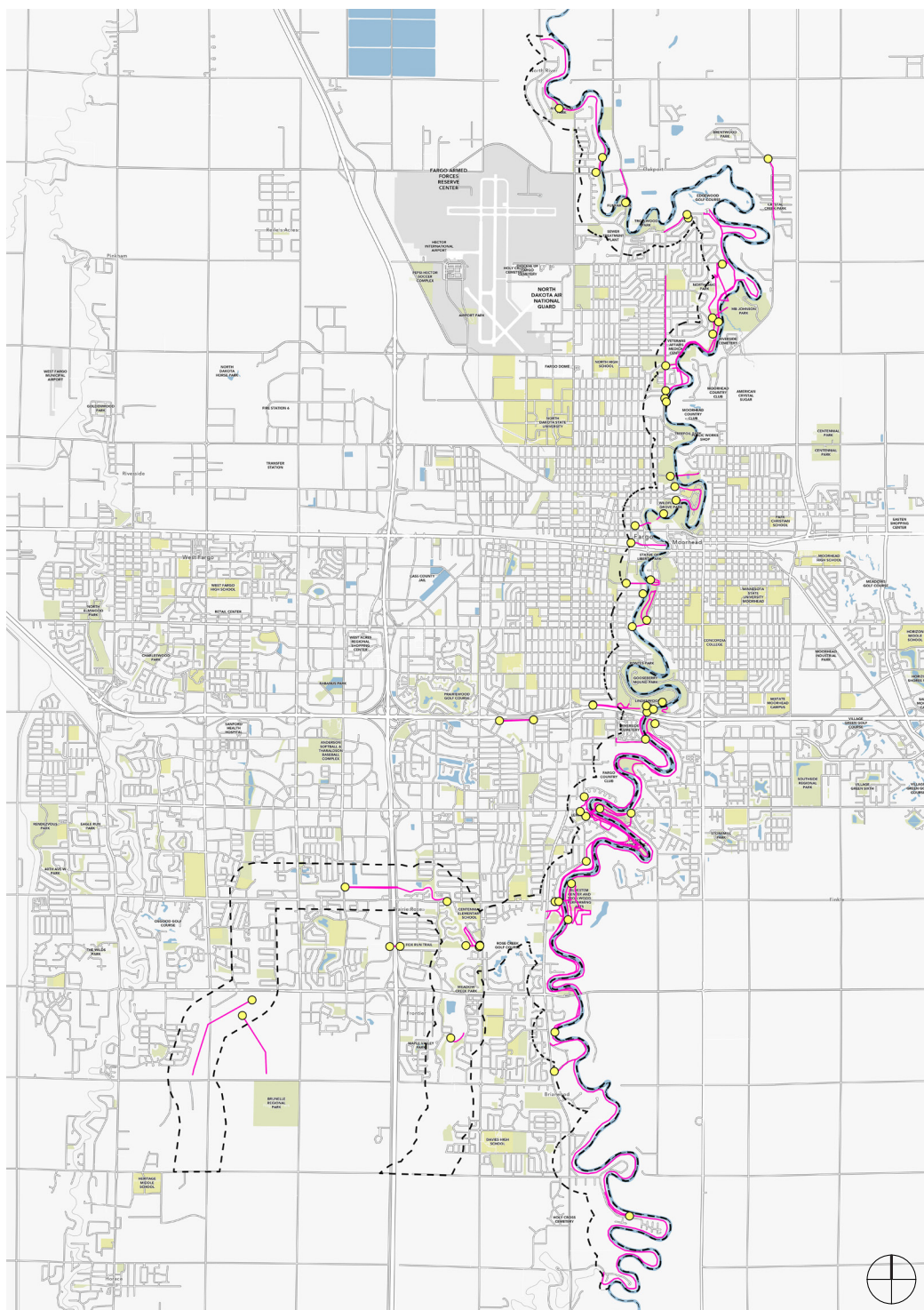
Figure 3.10 shows where different trail or path extension routes were drawn along the interactive map. Several places had multiple overlapping paths, such as between Riverside Cemetery and Trollwood Park or between the VA Hospital and Edgewood Golf Course.



Draw a Trail or Path Comment Summary

Figure 3.10 / Mapping Activity - Draw a Trail or Path Comments

- Draw a Trail or Path Route
- Draw a Trail or Path Comment
- Study Area Boundary



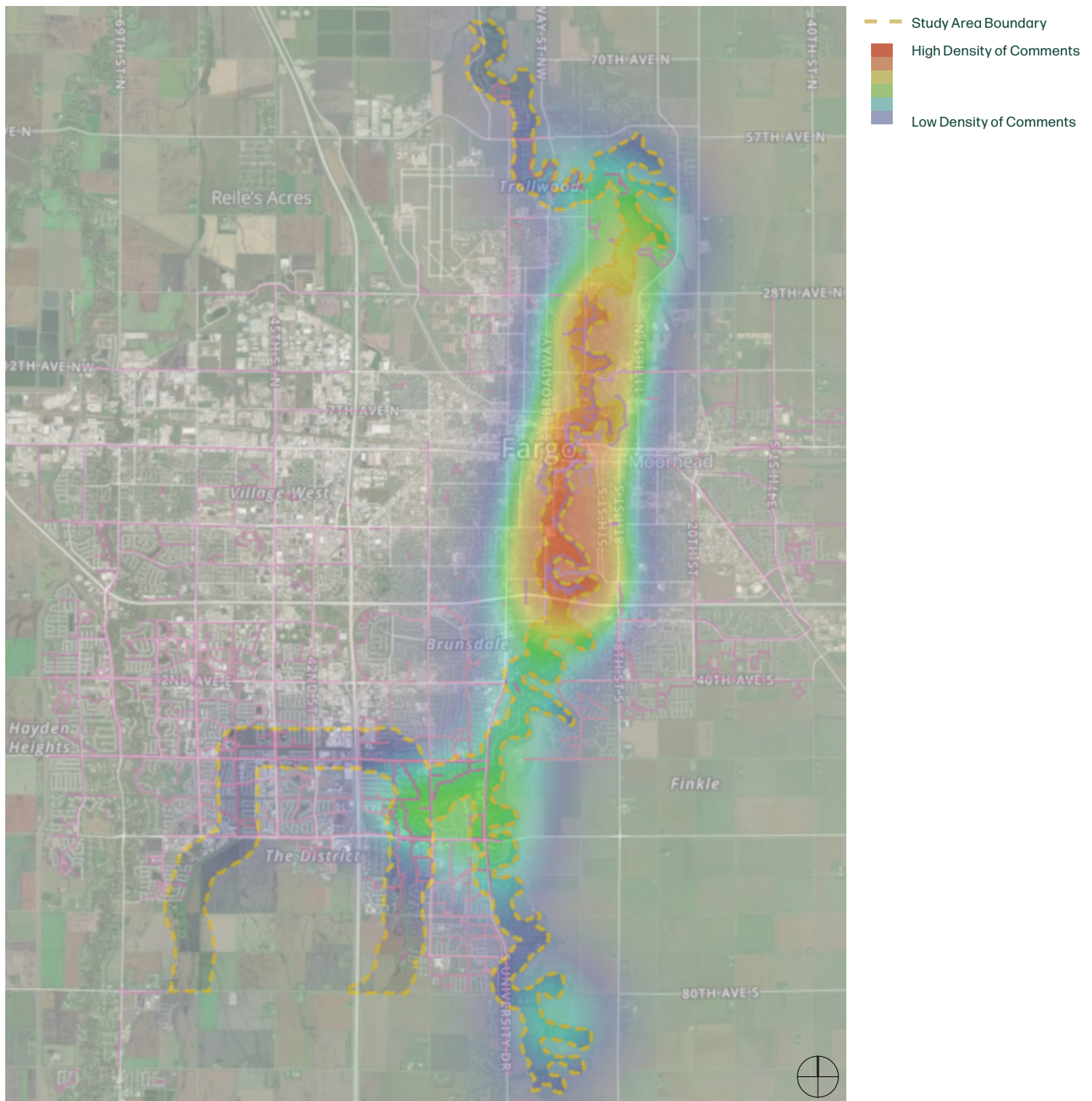
INTERACTIVE WEBSITE

All Comments - Heat Map

Figure 3.11 is a heat map created based on the clustering of all comments received from the interactive mapping activity. The red and orange areas have the most comments, and the light blues and purples have the least. The area near Downtown and the urban residential core received the most

clustered and concentrated comment activity. The far north extent received the fewest comments along with parts of the drains.

Figure 3.11 / Mapping Activity - Heat Map, All Comment Types



COMBINED PUBLIC INPUT

Trail Surface Types Image Voting - Combined Results

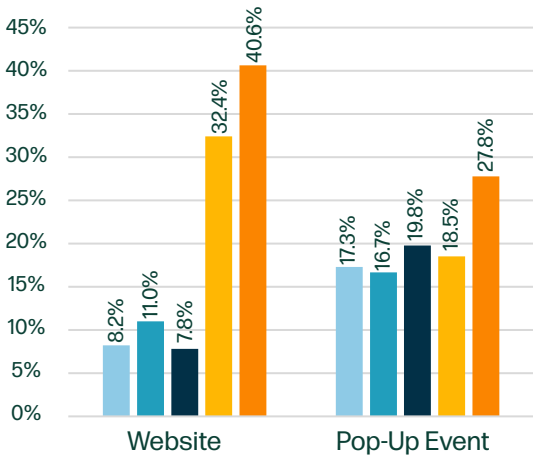
Figure 3.12 shows how the website results for trail surface types compared to the pop-up event results.



Figure 3.12 / Trail Surface Type Voting Results

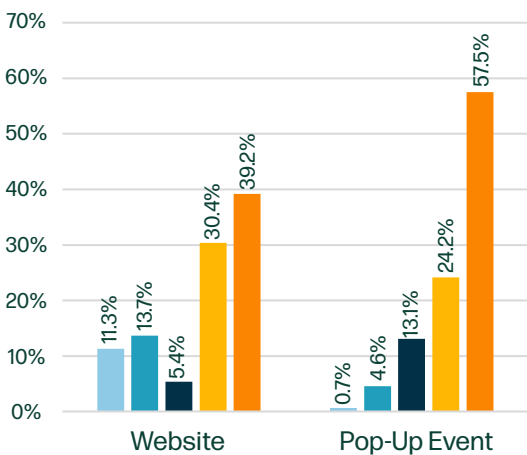
Asphalt Pavement - website participants were generally more favorable to asphalt pavement than pop-up event booth respondents; however, the overall views on level of appropriateness is comparable.

Asphalt Pavement Combined Results



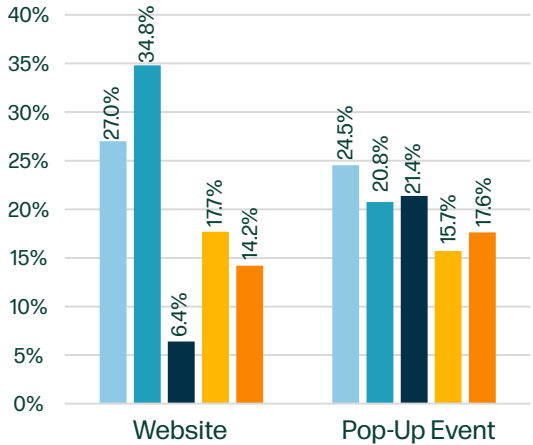
Boardwalk - pop-up event participants were more favorable towards boardwalk trails, however, both groups generally viewed them as appropriate options.

Boardwalk Combined Results



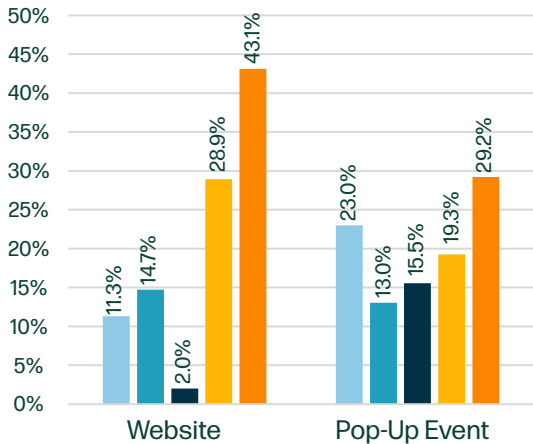
Crushed Aggregate - website respondents had stronger negative views of crushed aggregate, however, both groups negatively viewed the trail surface type as an option. Pop-up event participants had more people with positive views.

Crushed Aggregate Combined Results



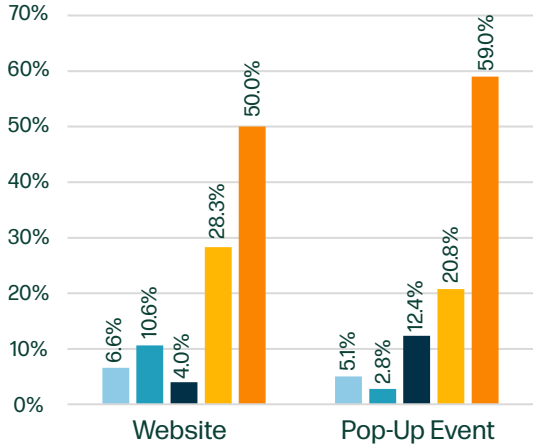
Concrete Pavement - both groups had the most votes against the use of concrete pavement. However, pop-up event participants had more solid support overall for the surface type.

Concrete Pavement Combined Results



Natural Trails - both groups showed strong support in favor of natural trails and the overall breakdown of results were similar.

Natural Trails Combined Results



COMBINED PUBLIC INPUT

Amenity Image Voting - Combined Results

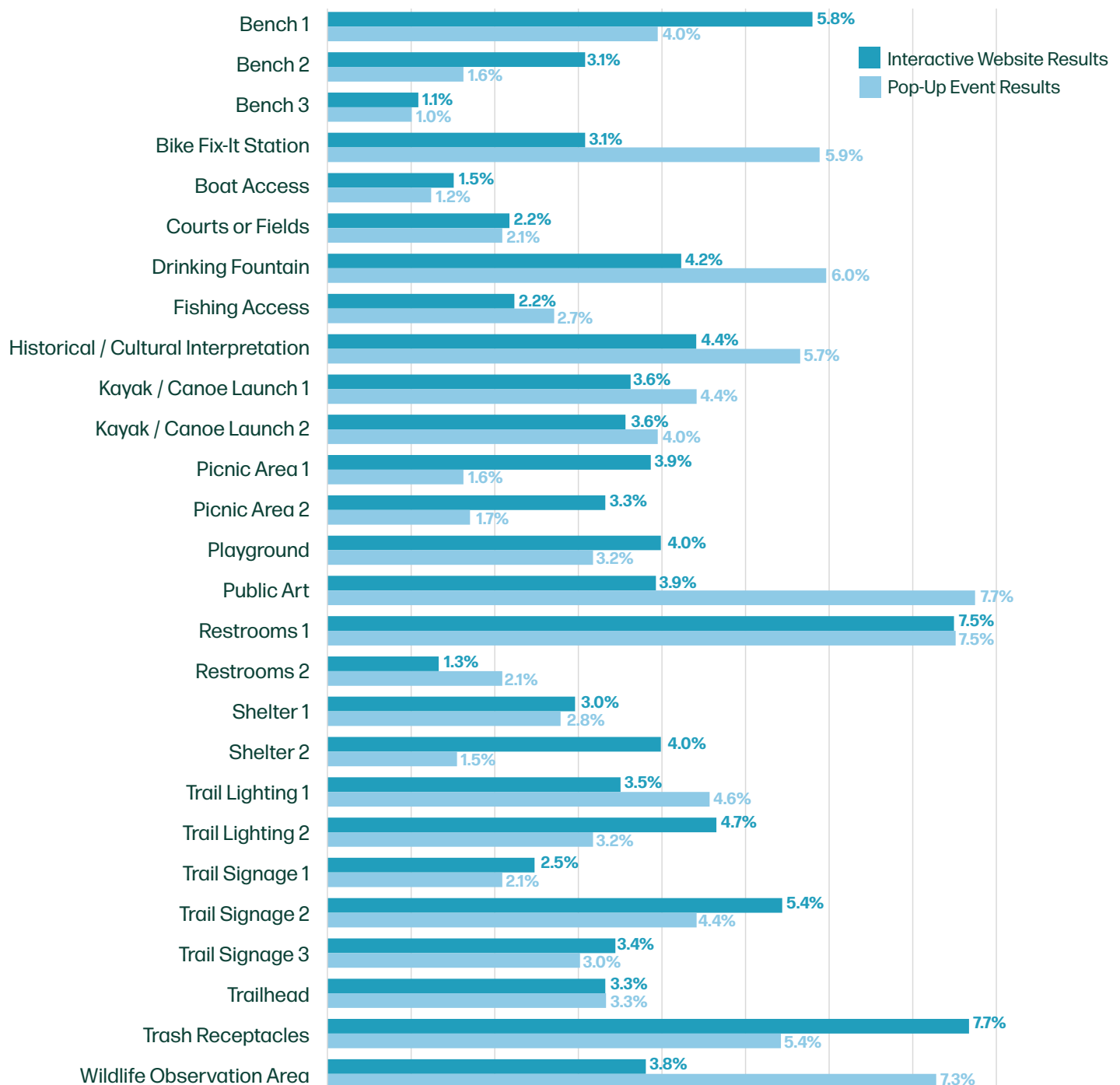
Figure 3.13 shows how amenity image voting compared between the Interactive engagement website versus the in-person pop-up event booths. Dark blue shows the website and light blue shows the pop-up events.

Overall, there was consistency in the feedback heard across the engagement activity methods with a few exceptions.

The website far exceeded the pop-up event for Bench 1 and 2, Picnic Area 1 and 2, Playground, Shelter 2, Trail Lighting 2, and Trash Receptacles.

The pop-up event booth exceeded the website for Bike Fix-It Stations, Drinking Fountain, Historic/Cultural Interpretation, Public Art, Trail Lighting 1, and Wildlife Observation Area.

Figure 3.13 / Combined Amenity Image Voting Results



STATEMENT OF PURPOSE

The Red River Greenway Master Plan builds upon the momentum created by previous planning efforts, riverfront property acquisition, and other flood mitigation efforts to provide a framework for the implementation of this important regional amenity.

The plan aims to address gaps within the fragmented trail system to identify a long-term plan for a cohesive north-south corridor through the City of Fargo. In addition, connecting the corridors of Drains 27 and 53 to the Red River corridor is also a key focus in this plan.

At the core of the plan is thoughtful consideration of flooding and natural resource protection in the Red River ecosystem. Access and connectivity to trails and open space will be enhanced while also preserving ecological functions and habitats of the Red River.

The Red River Greenway Master Plan keeps users of all types, ages, backgrounds, and abilities in mind when planning trail surface types, amenities, and recreational offerings.

Amenity expansion has been carefully planned to match the various character areas along the greenway. Maintenance and funding considerations were also incorporated into amenity design and placement.

The Implementation Plan includes strategies to improve communication, partnerships, and outreach about the greenway. The goal of this project is to create an actionable plan that can be used to market and promote the greenway, attract funding and grants, and help fully realize the vision for the river corridor.



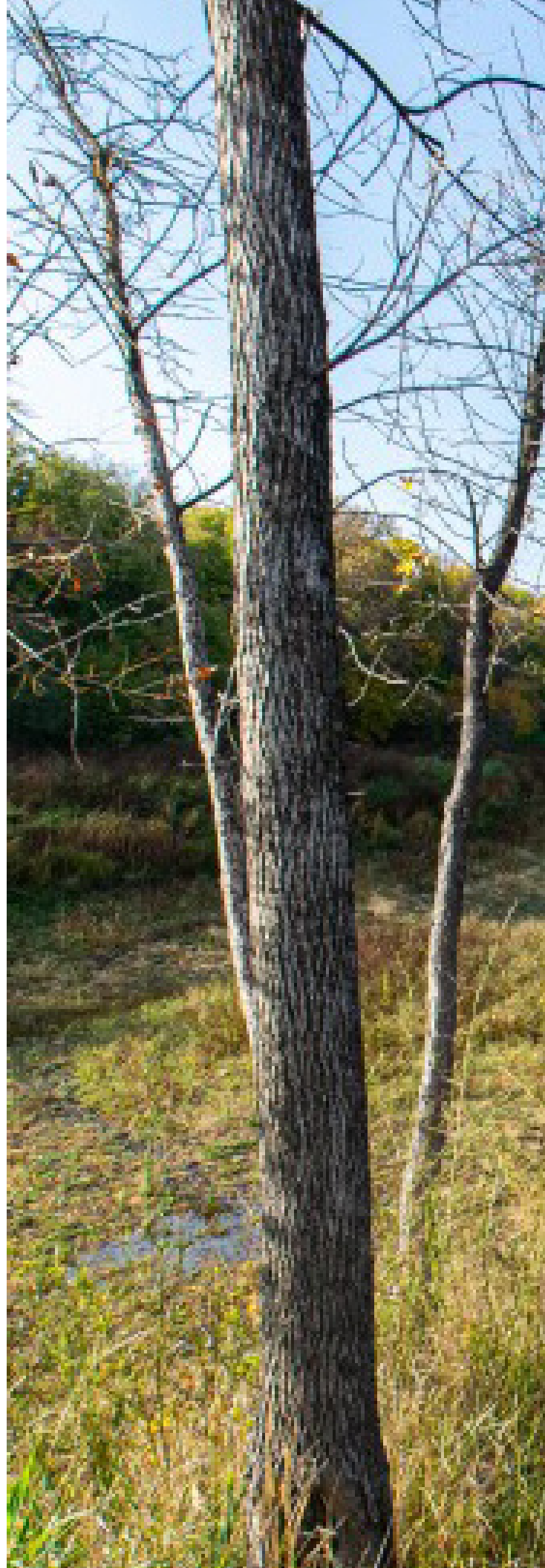


KEY GOALS & OBJECTIVES

To support the plan, a set of high level goals were identified. Each goal is supported by a series of objectives to help further explain the intent behind each aspiration. Goals were identified based on a review of existing conditions and community input.

Key goals of the Red River Greenway plan include:

- > **Connectivity & Access Improvement**
- > **Partnerships & Funding Strategies**
- > **Land / Environmental Stewardship**
- > **Communication & Branding Strategy**
- > **Inclusivity**
- > **Transportation & Safety Priorities**





KEY GOALS & OBJECTIVES

Goal 1 - Connectivity & Access Improvement

- Address pinch points and gaps in the corridor to create a cohesive, unified trail system along the Red River
- Identify suitable locations for future river crossings to connect the two communities
- Provide options for more neighborhood connections and access points to the greenway
- Identify alternative routes around known barriers such as Riverside Cemetery and the Fargo Country Club
- Provide additional locations for water access to support water recreation such as fishing, kayaking, and boating

Goal 3 - Land/Environmental Stewardship

- Use property buy-outs to expand trail access and open space, including low-impact active and passive recreation
- Promote greenway recreation and connection opportunities that do not negatively impact flood mitigation operations of the FM Diversion and drains
- Create a plan around flooding with infrastructure improvements that promote resiliency and accessibility
- Expand upon work to identify future areas along river for habitat restoration, limit habitat fragmentation, and promote the use and preservation of native plants and trees

Goal 2 - Partnerships & Funding Strategies

- Identify partners to help fund and manage trail and amenity expansion
- Foster project champions to help implement the vision of the Red River Greenway Master Plan
- Ensure the plan can be used as a tool to attract grant money throughout the region by including a variety of sized projects that can be easily broken into segments when applying for grants or other funding
- Consider the creation of a new group or entity to oversee management of the Red River Greenway, including the ability to attract funding and complete planning goals

Goal 4 - Communication & Branding Strategy

- Provide strategies to improve wayfinding and signage throughout the greenway to highlight destinations within and near to the greenway
- Create a plan that can be used to attract tourism and visitors from outside the region to the greenway
- Promote awareness of the greenway and its varied benefits to help inform decision-makers at all levels of government
- Identify options to expand beautification, public art, and branding of the greenway system as a way to attract users and events to the corridor

Goal 5 -Inclusivity

- Plan for a mix of active and passive recreation amenities
- Make the greenway usable for all ages, backgrounds, and ability levels
- Provide opportunity for year-round, multi-seasonal activities
- Identify strategies to be more accessible and inclusive for all disabilities, including wheelchairs, crutches, deaf, blind, etc.
- Improve perpendicular connections from all neighborhoods to the greenway trail system

Goal 6 - Transportation Safety & Priorities

- Emphasize safety for bicycle and pedestrian traffic along the greenway and for on-street crossings
- Address safety concerns as it relates to the need for lighting and other measures, especially near bridges and underpasses
- Plan for a connected system for commuters that provides connections during summer and winter months
- Provide a high-level plan to enhance transit routes along the corridor through recommendations for transit stops at parks and other amenities

CHAPTER 4

GREENWAY TRAIL ASSESSMENT, CRITERIA, AND GUIDELINES

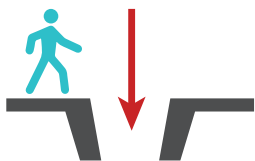
GREENWAY TRAILS

It is paramount to this plan that there is a complete understanding of the existing greenway trail network and facilities in the Red River Greenway in order to provide attainable recommendations moving forward. The intent of this chapter is to introduce previous planning efforts, their work in identifying opportunities for bike lanes and pedestrian connections, and identify the gaps in access and facilities throughout the segments.

This chapter includes the following elements:



Existing vs. Planned
Trails in Previous Plans



Gap Analysis in
Access and Facilities

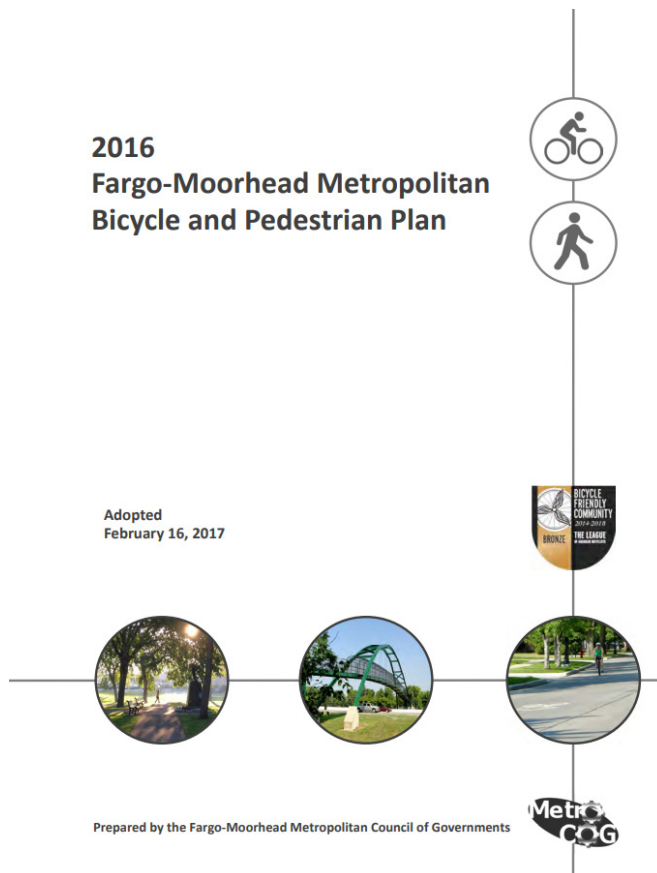




TRAIL ASSESSMENT

Overview

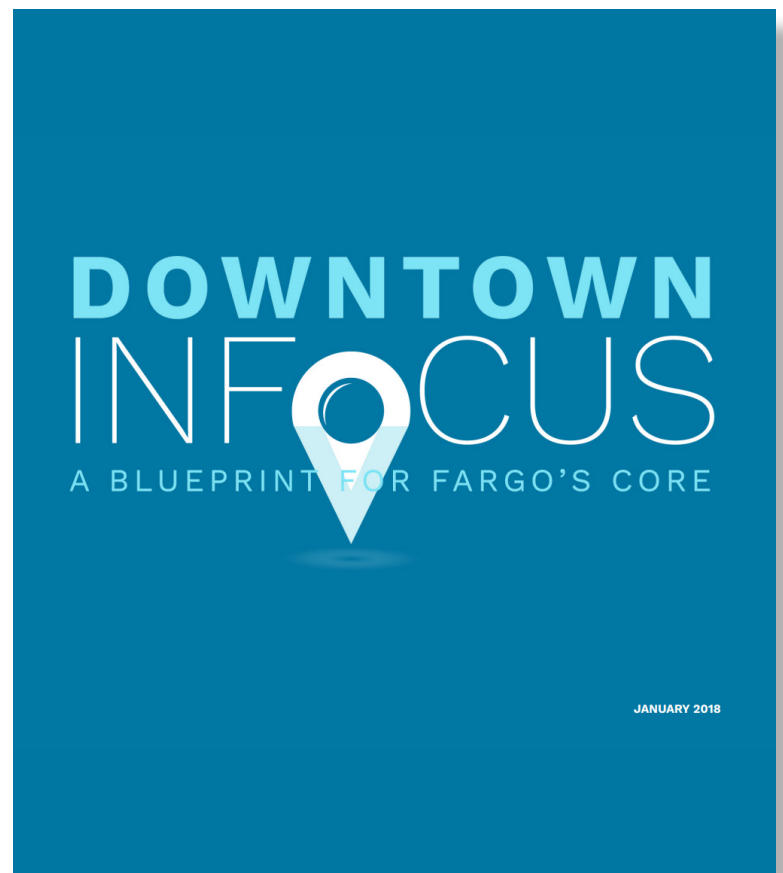
The Red River trail network was analyzed for connectivity and accessibility throughout the Study Area. Planned facilities outlined in the Fargo-Moorhead Bicycle and Pedestrian Plan (2016) and Fargo's Downtown InFocus plan (2018) were overlaid on the existing shared use path and bikeway network to identify potential opportunities to strengthen the system with additional facilities to meet the goal of a continuous trail network along the river corridor. Greenway network "gaps" were identified, along with additional access points to the trail system.



2016 Fargo-Moorhead Bicycle + Pedestrian Plan

"The purpose of the Plan is to identify current issues and needs as they relate to bicycling and pedestrian movements in the area; develop goals, objectives, and recommendations to enhance bicycle and pedestrian accommodations and safety for all types of users regardless of age, gender, race, social status, or mobility needs."

