



# Marion Master Trails Plan

City of Marion, Iowa | July, 2014

Executive Summary | July 7, 2014





## Executive Summary

Trail usage is on the rise in Marion, mirroring trends in the region, state, and even the country. People use trails to get their daily exercise, to explore their community, to get to work or school, to connect with the natural environment and to enjoy the outdoors. An interconnected system of trails and bikeways can bring many benefits to a community, such as diversifying transportation options, increasing recreational opportunities, functioning as catalysts for economic development, promoting healthier, more active lifestyles, attracting tourism, increasing social interaction, and improving quality of life.



*Figure 1: Cyclists of all ages and abilities enjoy the trails and bikeways in Marion.*

Marion has already begun to build a network of trails and on-street bikeways, with more than twenty miles of off-street trails (both paved and granular surface), sidepaths, and on-street bike lanes on the ground. In response to a growing citizen interest in trails and bikeways, and in order to prioritize investments in trails and on-street bikeways, Marion developed its first Master Trails Plan in 2005. Nearly a decade later, continued growth and development, changing regional transportation funding priorities, and a growing demand for expansion of the existing trail network have led the City to revisit and update the 2005 Master Trails Plan.

This 2014 Master Trails Plan (the Plan) provides a new blueprint for trail and on-street bikeway development that responds to current and anticipated challenges and opportunities, and reflects the needs and desires of the community. The purpose of this Plan is to provide a framework for future investments in trails and on-street bikeways, with focus on improving connectivity to local destinations, tying into the regional trail network, improving safety and accessibility for all trail users, supporting economic development, and improving quality of life for Marion residents. Through a series of recommended physical improvements and supporting policies, programs, and activities, the Plan sets forth a comprehensive strategy to strengthen and expand the trail and on-street bikeway network and encourage trail usage, walking and bicycling for transportation and recreation.



*Figure 2: From the open fields in Lowe Park to the historic streets of Uptown Marion, the City's trails afford residents and visitors a variety of unique recreation, fitness and transportation experiences and opportunities.*





## The Planning Process

The planning process was grounded in a thorough analysis of existing conditions for trail and on-street bikeway development and guided by public input and a steering committee of local and regional stakeholders. The planning process began in early 2014 with a review of existing plans, policies, legislation, and other background documents and information to better understand the policy and planning context in which the Plan was being developed. Through field visits, Geographic Information Systems (GIS) mapping, and other information sources, the planning team developed an inventory and analysis of existing physical conditions (trails, bike facilities, transportation networks, land uses, topography, hydrology, and other factors) and their impact on future trail development.



Figure 3: A member of the project team discusses the Plan with attendees at the first open house event.

A steering committee consisting of city staff, elected officials, coordinating agency and stakeholder representatives, local trail advocates, and community residents oversaw the planning process and provided input and direction through the duration of the process. Two open house events were held in 2014, one in February and one in May, to encourage public participation and create a dialogue with the community. The planning team shared information about the building blocks of a trail network and recommendations for the City, and attendees provided inspiration, ideas and knowledge that shaped final goals, objectives and recommendations. In addition, an online mapping tool and a survey were developed to connect with the community and solicit additional input. The innovative mapping website in particular created a unique opportunity for residents to get involved, and the input provided through this engaging online tool yielded considerable local knowledge about barriers to walking and bicycling, as well as ideas for the location of future trails and bikeways.

