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WICHITA BICYCLE MASTER PLAN



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ACKNOWLEDGEMENTS



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Official Document
The Wichita City Council endorsed this plan

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The Wichita Bicycle Master Plan reflects the values and priorities of the City of Wichita. More than 4,000 people participated in creating the plan, through public meetings; focus groups; an on-line survey; and interactive map.



The Bicycle Master Plan Steering Committee (Steering Committee) provided guidance and support for the development of the Plan. The nineteen member Steering Committee consisted of citizens who volunteered to assist with the project; representatives of public and private agencies; and City of Wichita Council Members Janet Miller and Lavonta Williams.

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EXECUTIVE SUMMARY

BICYCLE MASTER PLAN VISION

An interconnected network of on-and off-street bicycle facilities that accommodates bicycle riders of all skill levels; and links all areas of the City of Wichita—including employment centers, schools, parks, and other activity centers.



GOALS FOR ACHIEVING VISION



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EXECUTIVE SUMMARY

GOAL 1: Increase the amount of bicycling in Wichita.

Benchmark: Triple the amount of bicycling in Wichita over the next ten years (2012 – 2022)

GOAL 2: Improve the safety of bicyclists in Wichita

Benchmark: Reduce the rate of bicycle crashes by one third over the next ten years (2012 – 2022)

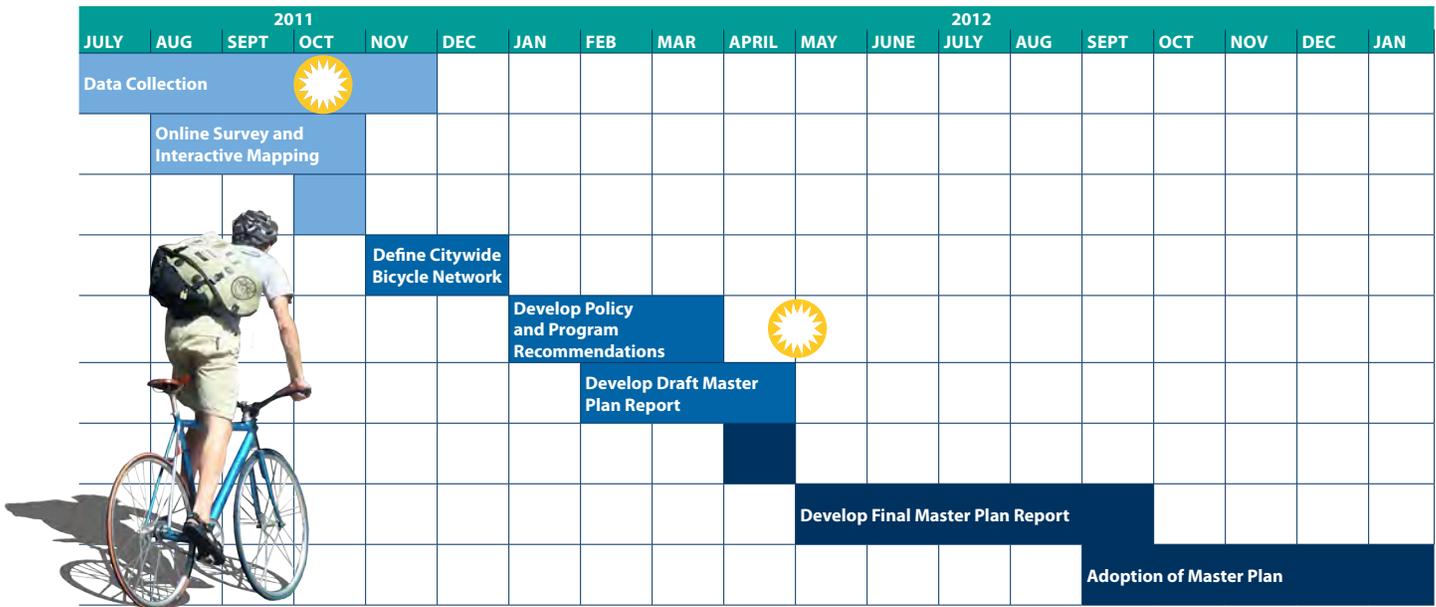
GOAL 3: Foster and promote a culture where bicycling is a viable and acceptable form of transportation

Benchmark: Increase by 50 percent the percent of survey respondents rating ease of bicycle travel in Wichita as “excellent” or “good”.



Mural by Jonathan Clarke

PROJECT DEVELOPMENT PROCESS



PRIORITY BICYCLE NETWORK

The recommended Priority Bicycle Network provides a safe, connected, and attractive network of bicycle facilities throughout the City and can realistically be completed in ten years or less, given existing and potential resources. Completion of the Priority Bicycle Network will also result in bicycle safety and access improvements at roadway crossings.

	Priority Network Miles	Priority Network Costs
Bike lanes	30.0	\$435,000
Buffered Bike Lanes	2.3	\$54,648
Shared lane markings	41.0	\$270,600
Shared use pathway	4.5	\$2,340,900
Bicycle boulevard	57.2	\$6,211,920
Paved shoulder	1.7	\$359,200
Sidepath	7.6	\$1,925,840
TOTAL	144.3	\$11,598,108

For facility definitions, go to www.wichita.gov/BicyclePlan

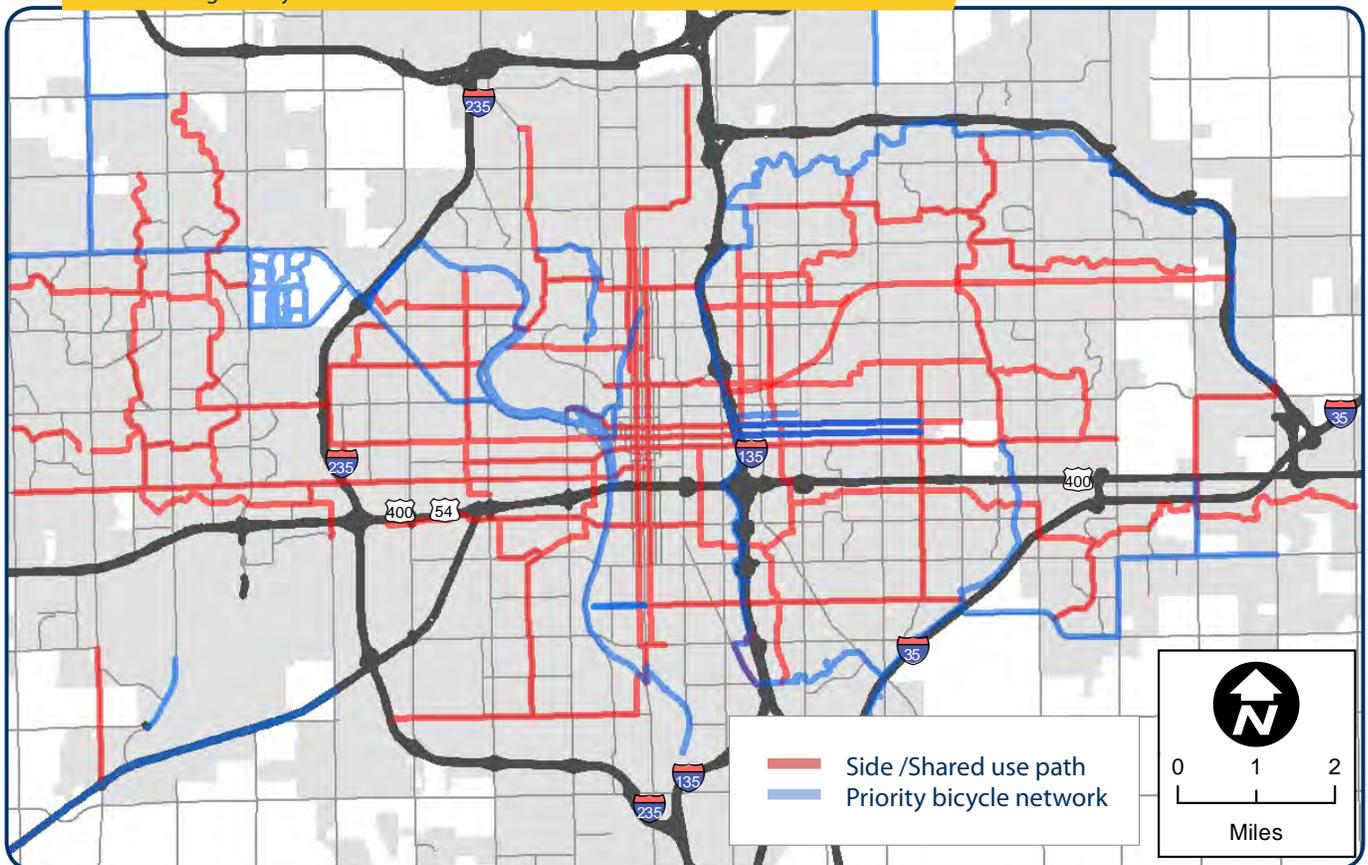
FUNDING FOR IMPLEMENTING PRIORITY BICYCLE NETWORK

Funding for implementing the priority network will likely come from three sources:

- **Capital Improvement Program (C.I.P.):** install new bicycle facilities using the \$500,000 that is currently allocated every other year in the current adopted City C.I.P.
- **Routine Accommodation:** install bicycle facilities as part of other projects (e.g. annual re-paving program provides opportunities to install bike lanes). While this approach saves money compared to independent bike projects, the development of the bicycle facilities may result in an increase in the other project costs (e.g. repaving, etc.).
- **Grants, Public/Private Partnerships, Other Sources:** apply for grants (e.g. STP, Transportation Alternatives, etc.) and look for creative ways to leverage funds and form partnerships to install bicycle facilities (e.g. install side path in conjunction with an underground sewer or water line).



Priority Bicycle Network Map. For a detailed map of the priority network, go to www.wichita.gov/BicyclePlan



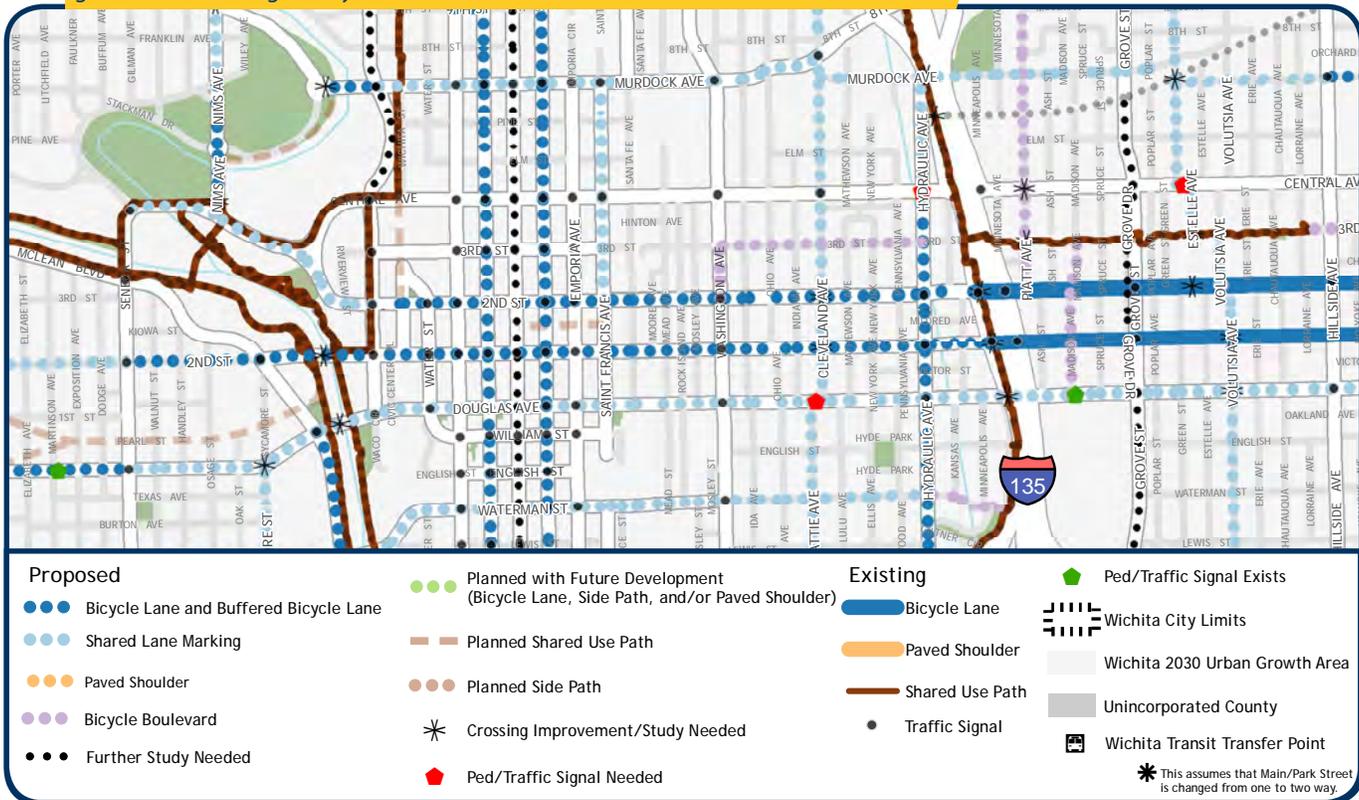
STRATEGIES FOR ACHIEVING PLAN GOALS

Below are the strategies recommended to realize the Plan vision, goals, and objectives. The Plan provides a detailed set of actions for each strategy.

The Bicycle Network

<p>Strategy 1: Provide on- street and off-street bicycle facilities where recommended.</p>	<p>Strategy 2: Install a Signed Bicycle Route Wayfinding System.</p>	<p>Strategy 3: Improve bicycle safety and access at arterial roadway crossings.</p>
<p>Strategy 4: Improve bicycle access to transit stops and stations.</p>	<p>Strategy 5: Increase the availability of bicycle parking throughout Wichita.</p>	<p>Strategy 6: Determine if a bike share program would be good for Wichita.</p>
<p>Strategy 7: Prioritize and fund bicycle facility maintenance.</p>	<p>Strategy 8: Incorporate the facility recommendations from this plan into the WAMPO Metropolitan Transportation Plan and other related plans.</p>	<p>Strategy 9: Provide printed, online, and mobile device bicycling guides.</p>

Example of map with Plan recommendations. For a detailed map of the entire network, go to www.wichita.gov/BicyclePlan





Education and Encouragement

Strategy 10: Educate Wichita transportation system professionals and users about new bicycle facility types, planning, design and bicycle-related issues that may arise.

Strategy 11: Promote bicycle education and encouragement in Wichita through partnerships with community organizations and businesses.

Strategy 12: Support efforts to obtain funding for bicycle education and enforcement programs.

Strategy 13: Increase enforcement of bicyclist and motorist behavior to reduce bicycle and motor vehicle crashes.

Strategy 14: Work with school districts to develop collaborative partnerships to encourage children to bike to school.

Strategy 15: Coordinate increased participation in bicycling events.

Strategy 16: First achieve the League of American Bicyclists' Bicycle Friendly Community bronze and then silver status designation.



Strategy 17: Work with area businesses and colleges to engage them in the League of American Bicyclists' recognition program.

Strategy 18: Enlist *opinion* leaders in promoting bicycling

Strategy 19: Engage area businesses in using bicycles in their advertising and other promotions.

Policies, Funding and Staffing

Strategy 20: Adopt policies to ensure that the City’s project planning and review processes account for bicycle facilities.

Strategy 21: Update the Unified Zoning Code to provide encouragement for both office and retail developments/ redevelopments to provide secure and conveniently located bicycle parking.

Strategy 22: Create a policy for installing bicycle facilities that are isolated segments.

Strategy 23: Create a policy for reserving space for future bicycle facilities (e.g. space for bike lane that is added later).

Strategy 24: Prioritize funding to complete gaps (missing links) in the bikeway network.

Strategy 25: Fund through Capital Improvement Program Projects, annual programs and grants.

Strategy 26: Allocate staffing to implement this plan.



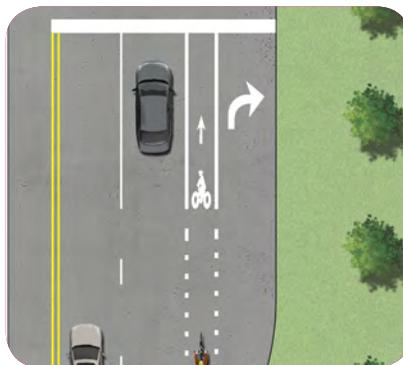
Accountability and Performance Measures

Strategy 27: Create a bicycle and pedestrian advisory board.

Strategy 28: Update the bicycle master plan on a regular basis

Strategy 29: Publish an annual implementation work plan.

Strategy 30: Establish performance measures to monitor progress.



MOVING THE PLAN FORWARD

Routine Accommodation: Adopting a routine ‘accommodation’ policy will ensure that as routine road projects such as resurfacing and striping are executed, bicycle facilities are incorporated according to the Plan’s recommendations, where feasible. Routine accommodation of bicycle facilities is often the most cost effective implementation strategy.

Funding: There are segments within the planned bicycle network that serve as critical links between major destinations, and therefore are priorities in terms of developing a foundational network that will begin to build ridership. It will be important to fund these projects as stand-alone projects rather than depending on the routine accommodation of these facilities as part of larger roadway projects that may have longer implementation timeframes.

Priorities: In order to help ensure the maximum benefit from the development of new City of Wichita bicycle facilities as stand-alone projects, the Plan includes a prioritized list of recommended on-street and side path facilities; and off-street (shared use paths). The project team, in collaboration with Steering Committee and others, developed a list of ten priority on-street and side path facilities; and one, shared use path facility. In addition to the Plan goals and objectives, the prioritized rankings are based on safety, accessibility, connectivity and geographic balance.

Bicycle and Pedestrian Advisory Board: As one of the first steps the Plan recommends that the City of Wichita create a Bicycle Pedestrian Advisory Board (BPAB). The BPAB should include a diverse group of citizens, including experienced and novice bicyclists; representing clubs, bicycle friendly businesses, schools, neighborhood organizations and others concerned with bicycle safety. Among other things, the role of the BPAB should be to advise the City on implementing the Wichita Bicycle Master Plan; monitoring year to year progress on meeting the Plan’s performance measures; and providing input on the application of design guidance for bicycle facilities.



CHAPTER 1 INTRODUCTION AND BACKGROUND



INTRODUCTION

The City of Wichita Bicycle Master Plan (Plan) is a ten year (2013-2023) guide for the development and implementation of bicycle projects and programs for the City of Wichita (City), including the 2030 growth area. It was developed with input from more than 4,000 individuals who completed surveys, served on committees, volunteered for community events and attended open house events. The Plan includes goals, objectives, actions, priorities and performance measures along with a Priority Bikeway Network map with 149 miles of recommended new bicycle facilities.

COMMUNITY NEEDS

Multiple citizen surveys have shown a desire for bicycle infrastructure improvements in Wichita. The most recent was the 2010 National Citizen Survey which compared the satisfaction of Wichita residents to the satisfaction of citizens in other similar cities. The 2010 edition reports that the satisfaction of Wichita residents with the ease of bicycle travel in the city was “much below” the satisfaction of residents in comparable cities. Wichita ranked 21 out of 29 comparable cities for the ease of bicycle travel in the 2010 National Citizen Survey. It was one of the three least positive ratings by the citizens of Wichita.

In response to the community’s desire to improve conditions for bicycling the City of Wichita secured grant funding through the U.S. Department of Energy to address the issue in a comprehensive manner by developing a Master Plan. This Plan contains the community goals, objectives, prioritized actions and implementation strategies to improve conditions for bicycling in Wichita. The boundaries of the Plan encompass the City of Wichita and the Wichita 2030 Urban Growth Area.

In preparation for the Plan initiative, a working group of City staff and community stakeholders identified the following questions as important Wichita planning issues.



- Do bicycles belong on streets with automobiles or off the roadways?
- How can the safety of cyclists in Wichita be improved?
- How should bicycle transportation infrastructure be designed?
- What are the guiding principles that help determine when bicycle facilities are appropriate?
- Where should bicycle travel infrastructure be provided, and what type should it be?
- What are the top priority bicycle travel infrastructure needs?
- What are the top priority non-infrastructure needs?
- Are policy changes needed, and how should they be addressed?
- Do the proposed facilities address primarily recreational or transportation needs?
- How can existing facilities be combined to create a seamless network of bicycle travel options?
- Should currently planned bicycle facilities continue to be recommended?
- How will regional bicycle travel infrastructure continue through Wichita?
- How should bicycle infrastructure be maintained?
- What metrics do we use to measure success?
- How will the recommendations (infrastructure and non-infrastructure) be implemented?



EXISTING FACILITIES

In the 1980s through the present, the City of Wichita focused on securing rights-of-way and constructing paths. They have become extremely popular among residents and visitors to the City. New paths offered opportunities for people to become more comfortable riding a bicycle for utilitarian and recreation trips. However, it soon became clear that improvements would also be needed in order to link paths and connect bicyclists directly to their destinations.



More recently, the City has explored the use of on-street bicycle facilities by developing both the Mt. Vernon Rd. and 1st St and 2nd St bike lanes. As of 2012, Wichita has 54 miles of exiting bike paths and nine miles of existing bike lanes. This Plan is a direct result of the expressed desire of Wichita residents to improve conditions for getting around Wichita on a bicycle and to determine if on-street bicycle facilities should be utilized to improve bicycle access on Wichita's roadway system.

TIMELINE

This Plan was developed in three phases:

1. **Data Collection** (July 2011 – November 2011). The data collection included gathering public input, coordinating with City staff, and reviewing previous plans for bicycle facility recommendations. It also included extensive field analysis of Wichita's existing transportation network to determine locations where bicycle facilities can be integrated into the existing street network. Over 800 miles of roadways were analyzed.
2. **Draft Plan** (November 2011 – June 2012). The draft Plan was developed with input from the project Steering Committee, City staff and citizens who attended the two public open house events. The plan goals, objectives, actions, priorities and performance measures reflect community preferences.
3. **Final Draft and Plan Adoption** (July 2012 –December 2012).