Fargo-Moorhead Bicycle + Pedestrian Plan (p.2)

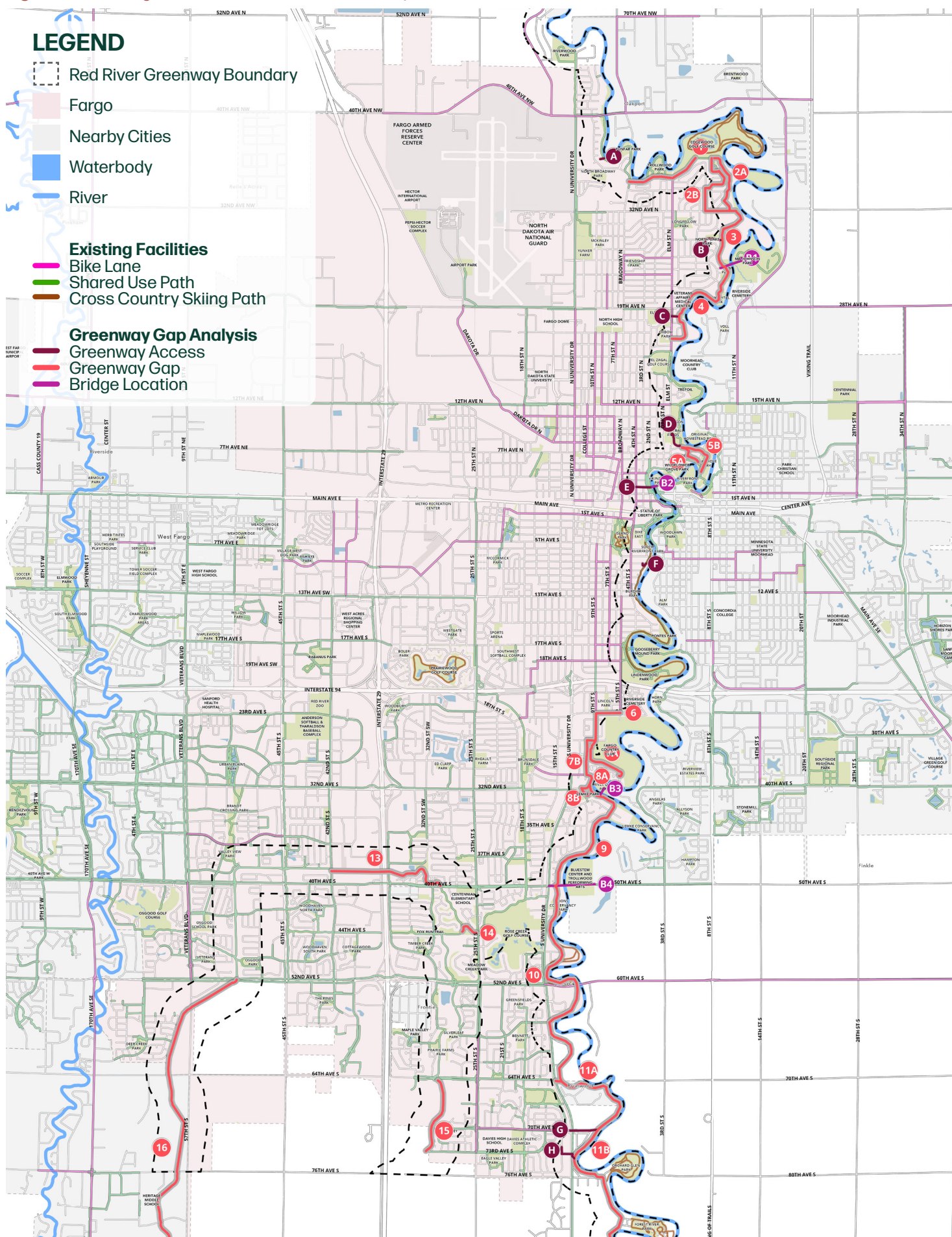


2018 Downtown InFocus Plan: A Plan for Fargo's Core

Downtown InFocus is a comprehensive, action-oriented guidebook for the future of Fargo's historic Downtown. This project is the product of ongoing commitment by the City of Fargo to strategically invest in Downtown. Many agencies, organizations, business owners, and residents are hard at work to improve Downtown. This plan, therefore, is a guidebook for not just City action but the actions of all of the Fargoans who have already committed to creating a vibrant and distinctive Downtown that remains the economic, social, and cultural center of the region.

Downtown InFocus (p.2)

Figure 4.1 / Existing and Planned Bike + Pedestrian Improvements



GREENWAY TRAIL CRITERIA AND GUIDELINES

Design Guidelines

The following guidelines have been developed to assist public and private sector agencies, organizations, and individuals develop consistent high-quality greenway facilities for the Red River Greenway in Fargo, North Dakota. The guidelines are intended to provide information on trail design criteria and to be used as a basis for decision making. Further examination, detailed landscape architecture, and engineering evaluation will be required for project implementation. Guidance was drawn from various design documents with best practices in trail design and maintenance. The following publications have been used to prepare these guidelines:

- AASHTO Guide for the Development of Bicycle Facilities (DRAFT 2021)
- ND Moves: Active and Public Transportation Plan (2019)
- US Access Board's Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG) (2011)
- US Forest Service Trail Accessibility Guidelines (2015)

Trail Network Planning

A clear understanding of good planning and design principles is important as these concepts will ultimately be the foundation for the design and potential trade-offs. The following principles are key components of a successful trail system:

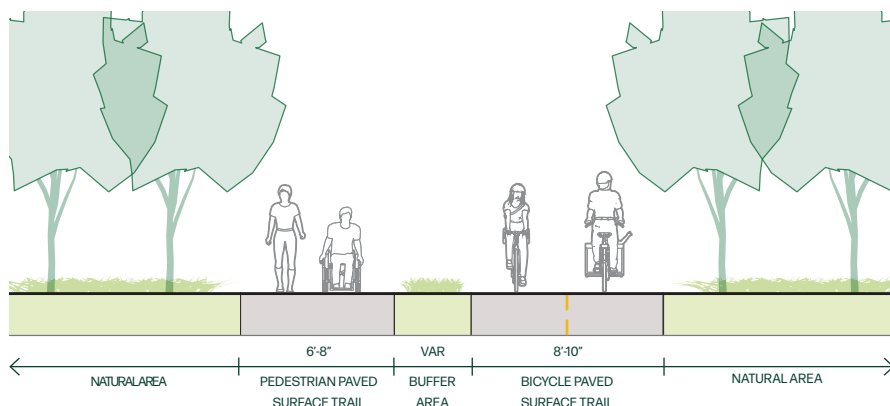
- Safety – frequency and severity of crashes are minimized with adequate lighting at high traffic areas, intersections, and other areas where safety is a concern.
- Comfort – conditions do not deter users due to concerns about safety or security, and shade and rest areas are provided.
- Connectivity – key destinations can be accessed using the trail network, and there are no gaps or missing links.
- Directness – distances and trip times are minimized.
- Cohesion – distances between parallel and intersecting trail routes are minimized.
- Attractiveness – routes direct users through lively areas, and elements such as public art and native plantings are used to create a sense of place.

Greenway Trail Types

Standardizing trail types by context gives each a recognizable feel and experience. Trail type classifications also help determine what design treatments are acceptable when retrofitting, upgrading, extending existing trails, or designing new trails. The alignment, width, material, and amenities of the trail will vary for each trail type and will be related to the anticipated trail use. The following trail type classifications are proposed for the Red River Greenway:

Separated Trails // Urban/Downtown Trails

The urban/downtown context is characterized by more intense land uses of Fargo's downtown core. This area has a higher concentration of destinations and trail users. It is made up of commercial and civic buildings and major parks. Greenway use may be recreational or commuter in nature with many users entering and exiting the trail system. Separate paths for people walking or running and people bicycling is preferred to reduce conflicts.

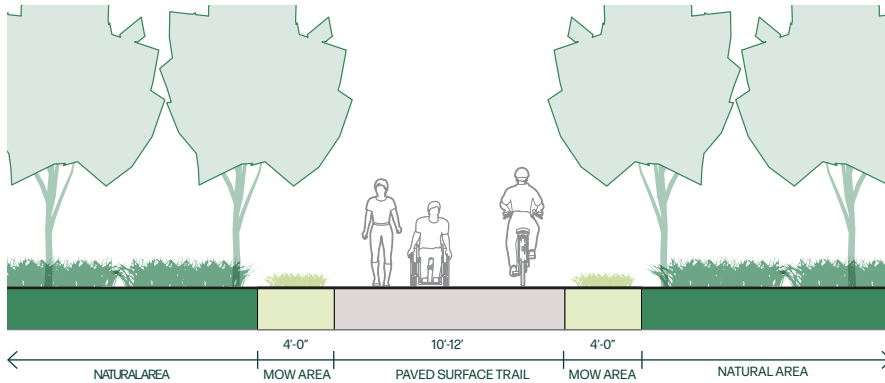


Major Design Elements

- Material: concrete or asphalt
- Width: 10'-18' combined
- Volume: high
- Users: multi-use; recreational and active transportation for bicyclists, pedestrians, other wheeled users.
- Amenities: seating, trash receptacles, drinking fountains, bike racks, restrooms, signage, lighting, tool stations.

Multi-Use Trails // Suburban/Residential Trails

The suburban/residential context is characterized by less intense land uses of the city's residential areas. These areas are made up of residential homes and recreational spaces such as regional parks and golf courses. Greenway use may be recreational or commuter in nature but with less frequent entering and exiting by trail users. A combined path for all users is preferred to reduce cost and maintenance.

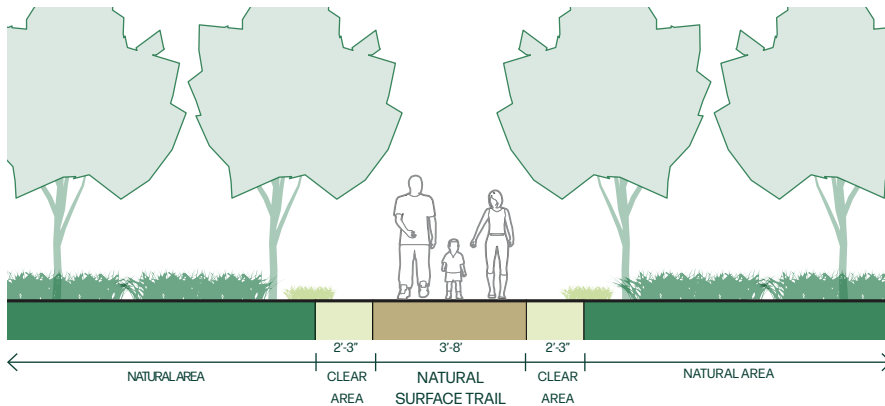


Major Design Elements

- Material: concrete or asphalt
- Width: 10'-12' combined
- Volume: medium
- Users: multi-use; recreational and active transportation for bicyclists, pedestrians, other wheeled users.
- Amenities: seating, trash receptacles, drinking fountains, signage, lighting (where feasible)

Natural Trails

The natural context is characterized by less developed natural settings. It can be found throughout the greenway system in large or small areas. For example, it could be a secondary spur trail, off the main trail, that goes through a wooded area or it could be a series of paths through parkland. Trails in this context are used for passive recreation, such as walking and wildlife viewing. A narrow path or boardwalk is preferred.



Major Design Elements

- Material: crushed stone or natural surface
- Width: 3'-8' combined
- Volume: low
- Users: multi-use; recreational and active transportation for bicyclists, pedestrians, other wheeled users.
- Amenities: seating, trash receptacles, drinking fountains, signage.

GREENWAY TRAIL CRITERIA AND GUIDELINES

Operating Needs

The Red River Greenway trails attract many different users, each with their own operating needs. Understanding the general space that each user requires helps to inform the overall trail design. The operating width can be thought of as a “lane” for that user. The following guidance is from Active and Public Transportation Facility Planning Best Practices (a sub-element of ND Moves):

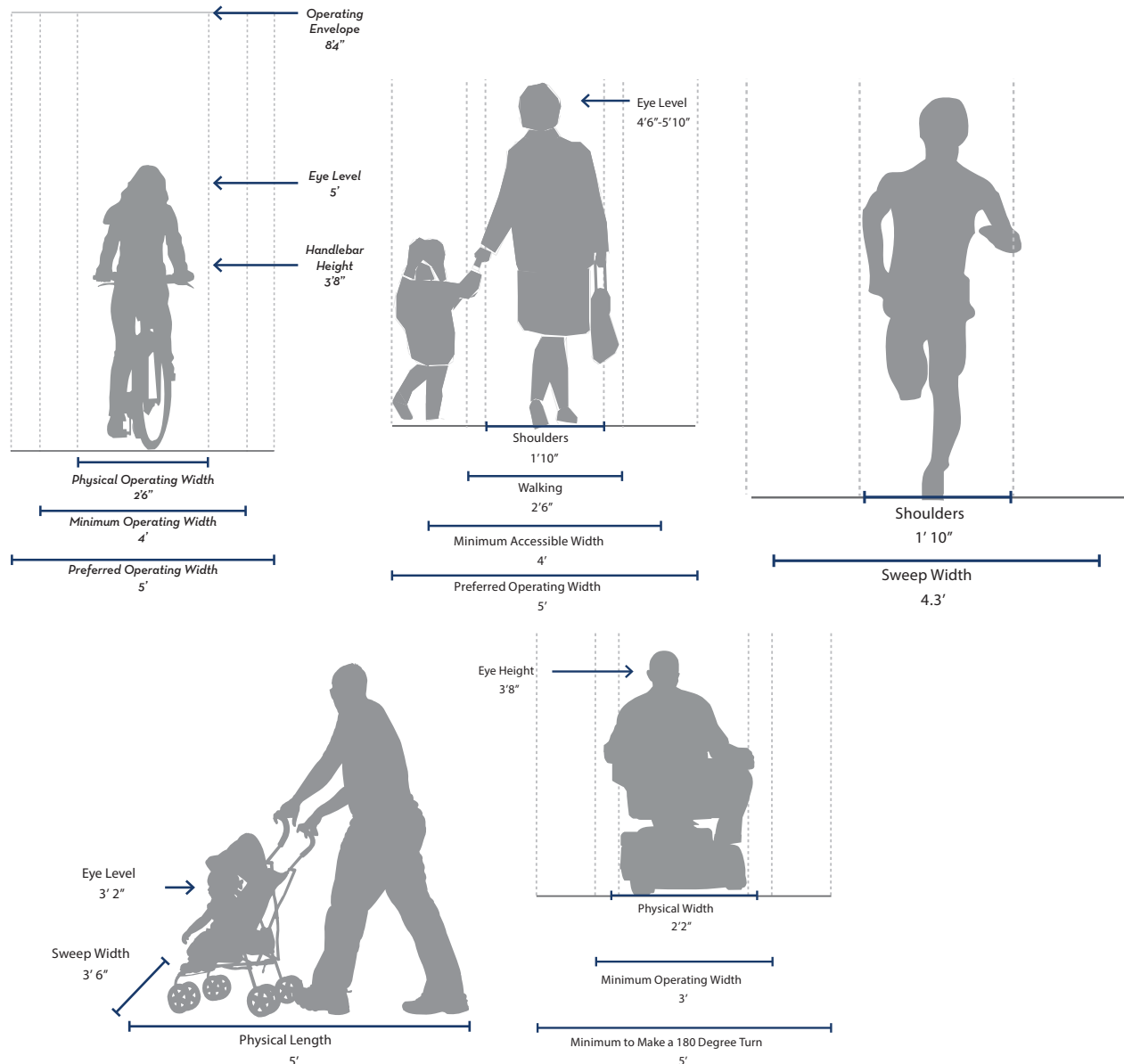


Figure 4.2 / Typical User Operational Needs (Source: ND Moves: Active and Public Transportation Plan (2019))

Width Requirements

Trail width requirements are based on the anticipated number of users. Table 4.1 lists preferred and minimal trail dimensions based on Shared Use Path Level of Service (SUPLOS) peak trail volumes and operational lanes.

Table 4.1 / Shared Use Path Operating and Operational Lanes

Shared Use Path Operating Widths and Operational Lanes*				
Operational Lanes	Shared Use Path Operating Widths			
	Preferable (ft)	SUPLOS “C” Peak Hour Volumes at Preferable Width	Minimum (ft)	SUPLOS “D” Peak Hour Volumes at Minimum Width
2	10 – 12	150 - 300	8	50
3	12 – 15	300 - 500	11	400
4	16 – ≥20	500 - ≥600	15	600

* These widths assume the common shared use path mode split conditions shown in Table 6-2.

Source: AASHTO Guide for the Development of Bicycle Facilities (DRAFT 2021 – Fifth Edition)

Widths may range from 10 to 15 feet or more, depending on the calculation. For example, on a 12-foot trail, three “lanes” of users can operate simultaneously, allowing people to operate side-by-side while being passed by a person in the other direction.

As path user volumes increase, designers should consider increasing the width of the trail up to 15 feet. As path widths begin to exceed 15 feet, it may be desirable to separate pedestrians from bicyclists by using sidewalks and separated bike lanes to minimize potential conflict between pedestrians and wheeled users.

Where it is desirable to separate bicyclists and other higher-speed wheeled users from pedestrians (including people walking or using wheelchairs or other assistive devices) three strategies can be considered (see Figure X.x):

- A wide path that separates user types with pavement markings
- A wide path that separates user types with a traversable surface delineation
- Separate parallel paths for different user types

Regionally significant paths serving a wide range of users, including bicyclists using the facility for transportation and recreation at higher speeds, may require three to four lanes. Lower volume connector trails, which feed into regionally significant paths, may only require two or three lanes.

In constrained conditions, a minimum width of eight feet may be used for short distances to avoid physical constraints such as bridge abutments, utility structures, and environmental constraints. Additionally, a minimum of eight feet may be used when:

- Bicycle traffic is expected to be less than 50 bicyclists per hour, even on peak days or during peak hours.
- Pedestrian use of the facility is not expected to be more than occasional or to exceed 30 percent of total volume.
- Horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities.
- The path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage.

GREENWAY TRAIL CRITERIA AND GUIDELINES

Trail Material

Constructing and maintaining a smooth, rideable surface on bicycle transportation facilities is important. The best practice for trails and shared use paths is an all-weather and hard pavement surface, typically sealed, such as concrete or asphalt. These materials provide longer service life, ADA accessibility, and lower lifetime maintenance costs than trails and shared use paths paved with natural surfaces such as crushed limestone. Permeable versions of asphalt and concrete, or interlocking concrete pavers, can also offer a hard surface with a lower environmental impact. Pavers can also be used to create designs on the trail and shared use path surface or on furniture/buffer zones that can add to the appeal of the greenway. While permeable options are often more expensive than their non-permeable counterparts, they may be cost-effective if they help reduce or eliminate the need to install costly stormwater infrastructure.

An unpaved or crushed stone surface could be a more economical option for more natural and rural portions of the greenway. However, these trail surfaces have higher maintenance costs and provide an inconsistent user experience, especially for people with disabilities. Unpaved or crushed limestone surface is not recommended for environmentally sensitive areas such as those prone to frequent or occasional flooding or drainage problems. In areas of moderate or steep terrain, unpaved surfaces will often erode and require substantial maintenance. Additionally, unpaved paths are difficult to plow for use during the winter. For environmentally sensitive areas, especially areas prone to frequent or occasional flooding, it is recommended to use concrete pavement surface.

Where asphalt or concrete may have negative environmental impacts, boardwalks built with wood or pre-cast concrete can be an appropriate substitute to meet durability and accessibility needs. Boardwalks are elevated structures that allow trail users to cross wetlands and other types of wet areas. Wood is the most common boardwalk decking material, but alternative materials include composite boards and concrete decking. Boardwalk foundation systems also vary depending on geotechnical conditions. It should be noted that boardwalks are more expensive than asphalt or concrete trails. Regardless of the material chosen, maintaining as much consistency as possible throughout the system is desirable to simplify the maintenance practices.

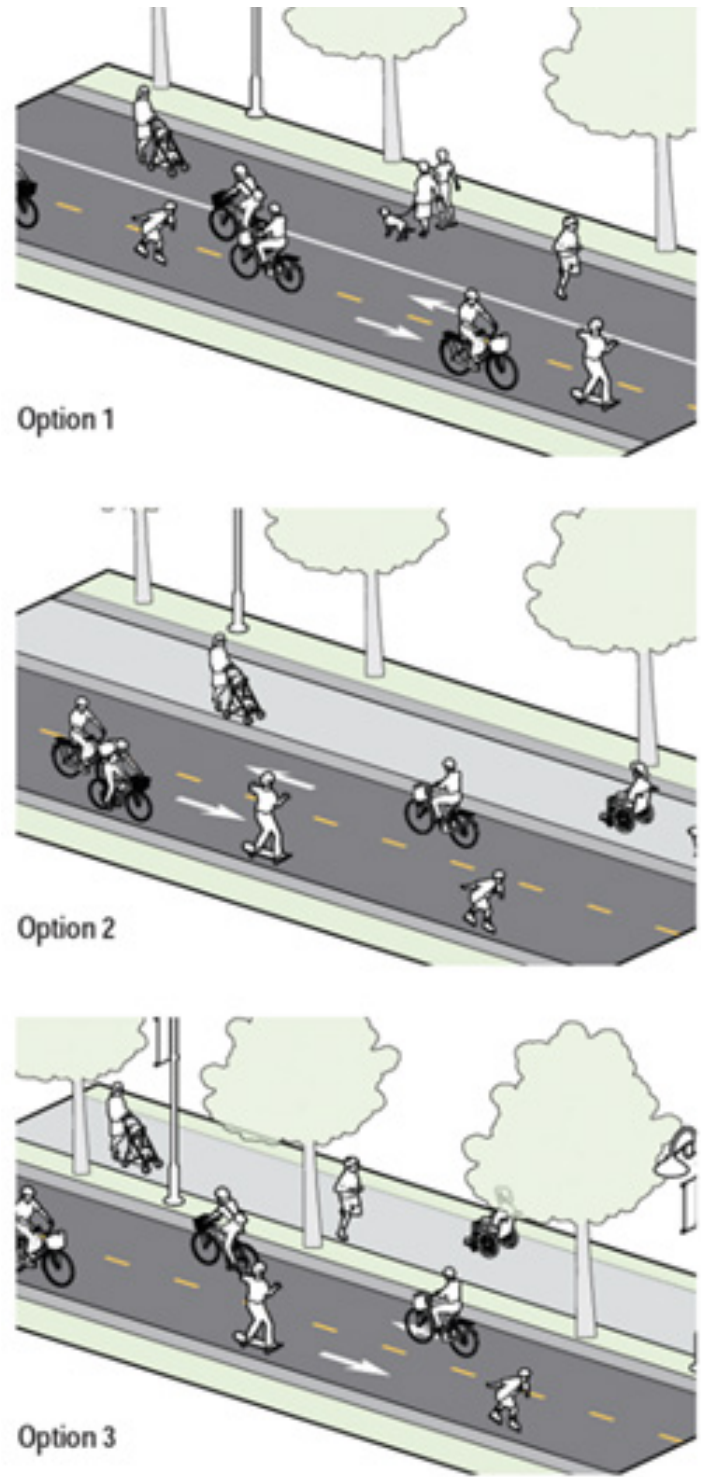


Figure 4.3 / Options for Separation of Trail Users
Source: AASHTO Guide for the Development of Bicycle Facilities (DRAFT 2021-Fifth Edition)

Table 4.2 / Surface Recommendation Summary

Material	Recommendation Usage
Concrete	<ul style="list-style-type: none">• High-use urban area• Floodplain
Asphalt	<ul style="list-style-type: none">• Outside the floodplain• On-street facilities
Pavers	<ul style="list-style-type: none">• Decorative areas, such as furniture/ buffer zones
Crushed Stone	<ul style="list-style-type: none">• Running trail• Area of flat terrain
Natural Surface	<ul style="list-style-type: none">• Natural trail loops• Areas of moderate or steep terrain
Boardwalk	<ul style="list-style-type: none">• Wetland• Poorly drained areas

Trail Alignment

The preferred trail alignment for the Red River Greenway is a continuous trail along the river and drainage areas. However, flooding, constrained areas, and private property ownership are some factors that dictate the need for alternative routes.

Flooding

Most of the Red River Greenway corridor immediately adjacent to the river is in the floodplain. This is not unusual for river corridors and does not prevent adding trails in these areas. However, building in a floodway or floodplain does create limitations on the availability of the trails due to seasonal flooding. The location of new trails along the Red River will likely be in areas that flood during the spring (and during heavy rains). Building trails at an elevation that would keep them out of flood waters most of the year is the preference of the City of Fargo and the Fargo Parks District. Where feasible, it is recommended that future paths be placed outside of the 25-foot flood elevation.

Constrained Area/Private Lane Ownership

There are certain areas along the Red River that prohibit a continuous trail. At areas of steep topography or areas of private land parcels where an easement is not feasible, the alignment of the trail may shift to an on-street facility for a segment before connecting back to the trail network adjacent to the river. For these areas, it is recommended to follow the Facility Consideration Matrix from the Active and Public Transportation Facility Planning Best Practices (a sub-element of ND Moves), when choosing the on-street facility type. Figure 4 shows recommended bike facilities by roadway speed and volume for an urban context.

GREENWAY TRAIL CRITERIA AND GUIDELINES

Greenway Access

Regularly spaced access points provide entry to the trail system and a level of personal safety if a person feels the need to exit the trail. Trail access points should not be placed more than **one mile apart** from each other in less dense areas (suburban/residential and natural areas). Additionally, they should not be more than **1/4 mile apart** in dense urban areas (urban/downtown area). All street crossings where a pedestrian or bicyclist could leave or enter the trail are considered access points, regardless of whether they are designated trailheads.

All trail access points should be well lit and have navigational wayfinding signage and treatments suitable for the road crossing. Some access points (e.g., at major road crossings, important destinations, or by natural features) may also provide additional facilities such as benches, trash and recycling, bike parking, and wayfinding kiosks. Major access points or “trailheads” could include more substantial amenities that attract a regional audience such as off-street parking, picnic benches, gateway signage, public art, water fountains, and public restrooms. The location of these access points is mainly dictated by available space.

URBAN

Posted Travel Speed (mph)	Average Annual Daily Traffic	Yield Street / Bicycle Boulevard	Advisory Shoulder	Bike Lane	Buffer Separated Bike Lane	Barrier Separated Bike Lane	Sidewalk	Shared Use Trail / Sidepath
Local / Collector								
25 and below	< 500	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred
	500-1500	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred
	1500-3000	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred	Preferred
	3000-6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	> 6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
30	< 500	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	500-1500	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	1500-3000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	3000-6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	> 6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
35 and above	< 500	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	500-1500	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	1500-3000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	3000-6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	> 6000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
Arterial								
30 and below	< 3000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	3000-10,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	10,000-15,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	15,000-20,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	>20,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
35 and above	< 3000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	3000-10,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	10,000-15,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	15,000-20,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred
	>20,000	Potential	Potential	Preferred	Preferred	Preferred	Preferred	Preferred

Legend	
Preferred	Preferred
Potential	Potential
Not recommended	Not recommended

Figure 4.4 / Urban Facility Consideration Matrix
Source: ND Moves: Active and Public Transportation Plan (2019)

Greenway Accessibility

Trails and shared use paths must be accessible to all ages and abilities because they are a public amenity. For hard-surface facilities, such as concrete or asphalt, the best practice is to follow the US Access Board's Public Rights-of-Way Accessibility Guidelines (PROWAG). The final version of guidance is expected to include specific guidance for shared use paths. For soft-surface natural trails, the best practice is to follow the US Forest Service's Forest Service Trail Accessibility Guidelines (FSTAG) since ADA or PROWAG does not have any guidance on these types of trails.

US Access Board PROWAG Guidance (see document for full list)

- Vertical Clearances – Where the vertical clearance to an obstruction is less than 80 inches, guardrails or other barriers shall be provided. The leading edge of such guardrail or barrier shall be located not more than 27 inches above the sidewalk.
- Curb Ramps – Perpendicular and Parallel Curb Ramps are recommended over Diagonal Curb Ramps.
- Width of Accessible Route – PROWAG states minimum width of an accessible route must be 4 feet. If an accessible route has less than 5 feet clear width, then passing spaces at least 5 feet x 5 feet must be located at reasonable intervals, not exceeding 200 feet (ADA Guidelines). To eliminate the need for passing areas, NDDOT recommends 5 feet as the minimum width of sidewalks. In addition, a 6-foot sidewalk width is desired to allow two pedestrians to walk side by side and enable pedestrians with mobility aids to more easily pass each other.
- Protruding Objects – Objects located between 27 inches and 80 inches from the ground should not protrude more than 4 inches into the corridor. Objects longer than 4 inches should be placed no lower than 80 inches.
- Sidewalk Surface – Avoid decorative pavement within the pedestrian zone to make it easier for pedestrians with vision impairments to discern. Avoid textured paving materials in the pedestrian zone as they can cause pain to those in mobility devices with spinal injuries. According to ADA standards, sidewalk surfaces must be firm, stable, and slip-resistant. Apply a broom finish to concrete surfaces to increase skid resistance.

- Grade – The grade of the walkway will generally follow the grade of the roadway and should ideally be no greater than 5% (ADAAG). Provide rest areas and periodic landings to lessen impact of steep grades.
- Changes in Level – When possible, changes in level should be prevented through good design and active maintenance. However, if it exists, follow the ADAAG requirements for changes in level.
- Cross-Slopes – Maximum is 2%, lower slopes should be designed to account for construction tolerances.

US Forest Service FSTAG Guidance (see document for full list)

- Surface – The trail tread surface, including resting intervals and passing spaces, shall be both firm and stable.
- Clear Tread Width – The clear tread width of the trail shall be at least 36 inches.
- Slope – Trail running slope (grade) of up to 1:20 (5%) is permitted for any distance. Any segment of trail shall not be steeper than 1:8 (12%). No more than 30% of the total trail length may exceed a grade of 1:12 (8.33%).
- Resting Intervals – Where the trail grade exceeds 1:20 (5%), resting intervals shall be provided at intervals based on trail grade.
- Passing Spaces – Trails with clear tread width less than 60 inches shall provide passing spaces at intervals of 1,000 feet maximum.
- Protruding Objects – Constructed features, including signs, shall not extend into the trail tread more than 4 inches between 27 inches and 80 inches above the surface of the trail.

GREENWAY TRAIL CRITERIA AND GUIDELINES

Maintenance Considerations

Trail maintenance is a vital part of elongating the lifespan of trail facilities. In addition, many bicycle crashes are due to surface defects and crashes with fixed objects located within bike operating spaces. Therefore, maintenance considerations should factor into each trail's design approach, and long-term maintenance programs should mitigate these issues to reduce crashes proactively. Developing a maintenance plan that includes items such as inventory/survey and scheduled routine maintenance at weekly, seasonal, and annual timeframes is advised.