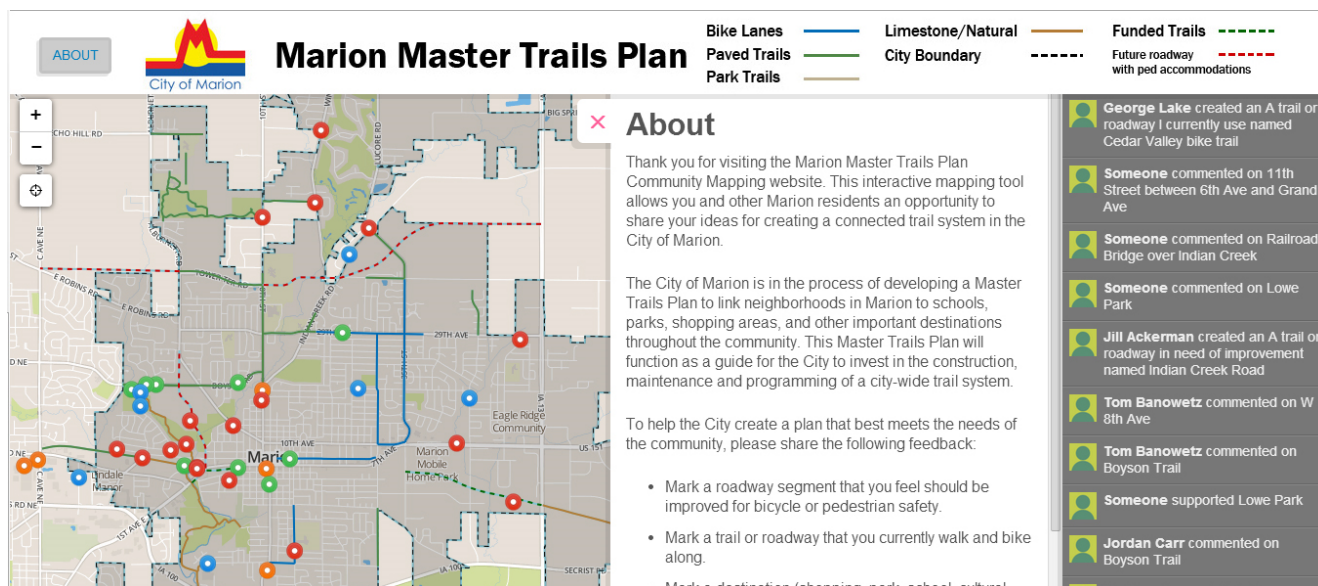


Figure 4: The online mapping tool generated substantial feedback from Marion residents and other trail users, all of which informed the planning process.



## Existing Conditions

With small but growing network of trails, Marion is well-positioned for continued trail and on-street bikeway development. The City and its regional partners have constructed more than twenty miles of trails and on-street bikeways in and around Marion, as well as two mountain biking trails and additional hiking and walking trails in local and county parks. Many stream corridors, abandoned rail lines, and utility corridors provide excellent opportunities for linear trail development. Wide rights-of-way on local roads and state highways, many low volume local streets, and a well-connected street grid in parts of the city offer great potential for the installation of on-street bikeways like bike lanes, bicycle boulevards, and sidepaths.



*Figure 5: The City's growing network of trails, sidepaths and on-street bikeways have improved access to MISD and Linn Mar schools.*

## Plan Goals

The Marion Master Trails Plan will guide the development of trails and bikeways for years to come. Six unique plan goals provide a foundation for the Plan on which all recommended facilities, policies and programs are based. These goals reflect the desires of the community, capitalize on potential opportunities, and respect the challenges that face future expansion of the trail network. Goals are broad, value-based expression of the community's desires, describing the ideal situation that would result if all plan purposes were fully realized. They give direction to the Plan as a whole and are concerned with the long-term. These six plan goals are firmly rooted in the input from community members, the guidance of the steering committee, and a detailed analysis of existing conditions. Each recommendation in this Plan will help to achieve one or more of the goals below, strengthening Marion's Trail and On-Street Bikeway Network as a local asset, a regional attraction, and a transformative catalyst to create a more healthy, active, and vibrant community.

**Goal 1: The Marion Trail and On-Street Bike Network will be interconnected, regionally and locally.**

**Goal 2: The Marion Trail and On-Street Bikeway Network will be safe, accessible, and secure for all users.**

**Goal 3: The Trail and On-Street Bikeway Network will support economic activity in the City of Marion.**

**Goal 4: The Trail and On-Street Bikeway Network will enhance the quality of life for Marion residents.**

**Goal 5: Planning, policies, and design guidelines will provide for consistent and orderly implementation and maintenance of the Trail and On-Street Bike Network.**

**Goal 6: Education, encouragement, and enforcement programs will support and increase usage of the Trail and On-Street Bikeway Network.**



## Recommended Trail Network

The recommended network builds upon existing trail and bikeway facilities, local and regional planning efforts, and considerable input from Marion residents, bicycle and trail stakeholder groups, and the steering committee. Suggested improvements include both low-cost measures that will yield immediate results, such as striping of roads to accommodate bike lanes, and long-term improvements, such as expanding the local trail system in conjunction with development in future growth areas. Together, these improvements represent a comprehensive and coordinated strategy for transforming Marion into a bicycle- and pedestrian-friendly community.

More than 130 miles of trails, sidepaths, bike lanes, bicycle boulevards, and other on-street bikeways will expand and enhance the system of existing trails and bikeways. Paved shared-use paths represent the core of the trail and bikeway network. These paved trails are accessible to all users and function as both transportation and recreation corridors, providing the greatest benefit to the community. Unpaved shared-use paths, sidepaths, on-street bike lanes, and other trail and on-street bikeway types expand the reach of the trail network into residential neighborhoods, commercial corridors and districts, and parks and open spaces. These recommended trails and on-street bikeways are shown in Map 1 at the end of this executive summary.