INVESTMENT

The level of investment that will be required in order to implement this Plan is modest in comparison to other transportation facilities. The planning level cost estimate to implement the on-street elements and side paths of the 149 mile Priority Bicycle Network is \$12.7 million. The Priority Bicycle Network includes approximately 32 miles of bicycle lanes, 38.7 miles of shared lane markings, 57.2 miles of bicycle boulevards and 12.1 miles of side path facilities. The estimated cost to implement the off-street facilities is \$2.25 million, and would develop 4.5 miles of shared use paths. By comparison, the cost to develop one mile of a five lane arterial street is approximately \$4 million.

PLAN UPDATES

This Plan is a dynamic document and updates will be necessary in the future to assess progress, take advantage of emerging opportunities and re-evaluate priorities as needed. As the bicycle facility network is developed and new technologies are adopted, bicycling mode share will likely increase and travel patterns will change. Priorities will shift and new opportunities will become apparent. These changes will be reflected in the annual action plan. The Plan recommends updates to the full Wichita Bicycle Master Plan, including the Bicycle Network maps, every four years.

REVIEW OF PLANS AND POLICIES

This section provides a review of city, county, and regional level plans; and City of Wichita policies and regulations that address bicycling both on-street and off-street. The purpose of this review is to establish a baseline for bicycle improvements in Wichita. The previous planning efforts represent years of thoughtful work and public involvement that goes back more than 40 years, and provide an important starting point for the Priority Bicycle Network Plan. Although Wichita has a rich history of bicycle planning, in order to ensure that the information reviewed is the most relevant - only those plans developed after 1995 are reviewed in this report.

Each planning document recognizes the importance of bicycling and walking as part of balanced multimodal transportation system. While pathways and trails have been a major emphasis of bicycle network development in the past, numerous policies and strategies have been identified for developing a denser network of bicycle facilities that includes on-street facilities such as bike lanes, paved shoulders, and shared lane markings. In fact, the City to date has installed nine miles of bike lanes and regional plans have identified 220 miles of additional bicycle facilities. In addition, the city's municipal code contains provisions on bicycling in the city. Reviewed plans and policies are presented below – plans are presented in chronological order beginning with the most recent.

Plans

WAMPO Safety Plan (2010, updated in 2011)

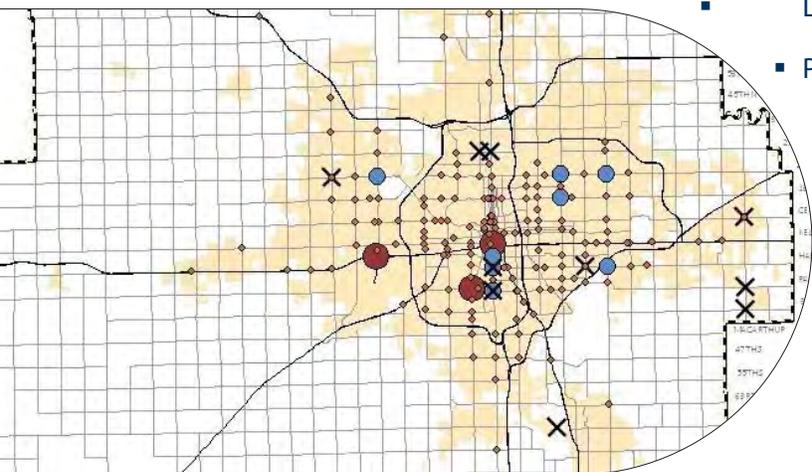
The Wichita Area Metropolitan Planning Organization (WAMPO) Safety Plan identifies the region's key safety needs and helps guide investments decisions to achieve a reduction in crashes, injuries, and fatalities on the region's transportation network. This plan identifies motorcyclist, pedestrians, and cyclists as vulnerable road users and recommends both long-term and short-term strategies to increase their safety. The strategies related to bicycling are listed below.

Short-Term Strategies

- Create a regional pedestrian and bicycle advisory group
- Incorporate a regional pedestrian plan in the WAMPO Regional Pathways System Plan (RPSP)
- Promote Safe Routes to School programs, strategies, and walk or bike to school events
- Prioritize construction of regional missing links that have been identified in the WAMPO RPSP

Long-Term Strategies

- Promote or provide a regional bicycle liaison officer
 - Create a coordinated public information and education campaign on targeted safety needs.
 - Create a program to identify and remediate hazardous/substandard pedestrian and bicycle road crossings



WAMPO Metropolitan Transportation Plan 2035 (2010)

The WAMPO Metropolitan Transportation Plan (MTP) 2035 is the blueprint for all regionally significant transportation projects and activities through 2035. It is a 25 year strategic plan for maintaining and improving mobility within and through the region. The MTP 2035 is very important for the region because it allows local jurisdictions access to federal transportation funds. The MTP identifies projects and programs to meet the future needs of the region. It is fiscally constrained by the amount of funding available, including both local and federal funding. The MTP does not guarantee federal funds for projects. In addition, the MTP also provides recommendations and strategies to achieve a safe, efficient, accessible, and affordable transportation system. The MTP 2035 Vision is to have a multimodal transportation system in 2035 that is safe, efficient, accessible, and affordable, and the plan is organized around these four goals:

Goal: Safe – Achieve a transportation system that enhances safety and public welfare.

Goal: Efficient – Achieve a transportation system that optimizes investments in time, energy, and financial resources.

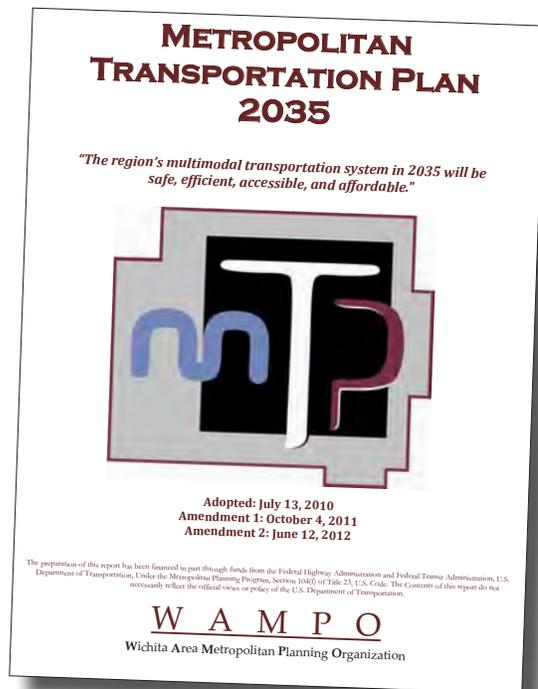
Goal: Accessible – Achieve optimal intermodal accessibility, mobility, and connectivity throughout the region.

Goal: Affordable – Achieve a transportation system that is affordable and equitable for all users.

In addition to these goals, 11 objectives are identified in the Plan. A number of these objectives support, and are supported by, the development of the Wichita Bicycle Master Plan, including those listed below.

- Increase the miles of off-road multiuse paths, on-street bicycle lanes and paved shoulders and sidewalks
- Increase the percentage of population that uses alternative modes of transportation.
- Increase the affordability of the transportation system for all users
- Reduce vehicle miles traveled
- Increase multimodal options and access
- Decrease the number of transportation related injuries, fatalities, and wrecks
- Make transportation improvements that support economic development

The MTP 2035 Plan also provides high level recommendations for accommodating and promoting bicycling based on the 5 E's: Education, Enforcement, Encouragement, Engineering, and Evaluation. Many of these recommendations are more specifically addressed in the City of Wichita Bicycle Master Plan.





Project Downtown: Downtown Master Plan (2010)

The City of Wichita Downtown Master Plan guides development, the provision of infrastructure, and the provision of municipal services within downtown. It includes recommendations and actions to invest in and integrate multimodal transportation systems (e.g. transit, bicycling, and walking) within, and connecting to, the downtown area. Specifically, it calls for making downtown bikeable with defined streets/lanes linked to regional networks, and incorporating bike parking and convenient walking access to destinations and transit. The plan proposes a near- and long-term street hierarchy that includes a network of “Bicycle Balanced Streets” with either bicycle lanes or shared lane markings.

Wichita Parks, Recreation, and Open Space (PROS) Plan (2009)

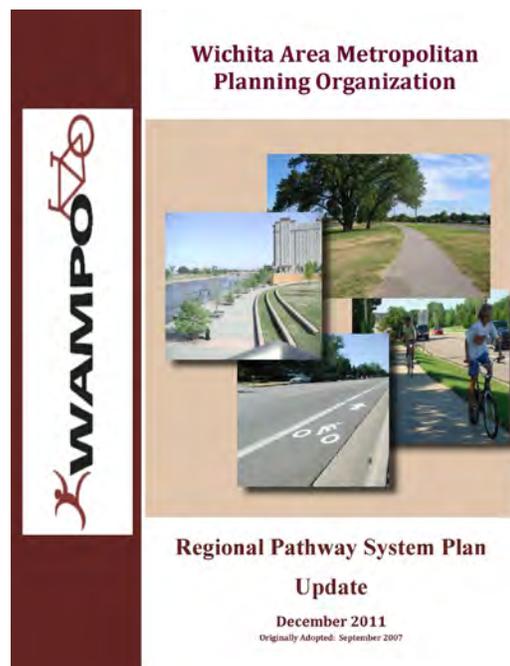
The Wichita Parks, Recreation, and Open Space Plan is a guide for the provision of parks, open spaces, recreation, and paths/trails by the City of Wichita. It incorporates citywide pathway alignments identified as priorities by either the WAMPO pathways plan or by the city. It calls for coordination between departments and agencies to promote the provision of sidewalks, multi-purpose pathways, curb cuts, and crosswalks to accommodate pedestrians and cyclists and to increase access to park resources. The plan also contains design guidelines for various park facilities, including linear parks/pathways. These guidelines focus more on path amenities rather than physical design of the path facility itself.

WAMPO Safe Routes to School Plan (2008)

Funded by KDOT through its Safe Routes to Schools program, this Action Plan, which was developed by the WAMPO Pedestrian Safety Task Force (serving as the Steering Committee), identifies issues that impact student travel behavior and suggests projects to address those issues and provide safe routes to schools. Among the strategies this plan identifies are education of children on safe pedestrian and bicycling behaviors, encouraging parents to allow children to walk or bicycle to school, and providing a safe environment for walking and biking through infrastructural improvements and enforcement projects.

Wichita Area Metropolitan Planning Organization Regional Pathway System Plan (2007, updated in 2011)

The WAMPO Regional Pathway System Plan establishes a



backbone system to connect existing and future bicycle/pedestrian facilities throughout the metropolitan planning area. The plan was developed as a cooperative effort that included extensive participation by various stakeholders including the Wichita Area Metropolitan Planning Organization (WAMPO), federal, state and transit agency representatives, pathway users, and local jurisdictions throughout the region. The main purpose of the Plan is to provide a framework for identifying locations where major pathway



improvements are appropriate and should be prioritized for implementation by one or more jurisdictions. Among the plan's recommendations is developing a fine-grained bicycling network, which includes multi-use paths, on-street bicycle lanes, paved shoulders, etc. The plan acknowledges that focusing on one facility, i.e. paths, as a region-wide solution won't work in terms of providing people with travel options between various origins and destinations.

Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)

The Wichita-Sedgwick County Comprehensive Plan serves as the overall guide for the City of Wichita and Sedgwick County. It is important for the City of Wichita Bicycle Master Plan in many ways, especially because it identifies the 2030 Urban Growth Area for the City of Wichita. Among the plan's objectives is to promote pedestrian/bicycle-oriented improvements to create alternative transportation networks to major destination points in the city and county. The strategies for doing this include:

1. Implement the Park, and Open Space Master Plan as an element of the Comprehensive Plan and future CIP documents.
2. Increase the convenience of pedestrian/bicycle access to and within commercial, employment, educational, and recreational areas.
3. Whenever possible, separate pedestrian/bicycle trails from motorized traffic through the use of landscape buffering and grade-separated crossings when practical.
4. Monitor road improvements listed in the CIP to include paved shoulders and/or wider curb lanes to accommodate bicycling.
5. Implement a procedure to ensure that non-motorized transportation opportunities are evaluated during the planning phase for major traffic corridors.
6. Connect adjacent subdivisions with walkways to enhance pedestrian/bicycle coordination.

In addition, the Transportation Plan Update outlines transportation improvements based on 2030 population and employment assumptions. While the improvements are primarily focused on meeting projected

motor vehicle demand, they represent opportunities for making improvements to the bicycle network. The recommended improvements include new or improved bridge crossings over the Wichita-Valley Center Floodway, railroad grade separations, arterial street widening, and new arterial streets in the urban service area.

Visioning Wichita (2004)

The Visioning Wichita document plan reflects the common vision of the Wichita metropolitan statistical area (Wichita MSA). The Visioning plan recommends the identification and establishment of neighborhood centers with bikeway and sidewalk connections.

Sedgwick County Parks and Pathways Plan (1996)

The Sedgwick County Parks and Pathways Plan is the currently adopted guide for the development of bicycle facilities within unincorporated Sedgwick County. This plan was adopted as a joint City of Wichita and Sedgwick County plan. However, the City replaced this plan with the 2009 Wichita PROS Plan. The plan still has relevance in terms of its recommended goal to “Establish a network of Linear Parks and Recreation Corridors to Improve Proximity and Accessibility to Parks and to Activity Centers”. Among the strategies it outlines are obtaining public access easements and use river corridors, drainage ways, existing and abandoned utility and railroad rights-of-way, where feasible, for hiking, bicycling, trail riding etc., and acquiring through purchase agreements or voluntary donations, additional right-of-way for developing bicycle facilities along rural arterial recreation corridors and other roads identified in the Future System Map.

Policies/Regulations

City of Wichita Municipal Code

Chapter 11.48 of the City of Wichita Municipal Code contains provisions for bicycles, including definitions; equipment; traffic regulations; riding on roadways and bicycle paths; bicycles on sidewalks; bicycle parking; and penalties for violations. Section 11.48.100 provides that every person riding a bicycle upon a street, highway, or roadway shall be granted

all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle except those that cannot apply to cyclists or that are exempted by special ordinance. Section 11.48.120 describes how a person operating a bicycle should ride on the roadway and bicycle paths. Subsection (d) states that wherever a usable path for bicycles has been provided adjacent to a street, highway, or roadway; bicycle riders shall use such path and shall not use the street, highway, or roadway. This provision has implications that may be in conflict with this Plan and the development of a comprehensive bicycle network that provides convenience, safety, and connectedness to its users; and therefore, may need to be revisited.

Unified Zoning Code, Wichita-Sedgwick County (2009)

The stated purpose of the Unified Zoning Code is to preserve and improve the public health, safety, and general welfare; and to implement the Comprehensive Plan of the City of Wichita and Sedgwick County. While the Comprehensive Plan as updated in 2005 includes provisions for promoting bicycling (previously enumerated), the Unified Zoning Code is silent on the topic of bicycling. There are provisions for not allowing development to



obstruct or impede pedestrian circulation.

Subdivision Regulations (2009)

The Subdivision Regulations (Regulations) provide uniform rules and procedures for the division and improvement of real property. Purposes relevant to this Plan include reduction of vehicular congestion, the provision of recreational facilities, and facilities and improvements deemed appropriate. While the Regulations address sidewalks and pedestrian access easements to schools and parks, there are no specific references to bicyclists or bicycling.

Summary of Goals and Objectives from Previous Plans and Regulations

The following is a summary of the goals and objectives from existing plans. No attempt is made to differentiate goals versus objectives since there is a lack of consistency with regard to use of these terms in previous plans. Additionally, although some goals and objectives read more like implementation strategies, they are included here if they appear in past plans. Finally, only those goals and objectives directly germane to the development of this Plan are included.

Goal/Objective	Source
Achieve a transportation system that enhances safety and public welfare	WAMPO Metropolitan Transportation Plan 2035
Achieve a transportation system that optimizes investments in time, energy, and financial resources	WAMPO Metropolitan Transportation Plan 2035
Achieve optimal intermodal accessibility, mobility, and connectivity throughout the region	WAMPO Metropolitan Transportation Plan 2035
Achieve a transportation system that is affordable and equitable for all users	WAMPO Metropolitan Transportation Plan 2035
Increase the miles of off road multiuse paths, on-street bicycle lanes, and paved shoulders and sidewalks	WAMPO Metropolitan Transportation Plan 2035
Increase the percentage of population that uses alternative modes of transportation	WAMPO Metropolitan Transportation Plan 2035
Increase the affordability of the transportation system for all users	WAMPO Metropolitan Transportation Plan 2035
Invest in, and integrate multimodal transportation systems (e.g. transit, bicycling, and walking) within, and connecting to, the downtown area	Project Downtown Master Plan (2010)
Make downtown bikeable with defined streets/lanes linked to regional networks, and incorporating bike parking and convenient walking access to destinations and transit	Project Downtown Master Plan (2010)
In the downtown area, create a hierarchy that includes a network of "Bicycle Balanced Streets" with either bicycle lanes or shared lane markings	Project Downtown Master Plan (2010)
Departments and agencies should coordinate their efforts to promote the provision of sidewalks, multi-purpose pathways, curb cuts, and crosswalks to accommodate pedestrians and cyclists to increase access to park resources	Wichita Parks, Recreation, and Open Space Plan (2008)
Educate children on safe pedestrian and bicycling behaviors	WAMPO Safe Routes to School Plan (2008)
Encourage parents to allow children to walk or bicycle to school	WAMPO Safe Routes to School Plan (2008)
Provide a safe environment for walking and biking through infrastructural improvements and enforcement projects.	WAMPO Safe Routes to School Plan (2008)
Develop an interconnected, fine-grained bicycling network, which includes multi-use paths, on-street bicycle lanes, and paved shoulders	Wichita Area MPO Regional Pathway System Plan (2007)

Goal/Objective	Source
Promote pedestrian/bicycle-oriented improvements to create alternative transportation networks to major destination points in the city and county	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Increase the convenience of pedestrian/bicycle access to and within commercial and employment areas.	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Whenever possible, separate pedestrian/bicycle trails from motorized traffic through the use of landscape buffering and grade-separated crossings when practical.	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Monitor road improvements listed in the CIP to include paved shoulders and/or wider curb lanes to accommodate bicycling.	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Implement a procedure to ensure that non-motorized transportation opportunities are evaluated during the planning phase for major traffic corridors.	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Connect adjacent subdivisions with walkways to enhance improvements	Wichita-Sedgwick County Comprehensive Plan (1993, Updated in 1999, 2005)
Establish a network of Linear Parks and Recreation Corridors to Improve Proximity and Accessibility to Parks and to Activity Centers	Sedgwick County Parks and Pathways Plan (1996)
Obtain public access easements and use river corridors, drainage ways, existing and abandoned utility and railroad rights-of-way, where feasible, for hiking, bicycling, trail riding etc.	Sedgwick County Parks and Pathways Plan (1996)
Acquire, through purchase agreements or voluntary donations, additional right-of-way for developing bicycle facilities along rural arterial recreation corridors and other roads identified in the Future System Map	Sedgwick County Parks and Pathways Plan (1996)
Reduction of vehicular congestion	Subdivision Regulations (2009)
Provision of recreational facilities and other facilities deemed appropriate	Subdivision Regulations (2009)
Identify and establish neighborhood centers with bikeway and sidewalk connections.	Visioneering Wichita (2004)

Summary Analysis of Existing Plans and Policies

Observations

- For more than twenty years, Wichita and Wichita area planning documents have consistently called for actions to promote bicycling and bicycle safety.
- Collectively, the goals and objectives in adopted plans are comprehensive and inclusive. Noteworthy goals and objectives include network connectivity, bicycle access and safety, social equity, recommendations for on and off-road facilities, recognition that education, enforcement and encouragement are important, policies that promote bicycling in the downtown area, and a commitment to the health, safety and general welfare of the community.
- Plans for a regional pathway system have a positive history of being updated and implemented.
- Plans calling for on-street bicycle facilities have lacked specificity and have not generally been implemented.
- Missing is the inclusion of bicycle provisions in the Unified Zoning Code and Subdivision Regulations.
- Missing is a well articulated and thought-out strategy to install on-street bicycle facilities and implement programs that promote bicycle safety and use. Also missing are criteria for prioritizing

bicycle projects and programs, performance measures for measuring progress, institutional structures to assure accountability, and strategies for involving the public.

Recommendations (Actions)

- The goals and objectives from previous plans were reviewed and incorporated into this Plan wherever appropriate. They represent years of thoughtful work and public involvement.
- As part of this Plan, the recommended on- and off-street facilities in past plans were included in the study network for further analysis.
- This Plan includes detailed implementation strategies that have been reviewed and endorsed by relevant departments and agencies, elected officials, the Plan Steering Committee and the Plan Technical Advisory Committee.