Street sweepers and plows should be able to access the trails to minimize or eliminate the need for hand-sweeping to clear debris. Consider the following factors when planning for trail maintenance:

- Trails that experience flooding should be swept promptly following large storm events.
- Low points on the trail should be kept at a minimum, or adequate drainage should be provided to keep stormwater flow outside the operating space of users during small storms.
- Repair patches from utility cuts should cover the entire width of the trail to prevent uneven riding surfaces.

Vegetation Clearance and Removal

Occasional vegetation clearing is necessary to preserve maximum trail usability. The amount of clearing required will depend on the trail type. Heavily used paved trails are typically cleared more frequently than natural trails.

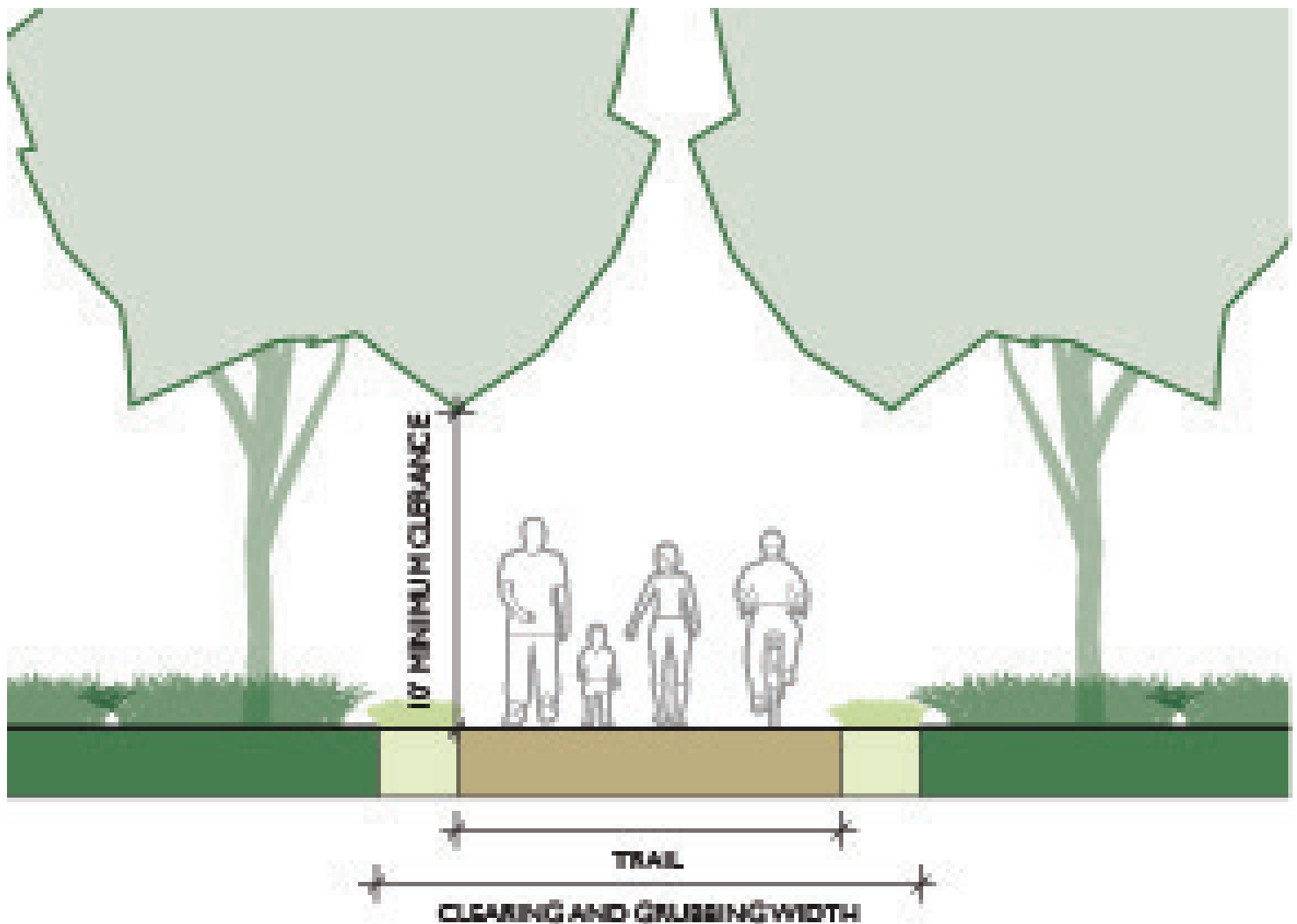


Figure 4.5 / Typical Vegetation Clearance

Winter Maintenance

Designing and building facilities with winter and seasonal maintenance in mind provides high-quality, comfortable facilities for people using the trail network. Protected bike lanes and trails typically require separate equipment to maintain. Providing adequate buffer space for these facilities is key to year-round use as it provides space to store snow. Facilities near or directly on the roadway are challenging to maintain and can become narrow or impassable in winter.

In addition to design, anti-icing pre-treatment, timely plowing, and clear communication between agencies and the public are important for efficient and effective snow removal. In addition, establishing a winter prioritization network ensures that the best access is provided to the greatest number of people possible following a heavy storm.

Winter Prioritization Network

Prioritization and scheduling are key components of a successful winter network. Keeping all trail facilities completely clear during or immediately after a heavy snow event is infeasible for most jurisdictions. Primary facilities should be cleared first. Destinations should be taken into consideration as well. For example, if roadway or trail clearing and anti-icing begin in the morning, primary routes leading to schools and business districts should be cleared first.

- Trails that are less heavily used but are the only means of making a key connection should be prioritized.
- Isolated trails that serve recreational users may be left unplowed and reserved for cross country skiers, snowmobile, and fat bike users.

Snow Removal Timing

Plow and/or treat primary trail facilities within 24 hours of the end of a snowfall. Ensure that snow is removed from curb ramps and crosswalks after trail facilities are plowed.

GREENWAY ASSESSMENT

Segment 1- Greenway Gap Analysis

The following paragraphs detail the gaps in access and facility for the overall greenway network. Refer to Figure 4.6 for details related to the locations of these gaps.

1 Gap 1

is a 0.8-mile segment from the shared use path on Broadway Drive to the shared use path adjacent to the Edgewood Golf Course driving range, along Kandi Lane and Golf Course Road. It connects Trollwood Park with the existing trail network. There is insufficient right-of-way for an off-street path, so an on-street bikeway is the recommended solution.

2A Gap 2A

is a shared-use path at Edgewood Golf Course to 32nd Avenue Northeast, following the river until connecting to Peterson Parkway via an existing easement between residential properties, then following Peterson Parkway before turning onto Eagle Street North and 32nd Street Avenue Northeast.

2B Gap 2B

extends from a shared-use path at Edgewood Golf Course to 32nd Avenue Northeast, through residential neighborhoods (Aspyn Lane, Grandwood Drive, 35th Avenue, Par Street, and 32nd Avenue).

3 Gap 3

follows along Red River from 32nd Avenue Northeast to Woodcrest Drive South for 1.0 miles. It connects two neighborhood access points with Holm Park and provides a long continuous stretch of river trail. The challenge is that the trail is in the floodplain and would be inaccessible during high water periods.

4 Gap 4

is adjacent to the river and Fargo VA Medical Center. It provides an off-street connection to Elephant Park from residential neighborhoods to the northeast and connects the hospital to the larger trail network for employee and visitor benefits. The path is planned to extend from Woodcrest Drive South to a shared-use path on Woodland Drive North.

A Access A

connects the existing Red River shared-use path network to the 10th Street residential area.

B Access B

connects the proposed Red River shared-use path identified in Gap 3 with the Lilac Lane North.

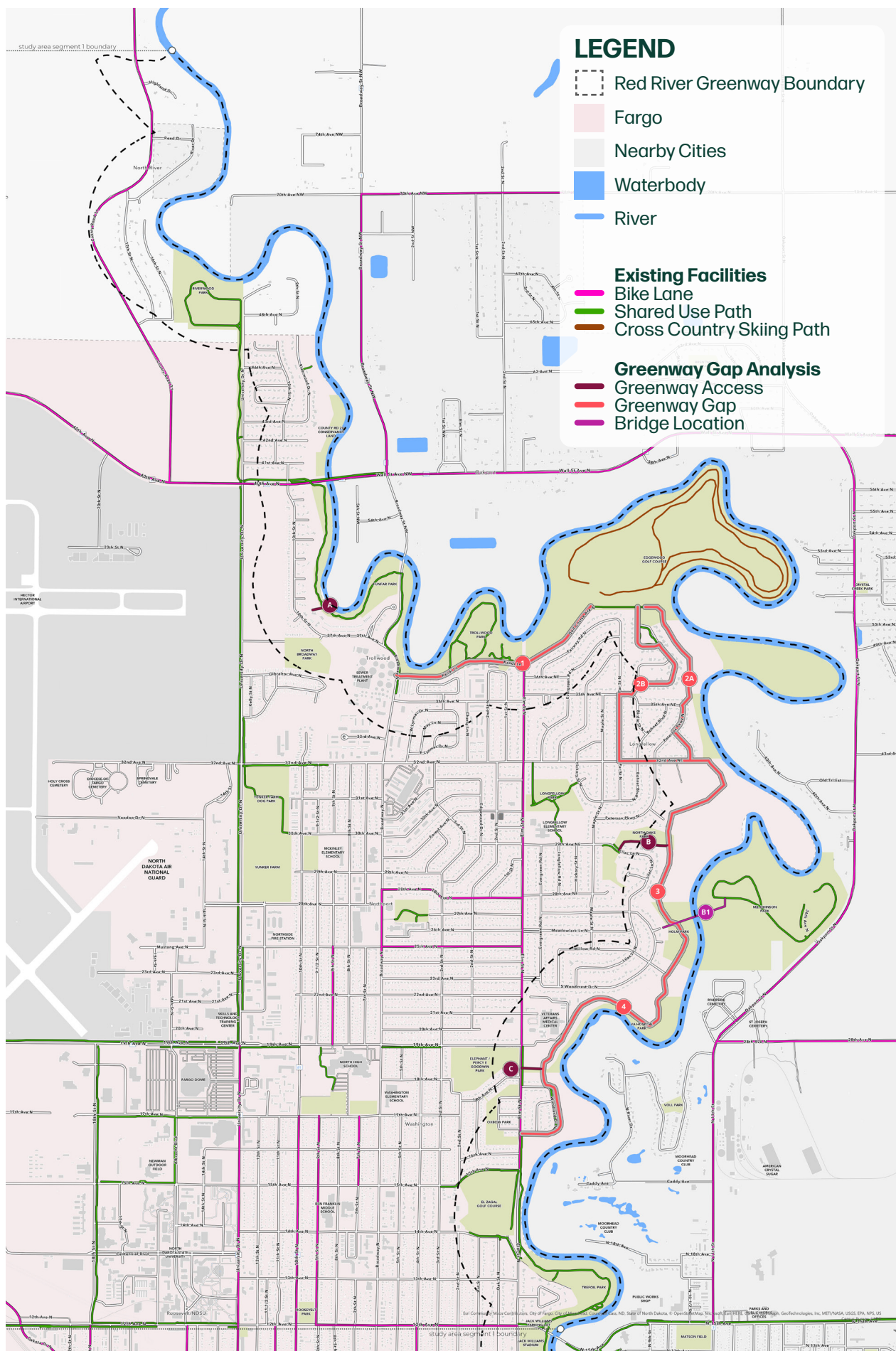
C Access C

connects the proposed Red River shared-use path with an existing shared-use path on Elm Street North, south of Fargo VA Medical Center.

B1 Access B1

crosses the Red River and connects the M.B. Johnson Park to the proposed shared-use path north of the Fargo VA Medical Center.

Figure 4.6 / Segment 1- Greenway Gap Analysis



GREENWAY ASSESSMENT

Segment 2- Greenway Gap Analysis

The following paragraphs detail the gaps in access and facility for the overall greenway network. Refer to Figure 4.7 for details related to the locations of these gaps.

5A Gap 5A

is a segment near Oak Grove Lutheran School and Oak Grove Park. The existing river trails stop at either side of the school. This gap is proposed to include a 0.27 mile on-street bikeway around the west side of the school for a short segment that connects the existing trails to the north and south.

5B Gap 5B

is a segment within Oak Grove Lutheran School and Oak Grove Park, more closely tied to the river. This gap includes a 0.47 mile off-street shared use path on the north side of the school that connects into Oak Grove Park and the existing shared use paths.

D Access D

connects the Red River shared-use path to 9th Avenue N, crossing at the levee.

E Access E

connects 2nd Avenue N and the Civic Center to the existing shared-use path along the river, crossing over 2nd Street N and the flood wall.

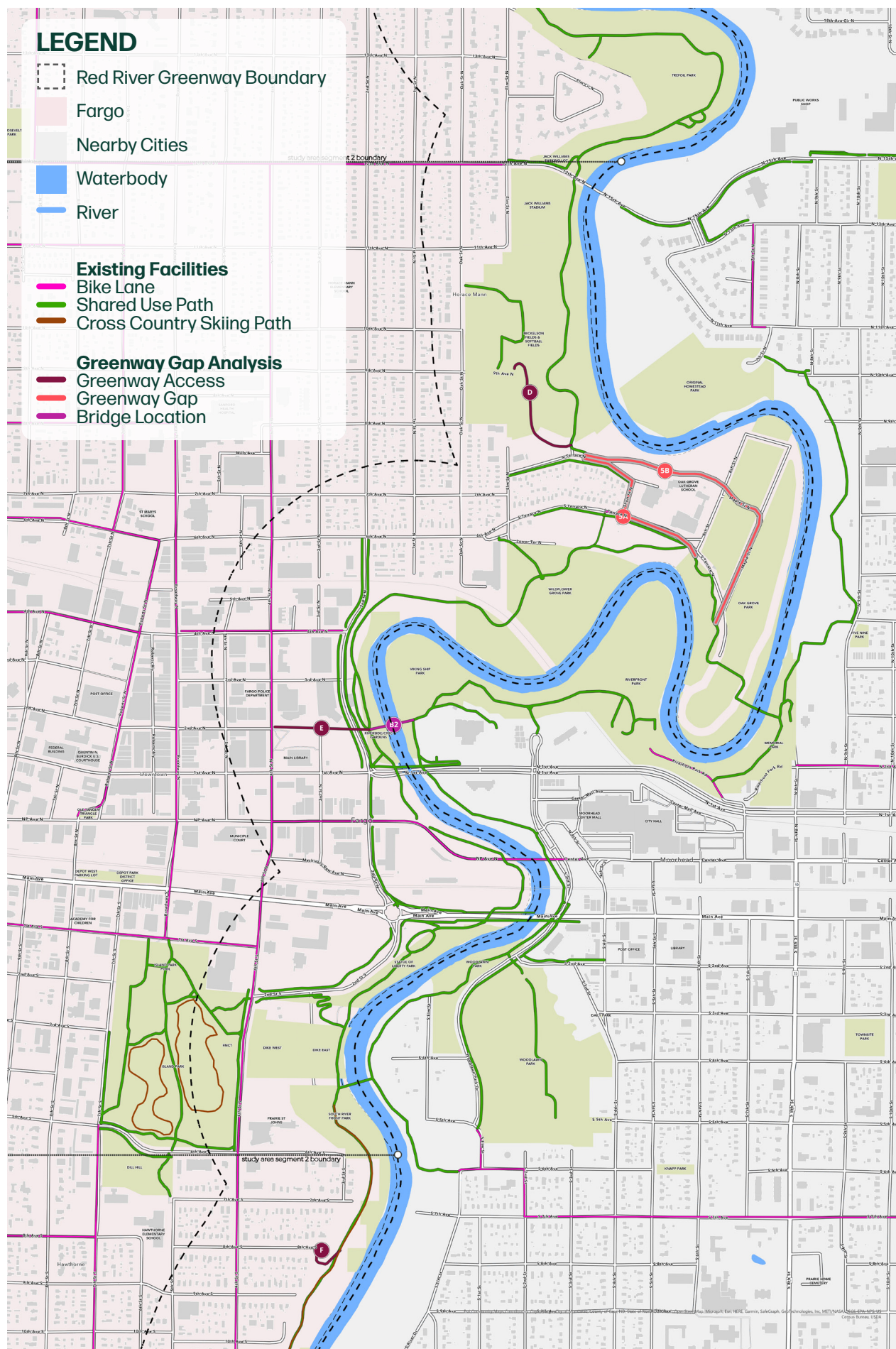
F Access F

connects the existing Red River shared-use path to 8th Avenue South.

B2 Access B2

crosses the Red River at Fargo City Hall and the connects to the Hjemkomst Center.

Figure 4.7 / Segment 2- Greenway Gap Analysis



GREENWAY ASSESSMENT

Segment 3- Greenway Gap Analysis

The following paragraphs detail the gaps in access and facility for the overall greenway network. Refer to Figure 4.8 for details related to the locations of these gaps.

6 Gap 6

is a segment extending from the shared-use path adjacent to the Red River at the intersection of 5th Street South and 18th Avenue South. The alignment of this path follows the 5th Street S alignment and connects into the existing bike lane on 26th Avenue South.

7A Gap 7A

is an option for connecting a segment near Fargo Country Club (FCC). This alternative connects the residential properties and FCC from the intersections of 9th Street South and 26th Avenue South to the end of the Southwood Drive South cul-de-sac. This is the long-term solution to the pathway connections, whereas 7B is the short-term alternative.

7B Gap 7B

is the other alternative for connecting the segment near Fargo Country Club (FCC). This alternative follows 11th Street South, running through the residential area, and connects back to the beginning of Gap 8 at 30th Avenue South. As mentioned in 7A, 7B is the short-term vision for this path extension.

8A Gap 8A

is a connection spanning from the intersection of 11th Street South and 30th Avenue South to Lemke Park. This alignment follows the path of the Red River. This is a visionary extension of the overall network.

8B Gap 8B

is an alternative connection to 8A, which loops into the 32nd Avenue South intersection and follows the road alignment to the entrance of Lemke Park.

9 Gap 9

is adjacent to Red River for 1.5 miles, starting south of Lemke Park and travels south until it connects with an existing shared use path at 40th Avenue South. This path connects residential neighborhoods with Lemke Park and South River Prairie. However, it is in the floodplain and would have seasonal accessibility issues.

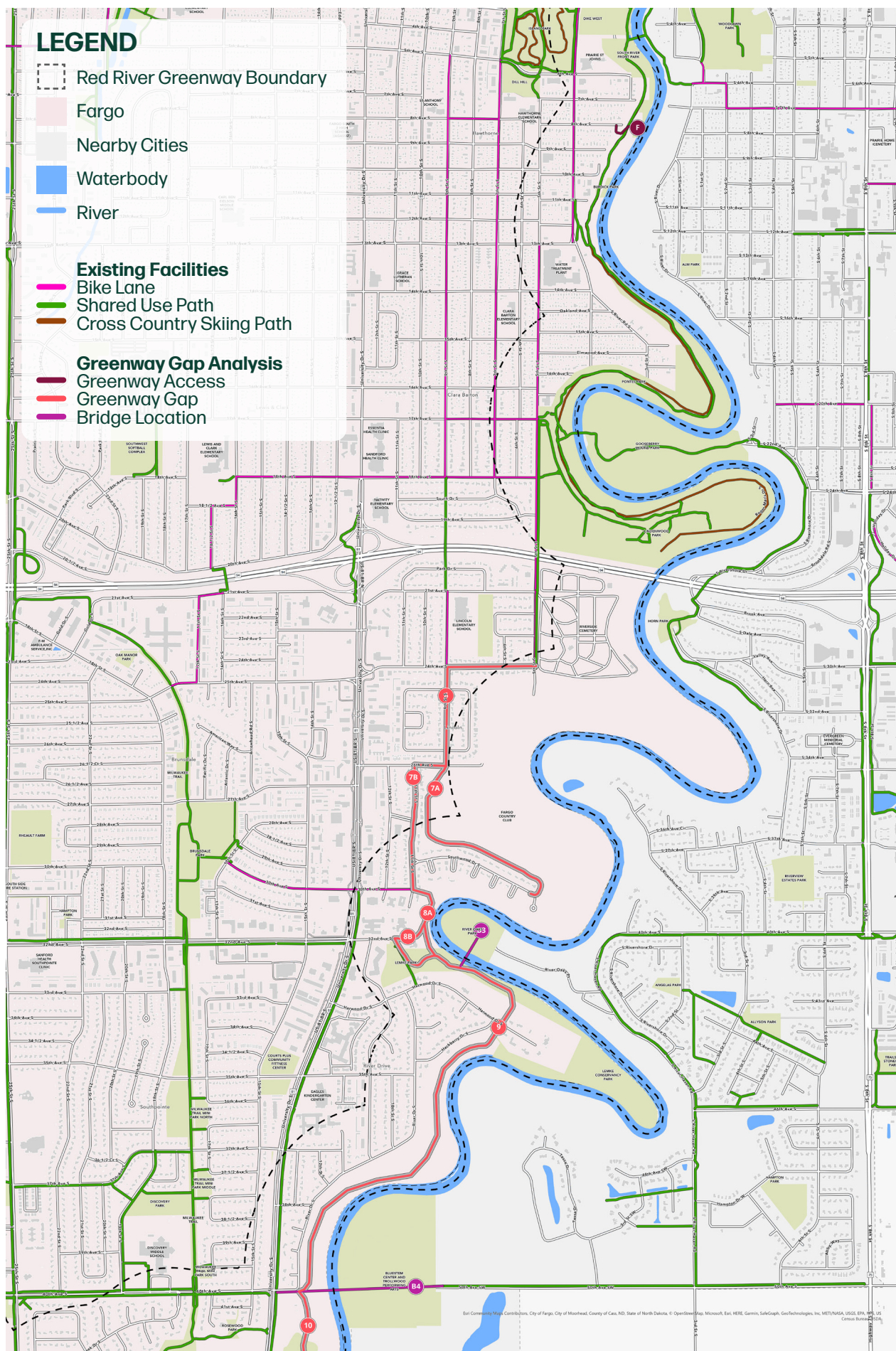
B3 Access B3

crosses the Red River at Lemke Park and River Oaks Park.

B4 Access B4

crosses the Red River at Bluestem Center for the Arts at 40th Avenue South/50th Avenue Southwest.

Figure 4.8 / Segment 3- Greenway Gap Analysis



GREENWAY ASSESSMENT

Segment 4- Greenway Gap Analysis

The following paragraphs detail the gaps in access and facility for the overall greenway network. Refer to Figure 4.9 for details related to the locations of these gaps.

10 Gap 10

is a route adjacent to the Red River, starting on an existing shared-use path on 40th Avenue South and continuing south until 58th Avenue South. At this location, the path will connect to an existing shared-use path on South University Drive.

11A Gap 11A

is adjacent to the Red River, extending from 64th Avenue South to 70th Avenue South.

11B Gap 11B

is the counterpart of 11A, also following the Red River, picking up at 70th Avenue South and stopping at 76th Avenue South.

12 Gap 12

connects into Gap 11B at 76th Avenue South and follows the roadway to 88th Avenue South, where it terminates.

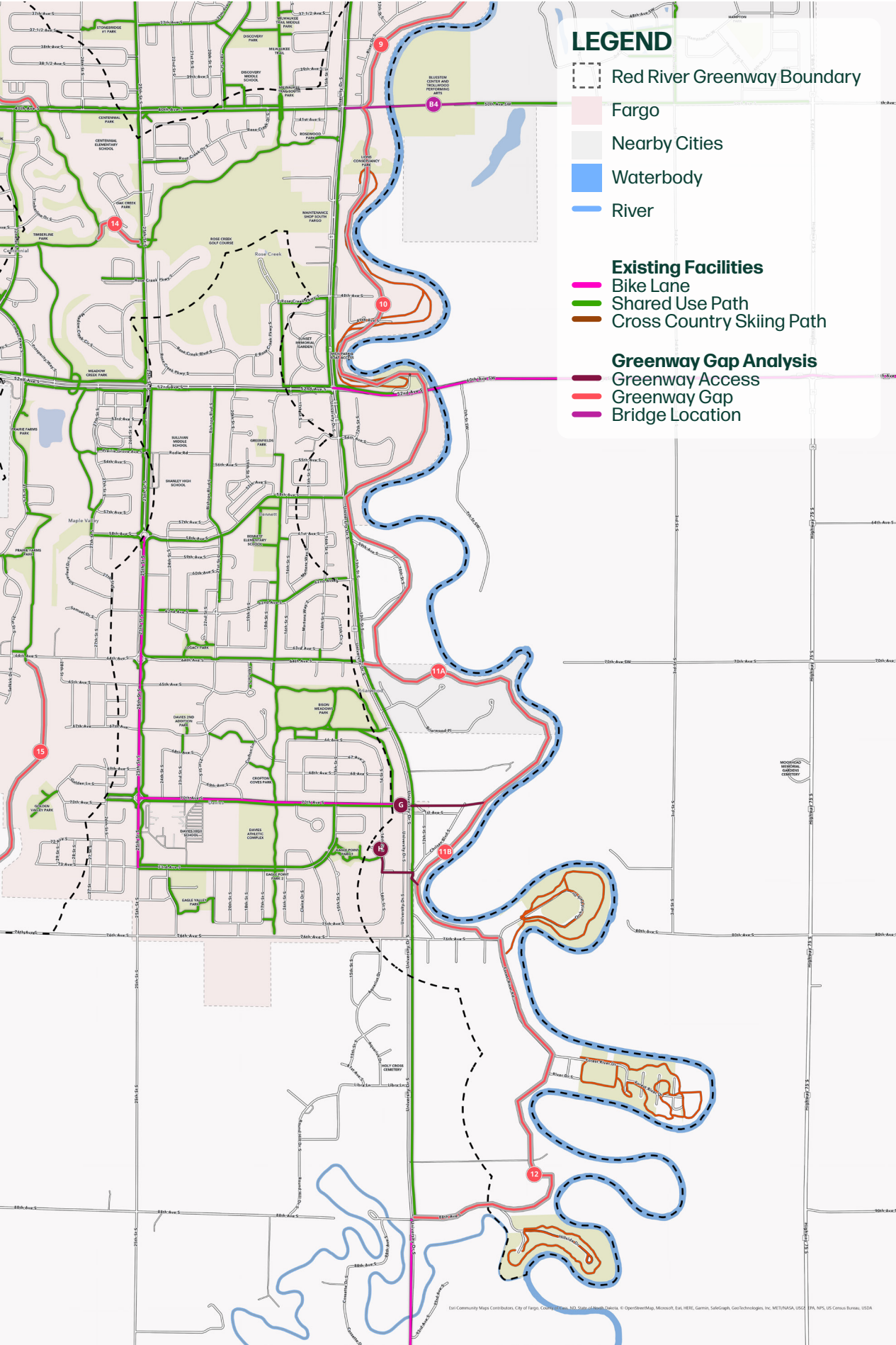
G Access G

connects the proposed Red River shared-use path with the existing shared-use path on South University Drive at 70th Avenue.

H Access H

connects Eagle Point Park to the proposed 11A and 11B gap segments.

Figure 4.9 / Segment 4- Greenway Gap Analysis



GREENWAY ASSESSMENT

Segment 5- Greenway Gap Analysis

The following paragraphs detail the gaps in access and facility for the overall greenway network. Refer to Figure 4.10 for details related to the locations of these gaps.

13 Gap 13

is along Drain 27 and connects a shared-use path along 40th Avenue South to an adjacent path on 42nd Street South, passing under Interstate 29.

17 Gap 17

is a route following the existing railway right-of-way from Wall Avenue and Main Street, where it terminates at 46th Street Southeast.

14 Gap 14

starts at the intersections of Drains 27 and 53, extending from 25th Street South to an existing shared-use path that runs behind the residential properties on Timberline Drive South.

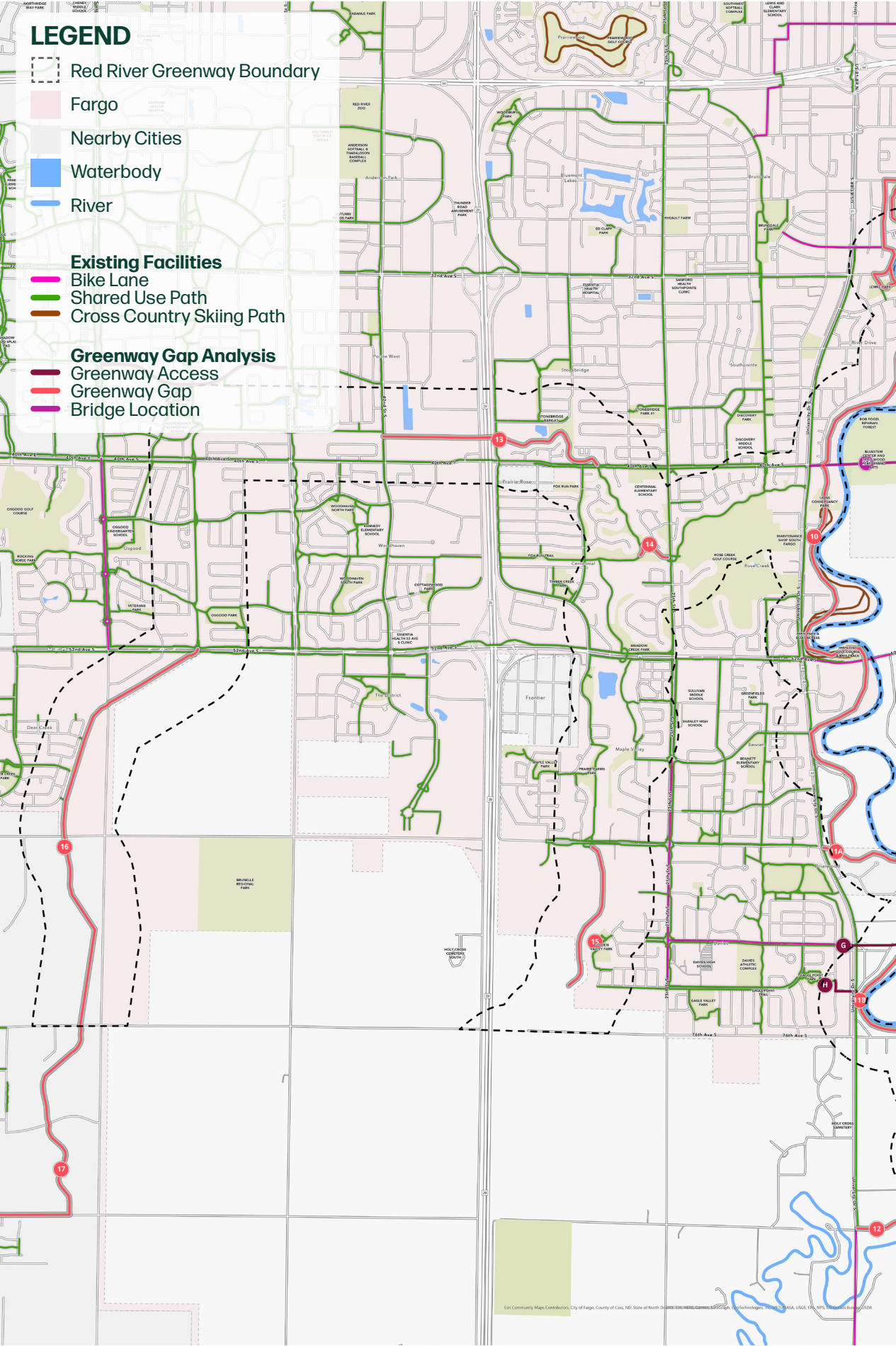
15 Gap 15

connects to a shared-use path next to an undercrossing at 64th Avenue South, and follows the drain until it crosses at Drain 53 at 74th Avenue South, ultimately connecting to an existing shared-use path at the intersection of 73rd Avenue South and 25th Street South.