## Trail and On-Street Bikeway Cost Estimates

Cost estimates are an essential planning tool used for programming capital improvements and drafting applications for external funding sources. These estimates were developed based on initial planning-level examples of similar constructed projects and industry averages. These costs were then refined with the assistance of the City of Marion Engineering Department. All facility designs and associated cost estimates proposed in this plan are conceptual in nature and should undergo final engineering design and review through coordination between all concerned departments in order to arrive at detailed project costs. These costs are provided in 2014 dollars and do not include costs for right-of-way acquisition.

**Table 1: Cost Estimates by Facility Type**

Facility Type	Total Projects	Total Length (mi)	Price (Low)	Price (High)
<b>Paved Multi-Use Path*</b>	21	27.13	\$21,460,000	\$65,840,000
<b>Unpaved Multi-Use Trail</b>	6	22.74	\$1,137,000	\$5,685,000
<b>Sidepath</b>	32	34.76	\$13,904,000	\$18,249,000
<b>Bike Lanes</b>	9	12.25	\$490,000	\$612,500
<b>Bicycle Boulevard</b>	11	10.55	\$527,500	\$1,055,000
<b>Shared Lane Marking</b>	9	5.35	\$107,000	\$160,500
<b>Shoulder Bikeway</b>	5	18.84	\$282,600	\$5,275,200
<b>Totals</b>	<b>93</b>	<b>131.62</b>	<b>\$37,908,100</b>	<b>\$96,877,200</b>

\* Includes an estimated \$8 - \$12 million for Marion Railroad Trail Bridge spans over Marion Boulevard and Indian Creek.





## Supporting Programs

Creating a community that embraces bicycling, walking and trail use requires more than physical infrastructure alone. Utilizing the “Five E’s” framework of a bicycle and pedestrian-friendly community, first developed and promoted by the League of American Bicyclists, the Plan recommends a variety of education, encouragement, enforcement, and evaluation programs and activities to support the trails and bikeways (the engineering component). Recommended programs include Safe Routes to School activities like walking school buses, adult and youth bicycle education courses, safety campaigns, bicycling and walking programs for seniors, trail and bikeway maps, bicycle helmet and light giveaways, a bicycle and pedestrian count program, and targeted traffic enforcement in school zones and other areas with high concentrations of pedestrian and bicycle activity. These supporting programs and activities present opportunities to develop and strengthen partnerships with local and regional agencies and organizations, as well as local volunteers.



Figure 7: Adult bicycle skills training course.



Figure 6: Manual bicycle and trail user count programs.

## Plan Implementation

This Plan is a vision and a guide to the future. It seeks to forecast what Marion should do in order to develop a complete, connected, and safe trail and bikeway network, increase opportunities for recreation and alternative transportation, and add to the quality of life that makes the City of Marion a great place to live. With this charge firmly in mind, the Plan puts forth a comprehensive implementation strategy to realize the goals and objectives set forth in this Plan in a timely, coordinated and efficient manner.

### Early Action Steps

The Plan recommends five early action steps that the City should pursue in order to begin implementation and build support and momentum to sustain continued trail and on-street bikeway development for years to come.

1. Adopt the Plan as an official policy document to guide trail development activities and supporting programs.
2. Designate a bicycle and pedestrian coordinator to oversee implementation and serve as a primary point of contact for city departments, outside agencies and organizations, and Marion residents and businesses.
3. Form a bicycle and pedestrian advisory committee consisting of key stakeholders, agencies and organizations, community partners, and Marion residents. This committee will monitor implementation progress, assist with regional coordination, and build and maintain support for trails and bikeways as important recreation and transportation assets.
4. Complete trail and bikeway projects already funded, including the Cemar Trail, Grant Wood Trail Highway 13 undercrossing, and the Grant Wood Trail extension west to 35th Street.
5. Pursue short-term, low-cost projects that will close gaps in the existing trail and on-street bikeway network. More than twenty projects are identified in the Plan that connect to existing and funded bikeways and trails, are located within the city limits, and have a high-end cost estimate of less than \$120,000.



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## Policy Recommendations

Policies that support walking, bicycling and trail are an important component of a bicycle and pedestrian-friendly community. Policies ensure that public and private decisions take into account the needs of trail users and foster an environment in which trails are valued as an important community asset. The Plan recommends three important policies to ensure that pedestrians, bicyclists, and other trail users are considered in the decision-making process.