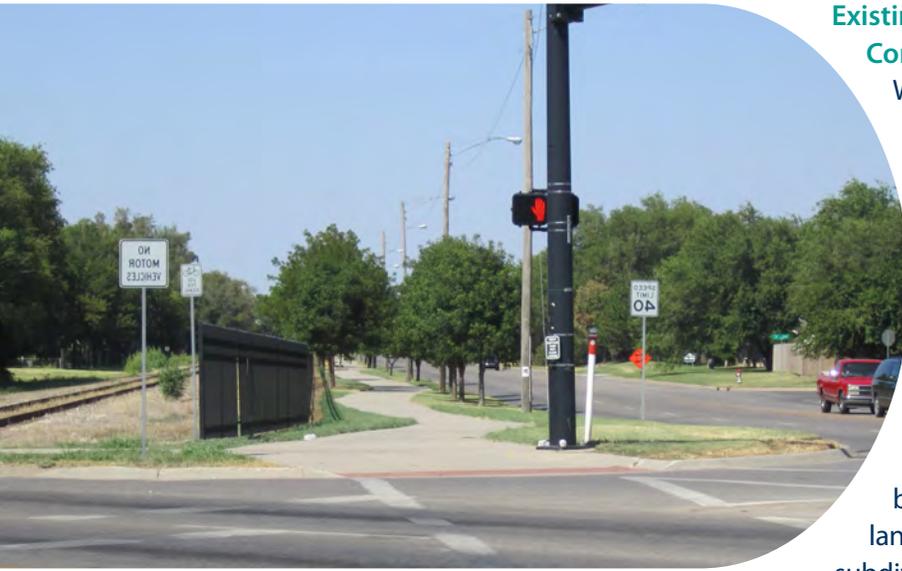
CHALLENGES AND OPPORTUNITIES

Existing and Future Local Street Constraints and Opportunities

Many of the local streets have high potential for incorporation into the bicycle network as bicycle boulevards. They have low traffic volumes and speeds, and provide connections within the arterial/collector grid that link up with other local streets and/or collector streets. Where these streets intersect arterial streets, there are some challenges. These locations are often unsignalized and generally there are insufficient gaps in traffic that would allow a bicyclist to comfortably and safely cross the street. In some cases, there is the opportunity to utilize an existing pedestrian signal (often to serve a nearby school) 100 to 150 feet from the intersection as a link in the bicycle network. In other cases, a new signal may be needed. One challenge will be to successfully encourage bicyclists to go out of their way to use the existing signal. This Plan recommends exploring other options for making it easier and safer for people traveling on the bicycle boulevards to cross arterial streets.

In addition, there are locations where two local streets that intersect a collector or arterial street are offset from one another. Spot improvements such as short sidepath segments and signage may be necessary to accommodate and direct bicyclists through these locations.





Existing and Future Rural Roadway Constraints and Opportunities

Wichita has the opportunity to create bicycle facilities as it grows. The City contains many two-lane undivided roadways on the edges of the developed areas of the City. Most are spaced at one-mile intervals. These streets range in width from 20 to 24 feet (pavement edge) with some having paved shoulders. Intersections of the rural roadways are typically stop controlled though some have signals. Many of the City's rural roadways offer a good riding experience for experienced bicyclists, but high vehicle speeds and narrow lanes likely deter less confident bicyclists. As new subdivisions are built, many of these roadways will be reconstructed as three and five lane arterial roadways. This

provides an opportunity to install bike lanes and sidepaths. Where roadways will likely not be fully reconstructed within the foreseeable future, improvements such as the addition of paved shoulders and/or bicycle route wayfinding signage will help to make these roadways more comfortable for a wider range of bicyclists.

Path and Sidepath Constraints and Opportunities

The City of Wichita has the opportunity to build upon and extend its extensive network of paved paths. Existing paths are located on abandoned railroad rights-of-way, along rivers, in parks, adjacent to (or under) freeways, and along arterial streets. It is the City's current practice to construct 10 foot wide sidepaths to accommodate bicyclists (and pedestrians) along arterial streets, when warranted and feasible. As the system has developed there are situations where sidepaths immediately transition into sidewalks. This can cause confusion since it can be difficult to distinguish between sidepaths and sidewalks.



There are opportunities to expand the existing path and sidepath network. This can help to address the current challenge where in some areas, i.e. along arterial streets without existing bicycle facilities, sidewalks offer the most comfortable experience for bicyclists wanting to access destinations such as shopping centers or connect to less traveled local streets.

Undeveloped railroad rights-of-way, reconstruction of freeway over/under passes, river and utility corridors provide opportunities for future paths that can be integrated into the larger bikeway network. A challenge will be to find funding for these projects which are more expensive than bike improvements on the roadway system (e.g. restriping an existing street with bike lanes).

CHAPTER 2

STAKEHOLDER INVOLVEMENT



The Wichita Bicycle Master Plan (Plan) reflects the values and priorities of Wichita. The public was involved throughout the planning process. Public involvement and input opportunities included the following:

- Wichita Bicycle Master Plan Steering Committee;
- Two public open house events;
- On-line survey;
- Interactive on-line mapping tool;
- Focus groups and briefings; and
- Better Block.

"I used to bike everywhere growing up, but have not since purchasing a vehicle. Really wanting to get back into it."

"I just like to ride for fun now and then."

"I bike with my dog who rides in a basket and loves to go."

Survey Comments

WICHITA BICYCLE MASTER PLAN STEERING COMMITTEE

The Bicycle Master Plan Steering Committee (Steering Committee) provided guidance and support for the development of the Plan. The nineteen member Steering Committee was appointed by the City Manager and consisted of citizens who volunteered to assist with the project; representatives of public and private agencies; and two elected officials from the Wichita City Council (see "Acknowledgements" for complete list of Steering Committee members).

The Steering Committee met eleven times over the course of the project. They reviewed and provided input on all aspects of the Plan including the following key Plan elements (see Appendix D for meeting dates):

"Must Have" (7-19-11 meeting.): Early on in the process, the Steering Committee developed a list of ideas, topics and themes for inclusion in the Plan. This list guided subsequent thinking and Plan development.



Indicate where bike lanes & paths are	Pathway priorities addressed
Youth accessibility	Connections – fill the gaps,
Public health	Implementation – not just planning
Expectation that riding is normal	Mountain bike course – competition level
Improve the wayfinding signage on paths	Linkage to other communities; Bicycle systems
Rail corridor developed	Kids riding bicycles to school,
More bike lanes	Synergy - bicycle commuting
Bicycle culture	Education – cyclist rights on the road
Safe routes to school, Cuts to bus routes,	Destinations - Shopping, schools, etc.
Traction – engage the community	Keep kids healthy

Draft Goals and Objectives (7-20-11 meeting.): Also early in the process, the Steering Committee created an initial list of goals and objectives for the Plan. These were subsequently presented at the October Open House, revised, and serve as the bases of Chapter 3, Vision, Goals and Objectives. The initial list:

Connectivity - Fill in missing links in the system, connect to destinations and community.	Maintain the existing system infrastructure of trails, paths etc.
Create a bicycle culture where riding is “normal”.	Educate motorists and cyclists.
Signage/Wayfinding – fun and informative, maps to distribute that show the system	Increase visibility of bicycling in the community with more markings and bike lanes.
Schools: Engage the schools and Universities	Promote riding – For fun, health and wellness
Encouragement - increase bicycle event participation	Address the barrier of distance.
Create a network for all types of cyclists.	

Study Network (7-20-11 meeting.): The Study Network is the set of streets and off-street corridors that were studied for possible inclusion in the recommended Bikeway Network (Chapter 5). The Steering Committee reviewed and made suggestions for roadways to include in the Study Network.

Revised Draft Vision, Goals and Objectives (2-23-12 meeting.): After receiving input at the October public meeting, the draft goals and objectives were organized into a more formalized and logical structure. The Steering Committee reviewed, discussed and made final revisions to the Plan vision, Goals and Objectives. The results appear in Chapter 3 and form the basis for the Action Plan (Chapter 4), the Bicycle Network and Priorities (Chapter 5) and the Performance Measures (Chapter 6).

Draft Bikeway Network (2-23-12 meeting.): The Steering Committee reviewed and provided dozens of comments on the draft, 800 mile Bikeway Network. These comments were incorporated into the a revised draft Bikeway Network that was presented at the second Open House on May 1st, 2012.

The Steering Committee found the 800 mile Bikeway Network to be somewhat overwhelming and possibly too expensive to implement. Subsequent discussions led to a decision to create a Priority Bikeway Network as a sub-set of the Bikeway Network.

“I cycle everywhere every day. Wichita has some very nice bike paths but they do not suit the type of cycling that I do. Bike lanes would be nice.”

Meeting Attendee

Draft Priority Bikeway Network (5-17-12 meeting.): The draft Priority Bikeway Network was presented at the May 1st, 2012 Open House, revised and then presented to the Steering Committee. They provided additional

comments that are reflected in the final Priority Bicycle Network recommendations (Chapter 5).

Top 11 On-Street, and Top Priority Sidepath Projects (5-17-12 meeting.): Lists of possible priority projects for early implementation were presented and voted on by members of the public at the May 1st, 2012 Open House. The results were presented to the Steering Committee for further discussion. The committee made some revisions with regard to the order of priorities and endorsed the projects identified in the table below:

Facility Name	Description
1 st and 2 nd Street Bike Lanes	Extend existing bike lanes from I-135 to the Arkansas River (east/west)
2 nd Street Bike Lane and Shared Lane Markings	Install mix of bike lanes and shared lane markings from the Arkansas River to Hoover (east/west)
Armour Ave Bicycle Boulevard	Install bicycle boulevard from Douglas Ave to K-96 (north/south)
Douglas Avenue Shared Lane Markings	Install shared lane markings from St. Paul Ave to Edgemoor Ave (east/west)
I-235 East/West Crossing: Central Ave or Maple St	Pending further study, install a side path connection under I-235 and across the "Big Ditch" (east/west)
Market St & Topeka Ave Bike Lanes	Install bike lanes from 21 st St to Mt Vernon Rd (north/south)
Mt Vernon Bike Lanes	Install bike lanes from Broadway Ave to Woodlawn Blvd (east/west)
Pedestrian Crossing Signal & Bicycle Boulevard	Install signal to cross Ridge Road and Westport Ave to provide access to Sedgwick County park; install bicycle boulevard starting at Ridge and going west to Glenhurst Street; then south along Holland Ln/Country Acres Ave/Woodchuck to University Ave (north/south)
Perry Ave Bicycle Boulevard + 17th / 18th St Shared Lane Markings	Install bicycle boulevard starting at Perry Ave & 13 th St., and going north to via Perry/Porter/20 th /Coolidge to 21 st Street (north/south) + Install shared lane markings on 17th, then 18th St from I-135 to Perry Ave (east/west)
Sycamore St Bicycle Boulevard	Install a mix of bicycle boulevards and shared lane markings starting at Sycamore and Douglas and going south to 31 st Street via Sycamore, Osage, Walker, Orient, and Glenn. (north/south)
Redbud Path	Extend a shared use pathway along the existing rail corridor.

Review and Endorsement Schedule (7-12-12): The Steering Committee reviewed, updated and endorsed the schedule for presenting the Plan to neighborhood groups and other stakeholders.

Plan Endorsement (11- 20-12): In a unanimous decision, "The Steering Committee endorses the City of Wichita Bicycle Master Plan and recommends endorsement of the Plan by the Wichita City Council".

"Current bike lanes on 1st and 2nd Street should be extended through downtown to paths along the river."

On-line Survey Response from Citizen



PUBLIC OPEN HOUSE #1

On October 4th, 2011, 178 people participated in the Wichita Bicycle Master Plan Open House. Participants provided important input on Plan objectives, priorities, future facilities, and the Plan in general. The event included a series of listening stations where individuals could provide written and verbal comments.



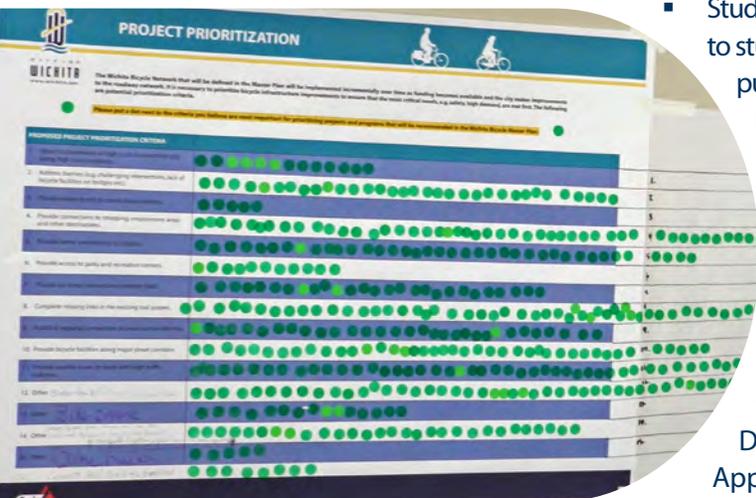
Each of the listening stations was staffed by members of the Steering Committee and/or members of the Technical Advisory Committee. Opening remarks were made by Council Members James Clendenin and Lavonta Williams. A PowerPoint presentation provided an overview of the planning process and examples of bicycle facilities from communities around the United States.

The public provided input on the following elements:

- Types of Bicycle Facilities: Public asked for facility preferences (bike lanes, bicycle boulevards, shared lane markings, paths etc.)
- Goals and Objectives: Using 'stickers', public voted on project goals and objectives for Plan
- Project Priorities: Using 'stickers', public voted on criteria for selecting project priorities

- Study Network - Map of Wichita with recommended streets and paths to study for possible bicycle facilities: Writing directly on the maps – public provided dozens of ideas on where they would like to see bike lanes and other facilities; and where there are barriers to bicycling.

The information and recommendations in Chapter 3, Vision, Goals and Objectives, Chapter 4 Strategies and Action Plan, and Chapter 5 Bicycle Network and Priorities, reflect the outcomes from input received at the public meeting with additional guidance coming from the Steering Committee, the Technical Advisory Committee and the Planning Team. Detailed results from the public meeting can be found in Appendix D.



PUBLIC OPEN HOUSE #2

On May 1, 2012 more than 100 people participated in the second Wichita Bicycle Master Plan Open House. The event provided an opportunity for members of the public to learn more about the Wichita Bicycle Master Plan and to provide input on Plan recommendations. The event included a PowerPoint presentation about the planning process and recommendations as reflected on the bicycle network maps and other Plan documents. A slideshow of the Better Block event (see Appendix E) was also shown.



The public provided input on the following:

- Bikeway Network - Map of Wichita with recommended bicycle facilities: Writing directly on the maps – public provided dozens of comments on recommended on- and off-road bicycle facilities.
- Priority Bikeway Network – Map of Wichita with a sub-set of the entire Bikeway Network: on the maps –citizens provided comments on the recommended bicycle facilities and what should or should not be included in the Priority Bikeway Network.
- On- and Off-Street Priorities: Using ‘stickers,’ public voted to identify the top ten on-street and top three off-street priority projects.
- Performance Measures: Using comment forms, public provided feedback on draft performance measures.

The recommendations on the final Bikeway Network and Priority Bikeway Network maps along with the list of priority projects in Chapter 5 and the performance measures in Chapter 6 reflect the outcomes from input received at the public meeting with additional guidance coming from the Steering Committee, the Technical Advisory Committee and the Planning Team. Detailed results from the public meeting can be found in Appendix D.

ON-LINE SURVEY

A web-based survey was implemented to solicit further information on bicycling in Wichita. The response was overwhelming. Over the span of three months (September 2011- November, 2011), 1,640 surveys were recorded; approximately 1,200 of them were recorded in the first month. The survey included 12 questions, which took approximately 10-15 minutes to complete. All respondents were asked to provide demographic information. Most respondents were between the ages of 25-64 (78%, 1,275). There was slightly more responses from males than females; male (59%, 839) and female (41% 586). Three percent of the respondents indicated that they have mobility impairment.

The survey provided valuable information that guided the development of the Plan (see Appendix D for full survey results):

- The biggest barrier to bicycling among non-cyclists is fear of motor vehicle traffic
- The main reasons people bicycle is for fitness, fun, visiting family/friends and going shopping/doing errands.
- The most popular bicycle facilities are off-road paths followed by bicycle lanes
- When asked how to improve bicycling in Wichita, the factor most chosen was the need to provide connectivity between both on- and off-road facilities.

INTERACTIVE ON-LINE MAPPING TOOL

Members of the public were encouraged to identify locations that needed improvements, paths, and descriptive comments on an on-line interactive map. Between September 1, 2011 and November 30, 2011, 192 locations and 67 paths were identified for needing improvements. Table 1 below shows a ranking of the general categories of improvements recorded by map users.



Table 1: On-Line Map Bicycle Improvement Categories by Rank

Ranking	Category	Count of Markers
1	Improvement needed (please specify in description field)	88
2	Difficult intersection (please say why in description field)	35
3	Connection needed (e.g. off-street path/trail)	15
4	Important street for bicyclists	12
5	Major barrier (e.g. unfriendly street/bridge, physical obstruction))	11
6	Important street for bicyclists	10
7	Bike parking needed	8
8	Confusing area	5
9	Connection needed (e.g. off-street path/trail)	3
10	I make bike-transit connection here	3

The information gathered from the interactive map was used to inform the development of the study network and to identify intersections that need further study (identified on the Bicycle Network maps).

TARGETED FOCUS GROUPS AND BRIEFINGS

Focus Groups and Stakeholder briefings were held with groups that provided important information for further understanding bicycling needs and concerns. The meeting objectives were to:

- familiarize meeting attendees with the planning process and make them aware of opportunities for

their involvement;

- gather information pertinent to the Plan; and
- make sure attendees concerns were addressed within the context of the Plan.

Stakeholder focus group interviews were held with Inter-Faith Ministries, Developers, K – 12 Schools, and Wichita Independent Neighborhood Groups. Project briefings were held with bicycle shop owners, downtown stakeholders, foundations, the Health and Wellness Coalition, and the Chamber of Commerce.

The information gathered was used to inform all Plan recommendations including the Bikeway Network, priorities, and performance measures.



BETTER BLOCK



On April 27 and 28, 2012 the City of Wichita, partnered with the Douglas Design District, local businesses, and volunteers to host a Better Block event at Douglas Avenue and Hydraulic Street.

The Better Block event was a temporary transformation of Douglas Avenue as a more bicycle, pedestrian, and transit-friendly street; mixed with public art, culture, pop-up businesses, and street life. The event provided opportunities for individuals to: ride in a bike lane and cycle track; relax with sidewalk seating; experience public art; utilize later and more frequent bus service (on Friday night); enjoy an assortment of dining and shopping opportunities; admire the pedestrian scale lighting; and try back-in angled parking. The event also included Tour de Cure and Bike Month Proclamation presented by Council Members Janet Miller and Lavonta Williams.

TECHNICAL ADVISORY COMMITTEE

In addition to public input, the project was guided and supported by a Technical Advisory Committee (TAC) made up of City of Wichita staff members representing City departments and divisions that will be responsible for planning, designing, constructing, maintaining, and policing public bicycle facilities (see “Acknowledgements” for complete list of Steering Committee members). The TAC reviewed and provided input on all aspects of the Plan, including eight joint meetings with the Steering Committee.

CHAPTER 3

VISION, GOALS AND OBJECTIVES



The Plan's Vision, Goals and Objectives were developed through an interactive exercise with the project Steering Committee, a public open house event held on October 4, 2011, and a review of previous planning and policy documents. For the many stakeholders that provided input, there is an overarching desire to create an interconnected network of on- and off-street bicycle facilities that link all areas of the City. The word "connectivity" came up repeatedly, whether discussing the need for more paths or completing on-street facilities into the downtown area. There is also a desire to create a "bicycle culture" where bicycling is "normal" and seen as a viable form of transportation.

The Vision and top ranked Goals and Objectives are presented below. The Wichita Bicycle Master Plan addresses each of the Goals and Objectives through bicycle network recommendations and an implementation strategy that includes policy-level actions and design-level guidelines and recommendations.

The vision statement, the heart of the plan, describes what the community will be like in 2023. It is a general statement that provides the framework for this document by identifying key elements and conditions.

From the vision statement, the goals, objectives, and strategies have been developed. They are the recommended way of achieving the future vision of Wichita, organized from the most broad/general concepts (objectives) to the most specific (strategies). Below are brief definitions of the goals, objectives, strategies, and actions.

Goals: General asseverations the community wants to work towards achieving. The work of completing a goal is seldom ever completed, it is something that we continually strive to achieve.

Objectives: Specific initiatives that if accomplished will lead to the realization of the goals and vision statement. There may be more than one way to accomplish an objective, or more than one action that may be undertaken.

Strategies: Strategic actions that are recommended to be undertaken to achieve the objective, goal, and vision statement. Each of the strategies includes a table with a description of the action items, lead organization and the estimated duration (from start of the action to the finish) to complete the action.

BICYCLE MASTER PLAN VISION

An interconnected network of on-and-off -street bicycle facilities that accommodates bicycle riders of all skill levels; and links all areas of the City of Wichita- including employment centers, schools, parks, and other activity centers.

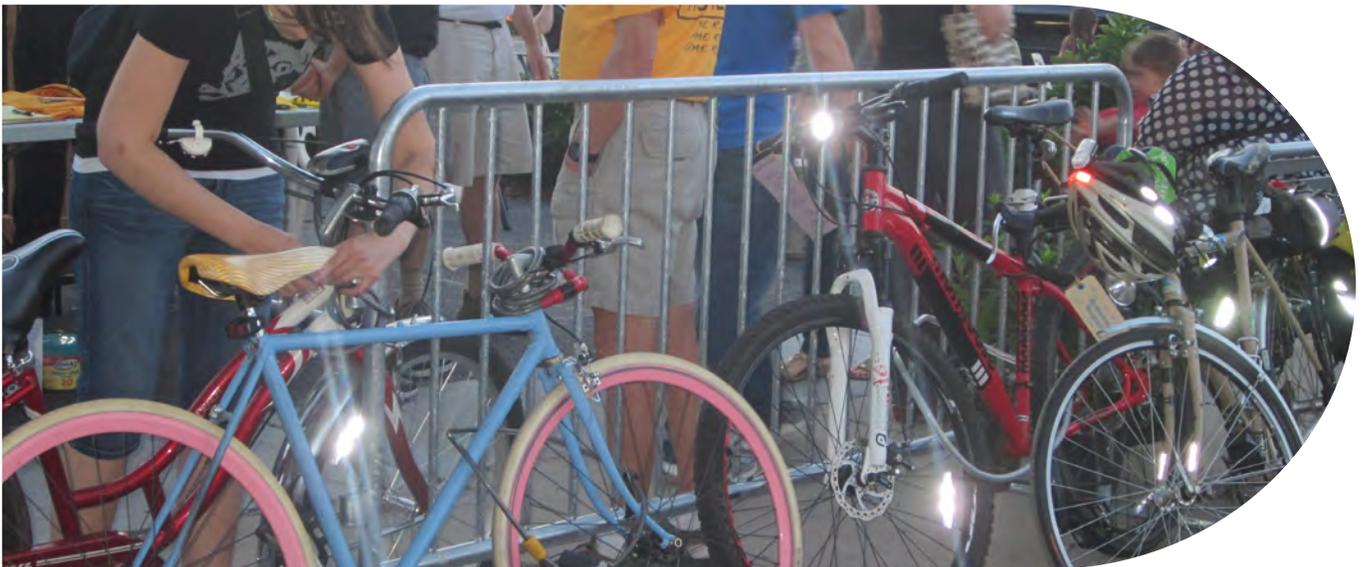
BICYCLE MASTER PLAN GOALS

Goal 1: Increase the amount of bicycling in Wichita.