16 Gap 16

connects to a shared-use path next to an undercrossing at 52nd Avenue South, following the west side of Drain 27 until 76th Avenue, where it crosses to the east side and continuing south until Wall Avenue/88th Avenue South. At this point, it pivots west, connecting to an existing shared-use path on Wall Avenue and Main Street.

Figure 4.10 / Segment 5- Greenway Gap Analysis



GREENWAY ASSESSMENT

Gap Number	Gap Length (miles)	Location	Context	Challenges/ Constraints	
Segment 1					
1	0.8	Kandi Lane and Golf Course Road, from a shared use path on Broadway Drive to Edgewood Golf Course Pro Shop.	Residential	- Gate on Kandi Lane - Private Land, not enough ROW adjacent to golf course for a trail	
2A	0.67	From a shared use path at Edgewood Golf Course to 32nd Avenue Northeast, connecting to Peterson Parkway to an existing easement between two residential properties, then following Peterson Parkway before turning onto Eagle Street North and 32nd Avenue Northeast.	Residential	- Inconsistent facility type - Indirect routing	
2B	1.12	From a shared use path at Edgewood Golf Course to 32nd Avenue Northeast, through residential neighborhoods (Aspyn Lane, Grandwood Drive, 35th Avenue, Par Street, 32nd Avenue)	Residential	- Inconsistent facility type - Indirect routing	
3	0.95	Adjacent to the Red River, from 32nd Avenue to Woodcrest Drive.	Residential/ Urban	- Property Impact - Private Land - Flood issues	
4	1.14	Between the Red River and Fargo VA Medical Center, from Woodcrest Drive South to a shared use path on Woodland Drive North.	Residential/ Urban	- Coordination with the Fargo VA Medical Center	
Access A	0.04	Connects existing Red River shared-use path with 10th Street residential homes.	Residential	-Gate on service road	
Access B	0.19	Connects proposed Red River shared-use path with Lilac Lane North.	Residential	-Flood issues	
Access C	0.08	Connects proposed Red River shared-use path with an existing shared-use path on Elm Street North, south of Fargo VA Medical Center.	Residential	-Property impact -Private land	
Bridge 1	0.26	Crossing the Red River from the M.B. Johnson Park to the proposed shared-use path north of the Fargo VA Medical Center.	Residential		
Segment 2					
5A	0.27	Connection around Oak Grove Lutheran School North Campus, on-street on South Terrace, Short Street, and North Terrace.	Residential/ Urban	-Not enough ROW to do off-street trail	
5B	0.47	Is an internal within Oak Grove Lutheran School and Oak Grove Park as an off-street, shared use path.	Residential/ Urban	-Property impact -Private land -Flood issues	
Access D	0.19	Connects existing Red River shared use path with 9th Avenue North.	Residential	-Property impact -Private land -Flood issues	
Access E	0.14	Connects 2nd Avenue North and the Civic Center to the existing shared-use path along the river, crossing over 2nd Street North and the flood wall.	Residential/ Urban	-Property impact -Private land	
Access F	0.06	Connects existing Red River shared-use path with 8th Avenue South.	Residential/ Urban	-Crossing levee	
Bridge 2	0.07	Crossing the Red River at Fargo City Hall and the Hjemkomst Center.	Residential/ Urban		

	Opportunities	Possible Solution to Fill Gap
	- Connects parks, golf and disc golf courses, and apartment complexes	On-street bikeway on Kandi Lane and Golf Course Road.
	- Connects to existing neighborhood path - Lower cost and easier to implement	Signage on existing off-street shared use path in neighborhood. On-street bikeway on Par Street and 32nd Avenue.
	- Connects to existing neighborhood path - Lower cost and easier to implement	Signage on existing off-street shared use path in neighborhood. On-street bikeway on Par Street and 32nd Avenue.
	- Adjacent to the river - Connects parks, golf courses, Fargo VA Medical Center and schools	Off-street shared use path (minimum 10' wide).
	- Adjacent to the river - Connects parks, golf courses, Fargo VA Medical Center and schools	Off-street shared use path (minimum 10' wide).
	-Access point from neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).
	-Access point from neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).
	-Access point from neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).
	-Connects the existing trails north and south of the school.	On-street bikeway on South Terrace, Short Street, and North Terrace.
	-Connects the existing trails north and south of the school.	Off-street shared-use path (minimum 8' wide).
	-Access point from neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).
	-Access point from neighborhoods to the existing shared-use path -New development to spur activity here	Off-street shared-use path (minimum 8' wide).
	-Access point from neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).

GREENWAY ASSESSMENT

Gap Number	Gap Length (miles)	Location	Context	Challenges/ Constraints	
Segment 3					
6	0.54	From the intersection of 11th Street South and 30th Avenue South, along the river, to Lemke Park.	Urban	-Private impact -Private land	
7A	0.62	Connects the residential properties and Fargo Country Club from the intersections of 9th Street South and 26th Avenue South to the end of the Southwood Drive South cul-de-sac. This is the long-term solution to the pathway connections.	Natural/ Residential	-Private impact -Private land	
7B	0.45	Offers a short-term alternative for connecting the segment near Fargo Country Club (FCC). This alternative follows 11th Street S, running through the residential area, and connects back to the beginning of Gap 8 at 30th Avenue South.	Residential	-Private impact -Private land	
8A	0.24	Connects the intersection of 11th Street South and 30th Avenue South to Lemke Park. This alignment follows the path of the Red River.	Residential	-Property impact -Private Land -Flood issues	
8B	0.22	Connects to 8A, which loops into the 32nd Avenue South intersection and follows the road alignment to the entrance of Lemke Park.	Residential	-Property impact -Private Land -Flood issues	
9	1.48	The route is adjacent to Red River, starting on an existing bicycle facilities on the intersection of 11th Street South and 30th Avenue South. The shared use path follows south until it connects with an existing shared use path at 40th Avenue South.	Natural/ Residential	- Property Impact - Private Land - Crossing east-west roads - Flood issues	
10	2.00	This is adjacent to the Red River, starting on an existing shared-use path on 40th Avenue South and following south until 58th Avenue S,outh where connecting to an existing shared-use path on South University Drive	Natural/ Residential	-Property impact -Private Land -Flood issues	
Bridge 3	0.1	Crossing the Red River at Lemke Park and River Oaks Park	Natural/ Residential		
Bridge 4	0.47	Crossing the Red River at Trollwood Performing Arts School, 40th Avenue/50th Avenue	Natural/ Residential		
Segment 4					
11A	1.17	Connects along the river from 64th Avenue South to 70th Avenue.	Natural/ Residential	- Property Impact - Private Land - Flood issues	
11B	0.79	Counterpart of 11A, also following the Red River, picking up at 70th Avenue South and stopping at 76th Avenue South.	Natural/ Residential	-Property impact -Private Land -Flood issues	
12	1.63	Follows the river from 76th Avenue South to 88th Avenue South.	Natural/ Residential	-Private impact -Private land	
Access G	0.28	Connects proposed Red River shared-use path with existing shared-use path on South University Drive at 70th Avenue.	Natural/ Residential		
Access H	0.22	Connects Eagle Point Park to the proposed 11A and 11B gap segments.	Natural/ Residential		

	Opportunities	Possible Solution to Fill Gap
	-Connects parks, golf courses, and schools	Off-street shared-use path (minimum 10' wide).
	-Connects parks, golf courses, and schools	Off-street shared-use path (minimum 8' wide).
	-Connects parks, golf courses, and schools	Off-street shared-use path (minimum 8' wide).
	- Connects the city with south neighborhoods and parks	Off-street shared-use path (minimum 8' wide).
	- Connects the city with south neighborhoods and parks	Off-street shared-use path (minimum 8' wide).
	- Connects the city with south neighborhoods and parks	Bridge over the Red River
	-Connects the city with the south neighborhoods and parks	Off-street shared-use path (minimum 8' wide).
	-Connects the city with the south neighborhoods and parks	Off-street shared-use path (minimum 8' wide).
	-Connects the city with the south neighborhoods, parks and cross country ski paths	Off-street shared-use path (minimum 8' wide).
	-Connects the city with the south neighborhoods and parks	Off-street shared-use path (minimum 8' wide).

GREENWAY ASSESSMENT

Gap Number	Gap Length (miles)	Location	Context	Challenges/ Constraints	
Segment 5					
13	1.29	Starts at the intersections of Drains 27 and 53, extending from 25th Street South to an existing shared-use path that runs behind the residential properties on Timberline Drive South.	Residential/ Urban	-Private impact -Private land	
14	0.21	Follows along Drain 53 and connects a shared-use path along 40th Avenue South to an adjacent path on 42nd Street South, passing under Interstate 29.	Residential/ Urban	-Private impact -Private land	
15	0.82	Connects to a shared-use path next to an undercrossing at 64th Avenue South, and follows the drain until it crosses at Drain 53 at 74th Avenue South, ultimately connecting to an existing shared-use path at the intersection of 73rd Avenue South and 25th Street South.	Residential/ Urban	-Private impact -Private land	
16	4.39	Connects to a shared-use path next to an undercrossing at 52nd Avenue South, following the west side of Drain 27 until 76th Avenue, where it crosses to the east side and continuing south until Wall Avenue/88th Avenue South. At this point, it pivots west, connecting to an existing shared-use path on Wall Avenue and Main Street.	Natural/ Residential	-Private impact -Private land	
17	2.06	A route following the existing railway right-of-way from Wall Avenue and Main Street, where it terminates at 46th Street Southeast.	Natural	-Private impact -Private land	

	Opportunities	Possible Solution to Fill Gap
	-Connects parks, drains, neighborhoods, and schools	Off-street shared-use path (minimum 8' wide).
	-Connects parks, drains, neighborhoods, and schools	Off-street shared-use path (minimum 8' wide).
	-Connects parks, neighborhoods, and schools	Off-street shared-use path (minimum 8' wide).
	-Access point for neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).
	-Access point for neighborhoods to the existing shared-use path	Off-street shared-use path (minimum 8' wide).

CHAPTER 5

GREENWAY SEGMENT ALTERNATIVES

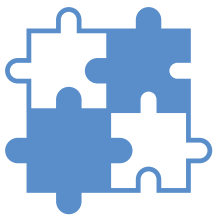
GREENWAY SEGMENT ALTERNATIVES

The existing conditions throughout the Greenway highlight opportunities to fill gaps in services and leverage existing amenities to expand the scope of services throughout the overall network. This chapter is intended to identify what trails and shared-use paths there are today, propose areas and alignments to improve connectivity, inventory existing park amenities throughout the Greenway, and propose amenities to expand services. The proposed amenities identified throughout the parks system are built from interactions with the public and Study Review Committee (SRC).

This chapter considers the following elements:



Existing Bike + Pedestrian Facilities



Identification of Areas to Fill Gaps in Services



Existing Park Amenities Serving the Greenway



Opportunities to Expand Services Throughout the Greenway





EXISTING FACILITIES

SEGMENT 1

Segment 1 Review

Segment 1 runs from the northern edge of the planning boundary near Riverwood Park to 12th Avenue North. This segment has a mix of more natural / rural areas, plenty of parkland, and low-density residential land. The Hector International Airport is close by as is the Fargo Wastewater Treatment Facility.

Parks + Open Space

- Riverwood Park
- Funfar Park
- Trollwood Park
- North Broadway Park
- Edgewood Golf Course
- Holm Park
- VA Hospital Park
- Oxbow Park
- El Zagal Golf Course
- Trefoil Park

Shared Use Paths

There are limited areas with riverside shared use paths including along Trefoil Park, El Zagal Golf Course, Funfar Park, and Trollwood Park. Most of the shared use paths in Segment 1 remain disconnected with a large gap occurring between Edgewood Golf Course and El Zagal Golf Course.

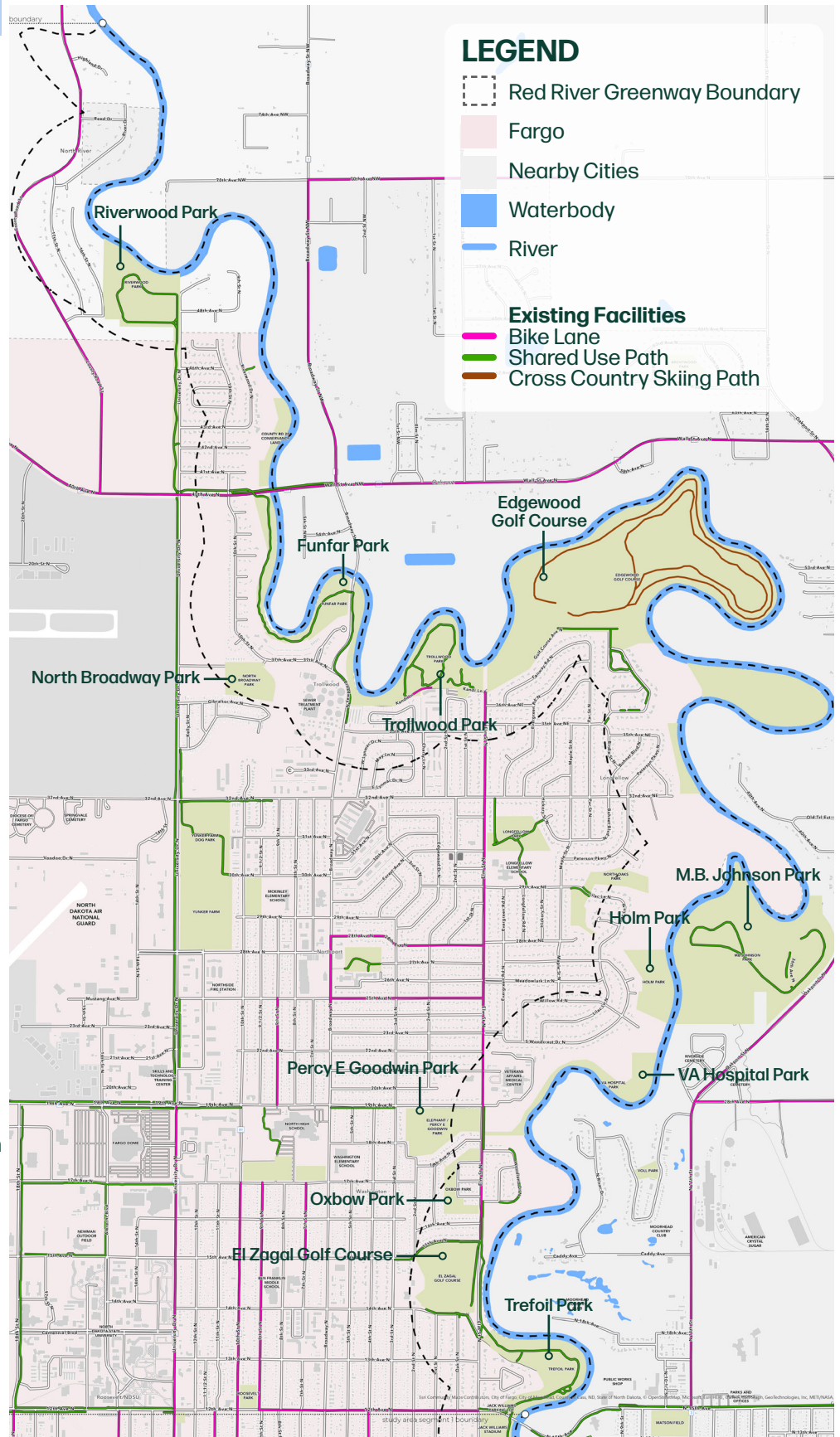
Bicycle Facilities

The main on-street bicycle facility within study area segment 1 is a marked sharrows bicycle path along Elm Street North. There are some nearby roads with bicycle routes along the shoulder, a small area with a signed bicycle route near Trollwood Park, and a small section of bike lane along 12th Avenue North at the southern edge of the study area.

Cross Country Skiing

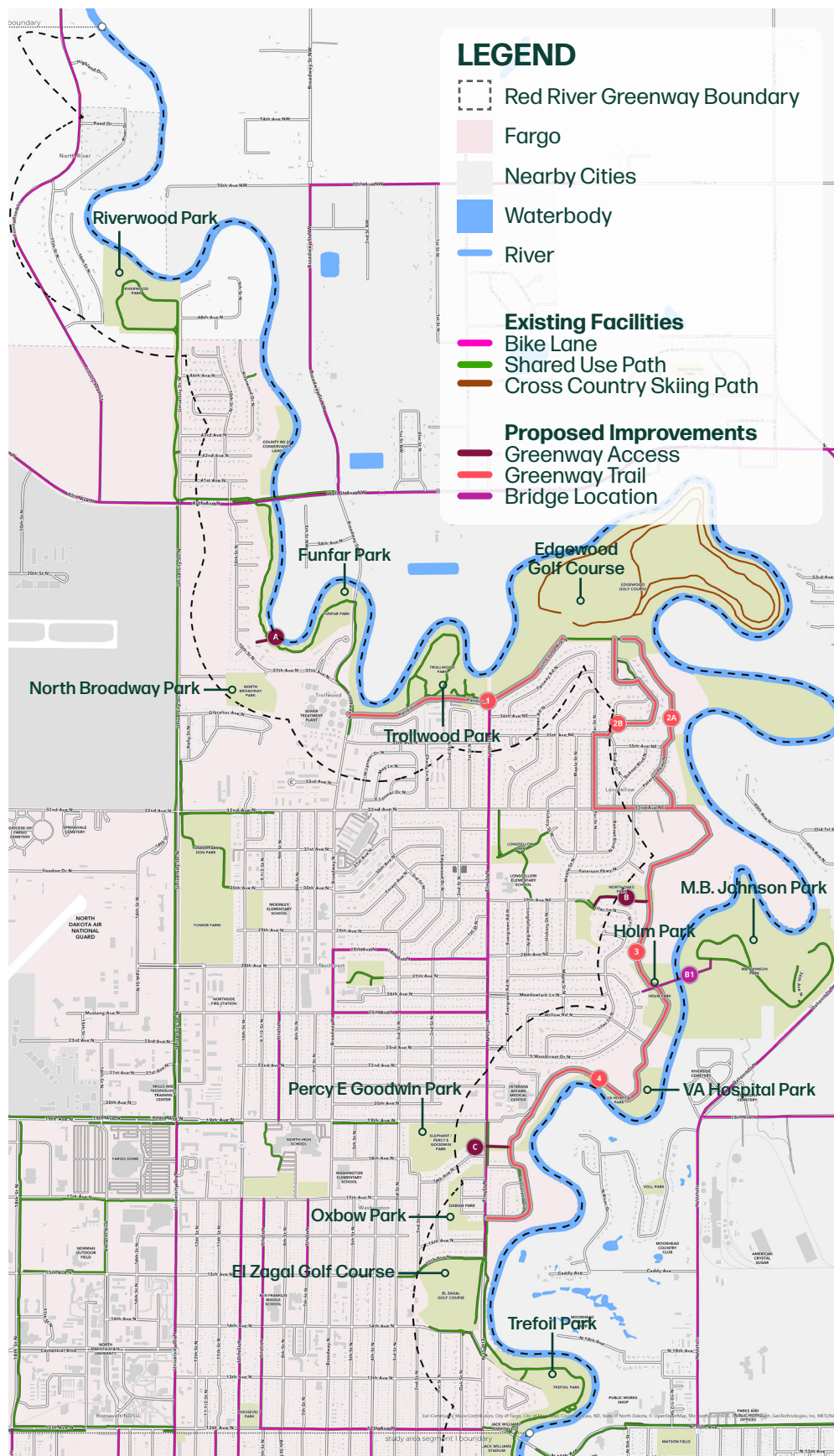
There are cross country ski paths available during the winter months at Edgewood Golf Course. This is the only cross country ski path in Segment 1.

Figure 5.1 / Segment 1 Existing Facilities



PROPOSED FACILITIES

Figure 5.2 / Segment 1 Proposed Facilities



Segment 1 Proposed Connections + Facilities







The facilities located throughout Segment 1 lack thorough connectivity. The map shown in Figure X.x identifies locations for potential connections and access points by type. Today, many of the existing trails are located in the interior of parks. The intention of these proposed connections and facilities is to connect these interior trails to on- or off-street trails and extend into residential areas; providing residents with optimal access to the parks and recreation facilities located along the Red River.

The Greenway Assessment section for Segment 1 on page 107 provides greater detail into each of these proposed connections and facilities. The Implementation Plan further defines the prioritization, timeframe, and facility type for each of these proposed connections as well.

EXISTING AMENITIES

SEGMENT 1

Existing Amenities Riverwood Park

-  Port-A-Potty
-  Vehicle Parking
-  Picnic Shelter
-  Walking Loop/Nature Trail
-  Playground
-  Recreation/Sporting








Funfar Park

-  Walking Loop/Nature Trail

North Broadway Park

-  Picnic Shelter
-  Playground
-  Recreation/Sporting

Trollwood Park

-  Vehicle Parking
-  Restrooms
-  Picnic Shelter
-  Walking Loop/Nature Trail
-  Amphitheater
-  Recreation/Sporting
-  Playground

Holm Park

-  Walking Loop/Nature Trail

Percy E. Goodwin Park





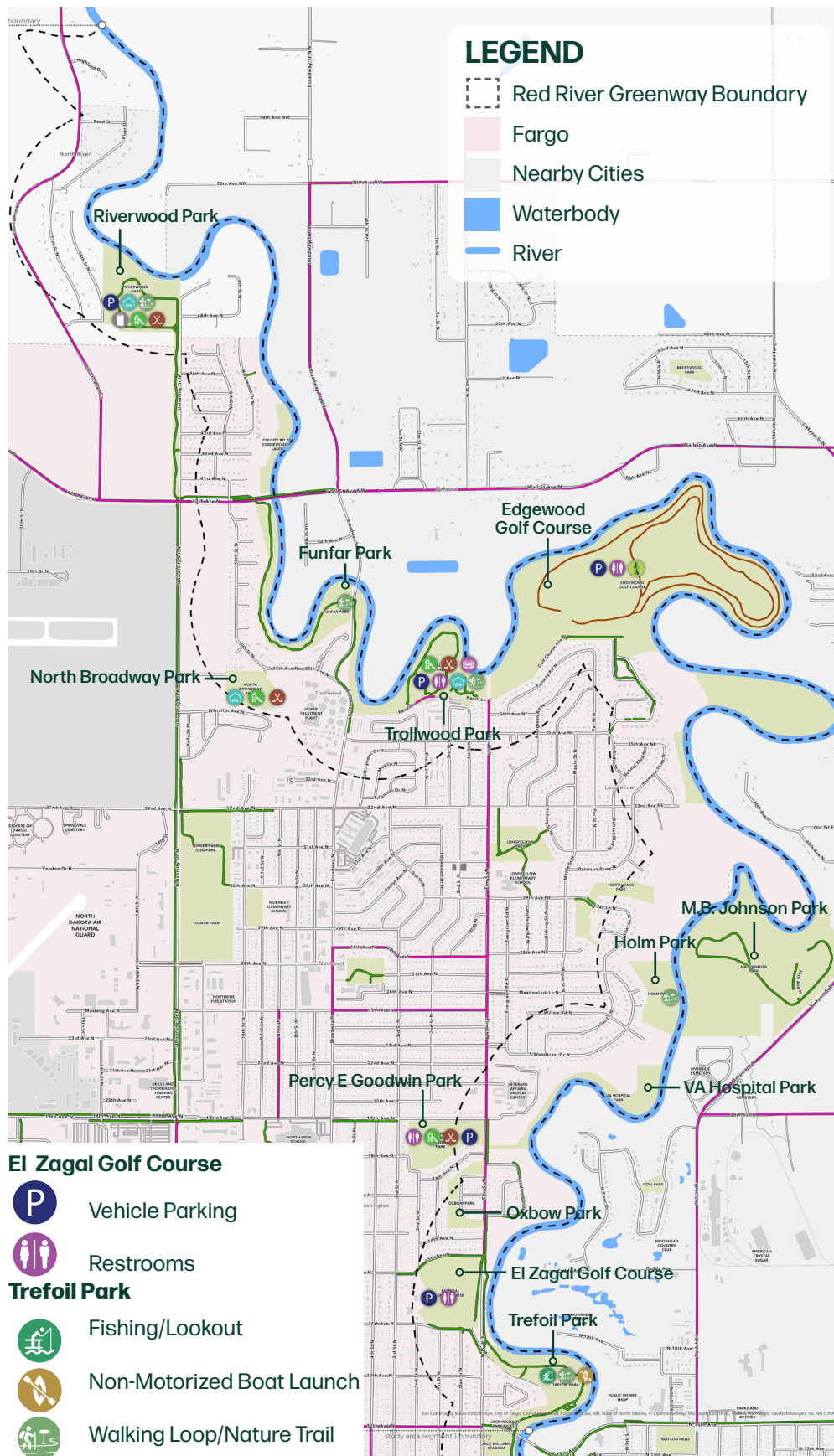
-  Vehicle Parking
-  Restrooms
-  Playground
-  Recreation/Sporting

Figure 5.3 / Segment 1 Existing Amenities



PROPOSED AMENITIES

Figure 5.4 / Segment 1 Proposed Amenities



EXISTING FACILITIES

SEGMENT 2

Segment 2 Review

Segment 2 is the smallest and runs from 12th Avenue North to 6th Avenue South. This segment includes Downtown Fargo and is the segment developed at the most urban density. In addition to Downtown Fargo, there are several large parks that occur along the greenway through this stretch including the Mickelson Field & Softball Fields, Oak Grove Park, and Wildflower Grove Park.

Parks + Open Space

- Mickelson Field & Softball Fields
- Oak Grove Park
- Wildflower Grove Park
- Statue of Liberty Park
- South River Prairie
- Dike East Park

Shared Use Paths

This segment has the most extensive network of existing shared use paths and trail access points. Concrete paths connect Trefoil Park to the sports fields to the south. A continuous path runs from Wildflower Grove Park down to the southern limits of the segment. The only existing gap occurs at Oak Grove Lutheran School.

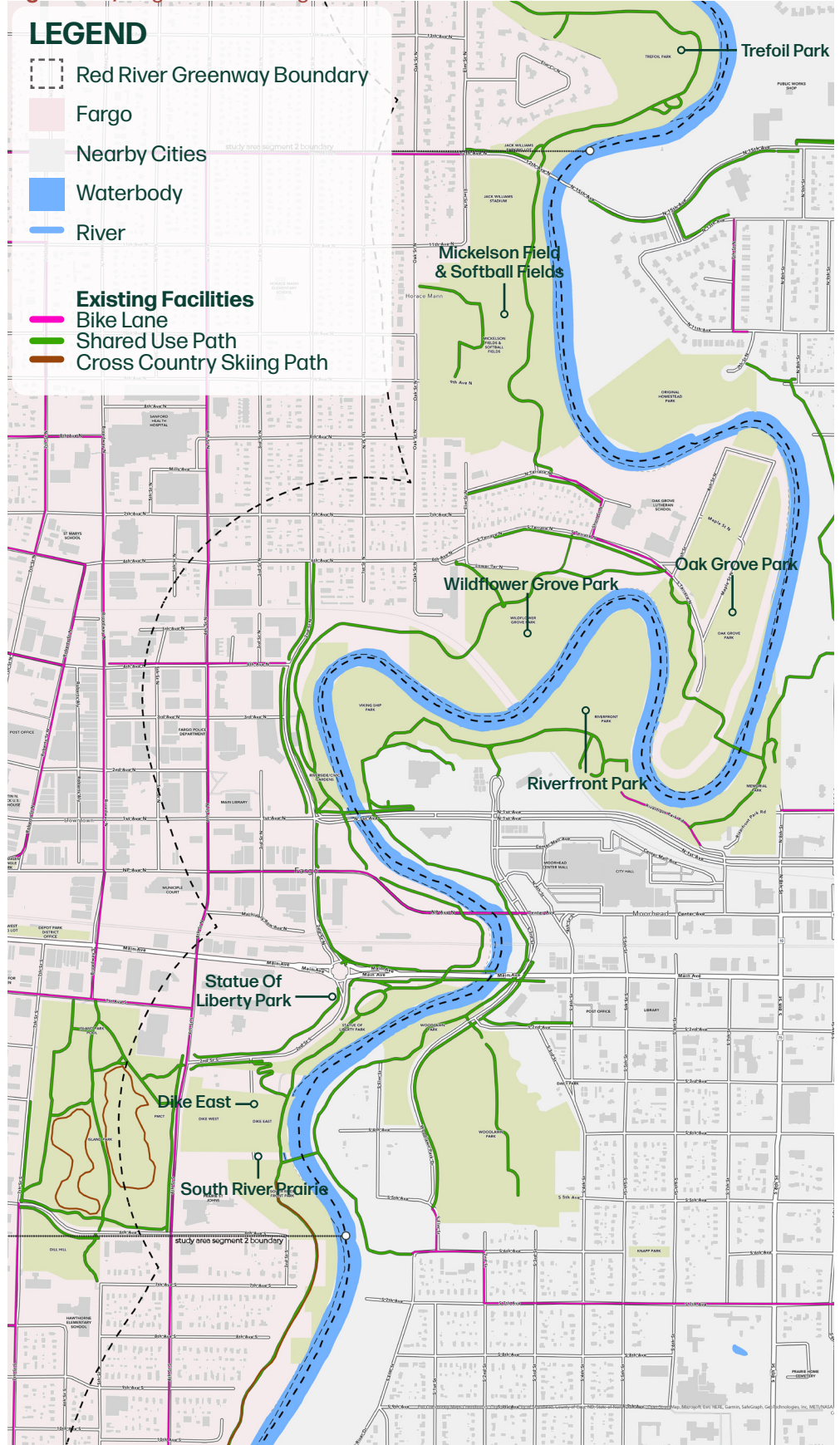
Bicycle Facilities

Existing bike lanes that travel parallel to this segment occur on 4th Street North. There are multiple perpendicular bike routes that connect to the greenway. They occur at 12th Avenue North, 4th Avenue North, and Northern Pacific Avenue.