### Complete Streets Ordinance

A complete streets ordinance codifies a jurisdiction's desire and intent to plan, design, operate, and maintain streets in order to enable safe, comfortable and convenient travel for users of all ages and abilities, regardless of their mode of transportation.

### Bicycle Parking Ordinance

While the expansion of the Trail and On-Street Bikeway Network will draw additional bicyclists, the lack of convenient, accessible, and secure bicycle parking may deter residents and visitors from taking bicycle trips to local businesses, parks, schools, and other destinations in the community. A bicycle parking ordinance would require a certain number of bicycle parking spaces for new development and major renovations based on land use classification.

### Trail and Open Space Land Bank

With a definite and overt purpose of land banking to acquire undeveloped land and riparian corridors for open space and trail development, the City of Marion can assemble important properties both within the current city limits and in future growth areas that will function as valuable public spaces for years to come.

## Project Prioritization

The 93 recommended trail and on-street bikeway projects, which total more than 130 miles, will significantly expand Trail and On-Street Bikeway Network. Each segment of the Trail and On-Street Bikeway Network has been evaluated and scored using 16 criteria developed from the goals and objectives of the Plan. These criteria include measures like connectivity to regional trail facilities, number of nearby destinations like parks and schools, and facility type. The resulting scores were then used to rank and group the recommended segments into three priority levels: high-priority projects, medium-priority projects, and low-priority projects. These priority levels are not intended to rigidly divide the projects into exclusive groups, nor are they intended to direct project phasing. Instead, these priority levels provide insight into which projects will have the most significant impact on the community and help accomplish the Plan goals and objectives.

## Project Phasing

The Marion Master Trails Plan is long-range in nature, with a horizon of roughly twenty years. While the Plan does not prescribe specific projects to be completed in a given year, it does arrange recommended trails and on-street bikeways into two categories to guide implementation in an orderly and cost effective manner.

### Short-Term, Low-Cost Projects

Low-cost recommended projects can act as catalysts for Plan implementation and build support for the City's efforts to expand the Trail and On-Street Bikeway Network. The short-term, low-cost projects consist of on-street bicycle facilities like shared lane markings, bicycle boulevards, and bike lanes, as well as shorter segments of multi-use trails and sidepaths. Each of these projects is located within the City of Marion, connects to an existing or funded trail or on-street bikeway, and has a high-end cost estimate of less than \$120,000. There are 21 short-term, low-cost projects totaling 12.23 miles in length.



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### **Long-Term, Opportunities-Based Projects**

Continued growth and expansion of the Marion Trail and On-Street Bikeway Network beyond the short-term, low-cost projects will occur as funding is available, as new development and aging infrastructure drive new capital improvements and roadway projects, and as other opportunities arise. These projects are a mixture of low-cost projects located further from existing trail facilities, and higher-cost projects that will require a convergence of driving factors, such as strong public support, funding availability, and synergistic developments and/or capital improvements.