Benchmark: Triple the amount of bicycling in Wichita over the next ten years (2012 – 2022)

Baselines:

1. The U.S. Census Bureau 2010 American Community Survey 3-Year Estimates reports that 0.3 percent (601 people) of Wichita resident workers age 16 years and over primary means of transportation to work is a bicycle. (review the most recent ACS 3-Year Estimate every three years)
2. The U.S. Census Bureau 2010 America Community Survey 1-Year Estimates reports that 0.5 percent (832 people) of Wichita resident workers 16 years and over primary means of transportation to work is a bicycle. (review the most recent ACS 1-Year Estimate annually)
3. Review the recommended bicycle count information collected during the bi-annual volunteer bicycle count (Strategy 30). (repeat every 2 years)
4. Review the bicycle counts information collected from the automated 24 hour counters (Strategy 30). (repeat annually)



Goal 2: Improve the safety of bicyclists in Wichita

Benchmark: Reduce the rate of bicycle crashes by one third over the next ten years (2012 – 2022)

Baselines:

1. KDOT report– crashes in Wichita involving bicyclists; and bi-annual bicycle count (fall of 2012). Rate - # of crashes involving bicyclists (/) # of bicycles counted. Calculate every two years.
2. KDOT report – crashes in Wichita involving bicyclists; and automated 24 hour counters. Rate - # of crashes involving bicyclists (/) # of bicyclist counted. Calculate once a year.

Goal 3: Foster and promote a culture where bicycling is a viable and acceptable form of transportation

Benchmark: Increase by 50 percent the percent of city-wide survey respondents rating ease of bicycle travel in Wichita as “excellent” or “good”.

Baseline:

1. Year 2010: 37 percent of the National Citizen Survey respondents rated the ease of bicycle travel in Wichita as “excellent” or “good”.



SUMMARY OF BICYCLE MASTER PLAN OBJECTIVES & STRATEGIES

Goal 1: Increase the amount of bicycling in Wichita.

Objective 1.1: Complete a core network of interconnected on- and off-street bicycle facilities that link all neighborhoods and activity centers in the City, including downtown.

Strategy 1: Provide on- street and off-street bicycle facilities where recommended

Strategy 2: Install a Signed Bicycle Route Wayfinding System

Strategy 3: Improve bicycle safety and access at arterial roadway crossings

Strategy 4: Improve bicycle access to transit stops and stations

Strategy 5: Increase the availability of bicycle parking throughout Wichita

Strategy 6: Determine if a Bike Share program would be good for Wichita

Objective 1.2: Place a priority on maintaining existing paths and on-street bicycle facilities while installing new facilities.

Strategy 7: Prioritize and fund bicycle facility maintenance.

Objective 1.3: Coordinate with neighboring jurisdictions to promote regional bike facility continuity, including the pathway system and missing links identified in the bicycle network.

Strategy 8: Incorporate the facility recommendations from this plan into the WAMPO Metropolitan Transportation Plan and other related plans.

Objective 1.4: Provide easily accessible information about the bicycle network.

Strategy 9: Provide printed, online, and mobile device bicycling guides.

Goal 2: Improve the safety of bicyclists in Wichita

Objective 2.1: Educate law enforcement, youth, motorists, and bicyclists about the rights and responsibilities of all road users.

Strategy 10: Educate Wichita transportation system professionals and users about new bicycle facility types, planning, design and bicycle-related issues that may arise.

Strategy 11: Promote bicycle education and encouragement in Wichita through partnerships with community organizations and businesses.

Strategy 12: Support efforts to obtain funding for bicycle education and enforcement programs

Objective 2.2: Take a balanced approach to enforcement that focuses on reducing the behaviors of both motorists and bicyclists that cause crashes.

Strategy 13: Increase enforcement of bicyclist and motorist behavior to reduce bicycle and motor vehicle crashes.

Objective 2.3: Develop safe-routes-to-school (SRTS) programs that focus on safety and encouragement.

Strategy 14: Work with school districts to develop collaborative partnerships to encourage children to bike to school.

Goal 3: Foster and promote a culture where bicycling is a viable and acceptable form of transportation

Objective 3.1: Promote bicycling through increased participation in special events.

Strategy 15: Coordinate increased participation in bicycling events.

Objective 3.2: Be recognized by the League of American Bicyclists as a Bicycle Friendly Community.

Strategy 16: Achieve League of American Bicyclists Bicycle Friendly Community bronze and then silver status designation.

Objective 3.3: Increase the number of businesses and colleges that are recognized as Bicycle Friendly Business/Colleges by the League of American Bicyclists.

Strategy 17: Work with area businesses and colleges to engage them in the League of American Bicyclists recognition program.

Objective 3.4: Market bicycling as a fun, healthy, culturally “in-thing” to do.

Strategy 18: Enlist opinion leaders in promoting bicycling (e.g. Speakers bureau).

Strategy 19: Engage area businesses in using bicycles in their advertising and other promotions.

Policy level objectives and strategies for plan implementation

Objective 4.1: Routinely accommodate bicycle facilities as part of City transportation infrastructure improvements.

Strategy 20: Adopt policies to ensure that the City’s project planning and review processes account for bicycle facilities.

Objective 4.2: Ensure City development policies maximize opportunities to install appropriate bicycle facilities.

Strategy 21: Update the Unified Zoning Code to provide incentives for both office and retail

developments/redevelopments to provide secure and conveniently located bicycle parking.

Objective 4.3: Develop policies for sequencing projects.

Strategy 22: Create policy for installing facilities that are isolated segments.

Strategy 23: Create policy for reserving space for future facilities (e.g. space for bike lane that is added later).

Strategy 24: Prioritize funding to complete gaps (missing links) in the bikeway network.

Objective 4.4: Fund priority, stand-alone bicycle projects.

Strategy 25: Fund through CIP, annual programs and grants.

Objective 4.5: Provide adequate staff to implement plan.

Strategy 26: Allocate staffing to implement this plan staff.

Objective 4.6: Monitor and track implementation of the Plan.

Strategy 27: Create a bicycle advisory board.

Strategy 28: Update the bicycle master plan on a regular basis.

Strategy 29: Publish an annual implementation work plan.

Strategy 30: Establish performance measures to monitor progress.

CHAPTER 4

STRATEGIES & ACTIONS



Below are the strategies and action steps recommended to realize the objectives, goals, and Plan vision. The actions identify the entity responsible for taking the lead on the action, the supporting entity required to assist in the realization of the action, the estimated time to complete the action, and the estimated frequency of each action. The definitions for these terms are below. Several strategies are identified as implementation actions for other strategies, they are highlighted with an asterisk.

Lead: the organization that should be responsible for leading the implementation of the action.

Support: the organization engaged by the lead organization for assistance and expanded perspectives as needed. In some cases, supporting partners will provide ongoing assistance to the lead organization; in others, they may be consulted on an occasional basis.

Priority Rank: this is the priority rank for the action on three-level scale, with first priority actions deserving attention immediately.

Frequency: this is the frequency that the action should be undertaken. Some actions are one-time events, others are ongoing or reoccurring.

STRATEGY 1

Provide on- street and off-street bicycle facilities where recommended.

Rationale: On-street and off-street bicycle facilities should complement one another to form an interconnected network that supports bicycling as a viable transportation mode by providing convenient access to activity centers and destinations. In addition to providing direct access to where people want to go, the bicycle network must be safe and include a range of facility types that attract bicyclists of all skill and confidence levels.

Action		Lead	Support	Priority Rank	Frequency
1.	Implement the recommended on- and off-street bikeways in the rights-of-way as shown on the bicycle network map	Public Works	Planning	First priority	Ongoing
2.	Implement the recommended shared-use paths outside of the rights-of-way as shown on the bicycle network map	Park and Recreation	Planning	First priority	Ongoing
3.*	Prioritize stand-alone bicycle projects recognizing the need to provide a level of comfort that attracts bicyclists of all skill and confidence levels (Strategy 24)	See Strategy	See Strategy	See Strategy	See Strategy
4.*	Adopt a Routine Accommodation Policy to implement (Strategy 20)	See Strategy	See Strategy	See Strategy	See Strategy

* Strategies that are implementation actions for other strategies

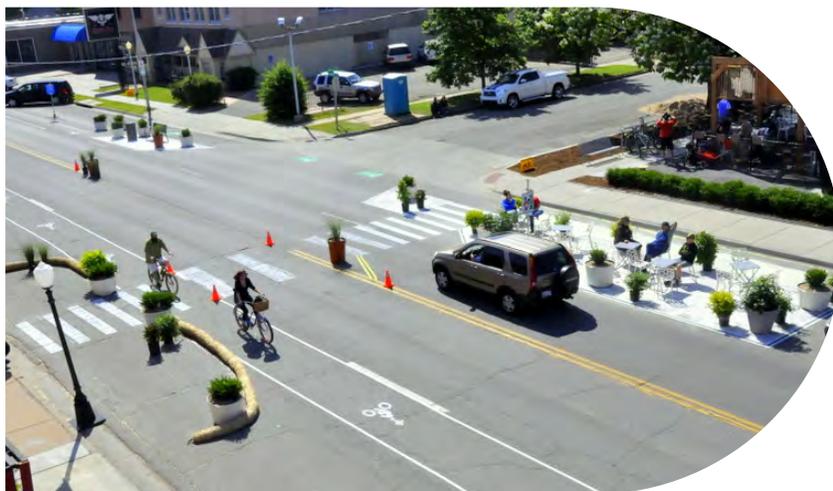
STRATEGY 2

Install a Signed Bicycle Route Wayfinding System.

Rationale: An interconnected bicycle network should be seamless and accessible. A fully developed wayfinding signage system will visually connect the bicycle network, allowing bicyclists to reach their destination with minimal or no use of a map. Signing can increase safety by directing bicyclists to preferred facilities and can increase awareness of off-street paths that otherwise may not be easily visible from a roadway.

Action		Lead	Support	Priority Rank	Frequency
1.	Adopt a wayfinding protocol (see Appendix D)	Public Works	Planning	First priority	Once
2.	Based on protocol, create signed Bicycle Route System plan (include map)	Planning	Public Works, Park and Recreation	First priority	Once
3.	Prioritize segments and spot locations within bicycle network where wayfinding signage is to be installed; recognize the need to provide a level of comfort that attracts bicyclists of all skill and confidence levels	Planning	Public Works, Park and Recreation	First priority	Annually
4.*	Apply for funding through CIP, annual programs and grants to implement (Strategy 25)	See Strategy	See Strategy	See Strategy	See Strategy
5.	Install the signed bicycle wayfinding system	Public Works	Park and Recreation, Planning	First Priority	Once

* Strategies that are implementation actions for other strategies



STRATEGY 3

Improve bicycle safety and access at arterial roadway crossings.

Rationale: Crashes involving bicyclists and motor vehicles typically occur at intersections. Intersections can be barriers that create breaks in an otherwise connected bicycle network. Making improvements at intersections improves both safety and accessibility. In fact, making intersection improvements can be one of the single best ways to reduce bicycle/motor vehicle crashes while encouraging more bicycle trips.

Action	Lead	Support	Priority Rank	Frequency
1.*	See Strategy	See Strategy	See Strategy	See Strategy
2.	Public Works	Planning	First priority	Ongoing
3.*	See Strategy	See Strategy	See Strategy	See Strategy
4.*	See Strategy	See Strategy	See Strategy	See Strategy
5.*	See Strategy	See Strategy	See Strategy	See Strategy
6.*	See Strategy	See Strategy	See Strategy	See Strategy

* Strategies that are implementation actions for other strategies



STRATEGY 4

Improve bicycle access to transit stops and stations.

Rationale: Bicyclists need to be able to access transit stops and stations. Providing bicycle access to transit stations allow bicyclists, including those who do not travel long distances, to expand their range and make different types of trips by combining bicycling with transit. Better bicycle access to transit also increases transit ridership. Example spot improvements include extending paths to transit facilities, and providing bicycle signage to and from major transit connections.

Action		Lead	Support	Priority Rank	Frequency
1.	Using the facilities map from this plan, identify spot improvements necessary to improve bicycle access to transit stops, stations, and transfer points	Planning	Wichita Transit, Public Works	First priority	Part of annual work plan
2.*	Adopt a Routine Accommodation policy to implement (Strategy 20)	See Strategy	See Strategy	See Strategy	See Strategy
3.*	Adopt a Complete Streets policy to implement (Strategy 20)	See Strategy	See Strategy	See Strategy	See Strategy
4.*	Update the Unified Zoning Code to implement (Strategy 21)	See Strategy	See Strategy	See Strategy	See Strategy
5.*	Update the Subdivision Regulations to implement (Strategy 20)	See Strategy	See Strategy	See Strategy	See Strategy
6.*	Apply for funding through CIP, annual programs and grants to implement (Strategy 25)	See Strategy	See Strategy	See Strategy	See Strategy
7.	Partner with Wichita Transit, and where applicable, private property owners to secure easements, fund, and implement spot improvements not in city right-of-way	Public Works,	Planning, Wichita Transit	First priority	Ongoing

* Strategies that are implementation actions for other strategies



STRATEGY 5

Increase the availability of bicycle parking throughout Wichita.

Rationale: Providing bicycle parking is a relatively low-cost way to increase the number of bicycle trips. Lack of bicycle parking can be a barrier to bicycling. Providing short-term bicycle parking encourages shopping at local stores, thus contributing to the vitality of neighborhood businesses. Long-term bicycle parking encourages bicycle commuting to work and school. Providing bicycle storage facilities at transit stations allow bicyclists, including those who do not travel long distances, to expand their range and make different types of trips by combining bicycling with transit. Bicycle storage facilities can also increase transit ridership.

Action	Lead	Support	Priority Rank	Frequency
1. Prioritize locations for installing bicycle parking racks in the public ROW (e.g. commercial areas, parks, libraries, public housing complexes etc.)	Planning	Public Works	Second priority	Ongoing
2. Create annual program to install new bicycle parking racks each year in the public ROW	Public Works	Planning	First priority	Part of annual work plan
3. Develop a match fund program to encourage existing businesses to install bicycle racks by subsidizing a portion of the cost	Public Works	Planning	Second priority	Ongoing
4.* Update the Unified Zoning Code to implement (Strategy 21)	See Strategy	See Strategy	See Strategy	See Strategy
5. Develop and adopt protocols and best practices for prioritizing and installing storage facilities at transit stops and the transit station	Wichita Transit	Planning	Second priority	Once
6.* Apply for funding through CIP, annual programs and grants to implement (Strategy 25)	See Strategy	See Strategy	See Strategy	See Strategy
7. Prioritize locations and install bicycle storage facilities	Wichita Transit	Planning, Public Works	Second priority	Part of annual work plan

* Strategies that are implementation actions for other strategies

STRATEGY 6

Determine if a bike share program would be good for Wichita.

Rationale: Bike share programs have the potential to significantly increase the number of bicycle trips. However, they can require substantial investment and can be economically challenging to sustain if not set up properly from the beginning. Consequently, completing a feasibility study to select the right plan is critical.

Action	Lead	Support	Priority Rank	Frequency
1. Secure funding and undertake a bike share Feasibility Study to determine: a) the best model for Wichita, b) cost to implement, c) plan to sustain over time	Planning	Public Works, Transit	First priority	Once



Smart Ride Bike Share Program in Saint Paul, MN

STRATEGY 7

Prioritize and fund bicycle facility maintenance.

Rationale: The City of Wichita has made a substantial investment in many off- and on-street bicycle facilities. These existing facilities require maintenance, and in some cases upgrading to meet the latest standards and best practices. As new facilities are installed they too will need to be maintained overtime. Prioritizing maintenance activities will ensure that investments in maintenance lead to improved safety, use, and increases in the life-cycle of bicycle facilities. Appendix C has a calculator for estimating planning level annual and major maintenance costs. This should be used to develop an annual maintenance budget.

Action		Lead	Support	Priority Rank	Frequency
1.	Establish prioritization criteria and frequency for annual maintenance of existing facilities	Public Works	Planning	First priority	Once
2.	Annual maintenance: Create prioritized plan for maintaining and funding on- and off-road facilities (e.g. sweeping bike lanes; fixing pot holes etc.)	Public Works	Planning	First priority	Annually as part of annual work plan
3.	Major maintenance: Integrate high priority projects into CIP and annual programs	Public Works	Planning	Second priority	Ongoing
4.	New Facilities: Create life-cycle based maintenance plan for new facilities	Public Works	Planning	As needed for new facilities	As needed
5.	Establish an annual maintenance budget for bicycle facilities based on the annual maintenance plan	Public Works, Planning	Planning	First priority	Annually
6.	Fix spot maintenance problems on existing city streets and on-street bicycle facilities (based on annual work plan and public requests)	Public Works		First priority	Ongoing
7.	Maintain bicycle facilities as part of other maintenance programs (e.g. ensure that all on-street bicycle facilities are included in regular street sweeping activities)	Public Works		First priority	Ongoing
8.	Establish and manage an "Adopt a Path Program" to help with litter pick-up and vegetation management along shared use paths (not side paths)	Parks	Planning	Second priority	Ongoing
9.	Establish and implement detour protocols for bicycle facilities that are closed for maintenance or other work (e.g. side path closed for underground utility work)	Public Works	Planning	Second priority	Ongoing

STRATEGY 8

Incorporate the facility recommendations from this plan into the WAMPO Metropolitan Transportation Plan and other related plans.

Rationale: Bicyclists’ demand for continuous and connected travel does not end at jurisdictional boundaries. The planning and implementation of bicycle facilities in neighboring towns, cities, and within unincorporated areas needs to be coordinated. The coordination helps to facilitate safe and direct bicycle access between residential areas, activity centers, and other destinations.

Action	Lead	Support	Priority Rank	Frequency
1. Identify timeline for next update of the WAMPO Metropolitan Transportation Plan	Planning		TBD	Once
2. Incorporate facility recommendations (maps) from this plan into WAMPO MTP	Planning		TBD	Once
3. Apply to have facility recommendations (maps) from this plan incorporated into the Wichita-Sedgwick County Comprehensive Plan	Planning		TBD	Once
4. Apply to have facility recommendations (maps) from this plan incorporated into the Wichita Parks Recreation and Open Space Master Plan	Planning	Park and Recreation	TBD	Once



STRATEGY 9

Provide printed, online, and mobile device bicycling guides.

Rationale: Bicycling guides can help provide accessible and accurate information about the bicycle network. This information can help users easily identify the most direct and suitable route. In addition to printed bicycling guide maps, the public is increasingly looking to on-line sources for wayfinding information that can be accessed using mobile devices. Once established, on-line resources can reduce the need to produce paper products and can be easier to update. Online applications should be explored as the bicycle network is further developed, including a tool that would allow a user to get additional route profile information (e.g. topography, network distance, level of vehicle traffic, etc.).

Action	Lead	Support	Priority Rank	Frequency
1. Determine the data, scale, layout, style, and other content, e.g. photographs and non-graphical information	Planning		First priority	Once
2. Post bicycling guide map online in an easily downloadable format, e.g. by quadrant	Planning		First priority	Once
3. Print map and distribute	Planning	Park and Recreation	First priority	Ongoing
4. Identify existing data sources for mobile device wayfinding	Planning		Second priority	Ongoing
5. Identify existing or develop new web functionality platform; wayfinding program becomes operational	Planning		Third priority	Once



STRATEGY 10

Educate Wichita transportation system professionals and users about new bicycle facility types, planning, design and bicycle-related issues that may arise.

Rationale: As the bicycle network grows, it is important that new facilities be designed to reflect the latest design guidelines and practices. The new AASHTO Guide for the development of bicycle facilities is one example of new guidance that provides innovative and creative ways to design facilities that are safer and more inviting. Nationally available courses and workshops provide an opportunity for planners, designers and engineers to take advantage of the latest thinking in bicycle transportation planning, design and practice.

Action		Lead	Support	Priority Rank	Frequency
1.	Identify education programs for planners and engineers, including webinars, and courses offered through APBP, PBIC, APA, ITE, and other organizations)	Planning	Public Works	First priority	Ongoing
2.	Convene a bicycle summit to provide a public venue in which to discuss issues related to bicycling	Planning	Public Works, Park and Recreation	Second priority	Every two years
3.	Staff a table/display with information about bicycling in Wichita at relevant community events	Planning	Public Works, Park and Recreation	Second priority	Ongoing



STRATEGY 11

Promote bicycle education and encouragement in Wichita through partnerships with community organizations and businesses.

Rationale: Like facilities for other transportation modes, the bicycle network must be used appropriately to be effective. It is not acceptable for bicyclists or motorists to disregard traffic rules. Breaking these laws puts bicyclists and other roadway users at risk and is inconsistent with the Plan’s goal of increasing safety for bicyclists. Efforts must be made to encourage, among motorists and bicyclists alike, a culture of respect and shared usage that welcomes new riders to the City’s roads and paths.