Cross Country Skiing

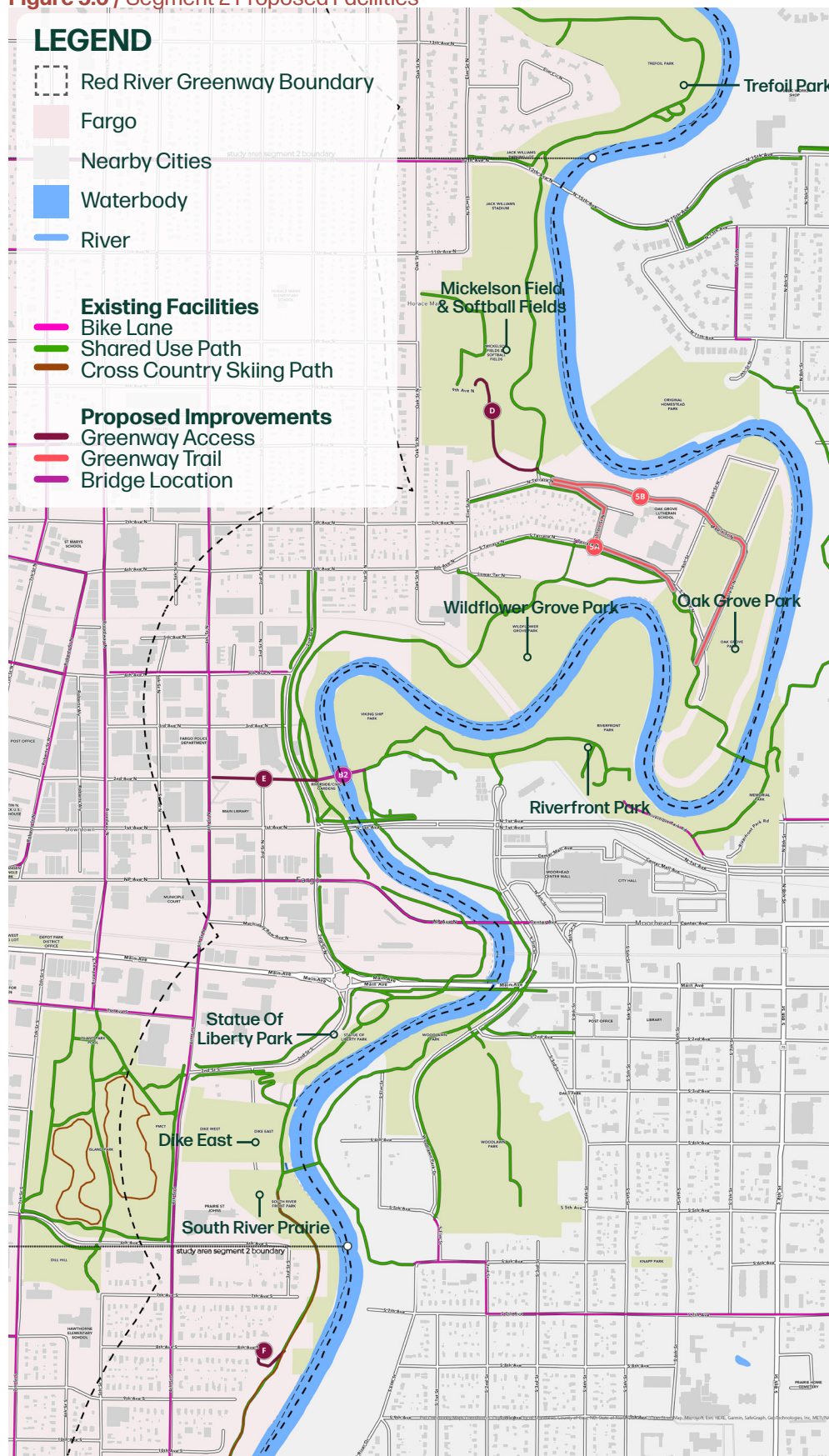
There are two cross country skiing loops available at Island Park, and a much longer skiing path starting at Dike East Park and terminating at Lindenwood Park in Segment 3.

Figure 5.5 / Segment 2 Existing Facilities



PROPOSED FACILITIES

Figure 5.6 / Segment 2 Proposed Facilities



Segment 2 Proposed Connections + Facilities

Segment 2 features many riverfront or river-adjacent trails and shared-use paths. This section of the study area is much more urban than other segments; therefore, it will be important to connect these shared-use paths into adjoining residential and commercial areas for increased connectivity.






Page 109 in the Greenway Assessment section provides greater context into the proposed access, trail, and bridge locations for Segment 2. The Implementation Plan further defines the prioritization, timeframe, and facility type for each of these proposed connections as well.

EXISTING AMENITIES



SEGMENT 2

Existing Amenities







Mickelson Field & Softball Fields

-  Vehicle Parking
-  Picnic Shelter
-  Walking Loop/Nature Trail
-  Restrooms
-  Recreation/Sporting

Wildflower Grove Park

-  Vehicle Parking
-  Walking Loop/Nature Trail

Oak Grove Park

-  Vehicle Parking
-  Restrooms
-  Picnic Shelter
-  Walking Loop/Nature Trail
-  Playground
-  Recreation/Sporting

Statue of Liberty Park

-  Walking Loop/Nature Trail

Dike East Park









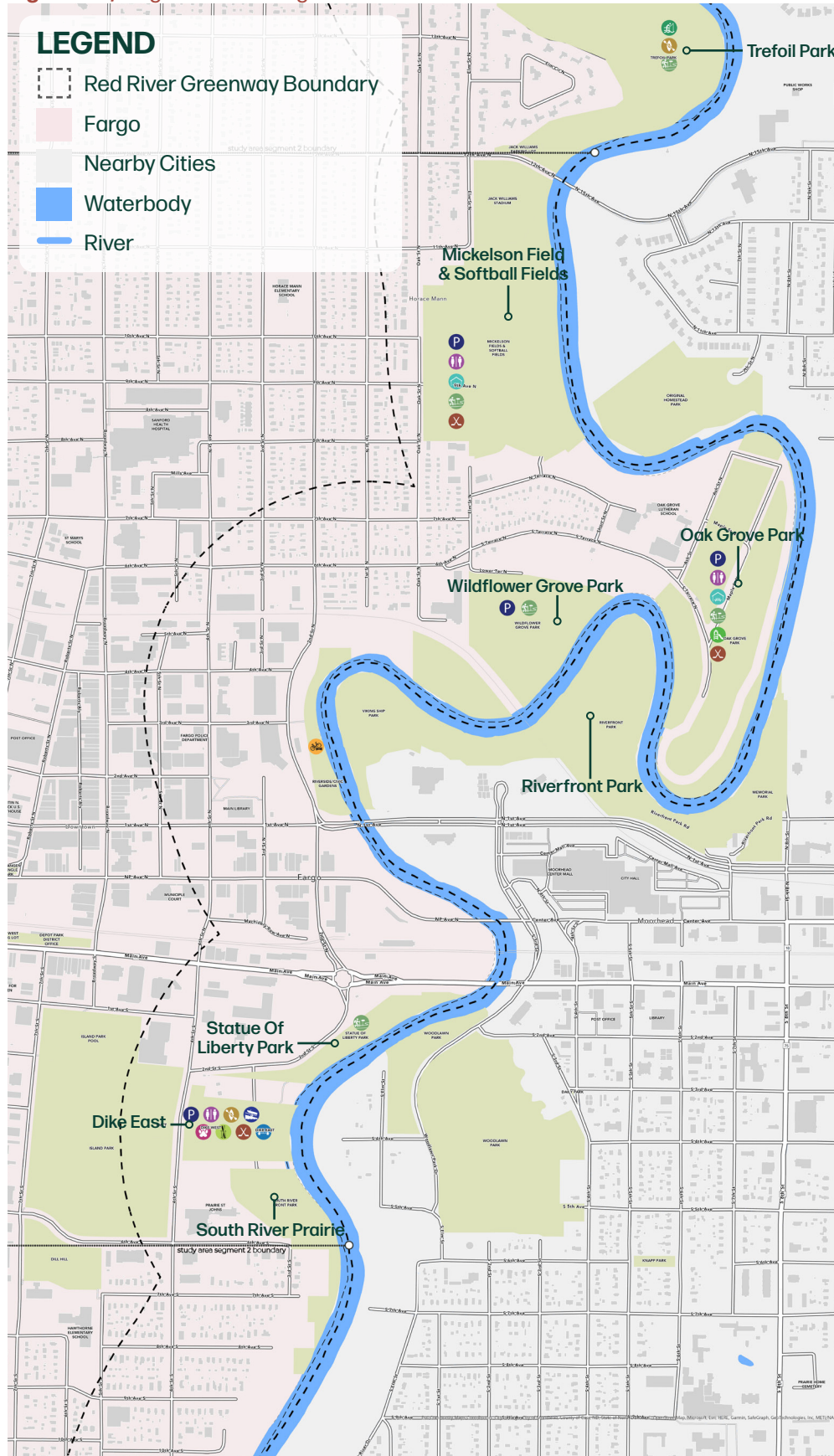
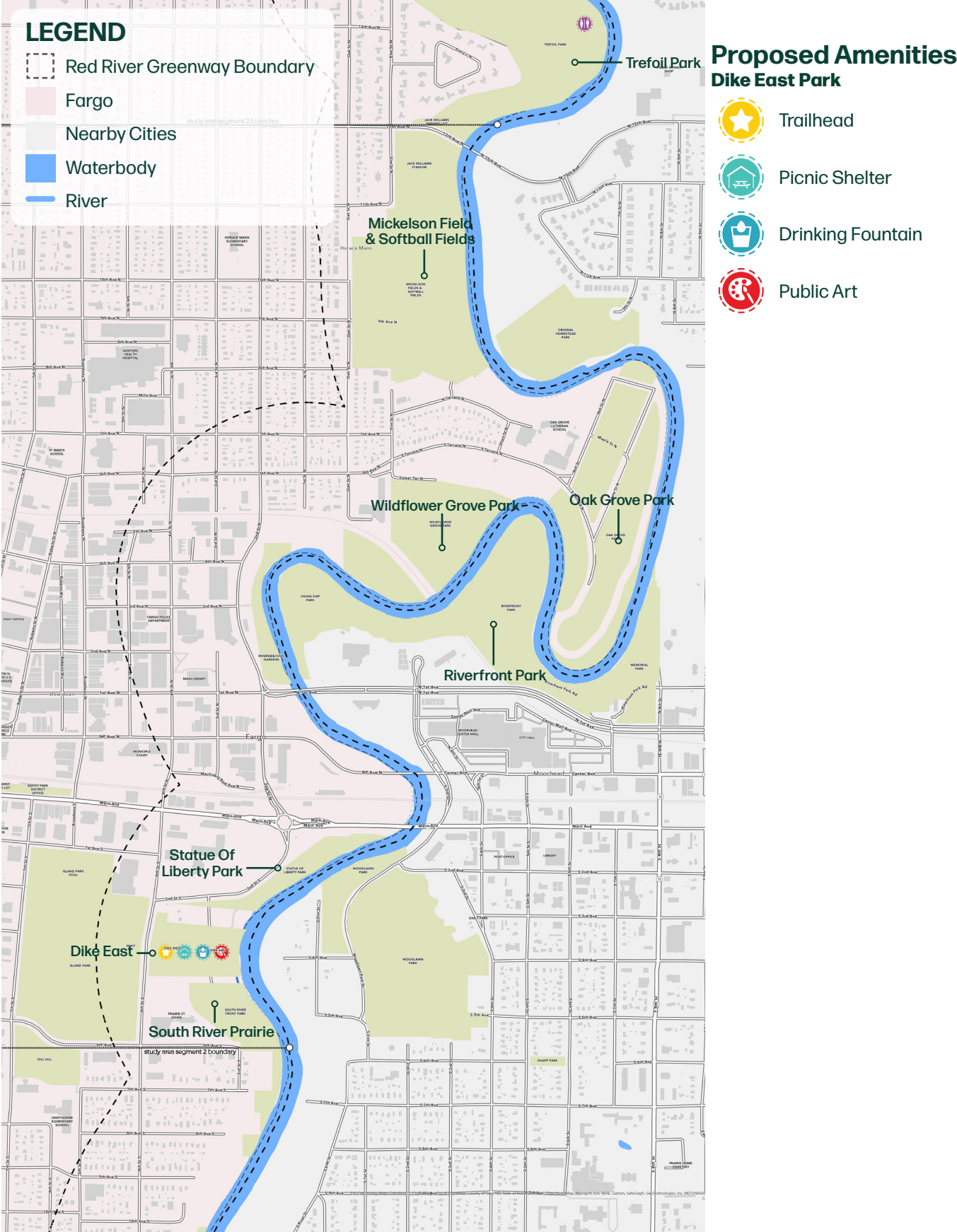
-  Vehicle Parking
-  Restrooms
-  Non-Motorized Boat Launch
-  Dog Park
-  Cross Country Skiing
-  Non-motorized Boat Launch
-  Recreation/Sporting
-  Bicycle / Pedestrian Bridge

Figure 5.7 / Segment 2 Existing Amenities



PROPOSED AMENITIES

Figure 5.8 / Segment 2 Proposed Amenities



EXISTING FACILITIES

SEGMENT 3

Segment 3 Review

Segment 3 runs from 6th Avenue South to 40th Avenue South near Drain 27 / the Rose Creek Coulee. Some of this segment has a fairly cohesive shared use path system, however, there is also a significant gap in the riverside system near the Fargo Country Club and Riverside Cemetery.

Parks + Open Space

- Burdick Park
- Pontes Park
- Lindenwood Park
- Lemke Park
- Lemke Conservancy Park
- Riverside Cemetery

Shared Use Paths

The northern half of segment 3 has a connected shared use path system along the riverfront that extends from Dike East Park to Lindenwood Park / Interstate 94. There is a bicycle/pedestrian bridge that connects to a path on the Moorhead side of the river between Lindenwood Park and Gooseberry Mound Park. There is a shared use path along University Drive just outside the study area south of the Fargo Country Club, which can connect to the shared use path stemming from Lindenwood Park via a bike lane running along 5th, 9th, and 11th Streets.

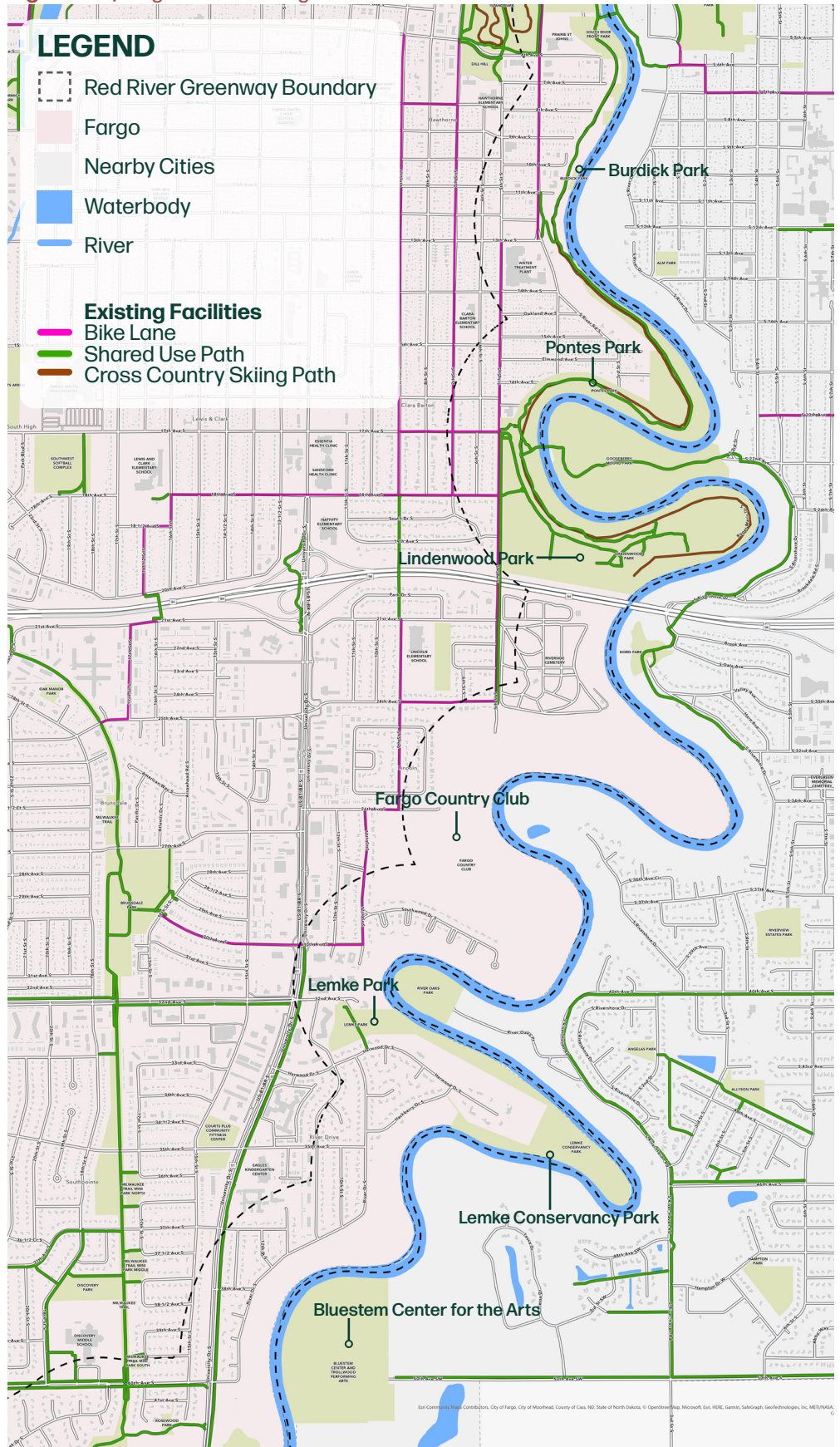
Bicycle Facilities

The main bicycle facilities in the study area segment 3 are a set of bike lanes running along some of the north-south roads that run parallel to the Red River. Currently, these bike lanes provide much needed connections between Lindenwood Park and the shared use path that runs along University Drive South at 30th Ave South.

Cross Country Skiing

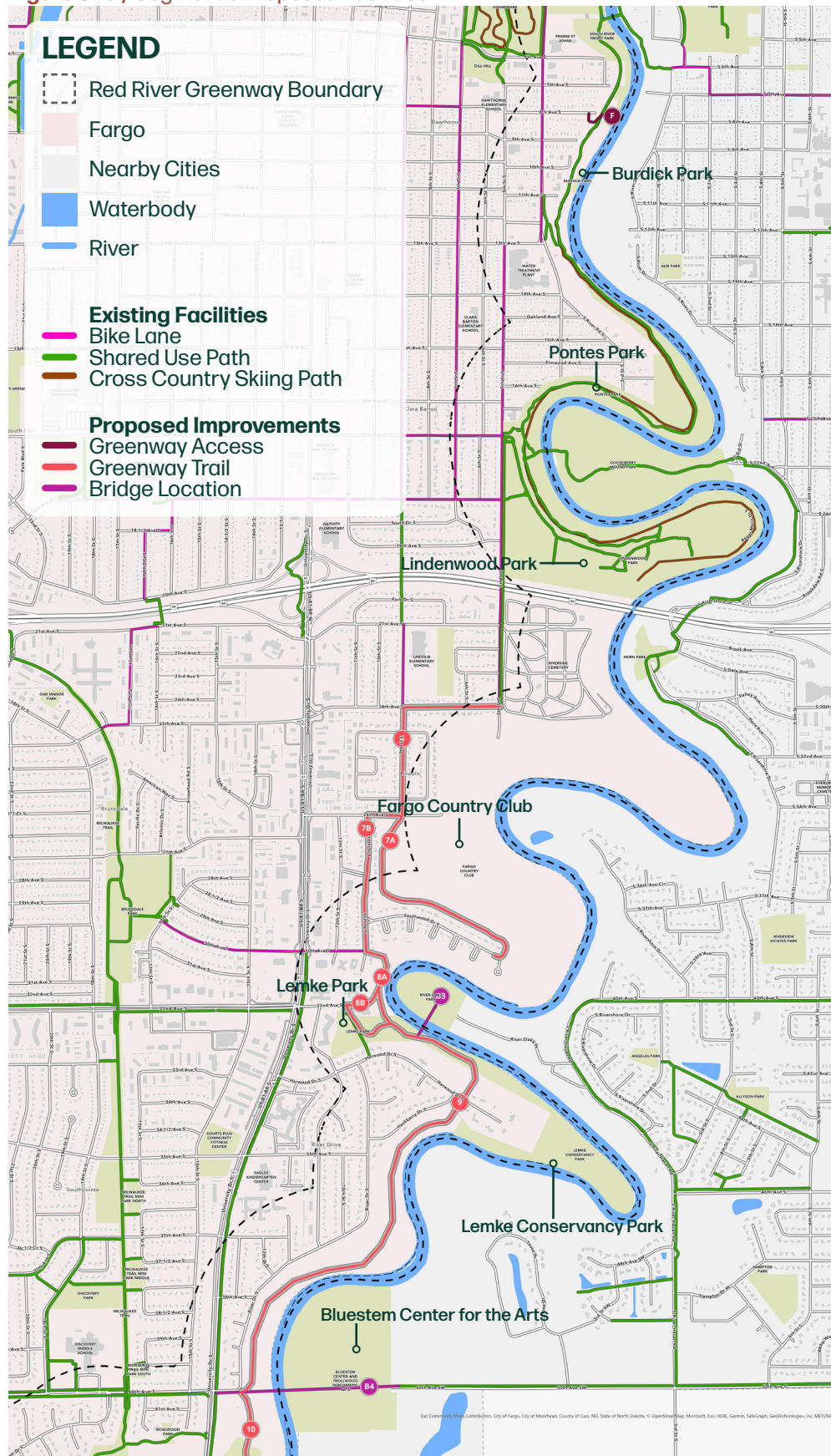
The remaining extent of the cross country ski path from Segment 2 continues into Segment 3, terminating at Lindenwood Park.

Figure 5.9 / Segment 3 Existing Facilities



PROPOSED FACILITIES

Figure 5.10 / Segment 3 Proposed Facilities



Segment 3 Proposed Connections + Facilities

This segment provides broader access to existing shared-use paths throughout the southern portion of the study area. These proposed improvements fill a large gap in the trail network beginning north of the Fargo Country Club and flowing south, ending near Bennett Elementary School.













Page 111 in the Greenway Assessment section provides greater context into the proposed access, trail, and bridge locations for Segment 3. The Implementation Plan further defines the prioritization, timeframe, and facility type for each of these proposed connections as well.

EXISTING AMENITIES






SEGMENT 3

Existing Amenities

Lindenwood Park

-  Vehicle Parking
-  Restrooms
-  Picnic Shelter
-  Playground
-  Walking Loop/Nature Trail
-  Non-Motorized Boat Launch
-  Recreation/Sporting
-  Cross Country Skiing
-  Bicycle / Pedestrian Bridge
-  Drinking Fountain
-  Fishing/Lookout
-  Campground

Lemke Park

-  Vehicle Parking
-  Recreation/Sporting
-  Picnic Shelter
-  Playground
-  Walking Loop/Nature Trail

Lemke Conservancy Park

-  Walking Loop/Nature Trail

Figure 5.11 / Segment 3 Existing Amenities

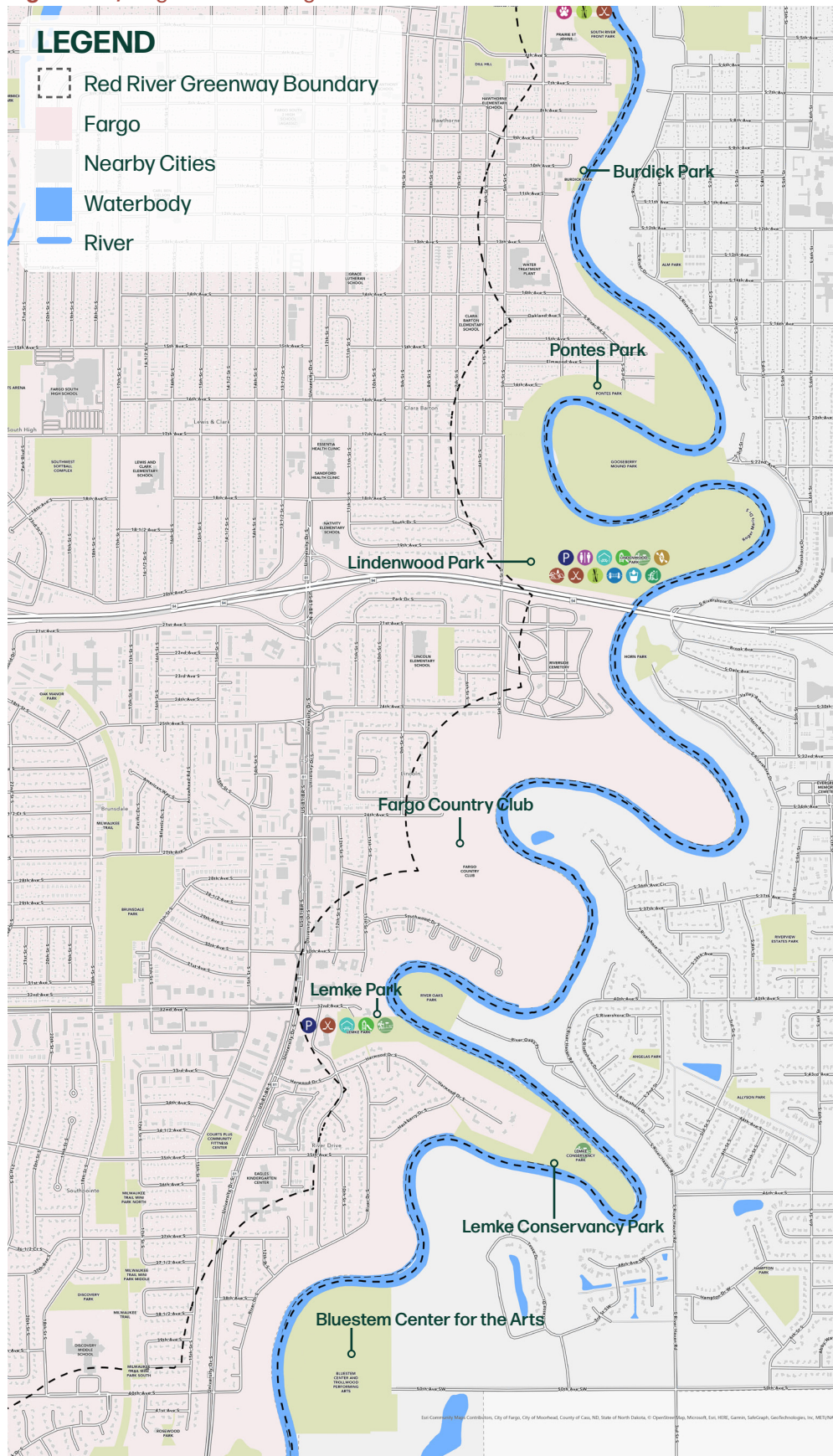


Figure 5.12 / Segment 3 Proposed Amenities



EXISTING FACILITIES

SEGMENT 4

Segment 4 Review

Segment 4 runs from 40th Avenue South to the southern edge of the study area at Heritage Hills Park. This segment includes includes a small portion of the Rose Creek Golf Course, and fully encompasses Lions Conservancy, Iwen, Orchard Glenn, Forest River, and Heritage Hills Parks. The segment has a larger presence of natural land compared to the other segments.

Parks + Open Space

- Iwen Park
- Orchard Glen Park
- Forest River Park
- Heritage Hills Park

Shared Use Paths

An off-street shared use path on University Drive extends the full north-south extents of this segment. Multiple paths from adjacent neighborhoods extend to University Drive but do cross it. There are no existing shared use paths along the river in this segment.

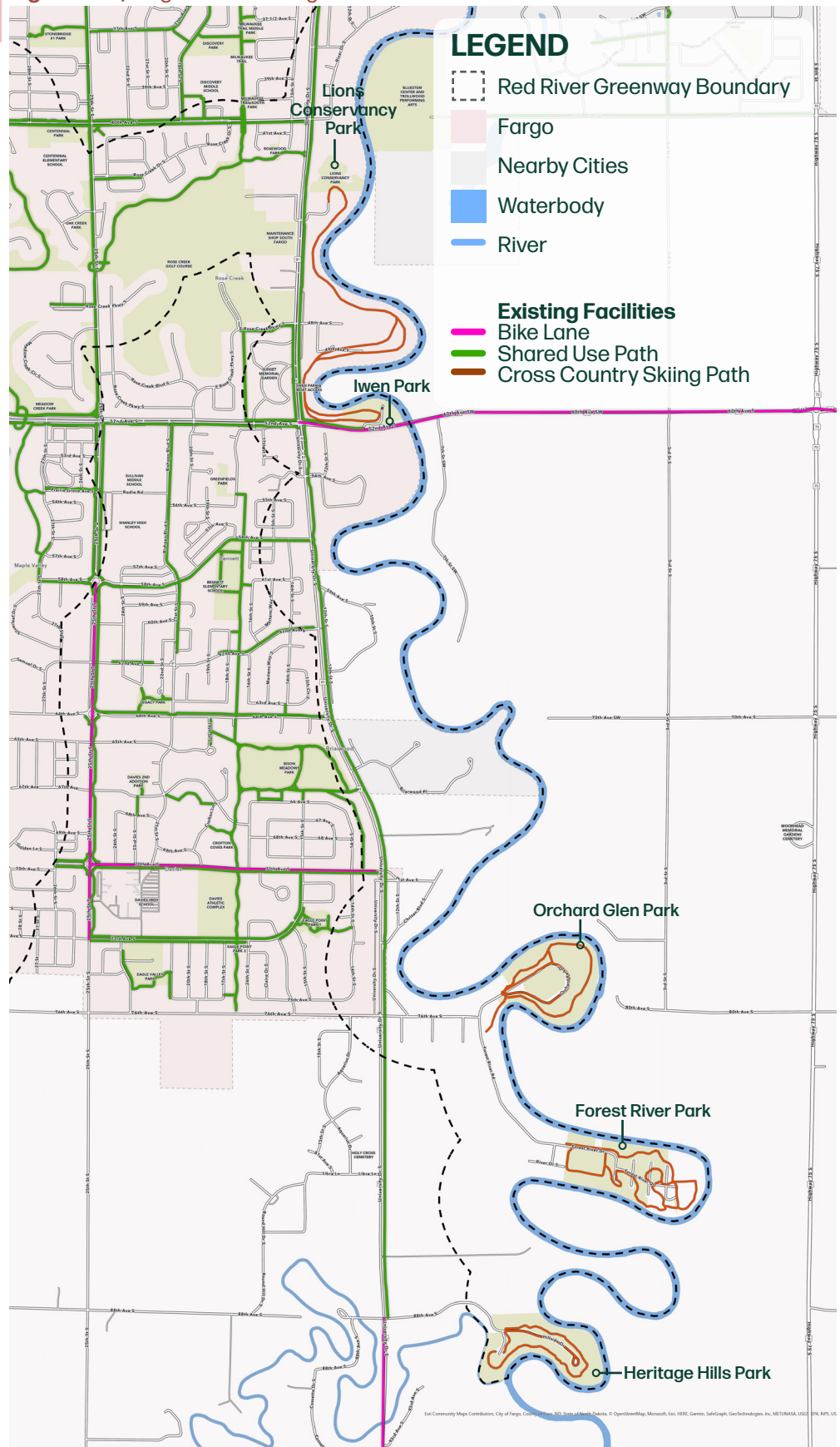
Bicycle Facilities

There is one dedicated on-street bicycle facility that runs perpendicular to this segment along 70th Avenue South. Neighborhood shared use paths serves as the bicycle transportation network.