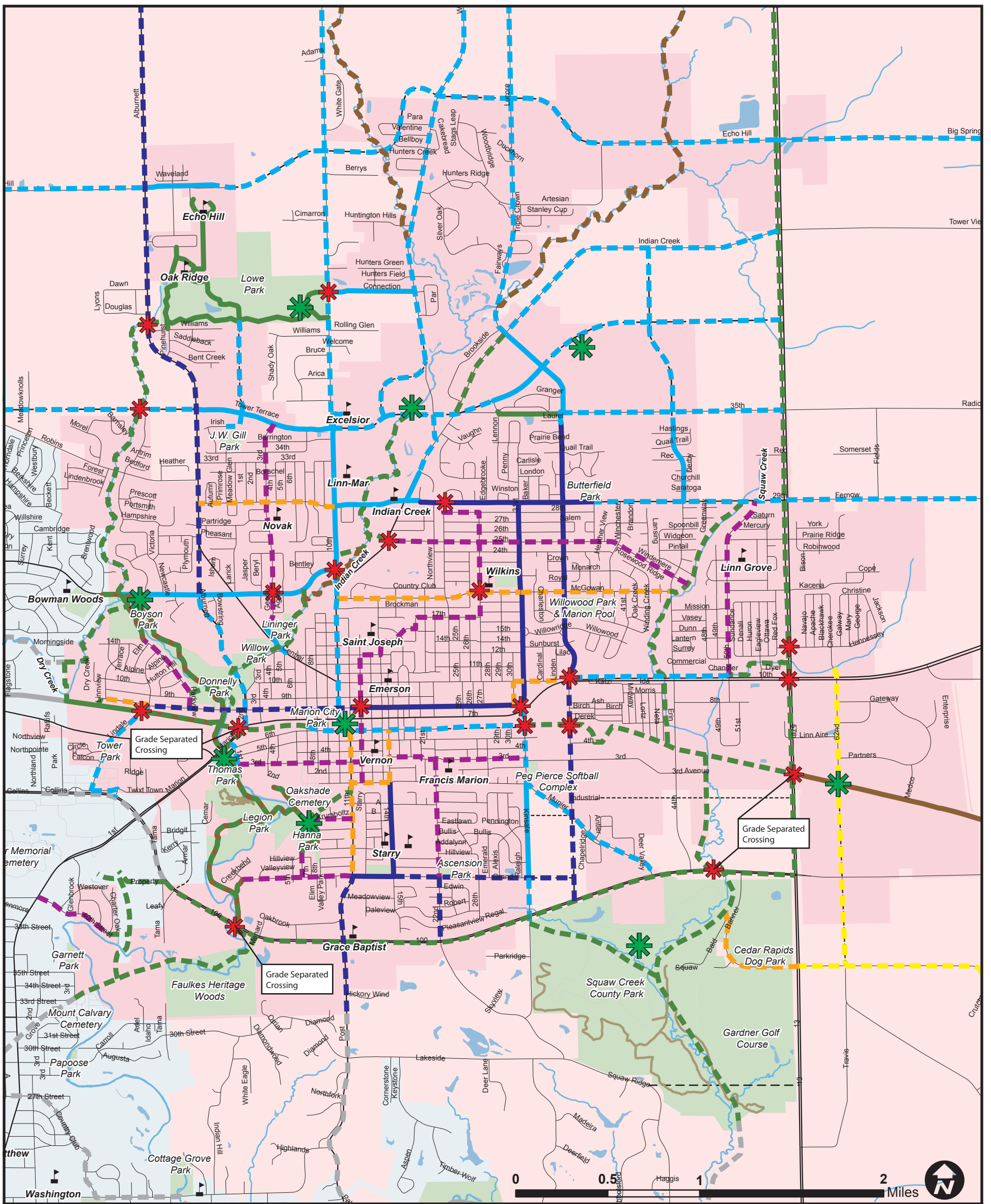
### **Funding Sources**

Funding the implementation of the Plan requires ingenuity, resourcefulness, patience, and persistence. Despite the diversity of funding sources, many external sources for infrastructure improvements and programs are either highly competitive or relatively small. The Plan identifies a diversity of funding sources that may be utilized to implement recommended projects and programs, including local funding options, federal funding sources, funding programs available through the state, and even private and foundation funding sources. Where possible, local funding should be used as leverage to procure external funding, as most external sources require a local match that typically ranges from 20% to 50%.

### **Plan Performance Measures**

As the City begins to implement the Plan, it will be necessary to utilize clear, quantifiable performance measures to track implementation and document success. Given the diversity of goals and objectives set forth in this Plan, the performance measures are intended to quantify a wide range of implementation activities, from the development of trails and on-street bikeways, to the delivery of education and encouragement programs, to the adoption of policies that ensure bicycling, walking, and trails are considered in future capital projects and private development. More than 40 unique performance measures have been identified to track implementation progress and identify opportunities for improvement. High priority performance measures that correspond to important implementation actions are identified as well. These particular measures track key metrics that for improving the trail and on-street bikeway network, establishing essential programs and policies, and building the City's capacity to monitor and evaluate implementation activities for years to come.





# MARION MASTER TRAILS PLAN

## RECOMMENDED TRAILS AND ON-STREET BIKEWAYS

Existing Trails	Proposed Trails	Proposed On-Street Bikeways	Other Improvements
Paved Multi-Use Trail	Paved Multi-Use Trail	Sidepath	Trailhead Location
Granular Surface Multi-Use Trail	Granular Surface Multi-Use Trail	Bike Boulevard	Intersection Improvement
Natural Surface Trail	Pave Existing Granular Surface Trail	Bike Lane	Trails and Bikeways Outside of Marion's Jurisdiction
Trails and Bikeways Outside of Marion's Jurisdiction			
Roadway Network	Municipalities	Areas of Interest	Natural Features
Access Road	Marion	School	Creeks
Local	Cedar Rapids	Park	Bodies of Water
Collector	Marion Growth Area		
Arterial			
Freeway			
Freeway Ramp			
Proposed Collector			
Proposed Arterial			



Author: KN, Alta Planning + Design | Date: June, 2014  
 Data Sources: City of Marion, Linn County, Iowa DNR, Corridor MPO, Iowa DOT