Action	Lead	Support	Priority Rank	Frequency
1. Lend support to community organizations involved in promoting bicycling. Support may include providing a venue for events, recruiting volunteers and posting events on the city’s events calendar and Facebook page	Planning	Park and Recreation	First priority	Ongoing – as opportunities present themselves
2. Lend support to certifying more instructors through the League of American Bicyclist’s League Cycling Instructor program	Planning	Police	First priority	Part of annual work plan
3. Partner with bicycle shops and bicycle related organizations to disseminate education and encouragement information and sponsor education and encouragement events	Planning	Police	First priority	Ongoing
4. Explore partnerships to provide web-based bicycle education programs for citizens.	Planning	Police	Third priority	Ongoing



STRATEGY 12

Support efforts to obtain funding for bicycle education and enforcement programs.

Rationale: Funding can help implement bicycle education and enforcement programs and is best done in partnership with others such as school districts and law enforcement officials. It is necessary to familiarize law enforcement officers with new bicycle facility types; as well as the rights, responsibilities, and operational characteristics of bicyclists. This will help officers to better understand what behaviors they should be targeting from an enforcement point of view.

Action		Lead	Support	Priority Rank	Frequency
1.	Partner and lend support to the school district and/or individual schools interested in pursuing Safe Routes to School funding.	Planning	Public Works, Police	First priority	Ongoing
2.	Pursue public-private partnerships with private organizations as a way to leverage funding, as appropriate.	Planning		First priority	Ongoing
3.	Apply for grants (state, public health etc.) to fund education and enforcement programs	Police	Planning	First priority	Ongoing



STRATEGY 13

Increase enforcement of bicyclist and motorist behavior to reduce bicycle and motor vehicle crashes.

Rationale: Reducing bicycle-related crashes hinges upon addressing the behavioral causes. Educating both motorists and bicyclists about state and local laws should be the primary method for encouraging appropriate behavior. However, enforcement that targets certain behaviors of each road user group is also important for establishing correct behaviors. Behaviors that should be targeted include the following listed below.

Motorist Behaviors

- turning left and right in front of bicyclists
- passing too close to bicyclists
- parking in bicycle lanes
- opening doors of parked vehicles in front of bicyclists
- rolling through stop signs or disobeying traffic signals
- harassment or assault of bicyclists.

Bicyclist Behaviors

- ignoring traffic control (particularly traffic signals)
- riding the wrong way on a street
- riding without lights at night

Action		Lead	Support	Priority Rank	Frequency
1.	Adopt a progressive ticketing program that can be applied to both motorists and bicyclists	Police	Planning	Second priority	Once
2.	Identify behaviors of motorists and bicyclists that lead to crashes; focus tickets on changing behaviors that cause crashes	Police	Planning, Bi-cycle Advisory Board	Second priority	Ongoing
3.	Compile and review statistics on where and why citations are issued to assess enforcement consistency and focus	Police	Planning	First priority	Annually
4.	Explore partnerships with KDOT, Sedgwick County Health Department, and others to identify bicycle related crash "hot spots" for enforcement efforts.	Planning	Police	First priority	Ongoing

STRATEGY 14

Work with school districts to develop collaborative partnerships to encourage children to bike to school.

Rationale: Safe walking and biking behaviors that are instilled at a young age are carried forth through adulthood, which ultimately results in safer roadways and fewer injuries and fatalities. Likewise, encouraging biking and walking at a young age establishes lifelong habits of being physically active and thinking of biking and walking as normal, viable transportation modes. The Safe Routes to Schools (SRTS) program is nationally renowned for its effectiveness at educating kids about biking and walking safety and encouraging them (and their parents) to walk and bike to school.

Action		Lead	Support	Priority Rank	Frequency
1.	Lend support to, and actively participate in, individual school Safe Routes to School efforts by supporting funding applications, participating in meetings, and implementing infrastructure improvements that encourage more walking and biking to school	Planning	Public Works, Police	First priority	Part of annual work program;
2.	Participate in outreach activities such as bicycle rodeos and school assemblies. Officers could be certified by the League of American Bicyclists to provide bicycle safety education such as seminars and experiential rodeos	Police		First priority	Ongoing



STRATEGY 15

Coordinate increased participation in bicycling events.

Rationale: Special events such as community rides, races, expos, open streets, bike to work day, etc are opportunities to disseminate information about bicycling and expose people to the fun and enjoyment of bicycling. Events also raise the visibility of bicycles in the broader community and help to build acceptance that bicycles belong and happen to be a popular form of transportation and recreation among a growing group of people. The City can be an active partner with bicycle organizations to organize special events that promote bicycling.

Action		Lead	Support	Priority Rank	Frequency
1.	Encourage local bicycle groups to reach out to all relevant organizations and identify existing events that promote bicycling	Planning		First priority	As needed
2.	Utilize existing social and professional networks, e.g. email distribution, Facebook, Twitter, websites, to promote City sponsored bicycling events	Planning	Park and Recreation	First priority	As needed



STRATEGY 16

Achieve the League of American Bicyclists’ Bicycle Friendly Community bronze and then silver status designation.

Rationale: The League of American Bicyclists’ Bicycle Friendly Community Program (BFC) provides incentives, hands-on assistance, and award recognition for communities that actively support bicycling. A Bicycle Friendly Community welcomes bicyclists by providing safe accommodation for bicycling and encouraging people to bike for transportation and recreation. Over 150 communities throughout the nation have become Bicycle Friendly Communities.

Action		Lead	Support	Priority Rank	Frequency
1.	Complete the “quick scorecard” found on the League of American Bicyclists’ website to objectively evaluate where the City is strong and weak in terms of fulfilling the Bicycle Friendly Community criteria.	Planning		First priority. Complete once Master Plan is finalized and adopted	Once
2.	Gather letters of support from any and all organizations and decision makers inclined to support better bicycling in Wichita	Planning		Second priority	As needed
3.	Submit Bicycle Friendly Community application to the League of American Bicyclists	Planning		Second priority	As needed



STRATEGY 17

Work with area businesses and colleges to engage them in the League of American Bicyclists’ recognition program.

Rationale: Increasing the number of employees biking to work can help reduce roadway congestion and costs associated with providing employee parking. Biking to work can also improve health and physical fitness among employees, thus reducing employer health plan costs. The League of American Bicyclists (LAB), Bicycle Friendly Business (BFB) program recognizes employers’ efforts to encourage a more bicycle friendly atmosphere for employees and customers. The program honors innovative bike-friendly efforts and provides technical assistance and information to help companies and organizations become even better for bicyclists.

Increasing the number of students, staff and visitors bicycling to and from college campuses reduces the costs associated with providing parking and congestion around campuses. The LAB’s Bicycle Friendly University (BFU) program recognizes institutions of higher education for promoting and providing a more bicycle-friendly campus for students, staff and visitors. The BFU program provides the road map and technical assistance to create great campuses for cycling.

Action	Lead	Support	Priority Rank	Frequency
1. Identify, contact, and provide information to businesses and universities/colleges that are likely to be interested in pursuing recognition from the League of American Bicyclist’s Bicycle Friendly America program	Planning		First priority	Annually
2. Follow-up with businesses and universities/colleges to check status of their applications	Planning		First priority	As needed
3. Engage the Wichita Chamber of Commerce (and others) in promoting the BFB program	Planning		First priority	Ongoing
4. Thank/publicize businesses and colleges that are recognized by LAB	City Council	Bicycle and Pedestrian Advisory Board	First priority	Annually

STRATEGY 18

Enlist opinion leaders in promoting bicycling.

Rationale: Portraying bicycling as a fun, healthy, and culturally acceptable is an important message that can be used to encourage the curious, yet hesitant individual to try bicycling. The message should reflect our community, in a way that is equally fun and culturally relevant. Some recommended methods for promoting bicycling in our community are to share quotes from opinion leaders and to have events where local or regionally recognized opinion leaders present on bicycling.

Action		Lead	Support	Priority Rank	Frequency
1.	Collect quotes form opinion leaders (business leaders, elected officials etc.) that can be posted (with permission) on City web sites, posters, plans, etc.	Planning		First priority	Ongoing
2.	Establish speakers bureau of local people (at least 6) willing to speak on bicycling	Planning		First priority	Ongoing



STRATEGY 19

Engage area businesses in using bicycles in their advertising and other promotions.

Rationale: Businesses often use bicycles in their advertising and other promotions. For example, a bicycle may be used as a backdrop in a department store display window. A television ad for a health product may show people bicycling, associating bicycling with their product. This kind of advertising helps change the “culture” of bicycling, making it a mainstream activity that is associated with a healthy life style. Businesses should be encouraged and rewarded for these kinds of promotions.

Action		Lead	Support	Priority Rank	Frequency
1.	Recognize local businesses that use bicycles in their advertising (e.g. window of store; newspaper ad etc.	Bicycle Advisory Board; City Council		First priority	On-going



STRATEGY 20

Adopt policies to ensure that the City’s project planning and review processes account for bicycle facilities.

Rationale: Policies for the City are important because they help ensure consistent action. Consistent consideration of bicycle facilities in the City’s project planning and review process will help to ensure that they are incorporated into projects where recommended by this Plan. Three different types of policies are recommended as part of this strategy: updates to Wichita’s arterial designs, routine accommodation, and Complete Streets. Each of these policies would change the City’s project planning and review process in different ways. Below is a brief summary of the policies:

Arterial Street Design Standards: This policy change would update the Wichita-Sedgwick County Subdivision Regulations so that the arterial street designs accommodate bicycle lanes or paved shoulders; and/or side paths. The new arterial designs with the appropriate bicycle facilities should be used where bicycle facilities are called for in this Plan. Updating the arterial street designs will help to ensure that there are appropriate bicycle facility connections to and from new developments/subdivisions, because the City of Wichita is responsible for widening and paving the arterial streets to accommodate new growth.

Routine Accommodation: Another policy change is to adopt a “routine accommodation” policy. This policy will ensure that as routine road projects such as resurfacing and striping are executed, bicycle facilities are incorporated according to the Plan’s recommendations, where feasible. So called “routine accommodation” of bicycle facilities is often the most cost effective implementation strategy. Planned bicycle facilities should also be required or otherwise coordinated with City, when new road overlays or sections are required for new development.

Complete Streets: A third policy change is for the City to adopt a “complete streets” policy. A “complete streets” policy helps to ensure that roadway improvements are designed to increase safety, improve accessibility of all users of the transportation network, and to achieve other community objectives such as enhancing aesthetics and neighborhood livability.

Action		Lead	Support	Priority Rank	Frequency
1.	Develop and submit a routine accommodation policy to Wichita City Council (WCC) for adoption	Planning	Public Works	First priority	Once
2.	Develop and submit a Complete Streets policy to WCC for adoption	Planning	Public Works	Second priority	Once
3.	Review current standard arterial cross sections and identify needed changes	Public Works	Planning	First priority	Once
4.	Change standard arterial cross sections; adopt	Public Works	Planning	First priority	Once

STRATEGY 21

Update the Unified Zoning Code to provide encouragement for both office and retail developments/redevelopments to provide secure and conveniently located bicycle parking.

Rationale: In order to increase bicycle ridership in the City, end of trip facilities such as bicycle parking can be just as critical as having a complete and continuous bicycle network. If a bicyclist has no place to lock up their bike once they arrive at their intended destination, they are less likely to make that trip by bicycle again. Thus, it is critical that all new development be encouraged to provide end of trip facilities for bicyclists and that there are provisions in place to encourage existing developments to do so as well. In addition to bicycle parking, end of trip facilities can also include showers and changing areas.

Action		Lead	Support	Priority Rank	Frequency
1.	Apply to MAPC for change	Planning		Second priority	Once
2.	Develop policy	Planning		Second priority	Once
3.	Submit to MAPC for endorsement	Planning		Second priority	Once
4.	Submit to WCC and County Commission for adoption	Planning		Second priority	Once



STRATEGY 22

Create a policy for installing bicycle facilities that are isolated segments.

Rationale: Development of the bicycle network will be incremental. It will depend on a number of factors including funding, the implementation of larger roadway projects, and achieving continuity. Depending on when the factors for bicycling network development are available, the new bicycle facilities may be installed as isolated segments without connections to existing bicycle facilities. A policy will help guide the City on when and where it is appropriate to create isolated segments.

Action		Lead	Support	Priority Rank	Frequency
1.	Develop draft policy regarding installation of facilities which may create missing gaps (e.g. when and where appropriate or inappropriate)	Public Works	Planning	First priority	Once
2.	Adopt policy	Public Works	Planning	First priority	Once

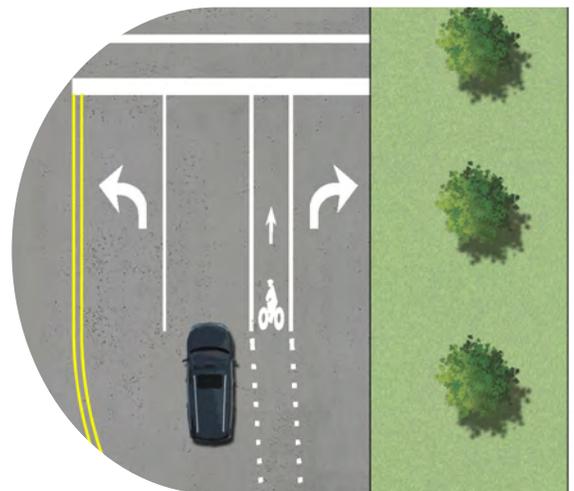
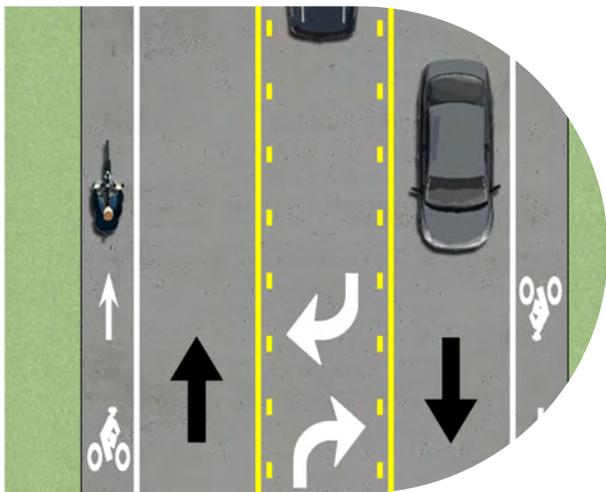


STRATEGY 23

Create a policy for reserving space for future bicycle facilities (e.g. space for bike lane that is added later).

Rationale: There will be times when there is an opportunity to create a new bicycle facility in conjunction with a roadway repaving or widening project, but there is concern about lack of connectivity to the rest of the network. In those cases, space should be preserved for easy installation at a later date. A good example is a bicycle lane where the space is created and the lane markings are added at a later date.

Action		Lead	Support	Priority Rank	Frequency
1.	Develop draft policy for reserving space for future bicycle facilities (e.g. future bike lane that is initially a wide curb lane).	Planning	Public Works	First priority	Once
2.	Adopt policy	Public Works	Planning	First priority	Once

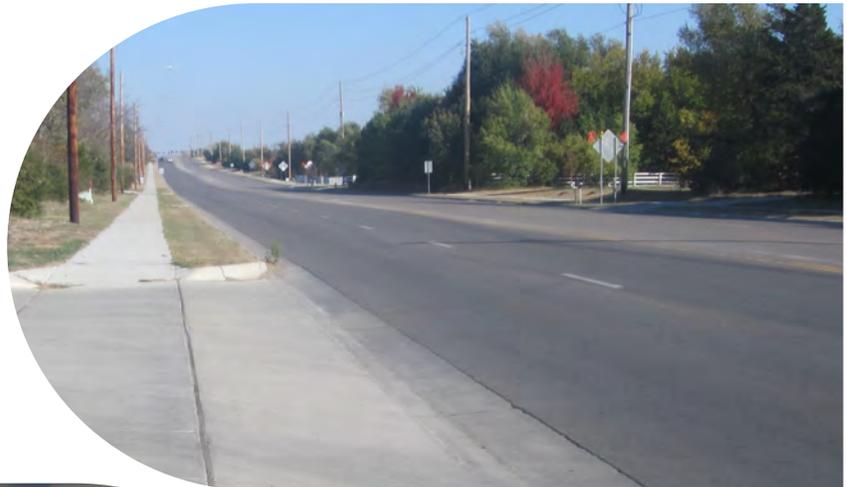


STRATEGY 24

Prioritize funding to complete gaps (missing links) in the bikeway network).

Rationale: Policies that provide a framework for prioritizing and allocating funds can be important to ensure that the missing gaps are completed and that there are no missed opportunities for implementing planned bicycle facilities. Such a policy could be used to prioritize roadway and path related projects that can help complete missing gaps in the bikeway network.

Action		Lead	Support	Priority Rank	Frequency
1.	Develop draft policy	Public Works	Planning	First priority	Once
2.	Adopt policy	Public Works		First priority	Once
3.	Create prioritized list of related projects that can complete missing gaps in the bikeway network	Public Works	Planning	First priority	Part of annual work plan
4.	Apply for CIP funding	Public Works	Planning	First priority	Part of annual work plan



STRATEGY 25

Fund projects through the Capital Improvement Program (CIP), annual programs and grants.

Rationale: There are segments within the planned bicycle network that serve as critical links between major destinations, and therefore are priorities in terms of developing a foundational network that will begin to build ridership. It will be important to fund these projects as stand-alone projects rather than depending on the routine accommodation of these facilities as part of larger roadway projects that may have longer implementation time frames.

Action		Lead	Support	Priority Rank	Frequency
1.	Apply for at least one high-priority stand-alone on-street or side path project to be funded every year in the CIP	Public Works	Planning, Park and Recreation	First priority	Part of annual work plan
2.	Apply for at least one high-priority stand-alone shared-use path project to be funded every three years in the CIP	Park and Recreation	Public Works, Planning	First priority	Part of annual work plan
3.	Apply for STP, Transportation Alternatives and other funding sources as they become available	Public Works	Planning, Park and Recreation	First priority	Part of annual work plan
4.	Modify repaving schedule based upon bicycle network recommendations. Those roadways scheduled for repaving, which have recommended bicycle facilities, and that can largely be implemented by merely adding pavement markings, should be moved to the top of the schedule	Public Works	Planning	First priority	Part of annual work plan



STRATEGY 26

Allocate staffing to implement this plan.

Rationale: Cities and towns that have had the most success in implementing bicycle plans are those with full time staff in their planning and public works departments. Full time staff brings expertise, knowledge, awareness and focus to implementation of the plan. Implementing this strategy is pivotal to the success of this Plan. The level of staff resources allocated (new hire or re-assignment of existing staff) to implement the Plan will affect the pace of implementation.

Action		Lead	Support	Priority Rank	Frequency
1.	Develop job description for staff resources in Planning	Planning	Public Works	First priority	Once
2.	Develop job description for staff resources in Public Works	Public Works	Planning	First priority	Once
3.	Approve and allocate resources/ fill positions	City Manager	Public Works, Planning	First priority	As needed



Mural by Jonathan Clarke



STRATEGY 27

Create a bicycle and pedestrian advisory board.

Rationale: It is important to monitor the implementation of the planned bicycle network, as well as supporting policies and programs, in order to understand what progress is being made and where there is need for more attention and improvement. A bicycle and pedestrian advisory board creates on-going accountability and public support for implementing the plan. A bicycle and pedestrian advisory board can also play a key role in reviewing public projects and identifying opportunities for making bicycle facility improvements.

Action		Lead	Support	Priority Rank	Frequency
1.	Officially create a bicycle and pedestrian advisory board	City Council	Planning	First priority	Once
2.	Recruit advisory board members from advocacy groups, the business community, the school district, colleges/universities, and the community at-large	Planning		First priority	As needed
3.	Convene bicycle and pedestrian advisory board	Planning		First priority	Monthly
4.	Have bicycle and pedestrian advisory board issue an annual or bi-annual report card grading the city on its implementation efforts using established performance measures and public feedback	Bicycle and Pedestrian Advisory Board		First priority	Annually

“Thank you for finally thinking of bikes as transportation.”

Charli Lauer

STRATEGY 28

Update the bicycle master plan on a regular basis.

Rationale: Bicycle plans need to be updated on a regular basis as projects are completed and new opportunities present themselves. There may be new funding sources, new public or private projects that provide “piggybacking” opportunities, and new approaches for designing and installing facilities. Typically, plans are updated every five years, ideally ever three years.

Action		Lead	Support	Priority Rank	Frequency
1.	Assess Master Plan and make minor updates where necessary based upon performance measures, latest state of the practice and public input	Planning	Bicycle Advisory Board	First priority	Annually
2.	Revise and update Plan	Planning	Public Works, Park and Recreation Bicycle Advisory Board	Second priority	Every 4 years

“I appreciate the efforts that are being used to enhance safety of the bicycling public.”

Jay Wright

STRATEGY 29

Publish an annual implementation work plan.

Rationale: An annual work plan ensures year to year progress toward implementing the Plan. It provides measurable objectives that create accountability and demonstrate progress. It focuses attention on looking for opportunities to take advantage of public and private projects. It also provides an annual opportunity to step back and reflect on when, where and how resources are being allocated.

Action	Lead	Support	Priority Rank	Frequency
1. Identify on-street bicycle facilities that can be designed and constructed as part of other transportation projects in the CIP	Public Works	Planning	First priority	Part of annual work plan
2. Identify and apply for funding for top priority stand-alone on-street bicycle facilities for design and/or development	Public Works	Planning	First priority	part of annual work plan
3. Identify and apply for funding for top priority stand-alone off-street bicycle facilities for design and/or development	Park and Recreation	Planning	First priority	Part of annual work plan
4. Identify and apply for funding for annual education and enforcement programs	Planning	Police	First priority	Part of annual work plan
5. Seek internal review of annual work plan; intent is to improve internal coordination and efficiency, and involve other departments/divisions/sections as appropriate	Planning	Police, Public Works, Park and Recreation	First priority	Annually
6. Seek approval for annual work plan from bicycle advisory board	Planning	Public Works	First priority	Part of annual work plan

“Thank you for the continued forward momentum in regards to bike trails, bike safety, finding and expanding partnerships.”