Cross Country Skiing

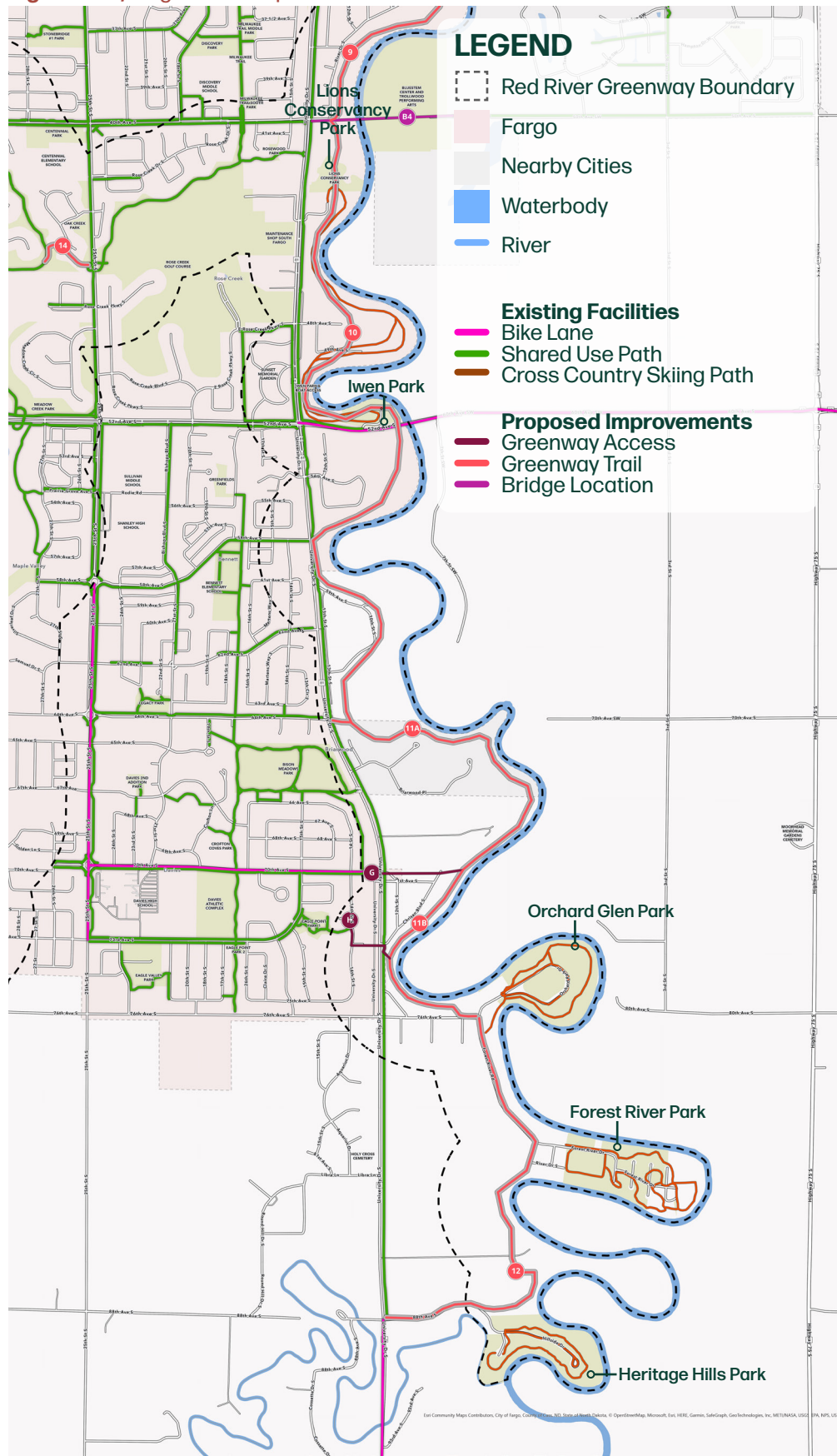
Segment 4 has the greatest number of cross country ski paths. These are located at Iwen Park, Orchard Glen Park, Forest River Park, and Heritage Hills Park.

Figure 5.13 / Segment 4 Existing Facilities



PROPOSED FACILITIES

Figure 5.14 / Segment 4 Proposed Facilities









EXISTING AMENITIES








SEGMENT 4

Existing Amenities



Lions Conservancy Park

-  Vehicle Parking
-  Walking Loop/Nature Trail
-  Cross Country Skiing
-  Port-A-Potty
-  Picnic Shelter
-  Mountain Bike Track




Iwen Park

-  Vehicle Parking
-  Walking Loop/Nature Trail
-  Cross Country Skiing
-  Port-A-Potty
-  Fishing/Lookout
-  Motorized Boat Launch
-  Mountain Bike Track

Orchard Glen Park

-  Walking Loop/Nature Trail
-  Cross Country Skiing

Forest River Park

-  Walking Loop/Nature Trail
-  Non-Motorized Boat Launch
-  Cross Country Skiing

Heritage Hills Park






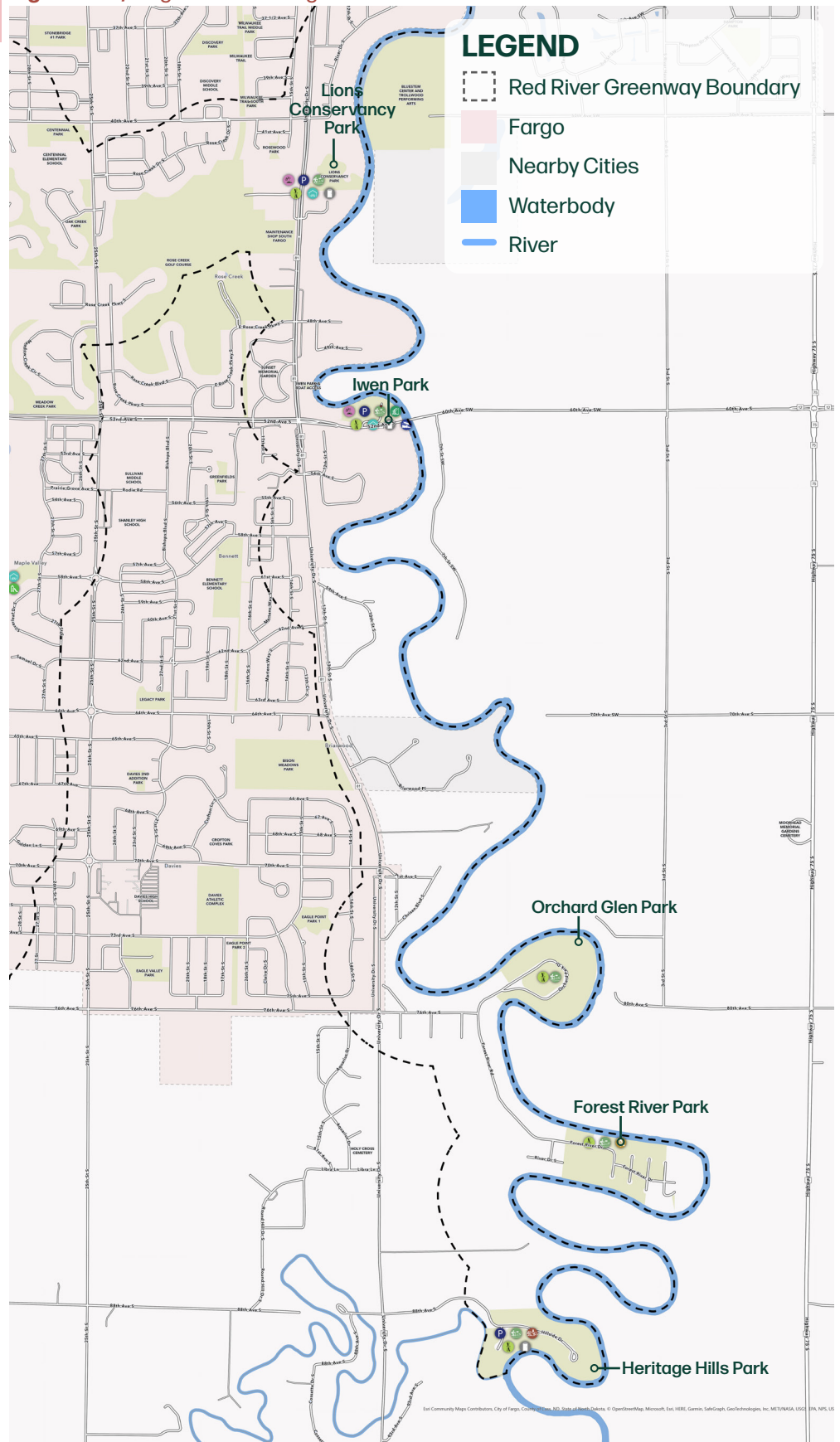
-  Vehicle Parking
-  Port-A-Potty
-  Walking Loop/Nature Trail
-  Cross Country Skiing
-  Campground

Figure 5.15 / Segment 4 Existing Amenities



PROPOSED AMENITIES

Figure 5.16 / Segment 4 Proposed Amenities



EXISTING FACILITIES

SEGMENT 5

Segment 5 Review

Segment 5 runs from the west side of South University Drive, near Drain 27 / the Rose Creek Coulee, and includes all of the drain area. This segment includes the majority of Rose Creek Golf Course, and has two “legs” that include both Drain 53 and 27. The overall character of development is more suburban.

Parks + Open Space

- Rose Creek Golf Course
- Meadow Creek Park
- Silverleaf Park
- Prairie Farms Park
- Golden Valley Park
- Valley View Park
- Osgood Park

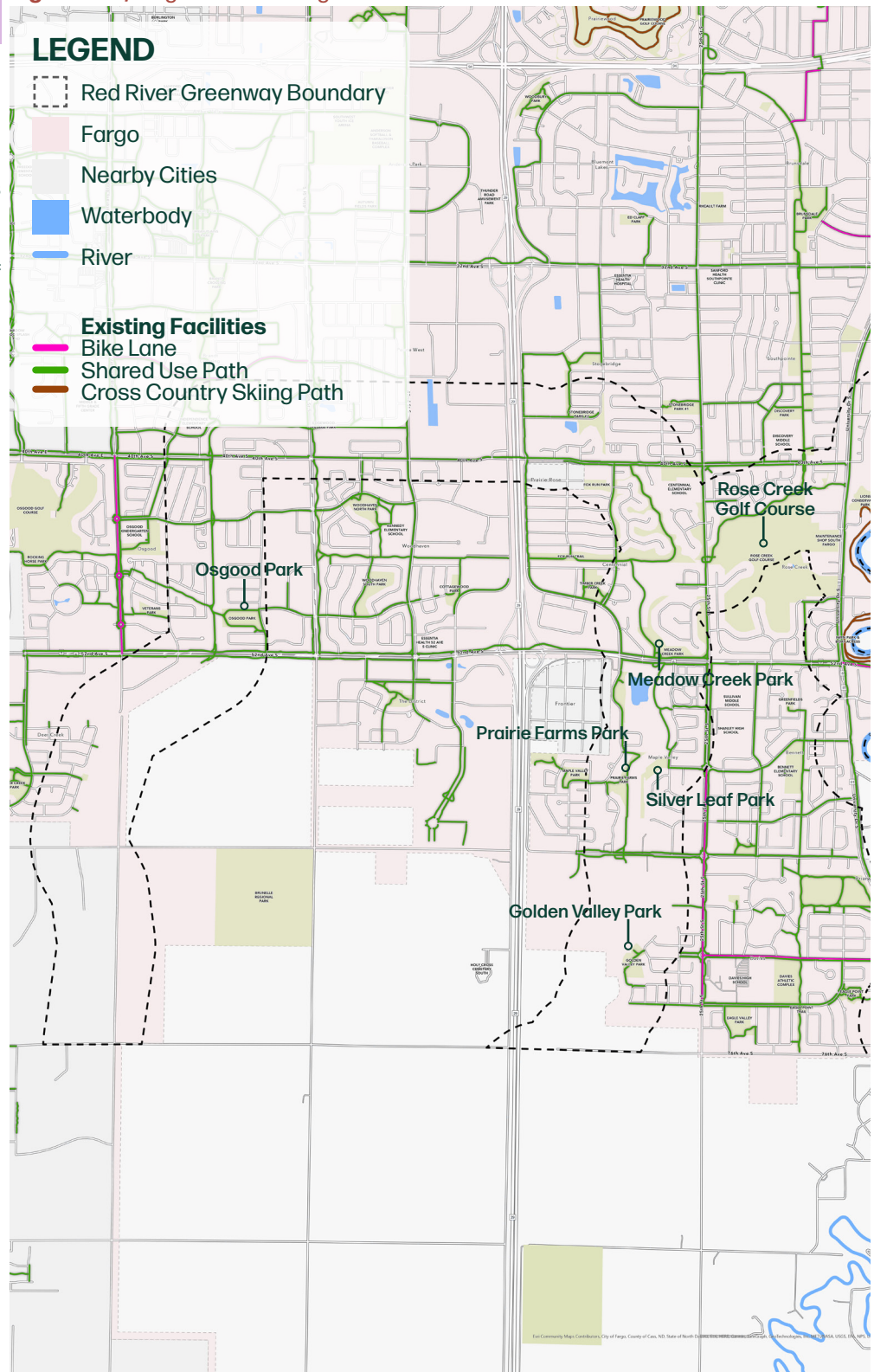
Shared Use Paths

This segment contains more recently developed suburban residential neighborhoods with extensive neighborhood trail systems. The paths are more continuous along Drain 27 than Drain 53 since it is more developed. Many of the paths follow along major roadways and utilize underpasses at points of crossing to avoid conflicts between the motor vehicles and trail users.

Bicycle Facilities

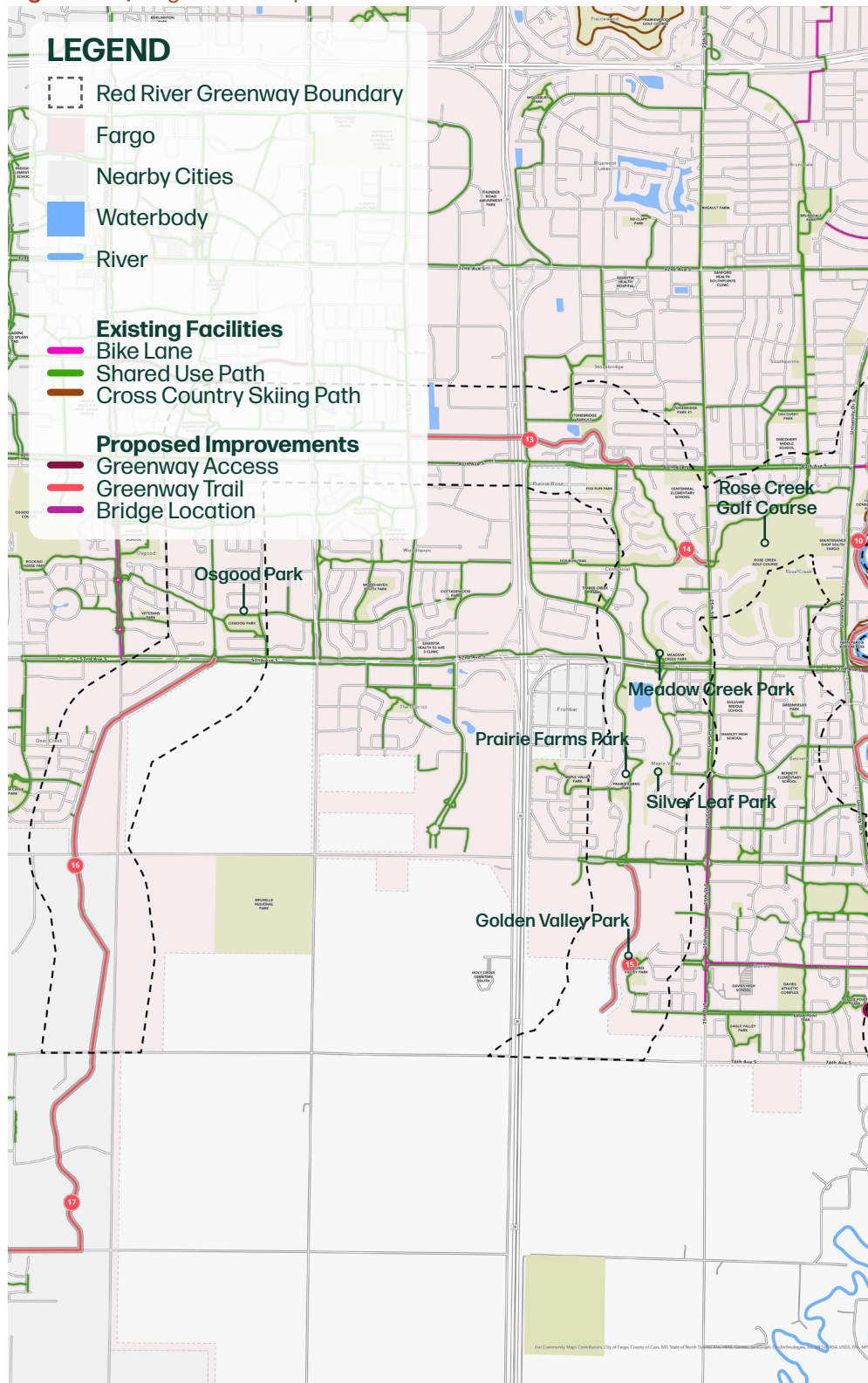
There are no dedicated on-street bicycle facilities in this segment since the extensive shared use paths serves as the bicycle transportation network.

Figure 5.17 / Segment 5 Existing Facilities



PROPOSED FACILITIES

Figure 5.18 / Segment 5 Proposed Facilities



Segment 5 Proposed Connections + Facilities

Due to the largely suburban nature of this segment, many of the proposed investments connect existing shared-use facilities to residential areas and local schools. Additionally, Drains 27 and 53 are located here and the corresponding improvements near the drains (13 and 14) work to improve connectivity back into the overall greenway network.




Page 115 in the Greenway Assessment section provides greater context into the proposed access, trail, and bridge locations for Segment 5. The Implementation Plan further defines the prioritization, timeframe, and facility type for each of these proposed connections as well.

EXISTING AMENITIES

SEGMENT 5

Existing Amenities




Prairie Farms Park

-  Picnic Shelter
-  Playground
-  Recreation/Sporting





Silver Leaf Park

-  Picnic Shelter
-  Playground

Golden Valley Park

-  Picnic Shelter
-  Playground
-  Recreation/Sporting

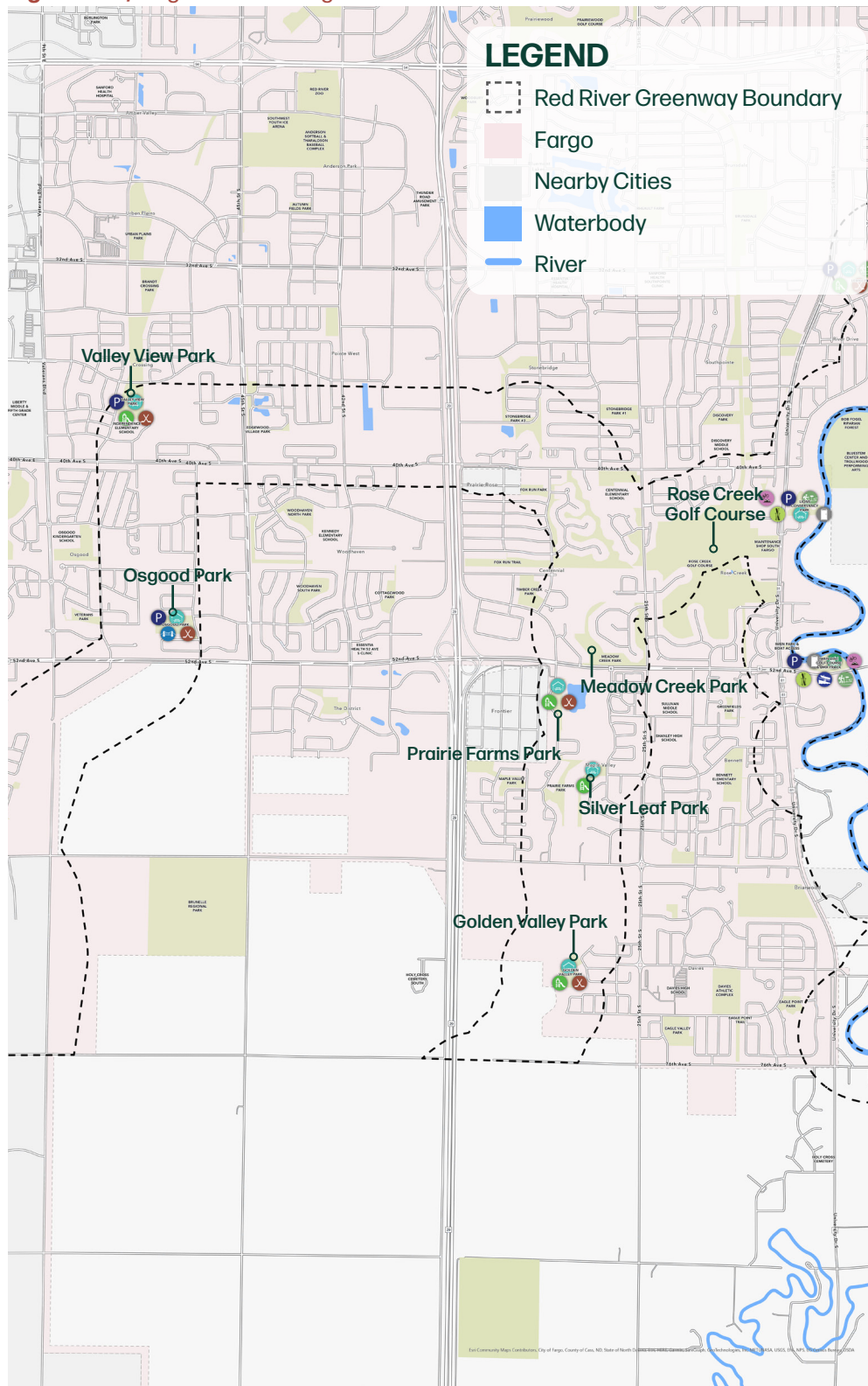
Osgood Park

-  Vehicle Parking
-  Picnic Shelter
-  Bicycle/Pedestrian Bridge
-  Recreation/Sporting

Valley View Park

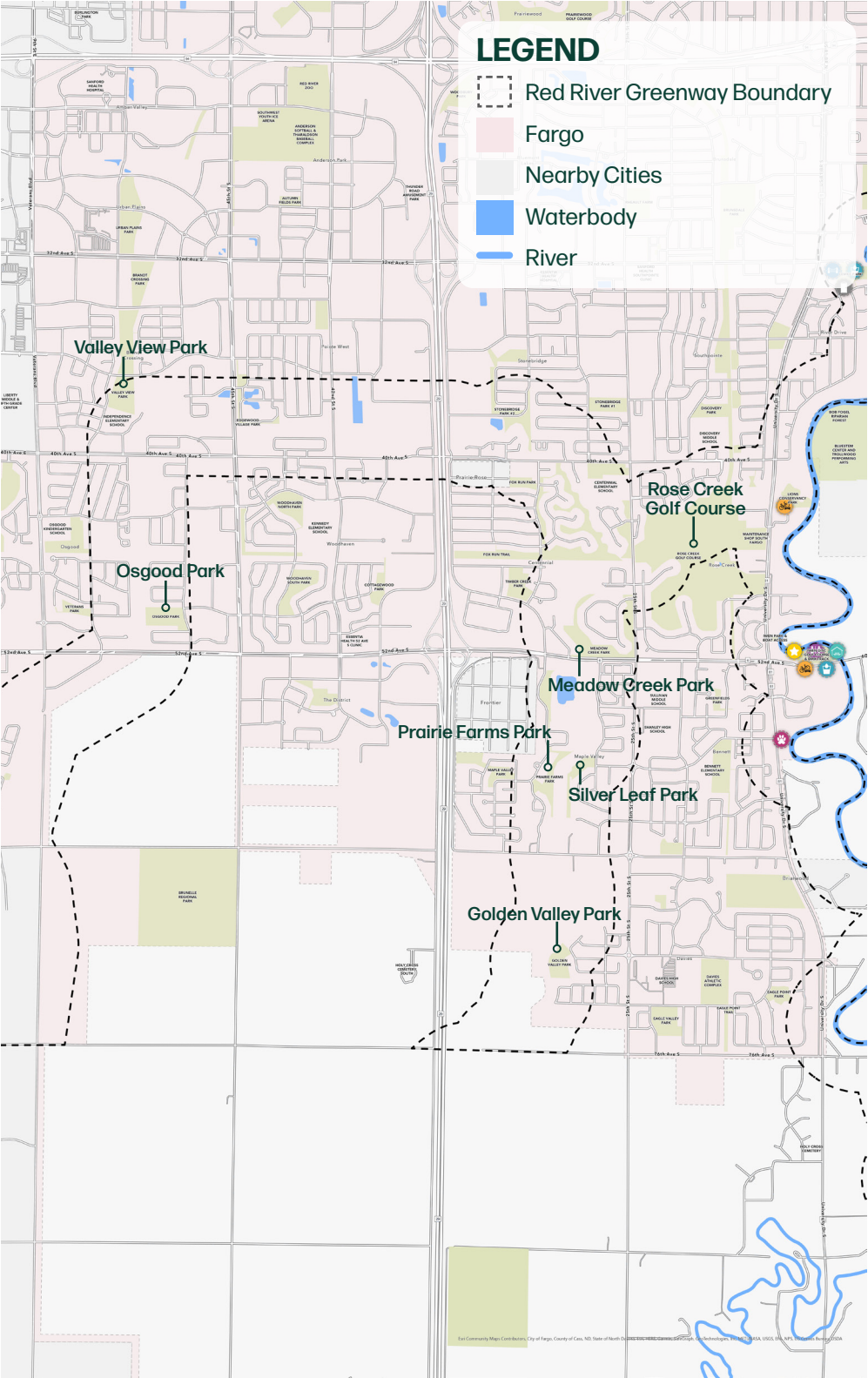
- Vehicle Parking
- Picnic Shelter
- Bicycle/Pedestrian Bridge
- Recreation/Sporting

Figure 5.19 / Segment 5 Existing Amenities



PROPOSED AMENITIES

Figure 5.20 / Segment 5 Proposed Amenities



Proposed Amenities

CHAPTER 6

IMPLEMENTATION PLAN

IMPLEMENTATION PLAN OVERVIEW

The Implementation Plan outlines the proposed investments to the Red River Greenway study area, with corresponding priority levels, timeframes, trail types, and estimated cost range for each item. These proposed investments are intended to support improving mobility and connectivity, expanding services throughout the parks system, and provide guidance on capital improvement budgeting. The recommendations identified in this section are not concrete and should grow and adapt as circumstances and needs change throughout the study area. Readers should examine these proposed investments as what “could be” and further explore opportunities for funding and partnership with the City and other adjoining agencies.

These recommendations should be reviewed and edited as needed on an annual basis to track progress made to-date and future needs.





KEY CONSIDERATIONS

Partnerships and Coordination

The Red River Greenway is an extensive study area which will require continuous coordination with partners involved in the area. Whether it is non-profit organizations, property owners, schools, government agencies, or adjacent jurisdictions, partnerships should be a top priority to efficiently leverage facilities and funding and provide the greatest experiences for the public.



Land and Environmental Stewardship

Ensuring there are little to no negative impacts on the natural environment should be a primary consideration for all future investments in the greenway. Leveraging existing opportunities, such as buy-out parcels, to expand the parks and trails network will also work to preserve the floodplain and maintain a healthy buffer from development. Resiliency and accessibility should be included in all future investments to infrastructure to reduce impacts from flooding.



Connectivity throughout the Greenway

There are currently many well-established trails and shared-use paths throughout the study area. The next big move is to connect each of these to one another to create a grand network and expand services to the public. Additional connections for mobility, whether for recreational or day-to-day travel, provides an additional layer of equity and inclusion to the community.



Considering and Including the Community

The residents and visitors to the Greenway are the cohort that will benefit the most from these improvements. It is imperative to consider the community's needs as these improvements are made to ensure accessibility to all, regardless of ability. Additional considerations should be given to wayfinding and transit routes to bring people directly to the parks and trails throughout the study area.



Key Goals + Objectives

The Community Vision + Goals section outlined a series of goals and objectives to support the plan. Each goal is supported by a series of objectives to help further explain the intent behind each aspiration. Please refer to page XX for the detailed objectives tied to each goal. Goals were identified based on a review of existing conditions and community input.

These goals were utilized to consider the prioritization and application of recommendations outlined in the following tables.