Teresa Cook

STRATEGY 30

Establish performance measures to monitor progress.

Rationale: Performance measures allow for regular assessment of the progress being made on accomplishing the strategies as outlined in the Plan. It is a way of creating an annual “report card” and making adjustments to the Plan as needed. It is also a way of reporting progress to decision makers and the public who will want to make sure that public dollars are creating the desired results. Chapter 6 is devoted entirely to identifying and monitoring performance measures.

Action		Lead	Support	Priority Rank	Frequency
1.	Collect baseline data as articulated for each goal	Planning	Public Works	First priority	Once
2.	Develop or update the plan for counting bicyclists on an annual basis using automatic counters and every two years with volunteers	Planning	Public Works	First priority	Annually
3.	Adopt the plan for counting bicyclists on an annual basis using automatic counters and every two years with volunteers	Public Works	Planning	First priority	Once
4.	Assemble and analysis crash data on an annual basis; use to measure overall progress on reducing crashes and to set priorities in annual work plan (note: pedestrian crash data should be public information)	Planning	Police, Public Works	First priority	Annually
5.	Compare performance measure results	Planning		First priority	Annually

CHAPTER 5 BICYCLE NETWORK AND PRIORITIES



This Plan recommends a network of fully connected bicycle facilities that provide access to all neighborhoods and activity centers in the city; and connects the city to the region. The proposed bicycle network includes both on- and off-street facilities. All recommendations in this Plan follow the guidelines and standards as set forth in the 2009 Manual on Uniform Traffic Control Devices (MUTCD) and the 2012 revised AASHTO Guide for the Development of Bicycle Facilities (AASHTO Bike Guide). In some cases, additional guidelines supplement the MUTCD and Bike AASHTO Guide (see Appendix E). However, they are not design standards and should not be used as such. Application of guidance provided in this document requires the use of professional engineering judgment when installing bicycle lanes, shared lane markings, bicycle boulevards and other bicycle facilities.

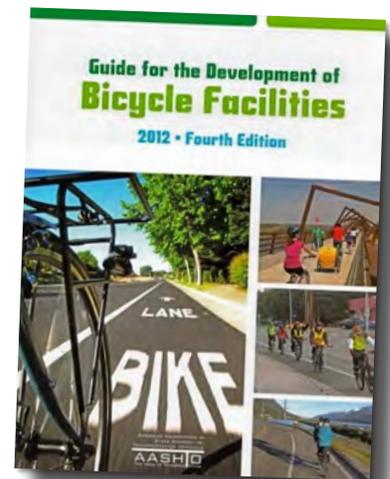
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CHAPTER 5: BIKEWAY NETWORK & PRIORITIES

AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES

The AASHTO Bike Guide (Guide) is recognized and accepted throughout the United States as the national guidelines for bicycle facility planning and design. It has evolved over time – the 1981 edition of the Guide was 31 pages long and had only four pages of guidance on designing on-road bicycle facilities. By the time the 1999 edition was published, the Guide had more than doubled in length, with considerably more information on planning, on-road bicycle facility design, shared use path design, and guidance for operations and facility maintenance.

Usage of the Guide has grown rapidly as nationwide spending on bicycle facilities has increased. In 2004, the NCHRP Task 187 Report entitled Updating the AASHTO Guide for the Development of Bicycle Facilities made recommendations for numerous changes to the 1999 Guide. The new 2012 publication of the Guide incorporates these recommendations, along with new guidance and research, and practical experience gained through the design and construction of bikeways throughout the United States.



2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

The 2009 MUTCD is a document issued by the Federal Highway Administration (FHWA) of the United States Department of Transportation (USDOT) to specify the standards by which traffic signs, roadway surface



markings, and signals are designed, installed, and used. These specifications include the shapes, colors, and fonts used in road markings and signs. In the United States, all traffic control devices must generally conform to these standards. The manual is used by state and local agencies as well as private construction firms to ensure that the traffic control devices they use conform to the national standards. While some state agencies, including the Kansas Department of Transportation (KDOT) have developed their own sets of standards, including their own MUTCD, these must substantially conform to the federal MUTCD.

The National Committee on Uniform Traffic Control

Devices (NCUTCD) advises the FHWA on additions, revisions, and changes to the MUTCD.

BICYCLE FACILITY DEFINITIONS

The following facility types and their definitions are taken from the 2012 AASHTO Bike Guide. They are used throughout this Plan and on the recommended bicycle network maps.

Glossary of Terms

BICYCLE NETWORK: A system of bikeways designated by the jurisdiction having authority. This system may include bike lanes, bicycle routes, shared use paths, and other identifiable bicycle facilities.

BICYCLE ROUTE: A roadway or bikeway designated by the jurisdiction having authority, either with a unique route designation or with BIKE ROUTE signs, along which bicycle guide signs may provide directional and distance information. Signs that provide directional, distance, and destination information for cyclists do not necessarily establish a bicycle route. Note: For purposes of this Plan, consistent with the above, a SIGNED BICYCLE ROUTE is defined as roadway or bikeway designated by the jurisdiction having authority with BIKE ROUTE signs, along which bicycle guide signs may provide directional and distance information.

BICYCLE LANE OR BIKE LANE: A portion of a roadway which has been designated by pavement markings and, if used, signs, for the preferential or exclusive use of bicyclists.

SHARED LANE (wide curb/outside lanes): A lane of a traveled way that is open to bicycle travel and vehicular use.

SHARED LANE MARKINGS (sharrow): A pavement-marking symbol that indicates the appropriate position for a bicycle in a shared lane.

SHOULDER: The portion of the roadway contiguous with the traveled way, for accommodation of stopped vehicles, emergency use and lateral support of sub-base, base and surface courses, often used by cyclists where paved.

SHARED USE PATH: A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users.

SIDEPATH: A shared use path located immediately adjacent and parallel to a roadway.

RAIL-TRAIL: A shared use path, either paved or unpaved, built within the right-of-way of a former railroad.

RAIL-WITH-TRAIL: A shared use path, either paved or unpaved, built within the right-of-way of an active railroad.

BICYCLE BOULEVARD: A street segment, or series of contiguous street segments, that has been modified to accommodate through bicycle traffic but discourage through motor traffic.

BICYCLE RACK or BIKE RACK: A stationary fixture to which a bicycle can be securely attached.

CONTRA-FLOW BICYCLE LANE: Bicycle lane separated by a yellow centerline marking on a street with one-way motor vehicle traffic, to allow contra-flow bicycle traffic. Note – contra-flow bike lanes are addressed in Chapter 4 of the AASHTO Bike Guide though no definition is provided.

Definition used in this Plan that is not in the AASHTO Bike Guide:

CYCLE TRACK: A portion of a right-of-way contiguous with the traveled way, which has been designated by pavement markings and, if used, signs, for the exclusive use of bicyclists. Cycle tracks are typically one-way (not always), may or may not be raised above the roadway and are separated from the motor vehicle lane by a barrier or buffer such as a rolled curb, cross-hatched paint, planting strip or parked cars. Note – this definition represents current best practice; definition is evolving and will likely change in the future.



THE BICYCLE NETWORK

The bicycle network and project priorities recommended in this Plan were developed through a six phase process.

Phase 1. Develop a Study Network

A study network was developed to identify the streets and paths within Wichita and the 2030 Urban Growth Area that would be evaluated. This evaluation was conducted to determine potential improvements and inclusion in the final bicycle network. The study network was put on a GIS based map and was developed using the following inputs:

- Existing facilities
 - 54 miles of existing bike paths within the City
 - 9 miles of existing bike lanes within the City
- 220 miles of previously recommended bicycle facilities
- Streets and paths identified by the project Steering and Technical Advisory Committees for inclusion in the study network.
- Locations identified through a public survey and community walk survey (see Appendix F)
- Locations identified through a series of focus groups
- Streets and paths identified via criteria developed by Project Steering Committee
- Streets and Locations identified by Open House Meeting participants.



The first Open House was attended by 178 people and provided an opportunity for the public to share additional ideas for streets and paths to include in the study network. Additionally, participants at the Open House were given “sticky dots” and were asked to indicate their preferences for prioritizing projects. There was overwhelming support for completing the existing trail system, providing parallel routes to roads with high traffic volumes; and providing connections to shopping and employment centers, schools and the downtown area. Priorities identified by the Open House participants included:

- Missing links in the existing trail system
- Parallel routes to roads with high traffic volumes
- Connectivity to shopping, employment areas and other destinations
- Bicycle facilities along major street corridors
- Connections to schools



- Barriers (e.g. challenging intersections, lack of bicycle facilities on bridges etc.)
- On-street connections between trails
- Regional connections to areas outside Wichita
- High crash intersections and corridors
- Access to parks and recreation centers
- Bike share
- Bicycle parking
- Access to transit stops/stations
- Maintenance/improvements to existing paths

Using the criteria developed by the project Steering Committee, the project team identified streets and paths to add and remove from the study network. The final study network included 635.5 miles of streets and paths that would be evaluated to determine potential improvements and inclusion in the final bicycle network.

Phase 2. Complete Field Work

Field teams assessed 635.5 miles of streets and paths identified in the bicycle network to determine potential improvements. For each section of roadway in the study network, field data sheets were completed to record: the existing roadway conditions, a recommendation for whether to include the section of roadway in the bicycle network, and if yes, the facility type. This information was coded onto a GIS based map.

Phase 3. Draft Bicycle Network

A draft bicycle network map was developed that contains the following:

- A feasible network of connected bicycle facilities that serves all parts of the City and the 2030 Urban Growth Area.
- Identification of proposed streets and paths to remove from the study network
- A specific design solution for each roadway segment in the network (i.e. bike lanes, shared lane markings, bicycle boulevards, cycle tracks, wide curb lanes etc.)
- A proposed method of accomplishing the recommended design treatment and a proposed roadway cross section (i.e. lane narrowing or removal, parking adjustments etc.)
- Identification of spot locations where specific improvements are needed to address barriers and create



a connected system (i.e. locations for new/upgraded signals, bridges, transit access points, street/trail transitions etc.)

The draft bicycle network maps were reviewed by the Steering and TAC Committees and then revised.

Phase 4. Final Bicycle Network

The final recommended bicycle network was developed based on feedback from the Steering and TAC Committees, input from a second public open house where the draft network was presented, and includes over 800 miles of on- and off-street facilities. This represents the complete, ideal system that provides an interconnected system of on- and off-street facilities that connects all areas of the City and meets all project goals and objectives. The bicycle network is represented on a facilities maps on pages 66-69. Because of the complexity and size of the map, it has been divided into four maps, each representing one quadrant of the City.

	Total Network Miles
Bike lanes	117
Buffered Bike Lanes	5.4
Shared lane markings	72
Side path	50
Shared use pathway	237
Bicycle boulevard	124
Paved shoulder	47
Study	114
TOTAL	766.4

Phase 5. Priority Bicycle Network

The project Steering and TAC Committees, in approving the bicycle network, recognized that completing the network within the initial target period of ten years was beyond what realistically could be accomplished. The Planning Team, with input and direction from the Steering and TAC Committees, developed a scaled down version of the bicycle network (Priority Bicycle Network) that still meets most of the goals and objectives of the network but is something that can realistically be completed in ten years or less, given potential resources. The following is a summary of the mileage for each of the facility types in the Priority Bicycle Network. Planning level costs estimates for the Priority Bicycle Network are included in Appendix B.

	Priority Network Miles	Priority Network Costs
Bike lanes	30.0	\$435,000
Buffered Bike Lanes	2.3	\$54,648
Shared lane markings	41.0	\$270,600
Shared use pathway	4.5	\$2,34,900
Bicycle boulevard	57.2	\$6,211,920
Paved shoulder	1.7	\$359,200
Sidepath	7.6	\$1,925,840
TOTAL	144.3	\$11,598,108

In addition to the above, there are 196 intersections identified as needing additional study for crossing improvements, about 70 of which may need a signal. Within the Priority Bicycle Network, there are 88 intersections identified as needing further study for possible improvements, 38 of which may need a signal. The costs for intersection improvements are included in the planning level cost estimates for the bicycle facilities; improvements to intersections should be made in conjunction with the installation of new facilities. The Priority Bicycle Network is represented on a facilities maps below.

Phase 6. Priority On- and Off-Street Projects

In order to help ensure the maximum benefit from the development of new City of Wichita bicycle facilities as

stand-alone projects, the Steering Committee recommended that the Plan should include a prioritized list of recommended on-street and side path facilities; and off-street (shared use paths). The Planning Team, in collaboration with Steering Committee and TAC, developed the draft lists of projects. The list of priority on-street and side path facilities includes 10 projects, while the list of priority off-street facilities identifies one facility. In addition to the Plan goals and objectives, the draft prioritized rankings were based on safety, earlier public input, and geographic balance (a significant portion of the City needs to be accessible from the bicycle network).



The public was asked to prioritize the projects at the May 1st, 2012 Open House. Based on the public input, the list of priority projects was revised and presented to the Steering Committee and TAC for approval. During the approval process, the Steering Committee determined that the top priority on-street and side path facilities should not be assigned any rank order, because the Bicycle Advisory Board will be providing input regarding the top priority new facility on an annual basis and/or when specific funding opportunities are available.

TABLE 5-1: *Top Ten Recommended Priority On-street and Side Path Bicycle Facilities (arranged alphabetically)*

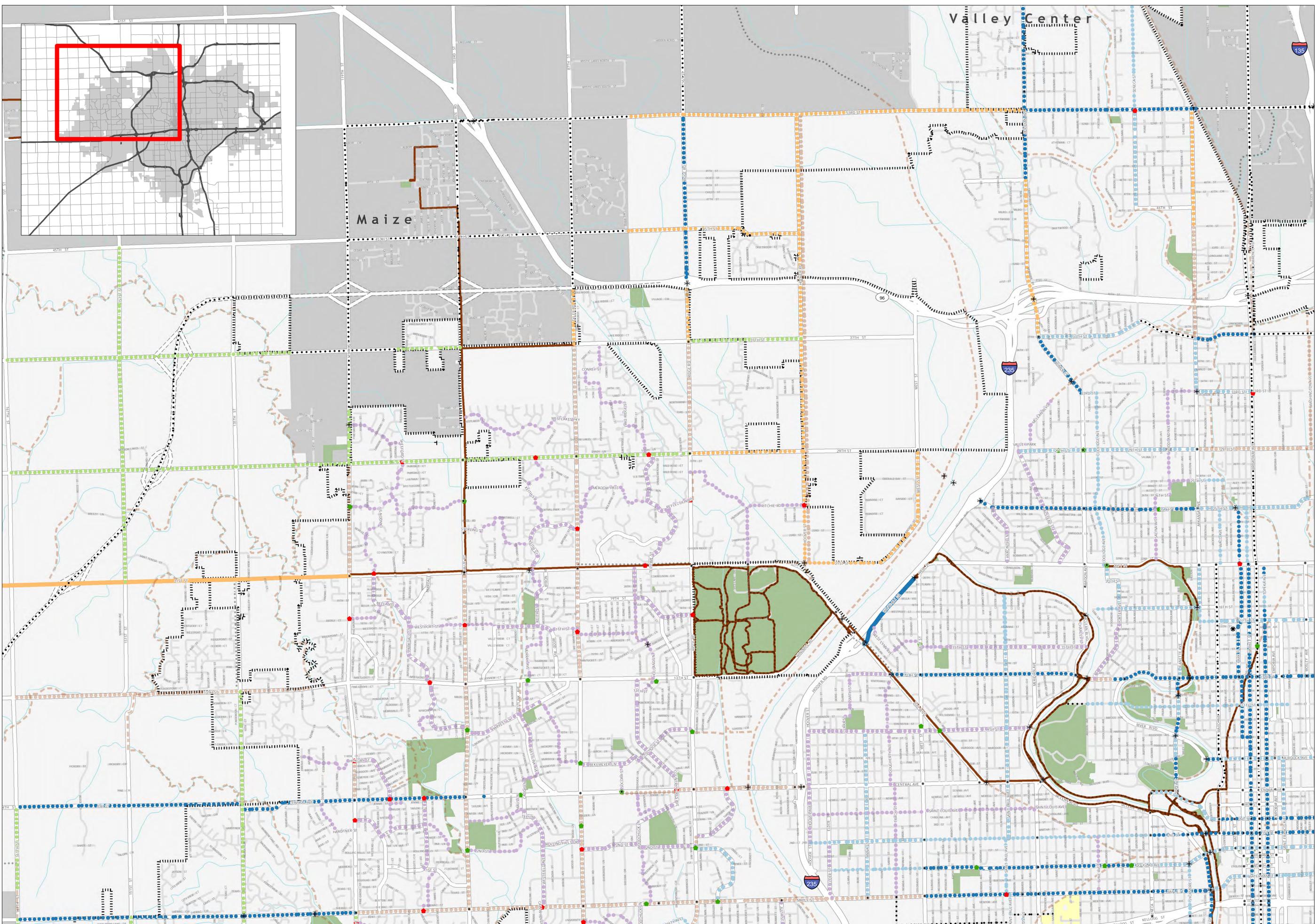
Name	Description
1st and 2nd Street Bike Lanes	Extend existing bike lanes from I-135 to the Arkansas River (east/west)
2nd Street Bike Lane and Shared Lane Markings	Install mix of bike lanes and shared lane markings from the Arkansas River to Hoover (east/west)
Armour Ave Bicycle Boulevard	Install bicycle boulevard from Douglas Ave to K-96 (north/south)
Douglas Avenue Shared Lane Markings	Install shared lane markings from St. Paul Ave to Edgemoor Ave (east/west)
I-235 East/West Crossing: Central Ave or Maple St	Pending further study, install a side path connection under I-235 and across the "Big Ditch" (east/west)
Market St & Topeka Ave Bike Lanes	Install bike lanes from 21st St to Mt Vernon Rd (north/south)
Mt Vernon Bike Lanes	Install bike lanes from Broadway Ave to Woodlawn Blvd (east/west)
Pedestrian Crossing Signal & Bicycle Boulevard	Install signal to cross Ridge Road and Westport Ave to provide access to Sedgwick County Park; install bicycle boulevard starting at Ridge and going west to Glenhurst Street; then south along Holland Ln/ Country Acres Ave/Woodchuck to University Ave (north/south)
Perry Ave Bicycle Boulevard + 17th / 18th St Shared Lane Markings	Install bicycle boulevard starting at Perry Ave & 13th St., and going north to via Perry/Portier/20th/Coolidge to 21st Street (north/south) + Install shared lane markings on 17th, then 18th St from I-135 to Perry Ave (east/west)
Sycamore St Bicycle Boulevard	Install bicycle boulevard starting at Sycamore and Douglas and going south to Glenn St via Dayton, Osage, McCormick, Dodge and Orient. (north/south)

TABLE 5-2: *Top Priority Off-Street (Shared Use Path) Bicycle Facility*

Name	Description
Redbud Path – Oliver to K-96	Construct path on former railroad right-of-way between Oliver and K-96

The planning level costs for the top ten (10) recommended priority on-street and sidepath bicycle facilities is \$2.1 million, the proposed costs for the top recommended priority (shared use path) facility is approximately \$2.5 million. The priority projects represent about 74 percent of the Priority Bicycle Network facility miles.

Maps showing the priority on- and off-street projects are on the following pages. Strategies for implementing the Bicycle Network are covered in Chapter 4. Strategies and Actions.



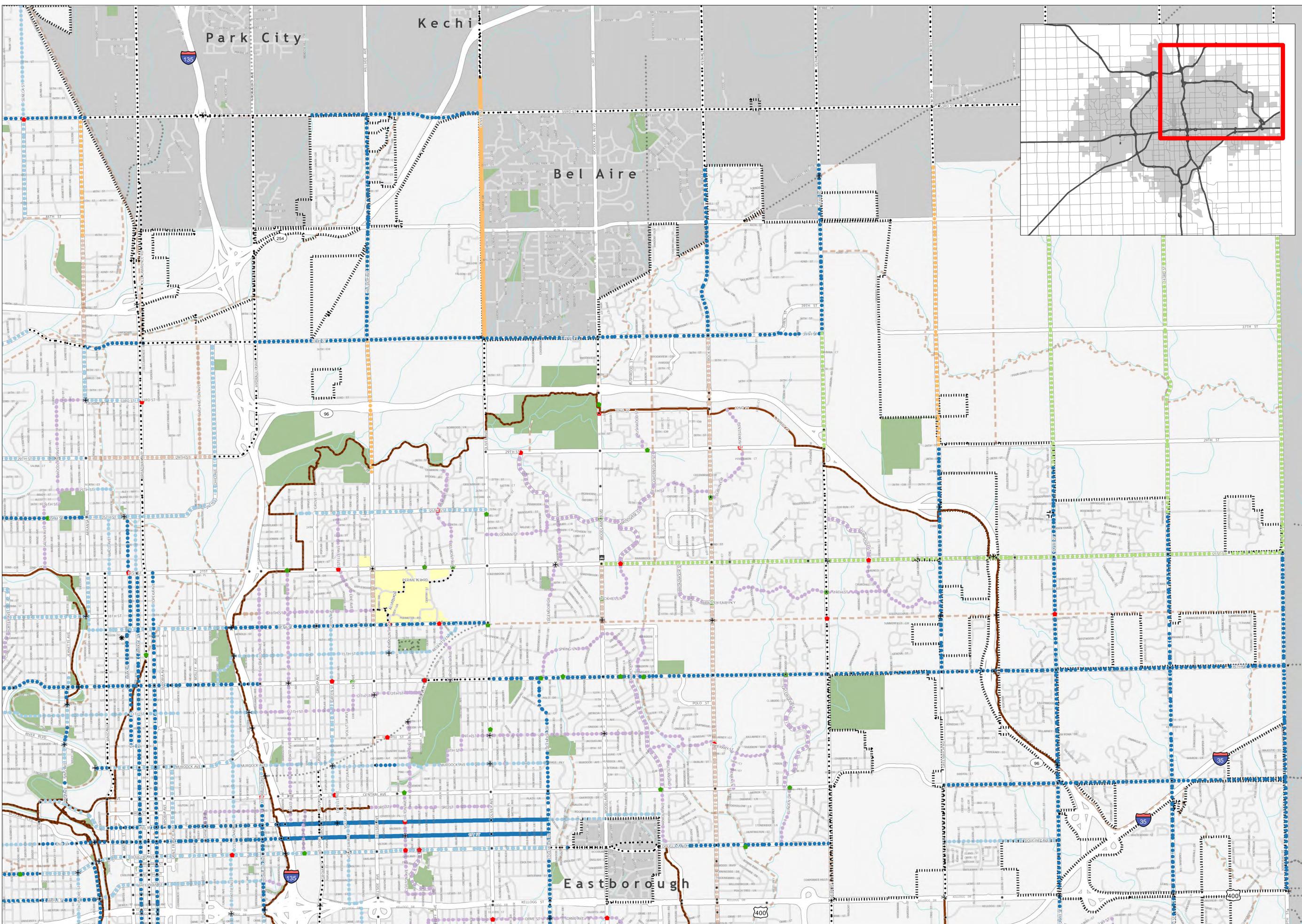
Bicycle Network SW Quadrant

Wichita Bicycle Master Plan

Proposed	Existing	Planned with Future Development (Bicycle Lane, Side Path, and/or Paved Shoulder)	Existing
● Bicycle Lane and Buffered Bicycle Lane	● Bicycle Lane	● Planned Side Path	● Ped/Traffic Signal Exists
● Shared Lane Marking	● Paved Shoulder	● Planned Side Path	● Wichita City Limits
● Paved Shoulder	● Shared Use Path	● Crossing Improvement/Study Needed	● Wichita 2030 Urban Growth Area
● Bicycle Boulevard	● Traffic Signal	● Ped/Traffic Signal Needed	● Unincorporated County
● Further Study Needed			● Wichita Transit Transfer Point
			● This assumes that Main/Park Street is changed from one to two way

Coordinate System: State Plane
Kansas South - NAD 1983



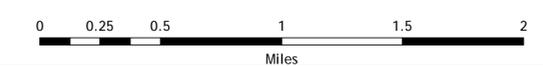


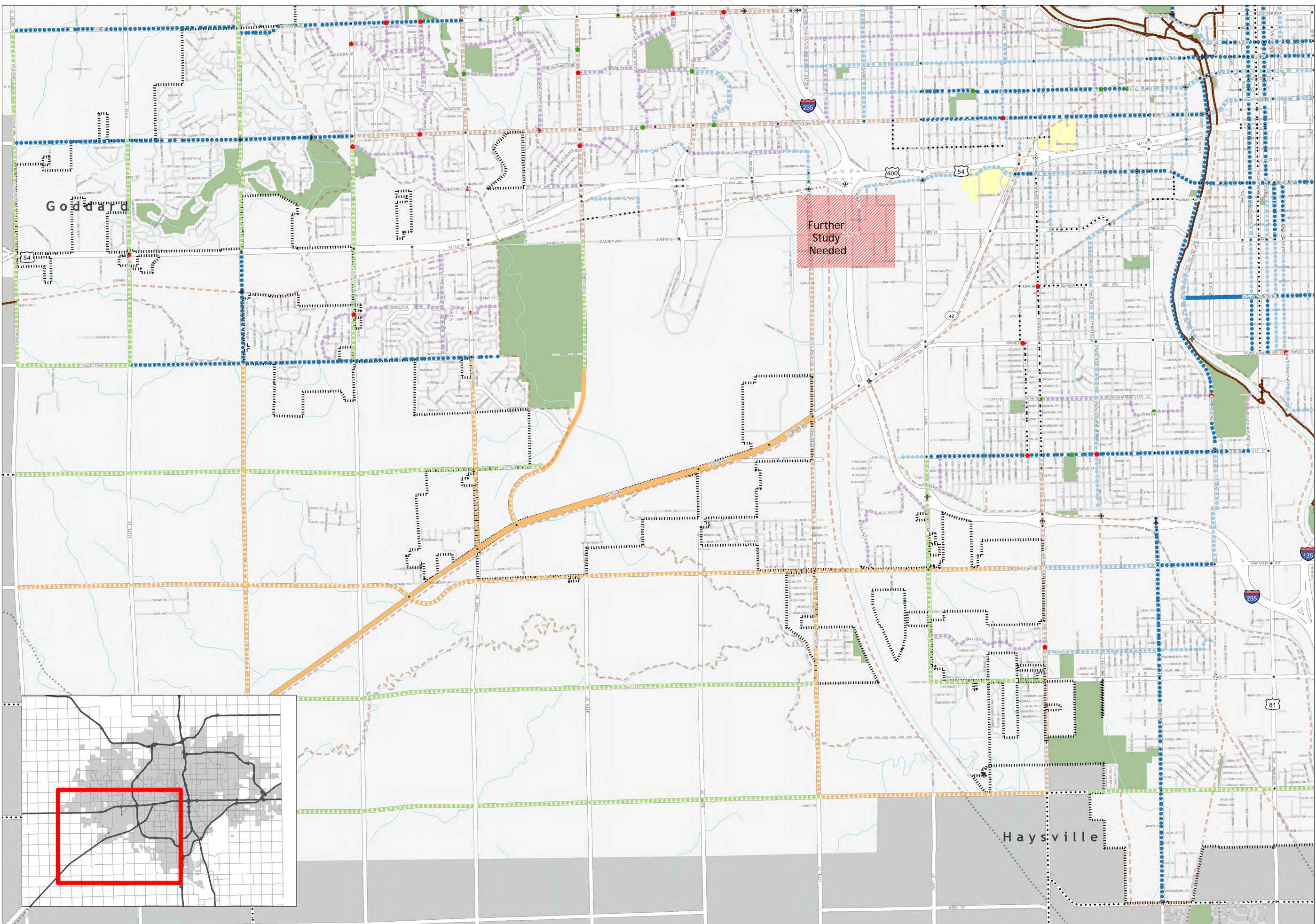
Bicycle Network SW Quadrant

Wichita Bicycle Master Plan

Proposed	Planned with Future Development (Bicycle Lane, Side Path, and/or Paved Shoulder)	Existing	Legend
●●● Bicycle Lane and Buffered Bicycle Lane	●●● Planned Side Path	— Bicycle Lane	■ Ped/Traffic Signal Exists
●●● Shared Lane Marking	●●● Planned Shared Use Path	— Paved Shoulder	■ Wichita City Limits
— Paved Shoulder	●●● Crossing Improvement/Study Needed	— Shared Use Path	■ Wichita 2030 Urban Growth Area
— Bicycle Boulevard	●●● Ped/Traffic Signal Needed	●●● Traffic Signal	■ Unincorporated County
●●● Further Study Needed		■ Wichita Transit Transfer Point	●●● This assumes that Main/Park Street is changed from one to two way

Coordinate System: State Plane
Kansas South - NAD 1983





Goodland

Further Study Needed

Haysville

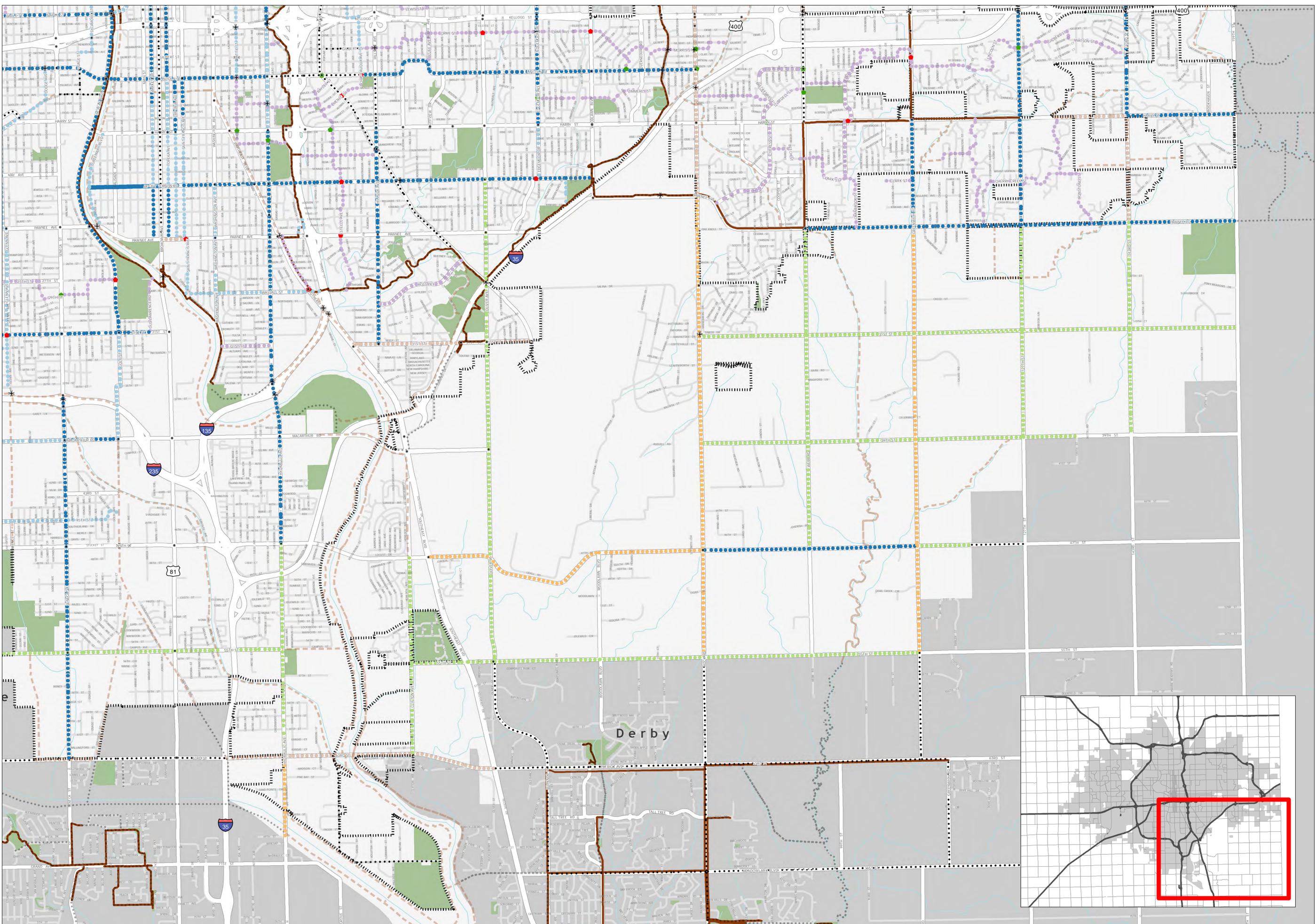
Bicycle Network SW Quadrant

Wichita Bicycle Master Plan

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|--|--|---|--|
| <ul style="list-style-type: none"> ●●● Proposed Bicycle Lane and Buffered Bicycle Lane ●●● Proposed Shared Lane Marking ●●● Proposed Paved Shoulder ●●● Proposed Bicycle Boulevard ●●● Further Study Needed | <ul style="list-style-type: none"> ●●● Planned with Future Development (Bicycle Lane, Side Path, and/or Paved Shoulder) ●●● Planned Shared Use Path ●●● Planned Side Path ✱ Crossing Improvement/Study Needed ●●● Ped/Traffic Signal Needed | <ul style="list-style-type: none"> ●●● Existing Bicycle Lane ●●● Existing Paved Shoulder ●●● Existing Shared Use Path ●●● Existing Traffic Signal | <ul style="list-style-type: none"> ●●● Ped/Traffic Signal Exists ●●● Wichita City Limits ●●● Wichita 2030 Urban Growth Area ●●● Unincorporated County ●●● Wichita Transit Transfer Point ✱ This assumes that Main/Park Street is changed from one to two way |
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Coordinate System: State Plane
Kansas South - NAD 1983



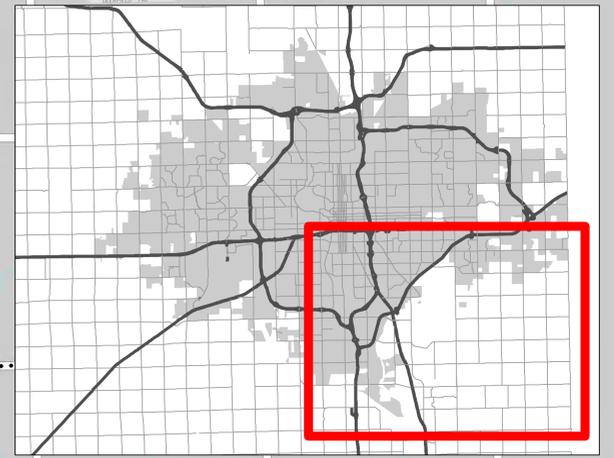


Bicycle Network SW Quadrant

Wichita Bicycle Master Plan

- | | | | |
|--|--|----------------------------------|---|
| Proposed | Planned with Future Development
(Bicycle Lane, Side Path, and/or Paved Shoulder) | Existing | Other |
| ● Bicycle Lane and Buffered Bicycle Lane | ● Planned Side Path | ● Bicycle Lane | ● Ped/Traffic Signal Exists |
| ● Shared Lane Marking | ● Planned Shared Use Path | ● Paved Shoulder | ● Wichita City Limits |
| ● Paved Shoulder | ● Planned Side Path | ● Shared Use Path | ● Wichita 2030 Urban Growth Area |
| ● Bicycle Boulevard | ● Crossing Improvement/Study Needed | ● Traffic Signal | ● Unincorporated County |
| ● Further Study Needed | ● Ped/Traffic Signal Needed | ● Wichita Transit Transfer Point | ● This assumes that Main/Park Street is changed from one to two way |

Coordinate System: State Plane
Kansas South - NAD 1983



CHAPTER 6

PERFORMANCE MEASURES



Performance measures are used to determine progress being made toward Plan implementation. The most useful performance measures are quantifiable and trackable over time. The performance measures in the following table are intended to measure progress on meeting Plan objectives (Chapter 3), and Plan strategies (Chapter 4). These performance measures may be expanded over time as data and resources become available.

	Strategy	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency
Objective 1.1	1. Provide bicycle facilities on designated streets and off-street bicycle facilities	Number of miles of new facilities installed	Average of 15 miles/year	2012	Annually
	2. Install a Signed Bicycle Route Wayfinding System	Number of miles of signed bicycle routes	Average of 20 miles/year	2012	Annually
	3. Improve bicycle safety and access at arterial roadway crossings	Number of roadway crossing improvements	Average of 2 crossing improvements per year	2012	Annually
	4. Improve bicycle access to transit	Number of locations with improved bicycle access	Average of two per year	2012	Annually
	5. Increase the availability of bicycle parking throughout Wichita	Number of bike racks installed	Install average of 25 bike racks per year	2012	Annually
	6. Determine if a bike share program would be good for Wichita	Study Completed	Study Completed	2013	One-time effort
Objective 1.2	7. Prioritize and fund bicycle facility maintenance	Existing bicycle facilities maintained	Bike lanes swept 6 times/yr. Bike lanes/shared lane markings repainted every two years. 1 major maintenance project in CIP	2012	Annually

	Strategy	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency
Objective 1.3	8. Incorporate the facility recommendations from this plan into the WAMPO Metropolitan Transportation Plan and other related plans.	Incorporation of facility recommendations	Date TBD	N/A	N/A
	9. Provide printed, online, and mobile device bicycling guides	Develop map Develop on-line wayfinding map	Develop map by 2015 Develop by 2018	N/A	N/A
Objective 2.1	10. Educate Wichita transportation system professionals and users about new bicycle facility types, planning, design and bicycle-related issues that may arise.	Number of trainings and/or educational events held each year	Minimum of 1 professional training every year, and 2 public events with education component per year	2012	Annually
	11. Promote bicycle education and encouragement in Wichita through partnerships with community organizations and businesses	Growth of community-wide bicycling events per year; Number of Effective Cycling instructors (National Certification Program through the League of American Bicyclists)	Bicycling events grow each yr. Average of 1 new Effective Cycling instructor/yr.	2012	Annually
	12. Support efforts to obtain funding for bicycle education and enforcement programs	Number of grant applications	Support (i.e. assist in submitting application, provide analysis or data, provide match funding, etc) a minimum of 2 funding applications per year	2012	Annually

	Strategy	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency
Objective 2.2	13. Increase enforcement of bicyclist and motorist behavior to reduce bicycle and motor vehicle crashes	Consensus between Bicycle Advisory Board, City staff and Wichita Police department on enforcement priorities. Number of warnings or citations targeting road user behaviors that compromise bicycle safety.	Meeting notes or memo that outlines a consensus on enforcement priorities Record of at least one meeting per year between the Bicycle Advisory Board, City staff and the Wichita Police Department to review results of enforcement efforts.	2012	Annually
Objective 2.3	14. Work with school districts to develop collaborative partnerships to encourage children to bike to school	Number of schools actively encouraging children to bike to school	Add 2 schools/yr. that participate in promoting bicycling to school	2012	Annually
Objective 3.1	15. Coordinate increased participation in bicycling events.	Total number of people participating in all special events	Events demonstrate growth every year.	2012	Annually
Objective 3.2	16. First achieve LAB's Bicycle Friendly Community bronze and then silver status designation	Achieve BFC status	Bronze by end of 2015, Silver by 2020	No BFC designation	N/A
Objective 3.3	17. Work with area businesses and colleges to engage them in the League of American Bicyclists recognition program.	Number of businesses and university/colleges recognized as "Bicycle Friendly" by LAB	Average of 1 new business or college recognized/yr.	2012	Annually
Objective 3.4	18. Enlist opinion leaders in promoting bicycling (e.g. Speakers bureau)	Number of events in which local or regionally recognized opinion leaders present	6 events per year	2012	Biannually
	19. Engage area businesses in using bicycles in their advertising and other promotions	Recognize businesses that use bicycles in their promotions	2 recognitions per year	2012	Annually

	Strategy	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency
Objective 4.1	20. Adopt policies to ensure that the City's project planning and review processes account for bicycle facilities	Adoption of routine accommodation policy and integration into project planning and review processes Adoption of Complete Streets Policy Change standard cross-section for arterial streets to include appropriate bicycle facilities	Adoption and integration of routine accommodation policy by 2014 Adoption and integration of Complete Streets policy by 2016 Adoption and integration of arterial street cross sections by 2015	N/A	N/A
Objective 4.2	21. Update the Unified Zoning Code to provide incentives for both office and retail developments/ redevelopments to provide secure and conveniently located bicycle parking.	Updating of Unified Zoning Code	By 2015	N/A	N/A



	Strategy	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency
Objective 4.3	22. Create policy for installing facilities that are isolated segments	Create policy	Adopt and implement policy by 2013	N/A	N/A
	23. Create policy for reserving space for future facilities (e.g. space for bike lane that is added later)	Create policy	Adopt and implement policy by 2013	N/A	N/A
	24. Prioritize funding to complete gaps (missing links) in the bikeway network.	Number of gaps completed	Complete a minimum of two gaps per year	2012	Ongoing
Objective 4.4	25. Fund through CIP, annual programs and grants	Funding of priority stand alone projects	Fund at least 2 priority stand-alone projects per year	2013	Ongoing
Objective 4.5	26. Allocate staffing to implement this plan	Meet targets of yearly work plan	As agreed to with the bicycle advisory board		
Objective 4.6	27. Create a bicycle advisory board	Create a bicycle advisory board	In 2013	N/A	N/A
	28. Update the bicycle master plan on a regular basis	Updating of master plan	Update every 4 years	N/A	N/A
	29. Publish an annual implementation work plan	Bicycle Advisory Board approves work plan	Approve annually starting in 2013	2012	Annually
	30. Establish performance measures to monitor progress	Performance measures included in this plan	Meet performance measures	2012	Annually