HOW TO READ THE IMPLEMENTATION PLAN

<i>References the segment location</i>	<i>Defines the priority level from low to high</i>	<i>Identifies the timeframe for completion</i>	<i>Determines if the improvement is on-street, paved or a bridge</i>	<i>Follows the cost estimate ranges of <\$50K, \$50K-\$500K, >\$500K.</i>
--	--	--	--	---

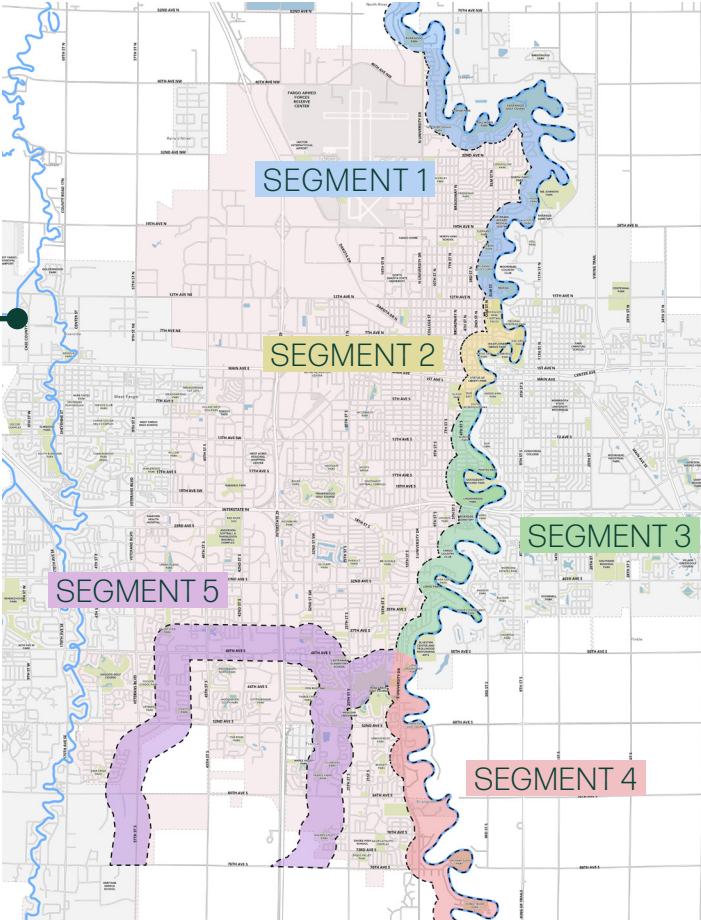
Segment	Priority	Timeframe	Trail Type	Cost
X	(Low, Med, High)	(Near, Long, Visionary)		

Trail Segment X	High	Near (0-5 Years)	On-street	\$
Access Point X	Med	Long (5-10 Years)	Paved	\$\$
Bridge X	Low	Visionary (10+ Years)	Bridge	\$\$\$

This column presents the proposed investment label. This labeling is consistent with what is shown throughout the Greenway Assessment section.

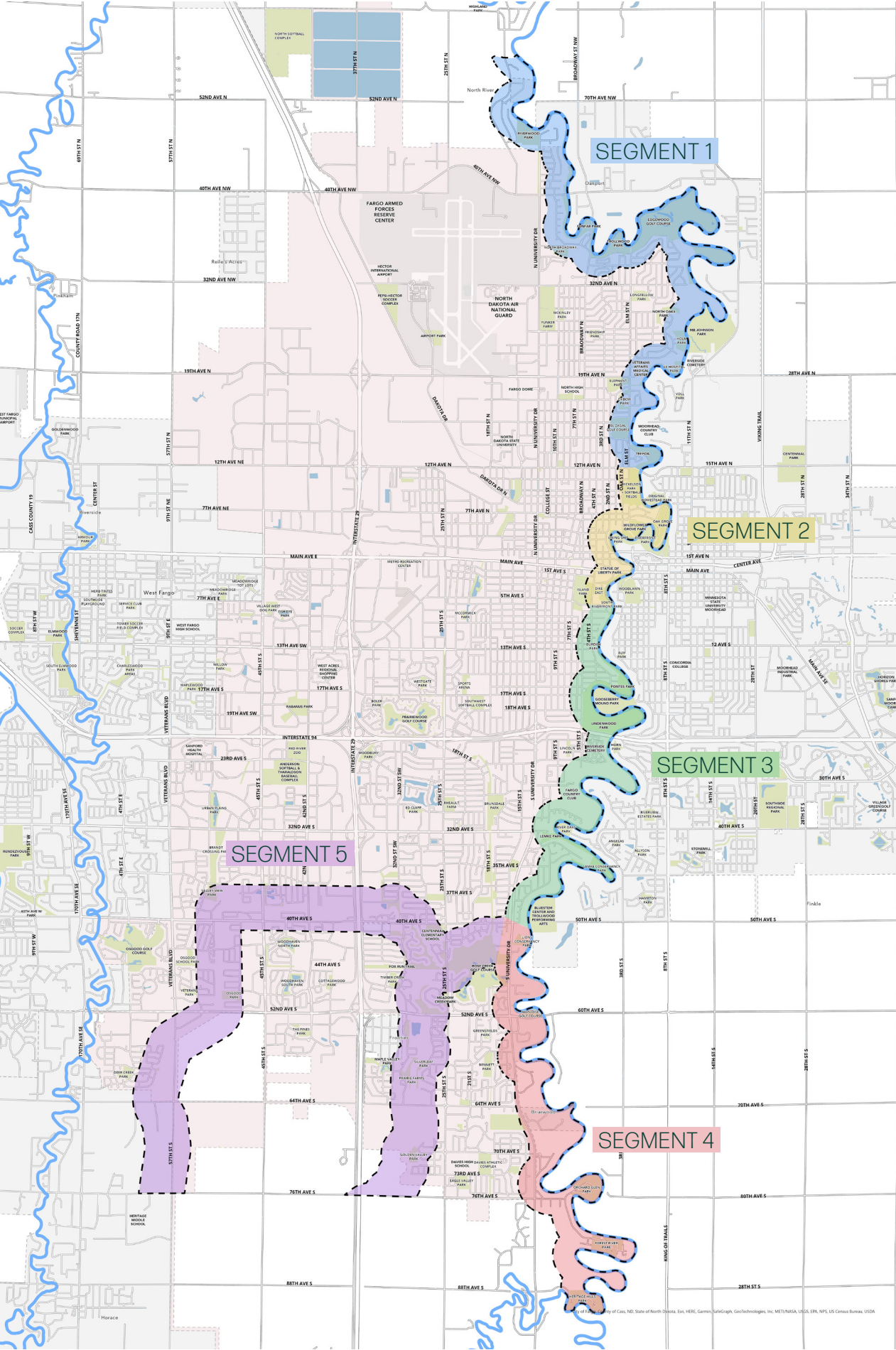
These images provide additional reference to the segment being discussed. The full segment location map is presented on the opposite page.

The cost estimate ranges utilized for the final column of each segment implementation table.



\$-Less than \$50,000 \$\$-\$50,000-\$500,000 \$\$\$-Greater than \$500,000

Figure 6.1 / Segment Designations in the Study Area



IMPLEMENTATION PLAN

Segment	Priority	Timeframe	Trail Type	Cost
1	(Low, Med, High)	(Near, Long, Visionary)		
Trail Segment 1	High	Near	On-street	\$
Trail Segment 2A	Low	Long	On-street/Paved	\$\$
Trail Segment 2B	Low	Long	On-Street	\$
Trial Segment 3	High	Long	Paved	\$\$
Trail Segment 4	High	Near	Paved	\$\$
Access Point A	High	Long	Paved	\$
Access Point B	High	Long	Paved	\$
Access Point C	High	Near	Paved	\$
Bridge 1	Low	Visionary	Bridge	\$\$\$

\$-Less than \$50,000

\$\$-\$50,000-\$500,000

\$\$\$-Greater than \$500,000

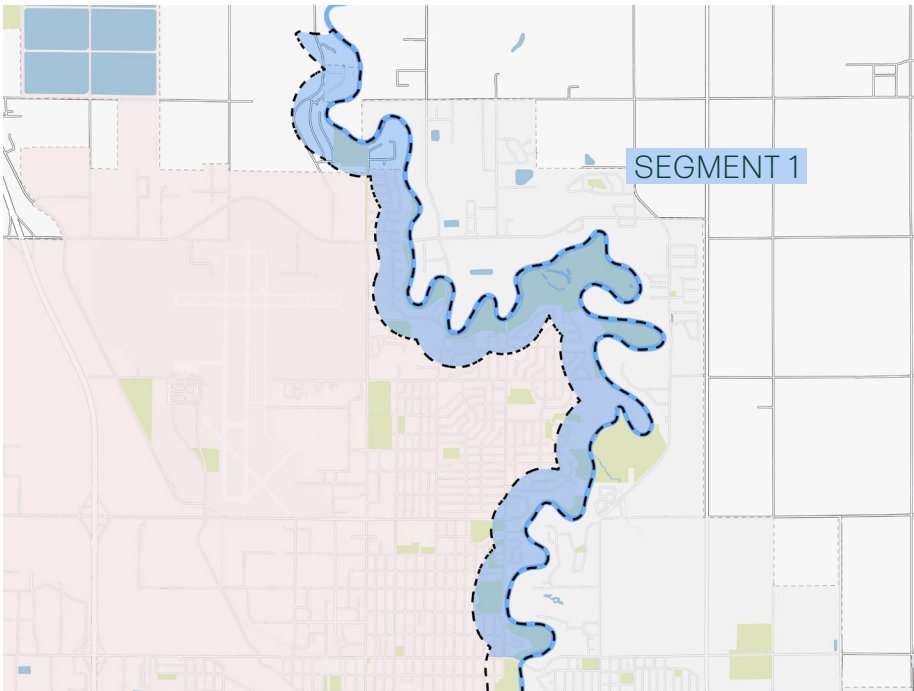
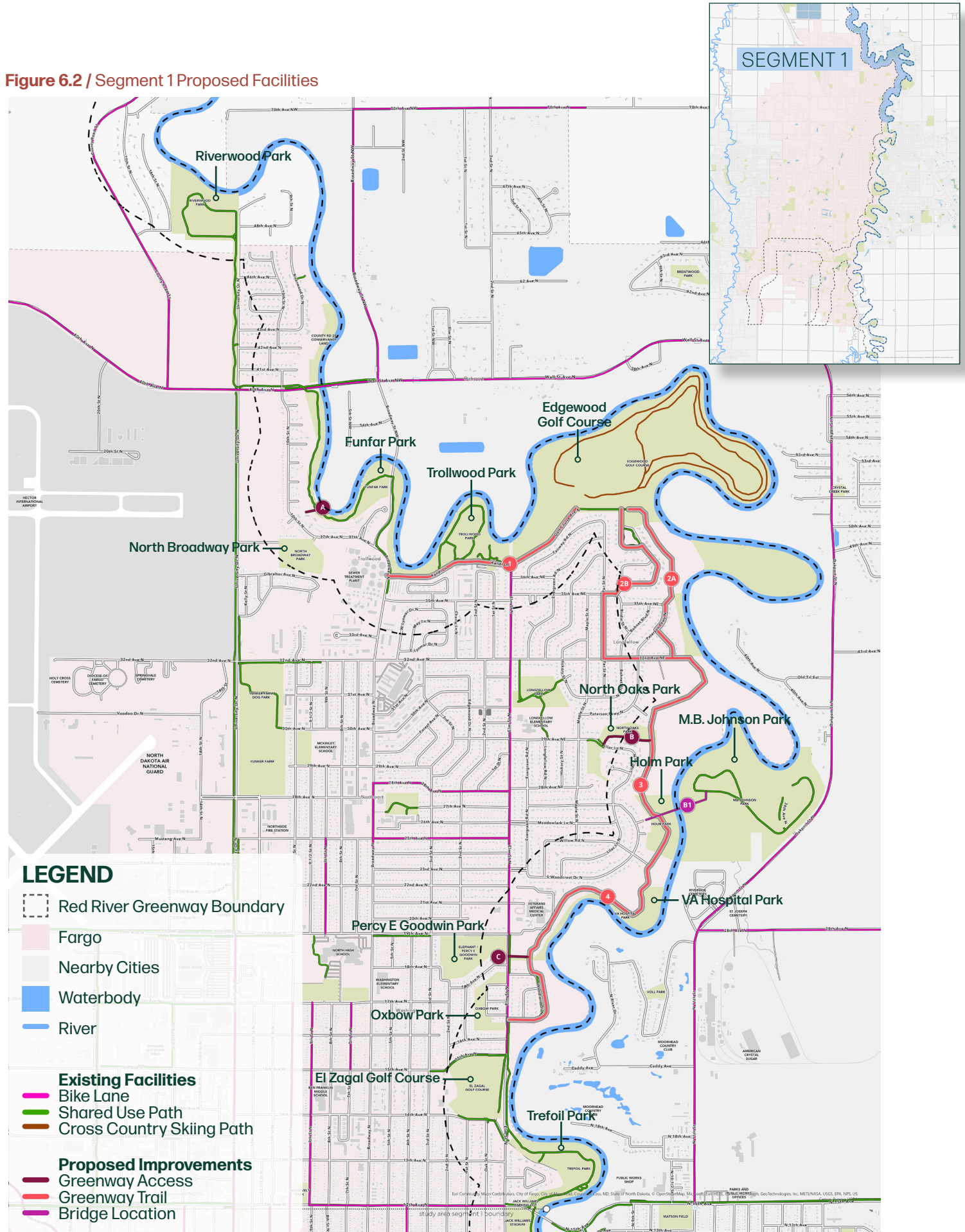


Figure 6.2 / Segment 1 Proposed Facilities



IMPLEMENTATION PLAN

Segment	Priority	Timeframe	Trail Type	Cost
2	(Low, Med, High)	(Near, Long, Visionary)		
Trail Segment 5A	High	Near	On-street	\$
Trail Segment 5B	Med	Long	Paved	\$
Access Point D	High	Near	Paved	\$
Access Point E	Med	Long	Paved	\$
Access Point F	High	Near	Paved	\$
Bridge 2	Low	Visionary	Bridge	\$\$\$

\$-Less than \$50,000

\$\$-\$50,000-\$500,000

\$\$\$-Greater than \$500,000

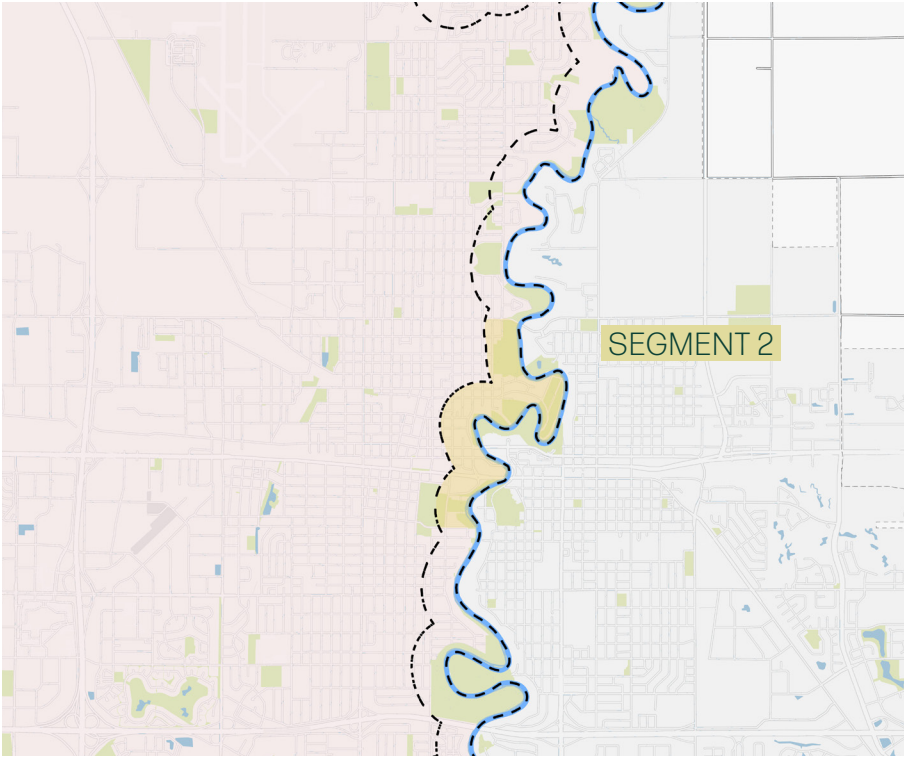
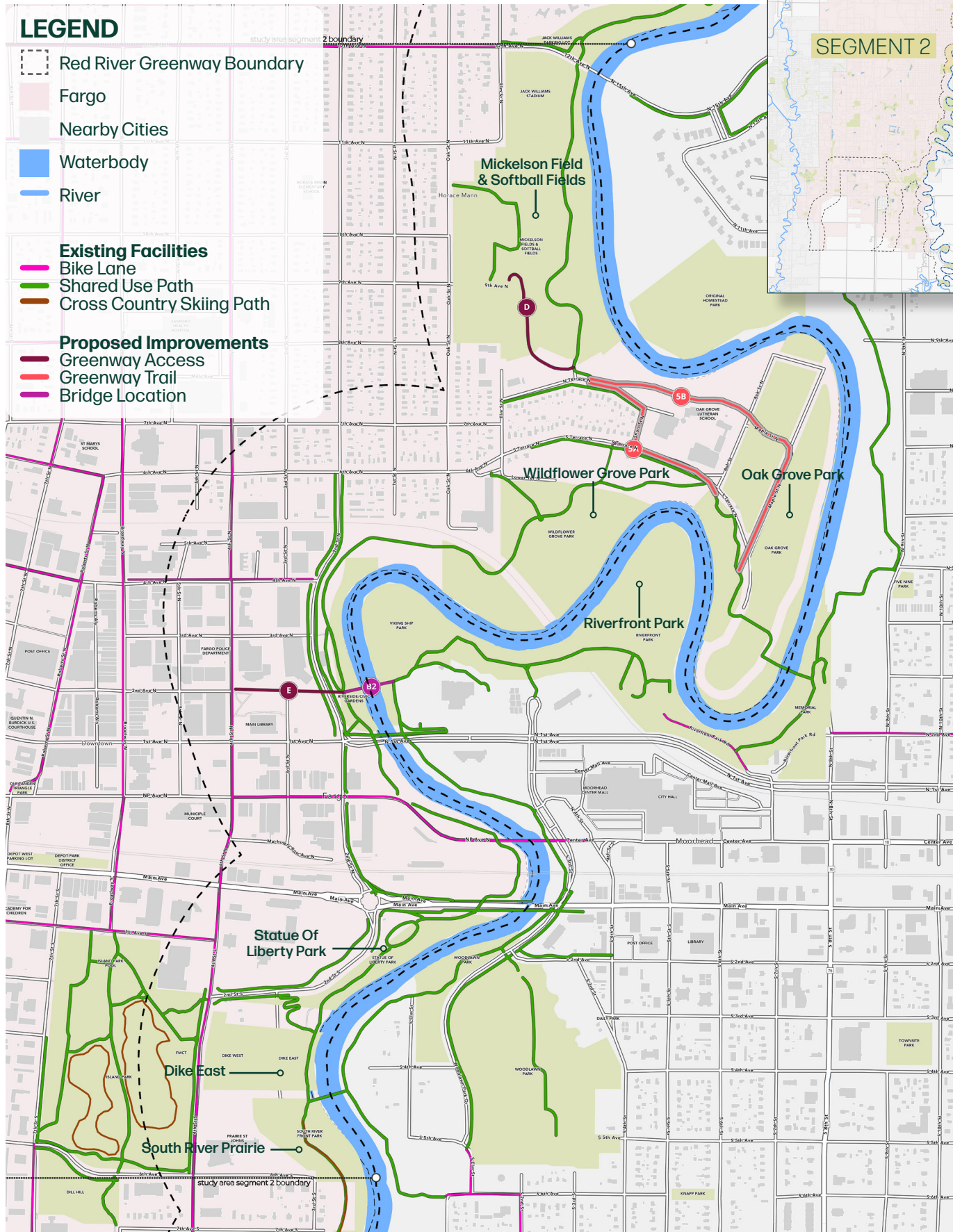


Figure 6.3 / Segment 2 Proposed Facilities



IMPLEMENTATION PLAN

Segment	Priority	Timeframe	Trail Type	Cost
3	(Low, Med, High)	(Near, Long, Visionary)		
Trail Segment 6	High	Near	On-street	\$
Trail Segment 7A	Low	Visionary	Paved	\$\$
Trail Segment 7B	High	Near	Paved	\$
Trial Segment 8A	Low	Visionary	Paved	\$
Trial Segment 8B	High	Near	Paved	\$
Trail Segment 9	Med	Long	Paved	\$\$
Bridge 3	Low	Visionary	Bridge	\$\$\$
Bridge 4	Med	Near	Bridge	\$\$\$

\$-Less than \$50,000 \$\$-\$50,000-\$500,000 \$\$\$-Greater than \$500,000

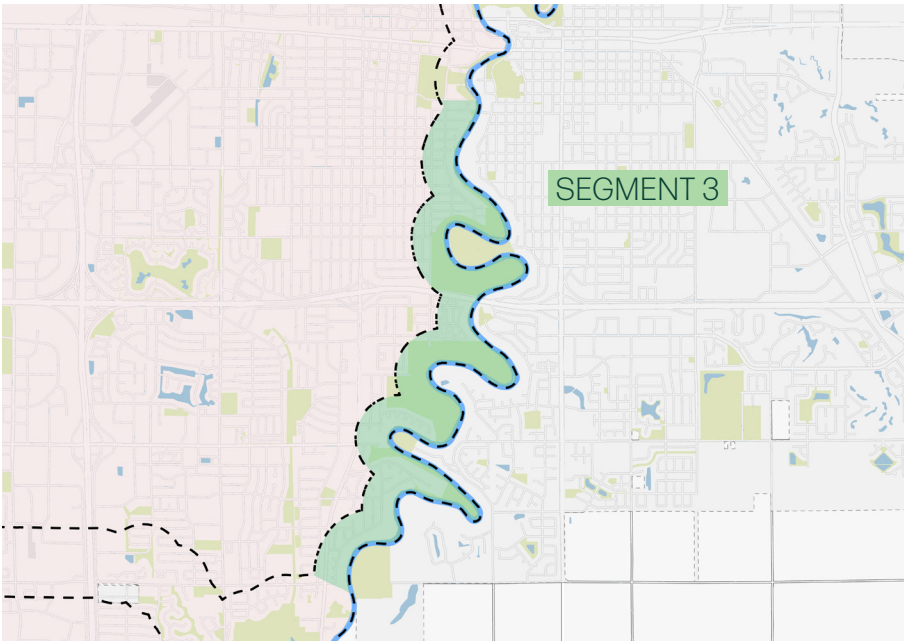
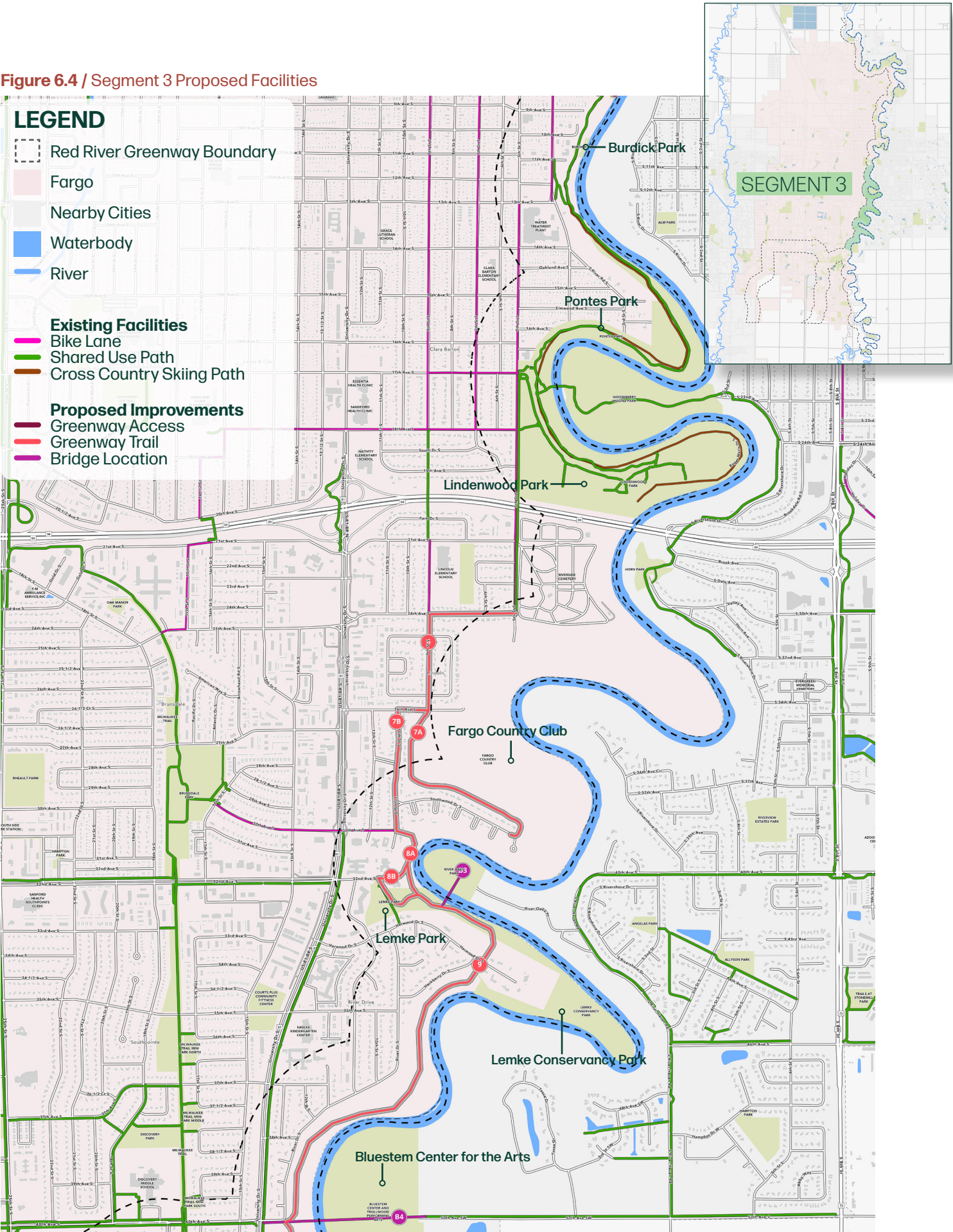


Figure 6.4 / Segment 3 Proposed Facilities



IMPLEMENTATION PLAN

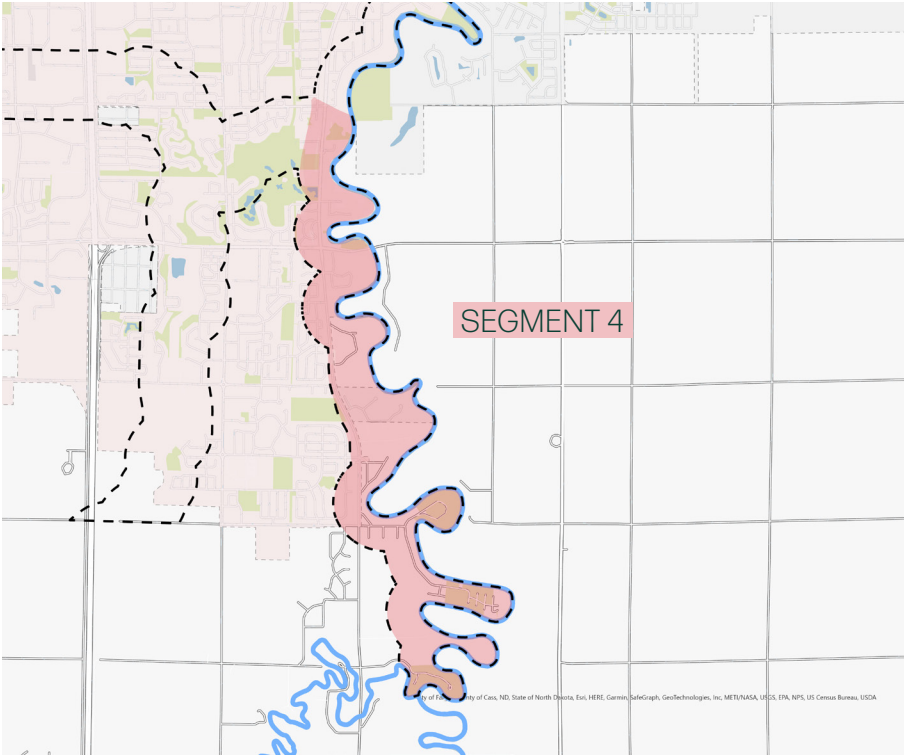
Segment	Priority	Timeframe	Trail Type	Cost
4	(Low, Med, High)	(Near, Long, Visionary)		

Trail Segment 10	Med	Long	Paved/Gravel	\$\$
Trail Segment 11A	Low	Long	Paved/Gravel	\$\$
Trail Segment 11B	Med	Near	Paved/Gravel	\$\$
Trail Segment 12	Med	Long	Paved/Gravel	\$\$
Access Point G	High	Near	Paved/Gravel	\$
Access Point H	High	Near	Paved/Gravel	\$\$

\$-Less than \$50,000

\$\$-\$50,000-\$500,000

\$\$\$-Greater than \$500,000



SEGMENT 4

LEGEND

- Red River Greenway Boundary
- Fargo
- Nearby Cities
- Waterbody
- River

Existing Facilities

- Bike Lane
- Shared Use Path
- Cross Country Skiing Path

Proposed Improvements

- Greenway Access
- Greenway Trail
- Bridge Location

IMPLEMENTATION PLAN

Segment	Priority	Timeframe	Trail Type	Cost
5	(Low, Med, High)	(Near, Long, Visionary)		
Trail Segment 13	Med	Long	Paved	\$\$
Trail Segment 14	High	Near	Paved	\$
Trail Segment 15	Med	Long	Paved	\$\$
Trial Segment 16	Low	Long	Paved	\$\$
Trail Segment 17	Low	Long	Paved	\$\$

\$-Less than \$50,000

\$\$-\$50,000-\$500,000

\$\$\$-Greater than \$500,000

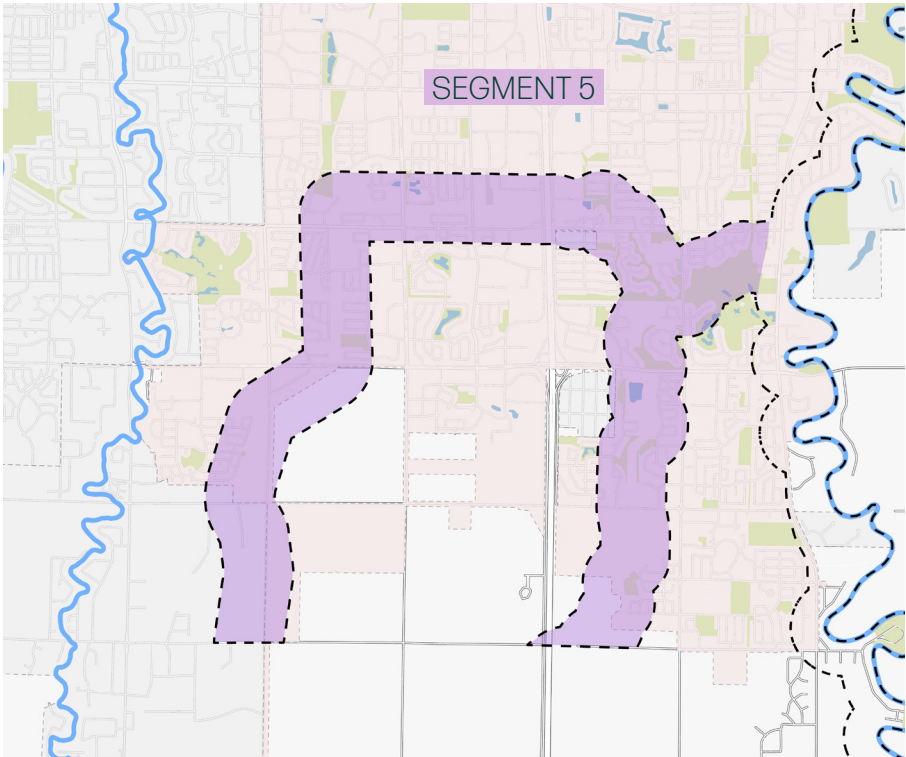
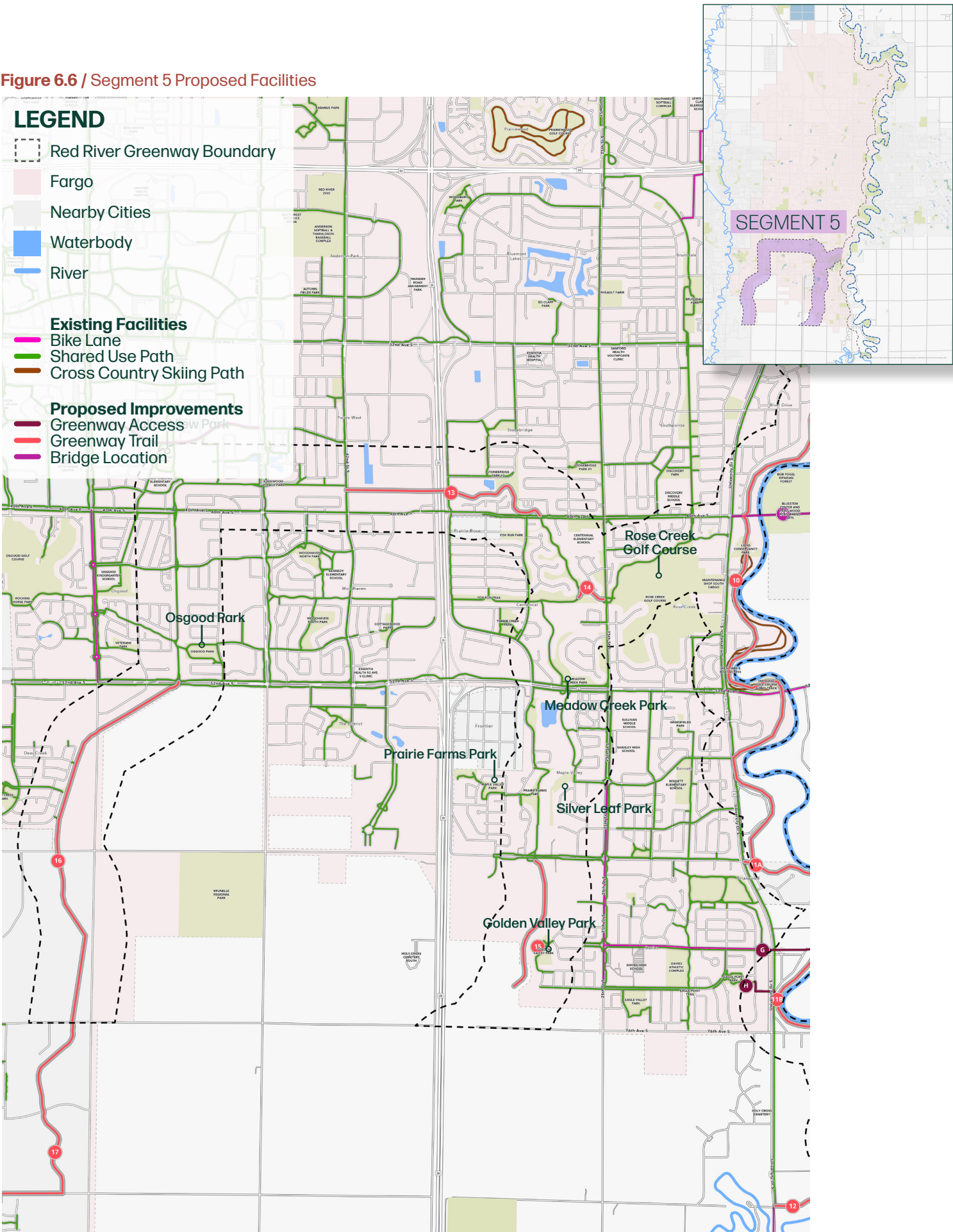


Figure 6.6 / Segment 5 Proposed Facilities



APPENDIX A

RIGHT-OF-WAY TOOLKIT AND COST ESTIMATES

RIGHT OF WAY TOOLKIT

Assumptions and Background

- The acquiring agency will be the City of Fargo or the Fargo Park District
 - It is assumed that either the City of Fargo or the Fargo Park District will serve as the government agency that will acquire property for the Greenway. Both agencies have statutory authority to acquire and own property in North Dakota.
 - It is assumed that additional property for the greenway will be secured voluntarily, and the government will not utilize eminent domain.
- When the City of Fargo needs to acquire a sidewalk or shared use path, the City would have an appraisal completed on a property to establish the before and after value of the property once the trail is constructed.
- This type of purchase is not common for the City since the trails are usually constructed on land rights the City already owns, such as a flood buyout property or street right of way.
- Along some of the legal drains in south Fargo, the City has worked with Southeast Cass Water Resource District for an easement for trails, and those easements are typically granted at no cost.
- Fargo Park District trails, paths, and sidewalks have historically been constructed through partnerships with the City at the time of construction of other city infrastructure.
- When the Fargo Park District has purchased larger tracks of land, an appraisal has been used to establish the property value. The Fargo Park District prefers to own land in fee title for its facilities but could explore the use of easements for certain trails.
- The City of Fargo (and Cass County) have established minimum dollar amounts that they offer to property owners as just compensation for a smaller easement or acquisitions when an appraisal may not be necessary.
- It is not common for the City or the Park District to acquire property from private property owners strictly for the purposed of trails.

Guidance for Acquiring Property

- The acquiring agency should strive to build relationship with private property owners and let the property owners know the agency's goals and desires to expand and connect the greenway.
- The acquiring agency should be able to explain why the greenway is important to the community and why it can be valuable to the property owner.
- The acquiring agency should secure greenway space via development agreements as development plans for lands along the greenway are presented to the City Planning Department.
- The acquiring agency should utilize a consistent approach to acquire property (see Acquisition Approach).
- The acquiring agency should identify a team of experts to complete the acquisition of property for the greenway. The team of experts includes a negotiator or land agent who meets and builds rapport with the property owners, GIS professionals who can prepare maps and illustrations showing the necessary property rights and images of the proposed facilities, surveyors who can prepare legal descriptions of the necessary property rights, appraisers qualified to establish the fair market value of the property needed, legal counsel to prepare agreements, easements, and conveyance documents, and a closing agent and title company to assist with closing the transaction of real estate.
- The acquiring agency staff should keep elected officials informed of the project and efforts to acquire property but ask the elected officials to direct landowner communications to the team of experts.

Acquisition Process

1 Identify and Meet with Property Owners

- Early in the project, it is important to identify and meet with the property owners whose land may be affected or needed for the proposed greenway project.
- The goal is to build relationships with property owners early in the process so that they are informed and so that the project team can incorporate any feedback or concerns from the property owner into the design.
- Ideally, one point of contact (the land agent) should be established with the property owners to help manage conversations and the flow of information.
- Ownership and encumbrance reports or title work should be ordered to identify property owners and contact information. Another strategy is to send or leave on their front door an introduction letter and requesting contact information.

2 Preliminary Design

- The Design Team develops the preliminary design for the greenway project.
- The property owners and parcels that may be affected by the Project are refined.
- The need for access for design surveys is identified.

3 Right of Entry for Design and Boundary Surveys

- If field survey data is needed for the design of the greenway project, the land agent shall make a request to the property owner to allow surveyors onto the property for completing the design surveys and preparing boundary surveys.
- The survey teams shall be as comprehensive as possible to limit the number of times they need to enter the property.
- A written right of entry form should be used to document the permission granted and the purpose of the entry.

4 Project Design

- The design of the project is advanced and final right of way needs are defined by the design team.
- Map exhibits and certificates of survey for each affected parcel should be prepared to show the property owners how the project will affect their property.
- The land agent should share the map exhibits to the property owners and point out any changes from the preliminary design plan.
- In addition, the design team should identify the planned project timeline, including construction schedules that can be shared with the property owners via the land agent.

RIGHT OF WAY TOOLKIT

Acquisition Process Cont'd.

5 Property Valuation

- For smaller takings, the acquiring agency can consider using an established minimum offer amount. For unique and more significant property takings, the acquiring agency should rely on the expertise of an independent appraiser.
- The acquiring agency shall retain the services of an independent appraiser to establish the value of any property interests needed for the greenway project.
- The land agent shall inform the property owner that an appraiser will be contacting them to conduct an appraisal of the necessary property interests.
- The appraiser and the property owner will establish a time to inspect the property. The property owner shall be allowed but is not required to accompany the appraiser during the property inspection.
- The appraiser, using the certificate of survey based on final design conducts an appraisal of the necessary property interests. Appraiser should be instructed to use the North Dakota definition of market value.
- The appraisal will establish the minimum amount of Just Compensation due to the property owner.

6 Legal Documents

- The legal team shall develop purchase agreements and any other conveyance documents that will be necessary to acquire the necessary property rights for the greenway project. This may include easements, and this will include completing title research to confirm the existing owner of the affected property.
- The legal documents shall be reviewed by the land agent prior to sharing with the property owner to make sure the terms and conditions meet the needs of the project and match what has been explained to the property owner.

7 Negotiations

- The land agent should present the appraisal to the property owner and make an offer of Just Compensation based on appraisal amount. An example offer letter and example purchase offer and compensation summary form is presented below.
- The offer to purchase property should always include a map (visual) and an actual agreement that the property owner can sign.
- The land agent should be authorized to negotiate the most equitable acquisition of the necessary property rights.
- The land agent should be open and responsive to questions from the property owner and move to secure an agreement for the property rights as soon as possible.

8 Closing Payment

- Upon final approval of legal documents by the property owner and the acquiring agency, the legal team will prepare a deed and additional documents required for closing.
- The title/closing company will prepare the partial mortgage releases, closing statements, 1099s, and conduct the closing with property owner. It is often helpful to have the land agent attend the closing with the property owner.
- The property owner will receive payment for the property interests at the closing.

Example Offer Letter

[Letterhead/Logo]

[DATE]

[NAME]

[ADDRESS]

[PARCEL ID]

RE: [PROJECT] – EASEMENT OFFER

Dear [CURRENT OWNER]:

[PROJECT INFORMATION]. [ACQUIRING ENTITY NAME AND INFORMATION]

I am reaching out to you because the [ACQUIRING ENTITY] would like to acquire an easement [AREA NEEDED FOR EASEMENT] of your property. [ACQUIRING ENTITY] has hired [NEGOTIATOR COMPANY] to assist in acquiring this easement. This letter is an offer from [ACQUIRING ENTITY] to purchase from you the easement desired for the [PROJECT NAME].

[ACQUIRING ENTITY]'s offer is based on an [APPRAISAL OR COUNTY/CITY MINIMUM] by [APPRAISAL COMPANY OR NAME OF COUNTY/CITY]. [ACQUIRING ENTITY] offers to pay you **[DOLLAR AMOUNT]** as Just Compensation for the easement you on Parcel [Parcel ID]. I am here to help you understand and assist you through the process of receiving payment.

THE PROCESS:

1. Let us know you received the letter by calling or emailing me (see contact information below.)
 - a. We are available to discuss the easement and the process with you. We can meet in person, virtually, or over the phone.
2. Once you are comfortable with the offer, please sign page [#] of the agreement.
3. Next please sign and notarize page [#] of the easement.
 - a. We can provide a notary at the time of signing.
4. Provide information on how and where you would like your payment for the easement.

RIGHT OF WAY TOOLKIT

Example Offer Letter Cont'd

5. Return original copy to [ADDRESS].
 - a. We can deliver the document for you.

Again, please know that I am here to help answer any questions you have. We appreciate your cooperation and assistance as we work toward a mutually satisfactory completion of this acquisition process.

Thank you for your time and consideration.

CONTACT INFORMATION:

[NEGOTIATOR NAME]
[NEGOTIATOR COMPANY]
[NEGOTIATOR PHONE NUMBER]
[NEGOTIATOR EMAIL]

ADDITIONAL INFORMATION CAN BE FOUND HERE:

[WEBSITE]

ATTACHED

- Project FAQ
- Purchase Agreement
- Easement
- Purchase Offer and Compensation Summary
- Appraisal Report
- Certificate of Survey
- Parcel Exhibit

Example Offer Letter Cont'd

Example: Purchase offer and compensation summary

PURCHASE OFFER and COMPENSATION SUMMARY

Acquiring Agency:
Project:
Easement Type:
Parcel(s) number(s):

Property Valuation Summary						
Parcel Number	Type of Acquisition	Easement Area (acres)	X	Value (\$ per Acre)	=	Offer Amount
			X		=	
			X		=	
			Total Value (Rounded Up)		=	
			Total Compensation Due		=	

The [ACQUIRING AGENCY] is the entity responsible for acquiring the necessary property rights for the [PROJECT NAME]. The [EASEMENT NAME] will enable [PURPOSE OF EASEMENT].

COST ESTIMATES

TRAIL GAP COST ESTIMATES

A set of simple, high-level cost estimates for each trail gap was calculated using the cost per linear feet for the proposed surface type. In some instances, two possible trail surface types are provided and have resulted in a range of cost estimates for construction.

Trail gap assessments are divided into five tables based on the segment of the river corridor in which they are located. Each gap lists the trail type, likely paving material(s), length in linear feet (LF), construction cost estimate, soft cost estimate (land acquisition, real estate fees, etc.), and the total cost estimate.

Paving Material + Price Per Linear Foot

There are five trail types identified for the gap analysis each of which have an estimated cost per linear foot (LF). The paving material and associated price / LF include:

- Asphalt Shared Use Path / \$92.06 / LF
- Concrete Shared Use Path / \$181.77 / LF
- Gravel Shared Use Path / \$19.08 / LF
- Natural Path / \$14.86 / LF
- Boardwalk / \$375.00 / LF

Table A.1 shows the price / LF by paving material.

Construction Costs include the estimate for the unit cost of excavation and material for construction of the path by paving material.

Soft Costs include engineering, legal, administration or contractor mobilization, insurance, bonding and other costs, and were calculated based on the assumption that soft costs would range between 10-20% of total construction costs. These costs are highly project dependent and these cost ranges should not be considered true cost estimates.

Total Cost Estimates include the estimated construction and soft cost ranges for each gap. The following pages summarize the estimated cost.

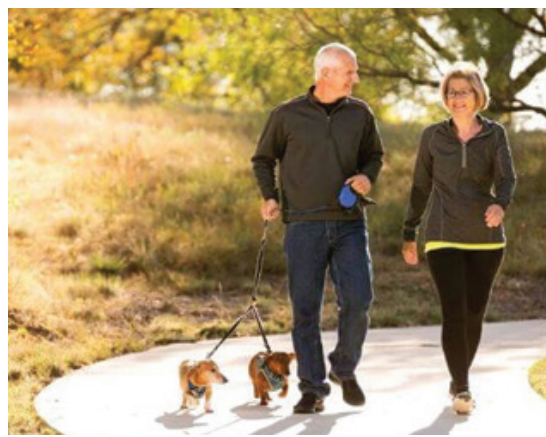
Bridges

The cost for bridges is highly variable and a rough estimate of \$10.0 million was identified for each bridge. This should not be used as a true figure, but rather an estimated range of likely cost.

Note, within each table an asterisk was placed next to projects that have all or some of the gap within publicly owned land, which may reduce some of the soft costs associated with implementation.

Table A.1 / Price per Linear Foot by Paving Material

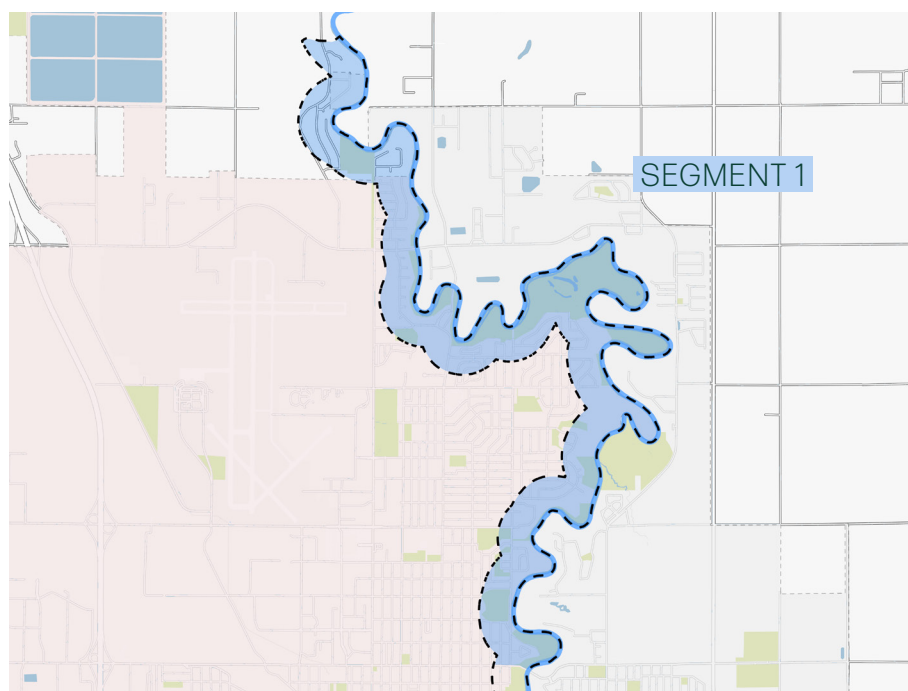
Price / LF by Paving Material	
Paving Material	Price / LF
Asphalt Shared Use Path	\$92.06 / LF
Concrete Shared Use Path	\$181.77 / LF
Gravel Shared Use Path	\$19.08 / LF
Natural Path	\$14.86 / LF
Boardwalk	\$375.00 / LF



SEGMENT 1 COST ESTIMATES

Gap #	Trail Type	Paving Material	Length	Cost Estimate	Soft Cost Estimate		Total Cost Estimate	
			(LF)	construction	low (10%)	high (20%)	low	high
Segment 1								
A *	Paved	Concrete	211.2 LF	\$39,390	\$3,839	\$7,678	\$42,229	\$46,068
1 *	On Street	Existing	4,171.2 LF	\$61,984	\$6,198	\$12,397	\$68,182	\$74,381
2A *	On Street / Paved	Existing / Match	3,537.6 LF	\$52,569	\$5,257	\$10,514	\$57,826	\$63,082
2B	On Street	Asphalt / Match	5,913.6 LF	\$87,876	\$8,788	\$17,575	\$96,664	\$105,451
3 *	Paved	Asphalt	5,068.8 LF	\$466,634	\$46,663	\$93,327	\$513,297	\$559,960
B *	Paved	Asphalt	1,003.2 LF	\$92,355	\$9,235	\$18,471	\$101,590	\$110,826
Bridge 1 *	Bridge	Per Manufacturer	1,372.8 LF	\$10 million			\$10 million	
4 *	Paved	Asphalt	6,019.2 LF	\$554,128	\$55,413	\$110,826	\$609,540	\$664,953
C *	Paved	Concrete	422.4 LF	\$76,780	\$7,678	\$15,356	\$84,458	\$92,136

* Projects that have all or some of the gap within publicly owned land

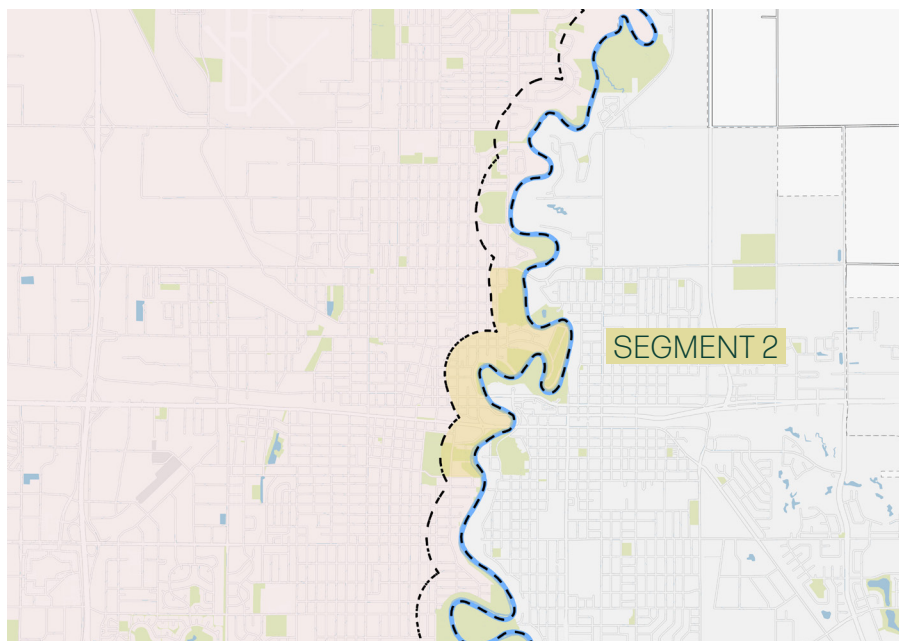


COST ESTIMATES

SEGMENT 2 COST ESTIMATES

Gap #	Trail Type	Paving Material	Length	Cost Estimate	Soft Cost Estimate		Total Cost Estimate	
			(LF)	construction	low (10%)	high (20%)	low	high
Segment 2								
D *	Paved	Concrete	1,003.2 LF	\$182,352	\$18,235	\$36,470	\$200,587	\$218,822
5A	On Street	Existing	1,425.6 LF	\$21,184	\$2,118	\$4,237	\$23,303	\$25,421
5B *	Paved	Concrete	2,481.6 LF	\$451,080	\$45,108	\$90,216	\$496,188	\$541,297
E *	Paved	Concrete	739.2 LF	\$134,364	\$13,436	\$26,873	\$147,801	\$161,237
Bridge 2 *	Bridge	Per Manufacturer	369.6 LF	\$10 million			\$10 million	

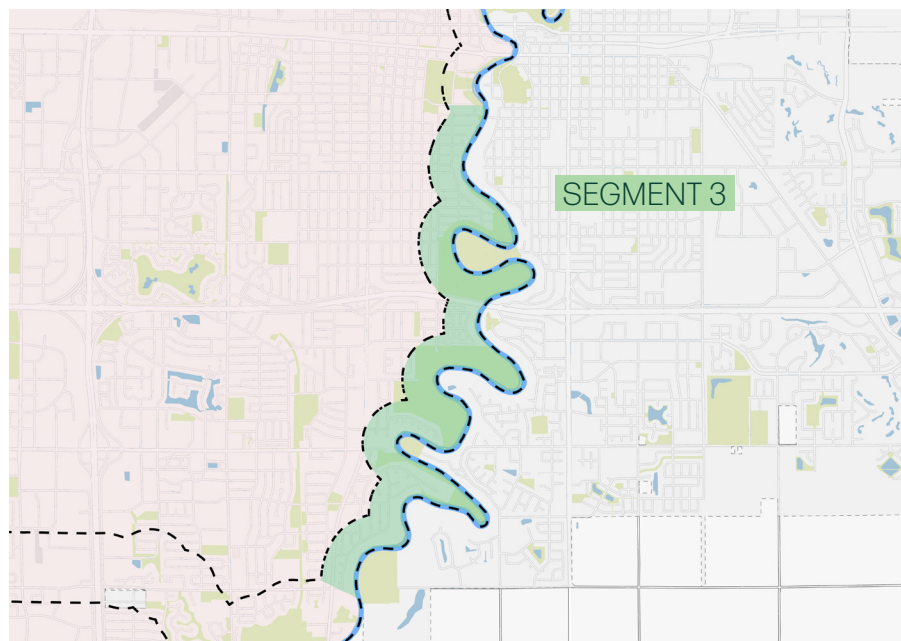
* Projects that have all or some of the gap within publicly owned land



SEGMENT 3 COST ESTIMATES

Gap #	Trail Type	Paving Material	Length	Cost Estimate	Soft Cost Estimate		Total Cost Estimate	
			(LF)	construction	low (10%)	high (20%)	low	high
Segment 3								
F *	Paved	Concrete	316.8 LF	\$57,585	\$5,758	\$11,517	\$63,343	\$69,102
6	On Street	Existing	2,851.2 LF	\$42,369	\$4,237	\$8,474	\$46,606	\$50,843
7A	Paved	Asphalt	3,273.6 LF	\$301,368	\$30,137	\$60,274	\$331,504	\$361,641
7B	On Street	Existing	2,376.0 LF	\$35,307	\$3,531	\$7,061	\$38,838	\$42,369
8A *	Paved	Asphalt	1,267.2 LF	\$116,658	\$11,666	\$23,332	\$128,324	\$139,990
8B *	Paved	Asphalt	1,161.6 LF	\$106,937	\$10,694	\$21,387	\$117,631	\$128,324
Bridge 3 *	Bridge	Per Manufacturer	528.0 LF	\$10 million			\$10 million	
9 *	Paved	Asphalt	7,814.4 LF	\$719,394	\$71,939	\$143,879	\$791,333	\$863,272

* Projects that have all or some of the gap within publicly owned land

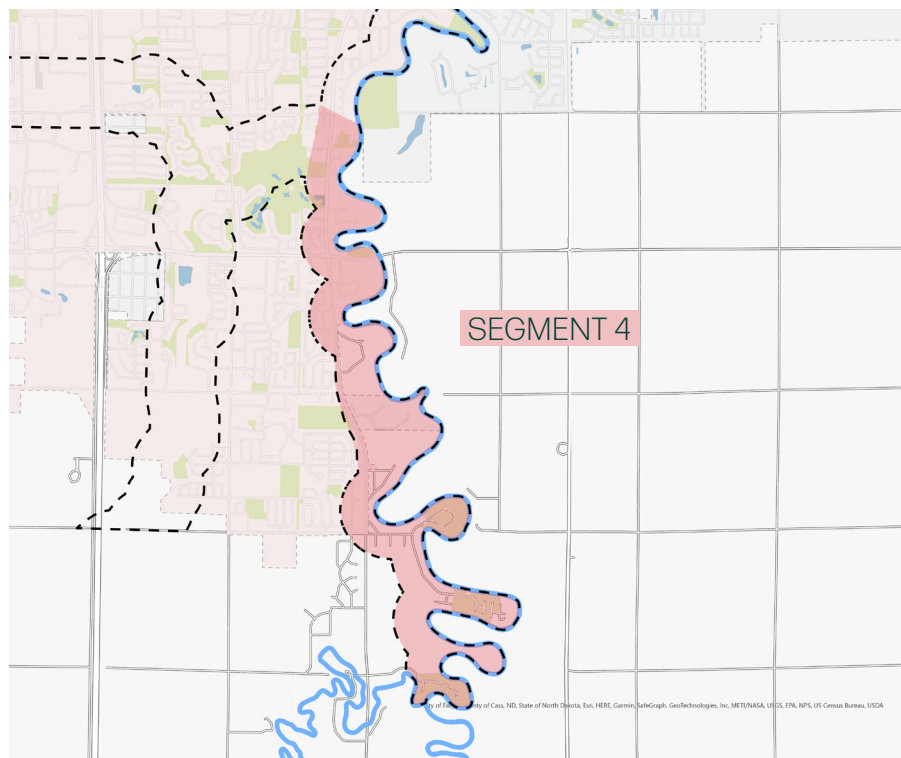


COST ESTIMATES

SEGMENT 4 COST ESTIMATES

Gap #	Trail Type	Paving Material	Length	Cost Estimate	Soft Cost Estimate		Total Cost Estimate	
			(LF)	construction	low (10%)	high (20%)	low	high
Segment 4								
Bridge 4 *	Bridge	Per Manufacturer	2,481.6 LF	\$10 million			\$10 million	
10 *	Paved / Gravel	Asphalt / Stone	10,560.0 LF	\$972,154 / \$201,485	\$97,215	\$194,431	\$298,700	\$1,166,584
11A	Paved / Gravel	Asphalt / Stone	6,177.6 LF	\$568,710 / \$117,869	\$56,871	\$113,742	\$174,740	\$682,452
11B *	Paved / Gravel	Asphalt / Stone	4,171.2 LF	\$384,001 / \$79,586	\$38,400	\$76,800	\$117,987	\$460,801
G *	Paved / Gravel	Natural	1,478.4 LF	\$4,805	\$480	\$961	\$5,285	\$5,766
H *	Paved	Concrete	1,161.6 LF	\$106,937	\$10,694	\$21,387	\$117,631	\$128,324
12 *	Paved / Gravel	Natural	8,606.4 LF	\$27,971	\$2,797	\$5,594	\$30,768	\$33,565

* Projects that have all or some of the gap within publicly owned land



SEGMENT 5 COST ESTIMATES

Gap #	Trail Type	Paving Material	Length	Cost Estimate	Soft Cost Estimate		Total Cost Estimate	
			(LF)	construction	low (10%)	high (20%)	low	high
Segment 5								
13 *	Paved	Asphalt	6,811.2 LF	\$627,039	\$62,704	\$125,408	\$689,743	\$752,447
14 *	Paved	Asphalt	1,108.8 LF	\$102,076	\$10,208	\$20,415	\$112,284	\$122,491
15 *	Paved	Asphalt	4,329.6 LF	\$398,583	\$39,858	\$79,717	\$438,441	\$478,300
16	Paved	Asphalt	23,179.2 LF	\$2,133,877	\$213,388	\$426,775	\$2,347,265	\$2,560,653
17	Paved	Asphalt	10,876.8 LF	\$1,001,318	\$100,132	\$200,264	\$1,101,450	\$1,201,582

** Projects that have all or some of the gap within publicly owned land*