APPENDIX A

CITY COUNCIL RESOLUTION

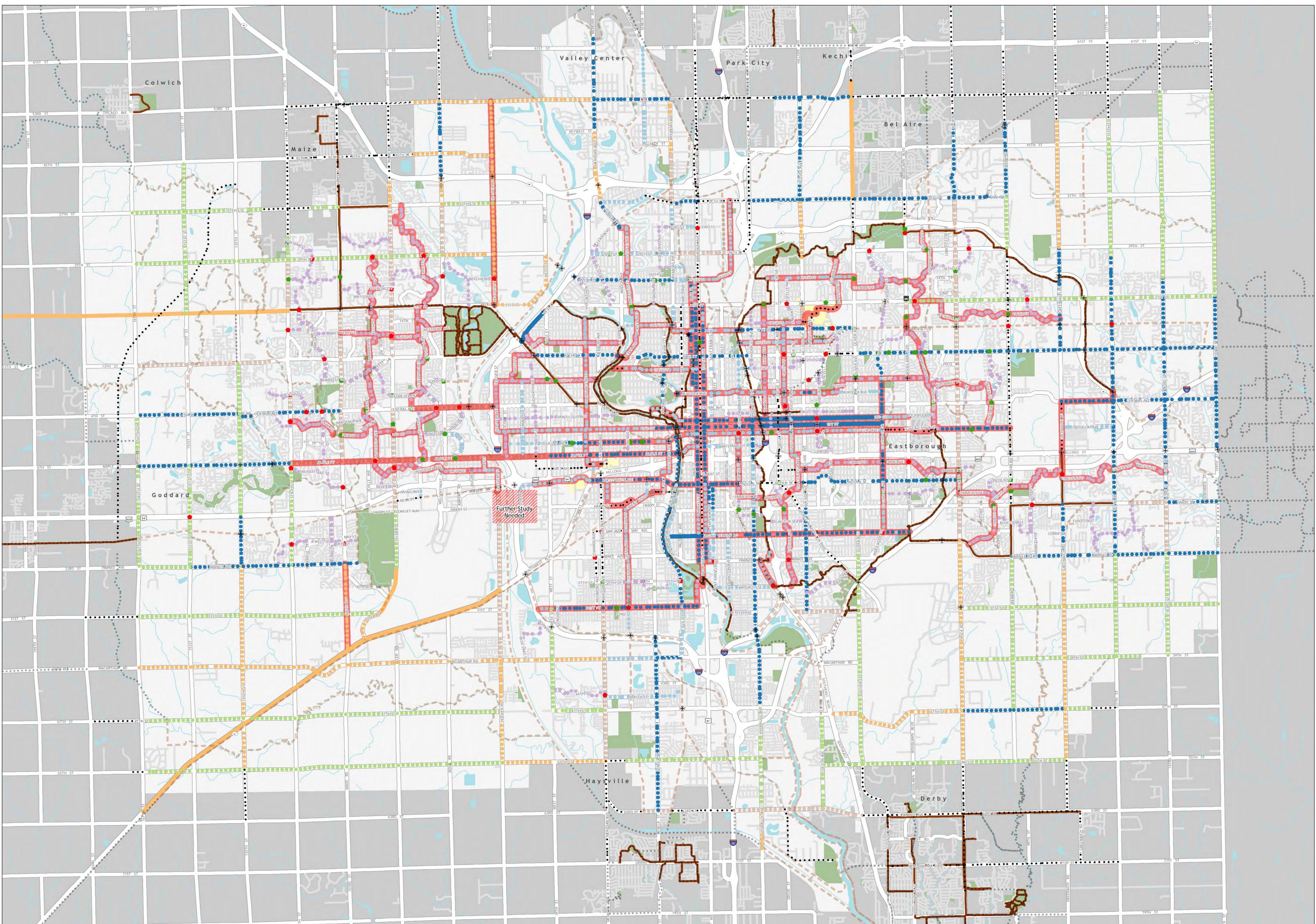


signed resolution to be inserted

APPENDIX B

PRIORITY BICYCLE NETWORK MAP





Priority Recommendations

Wichita Bicycle Master Plan

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Proposed ● Bicycle Lane and Buffered Bicycle Lane ● Shared Lane Marking ● Paved Shoulder ● Bicycle Boulevard ● Further Study Needed | <ul style="list-style-type: none"> ● Planned with Future Development (Bicycle Lane, Side Path, and/or Paved Shoulder) ● Planned Shared Use Path ● Planned Side Path * Crossing Improvement/Study Needed ● Ped/Traffic Signal Exists ● Ped/Traffic Signal Needed ■ Wichita Transit Transfer Point | <ul style="list-style-type: none"> Existing ● Bicycle Lane ● Paved Shoulder ● Side Path/Shared Use Path ■ Wichita 2030 Urban Growth Area ■ Unincorporated County |
|--|---|--|

Coordinate System: State Plane
Kansas South - NAD 1983

DRAFT: December 21, 2012



APPENDIX C

PLANNING LEVEL COST ESTIMATOR



Cost Calculator

New On-Street Facilities				
	Priority Network Miles	Priority Network Costs	Total Network Miles	Total Network Cost (at full build-out)
Bike lanes*	30.0	\$559,000	117	\$ 1,696,500
Buffered Bike Lanes*	2.3	\$67,804	5.4	\$ 128,304
Shared lane markings*	41.0	\$255,420	72	\$ 475,200
Sidepath	11.6	\$2,052,540	50	\$ 12,670,000
Shared use pathway	4.5	\$2,483,550	237	\$ 123,287,400
Bicycle boulevard	57.2	\$6,223,360	124	\$ 13,466,400
Paved shoulder	1.7	\$936,320	51	\$ 10,775,987
Study **	0	TBD	114	TBD
TOTAL	148.3	\$12,611,708	770.4	\$ 162,499,791

Maintenance and Replacement Costs - Priority Network			
Facility Type	Assumptions	Estimated Annual Maintenance Cost	Estimated Average Annual Budget for Replacement
Bicycle Route Signage - On-Street	<i>Cost represents annual replacement of all signs on on-street Priority Network * 10 (average number of signs per mile) at \$125 per sign * 2 sides. Note: All signs will generally need to be replaced every 10 years.</i>	\$10,230	\$ 17,050
Bicycle Lanes	<i>Assumes paint for striping and thermoplastic for symbols. Outside striping marking generally repainted annually at \$1 per linear foot and bike lane symbols replaced every 5 years \$165 per symbol.</i>	\$584,220	\$ -
Buffered Bike Lanes	<i>Assumes paint for striping and thermoplastic for symbols. All striping markings generally repainted annually at \$1 per linear foot and bike lane symbols replaced every 5 years at \$165 per symbol.</i>	\$21,556	\$ -
Shared Lane Markings	<i>Assumes thermoplastic. All SLM symbols generally replaced every 5 years at \$165 per shared lane marking</i>	\$255,420	\$ -
Sidepath (concrete)	<i>Assumes sweeping at \$34 per mile * once per month. Typical lifecycle is 25 years at which point major patching or resurfacing will be required.</i>	\$15,518	\$ 82,115
Shared Use Path (concrete)	<i>Assumes sweeping at \$34 per mile * once per month. Typical lifecycle is 25 years at which point major patching or resurfacing will be required.</i>	\$8,621	\$ 99,338

Bicycle boulevard	<i>Assumes thermoplastic shared lane markings and paint for striping. SLMs generally replaced every 3 years at \$165 per marking paint restriped annually. Assumes a 25 year lifespan for the traffic calming improvements (mini-traffic circle), 25 year lifespan for the curb blubs, 25 years for the sidepath, and 20 years for the pedestrian signal.</i>	\$171,600	\$ 273,988
Paved shoulder	<i>Assumes no additional sweeping, landscaping, or pavement maintenance.</i>	\$0	\$ 93,632
TOTAL		\$1,067,165	\$ 566,123

Other Facility Costs		
Item	Assumptions	Unit Cost
Install Full Traffic Signal	<i>Assumes that the full cost of the traffic signal is applied as a bicycle facility improvement (no cost shared by pedestrian, transit, motor vehicle, or other budgets)</i>	\$200,000.00
Install Pedestrian Crossing Signal	<i>Assumes that the full cost of the pedestrian crossing signal is applied as a bicycle facility improvement (no cost shared by pedestrian budgets)</i>	\$90,000.00
Install Pedestrian Crossing Island	<i>Assumes that two 11' by 10' islands and signs will be provided at each intersection, and that the full cost of the pedestrian crossing islands will be applied as a bicycle improvement (no cost shared by pedestrian budgets)</i>	\$40,000.00
Upgrade Existing Pedestrian Crossing Signal to Accommodate Bicycles	<i>Assumes 4 special-order bicycle traffic signal heads will be needed at the intersection. Assumes no other hardware or software upgrades, but such upgrades may be necessary.</i>	\$12,000.00
Signs	<i>The number of signs installed per mile along a bicycle route will vary depending intersection density, number of intersecting routes, parking restrictions and other factors.</i>	\$125.00
Bike Racks	<i>Assumes standard inverted U rack and includes installation.</i>	\$400.00
Calibrate bicycle detection at traffic signals (on-street facilities)	<i>Assumes four approaches per intersection calibrated at man-hour per approach, \$100 per man hour</i>	\$400.00

* Cost calculation assumes no on-street parking lane stripe. Costs will be slightly higher where there is a striped parking lane.

** Streets where design solution not immediately apparent.

Disclaimer

These costs are intended to be general and used for long-range planning purposes. The construction estimates **do not** include costs for planning, surveying, engineering design, right-of-way acquisition, mobilization, maintenance of traffic during construction, landscaping/aesthetics, utility adjustments, lighting, drainage, storm water management, erosion and sediment control, significant grading, bridges, retaining walls, significant changes in vehicular traffic patterns, or contingency costs. Maintenance costs are based on estimates from a variety of sources including the City of Wichita. Construction costs will vary based on the ultimate project scope (i.e. combination with other projects) and economic conditions at the time of construction.

Unit costs per mile assume only those markings that would not otherwise be present on the roadway, e.g. bike lane and shared lane marking symbols and additional striping. Maintenance costs are averaged over a 10 year period (the projected timeframe for full build-out of the Priority network), and therefore nearer-term costs are over estimated, and annual maintenance cost at year 10 are under estimated. Sign replacement costs are not included in facility-specific cost estimates (see above for sign replacement cost assumptions)

Cost Assumptions and Calculations

	Facility Unit Cost (per mile)	Calculation	Assumptions
On-Street Facilities			
Bike Lanes			
Add bike lanes (with parking)	\$27,700.00	Facility Unit Cost = \$1/LF * 5280 feet * 2 lines * 2 sides + \$165 per bike symbol * 20 symbols/mile*\$165 * 2 sides	Assumes 2 bicycle lane lines and 20 bike and arrow symbols per mile are added on each side of the roadway to create the bicycle lane. \$165 per bike and arrow symbol includes the material (thermoplastic) and installation costs.
Add buffered bike lane (with parking)	\$40,040.00	Facility Unit Cost = (3 lines*5280*\$1/LF * 2 sides)+(880 LF diagonal lines*2*\$1/LF)+(20 symbols/mile*\$165 * 2 sides)	Assumes a 30" diagonal stripe every 15 feet between two continuous parallel lines both sides of street plus inside bike lane/parking lane stripe, 20 bike and arrow symbols per mile both sides. \$165 per bike and arrow symbol includes the material (thermoplastic) and installation costs.
Add bike lanes (no parking)	\$17,200.00	Facility Unit Cost = \$1/LF * 5280 feet * 1 line * 2 sides + 20 symbols/mile*\$165 * 2	Assumes 2 bicycle lane lines and 20 bike and arrow symbols per mile are added on each side of the roadway to create the bicycle lane. \$165 per bike and arrow symbol includes the material

		sides	(thermoplastic) and installation costs.
Add buffered bike lane (no parking)	\$29,480.00	Facility Unit Cost = (2 lines*5280*\$1* 2 sides)+(880 LF diagonal lines*2*\$1)+(20 symbols/mile*\$165 * 2 sides)	Assumes a 30" diagonal stripe every 15 feet between two continuous parallel lines sides of street, 20 bikes and arrow symbols per mile both sides. \$165 per bike and arrow symbol includes the material (thermoplastic) and installation costs.
Pavement restoration for bike lanes			This is an add-on expense for those roadways where pavement needs to be restored in order to provide a high quality bike lane facility.
Shared Lane Markings			
Add shared lane markings (no parking)	\$6,600.00	Facility Unit Cost = \$165 per shared lane marking symbol * 20 symbols/mile * 2 sides	Assumes 20 shared lane marking symbols per mile are added on each side of the roadway to create the shared lane pavement marking facility. \$165 per bike and arrow symbol includes the material (thermoplastic) and installation costs.
Add shared lane markings (with parking)	\$17,200.00	Facility Unit Cost = \$1/LF*5280 feet*2 lines + \$165 per shared lane marking symbol *20 symbols/mile * 2 sides	Assumes parking lane lines added to both sides of street and 20 shared lane marking symbols per mile are added on each side of the roadway to create the shared lane pavement marking facility. \$165 per bike and arrow symbol includes the material (thermoplastic) and installation costs.
Off-road Facilities			
Sidepath (new)	\$253,400.00	Facility Unit Cost = 12 ft wide path * 5,280 (63,360 square feet) * \$4/SF for excavation, base course and concrete	Assumes excavation, base aggregate, and concrete for 12 ft wide, 5" thick sidepath, one side of street. Total project costs may include the following additional costs as percentage of construction cost: 5% landscaping; 20% Drainage and Engineering Surveying; 5% Maintenance of traffic; 5% Utility Adjustments. Does not take into account breaks in the facility, e.g. driveways and intersections, and therefore, costs may overestimated.
Shared Use Path (new)	\$551,900.00	Facility Unit Cost = 12 ft wide path * 5,280 (63,360 square feet) * \$5/SF for excavation, base course and concrete + 1/2 pedestrian signal (one for every 2 miles of facility) * \$90,000 each + \$ 3/SF for	Assumes a new 5" thick concrete shared use pathway in existing independent right-of-way (i.e. acquisition costs not included) built to roadway standards. Total project costs may also include the following additional costs as percentage of construction cost: E&S; 5% Maintenance of traffic;

		landscaping; drainage; utility adjustments	
Bicycle Boulevard (assumes 8 blocks per mile)			
	\$108,800.00	Facility Unit Cost: 6 curb bulbs*\$7,000 each + 1 mini traffic circle * \$8,000 each + 16 intersections*50 LF of striping*\$1/LF + 32 shared lane markings at \$125 each + 24 sign assemblies at \$125 each + 1/2 (1 pedestrian signal for every 2 miles of facility * \$90,000) + 12 ft sidepath * 100ft length * \$4/SF	Assumes the installation of curb extensions without drainage impacts, centerline strip (paint) for the first 50 feet of each residential street intersection, assumes the use of shared lane markings (thermoplastic) with 4 markings per block and 4 sign assemblies per block, one pedestrian signal for every 2 miles of facility, 1 min-traffic circle for traffic calming (average - some streets will need more, others less), and minimum 100' of sidepath (connecting intersection to crosswalk) per side. Other costs may include 5% for landscaping, 10% for drainage, 5% for traffic control and 10% for utility adjustments.
Paved Shoulder			
	\$164,266.67	Facility Unit Cost = 5280 ft * \$1.11/ SF + 4 ft width * 5280 ft * \$6.66/SF	Assumes 4 ft paved shoulder comprised of 8" crushed rock at \$10 SY and 7" asphalt at \$60 SY. Other costs may include 5% for landscaping, 10% for drainage and E&S, 5% for traffic maintenance, 10% for utility adjustment, 25% contingency and no parking signs.
Bike Route Signing			
	\$2,500.00	Facility Unit Cost = \$125 per sign assembly*10*2 sides	Spacing of bike signs is flexible based on Engineering judgment & current practices. This calculation assumes up to 10 bike route/wayfinding signs per mile installed on both sides of bicycle route. In some cases the number of signs per mile may be more or less than 10. Unit cost includes one sign, post and installation. Some wayfinding sign assemblies may have more than one sign, and therefore would be higher cost.
Per Mile Annual Maintenance Cost Estimates for On-road Facilities			

Shared Lane Markings	\$6,600.00	Facility Unit Cost = \$165 per shared lane marking * 20 shared lane markings per mile * 2 sides	Assumes thermoplastic. All SLM symbols generally replaced every 5 years at \$165 per shared lane marking
Bicycle Lanes	\$17,976.00	Facility Unit Cost = \$1 per linear foot * 5280 feet * 1 line * 2 sides + \$165 per bike and arrow * 20 bike and arrow per mile * 2 sides + sweeping at \$34 per mile * 2 sides * 12 months per year	Assumes paint for striping and thermoplastic for symbols. Outside striping marking generally repainted annually at \$1 per linear foot and bike lane symbols replaced every 5 years \$165 per symbol.
Buffered Bike Lane	\$9,372.00	Facility Unit Cost = 2 lines*5280*\$1* 2 sides)+(880 LF diagonal lines*2*\$0.75)+(20 bike and arrow per mile* 2 sides*\$165) + sweeping at \$34 per mile * 2 sides * 12 months per year	Assumes paint for striping and thermoplastic for symbols. All striping markings generally repainted annually at \$1 per linear foot and bike lane symbols replaced every 5 years at \$165 per symbol.
Bicycle Boulevard	\$3,000.00	Facility Unit Cost = 40 shared lane markings * \$165 + \$1 per linear foot*800 feet	Assumes thermoplastic shared lane markings and paint for striping. SLMs generally replaced every 3 years at \$165 per marking paint restriped annually. Assumes a 25 year lifespan for the traffic calming improvements (mini-traffic circle), 25 year lifespan for the curb blubs, 25 years for the sidepath, and 20 years for the pedestrian signal.
Spot Improvements (5 per year)	\$75,000.00	TBD	Assumes 5 spot improvements per year at an average cost of \$15,000. Spot improvements may range in scope and scale.
Bike Route Signing - On-Street	\$75.00	Facility Unit Cost = \$125 per sign assembly*10*2 sides *0.01	Assumes replacement of 1 percent of the signs per year
Paved Shoulder (asphalt)	\$0.00		Assumes no additional sweeping, landscaping, or pavement maintenance.
Per Mile Annual Maintenance Cost Calculations for Off-road Facilities			
Shared-use Path	\$1,575.80	Facility Unit Cost = \$157.58 sweeping per mile * 10 times	Assumes sweeping at \$34 per mile * once per month. Typical lifecycle is 25 years at which point major patching or resurfacing will

		per year	be required.
Sidepath	\$1,915.80	Facility Unit Cost = \$157.58 sweeping per mile * 10 times per year	Assumes sweeping at \$34 per mile * once per month, and landscaping maintenance at \$157 per mile * once per month, 10 months annually. Typical lifecycle is 25 years at which point major patching or resurfacing will be required.
Per Mile Annual Replacement Budget Calculations for Bicycle Facilities			
Shared Lane Markings	\$0.00		
Bicycle Lane	\$0.00		
Buffered Bicycle Lane	\$0.00		
Bicycle Boulevard	\$4,790.00	Facility Unit Cost = (6 curb bulbs*\$7,000 each) + (1 mini traffic circle * \$8,000 each)+(12 ft sidepath * 100ft length * \$4/ SF) / 25 year life span) + (24 sign assemblies at \$125 each / 10 year lifespan) + (1/2 of 1 pedestrian signal for every 2 miles of facility * \$90,000 / 20 year lifespan	Assumes a 25 year lifespan for the traffic calming improvements (mini-traffic circle), 25 year lifespan for the curb blubs, 25 years for the sidepath, and 20 years for the pedestrian signal
Sidepath (concrete)	\$10,137.60	Facility Unit Cost = (12 ft wide path * 5,280 (63,360 square feet) * \$4/SF for excavation, base course and concrete) / 25 year lifespan	
Shared-use Path (concrete)	\$22,075.20	Facility Unit Cost = (12 ft wide path * 5,280 (63,360 square feet) * \$5/SF for excavation, base course and concrete + 1/2 pedestrian signal (one for every 2 miles of facility) * \$90,000 each + \$ 3/SF for landscaping; drainage; utility adjustments) / 25 year	

		lifespan	
Paved Shoulder (asphalt)	\$16,426.67	Facility Unit Cost = (5280 ft * \$1.11/ SF + 4 ft width * 5280 ft * \$6.66/SF) / 10 year lifespan	

Global Assumptions

- 1) *Cost calculations assume that bicycle facility improvements are made on both sides of the street with the exception of shared use paths and sidepaths. Assumes any pavement costs are independent of bicycle facility.*
- 2) *Cost estimates do not include design unless specifically stated in assumptions. Design costs, which include construction planning, public process, facility design, and other background work required to implement the project, can generally be estimated at 15% to 20% of the facility construction cost. Projects requiring a higher level of public process may have higher design costs.*
- 3) *Cost estimates involving major construction do not include contingency costs, which typically are estimated at 15 to 25% of the construction costs.*
- 4) *Other costs where applicable include landscaping 5%, Drainage 10% (unless otherwise noted), Traffic control 5% and Utility adjustments 10%.*
- 5) *Paint markings to be restriped annually. Thermoplastic may last 3 to 5 years, depending on placement in roadway.*

APPENDIX D

MEETINGS & EVENTS



Below is a listing of the public events and meetings that occurred as part of the City of Wichita Bicycle Master Plan. The listing also includes events where a booth or presentation about the plan was provided.

Steering Committee Meetings

- July 19, 2011
- July 20, 2011
- October 3, 2011
- February 23, 2012
- April 12, 2012
- April 30, 2012
- May 17, 2012
- June 14, 2012
- June 28, 2012
- July 18, 2012
- August 16, 2012
- November 20, 2012
- December 18, 2012

Focus Groups

- October 3, 2011 Inter-Faith Ministries Meeting Minutes
- October 5, 2011 Development Community Focus Group Meeting Minutes
- October 5, 2011 Universities and Colleges Meeting Minutes
- October 5, 2011 Latino Focus Group
- October 5, 2011 K-12 School Focus Group
- October 6, 2011 Transit Focus Group
- October 6, 2011 Wichita Independent Neighborhood (WIN) Groups Focus Group

Project Briefings

- July 20, 2011 Meeting with Bicycle Shop Owners

- July 20, 2011 Meeting with Downtown Stakeholders
- July 20, 2011 Meeting with Foundations and Health and Wellness Coalition
- July 21, 2011 Meeting with Wichita Metro Chamber of commerce and Young Professionals of Wichita
- July 24, 2012: City Council Workshop Presentation
- November 19, 2012 Park Board Meeting

Public Events

- October 4, 2011 Open House Event
- April 27th 28, 2012 Better Block Event
- May 1, 2012 Open House Event

Other Meetings

- December 12, Wichita-Sedgwick County Metropolitan Area Planning Department Advanced Plans Committee
- January 28, 2012 Preservation, Energy and Sustainability Fair Presentation
- February 14, 2012 Friends University class presentation
- February 21, 2012 Wichita Ski Club
- March 2, 2012 Downtown Y Men's Club
- April 26, 2012 Wichita Downtown Development Corporation Board Meeting
- June 28, 2012 Country Overlook Neighborhood Association
- July 17, 2012 Delano Neighborhood Association
- July 28, 2012 District Advisory Board VI Breakfast
- August 1, 2012 American Society of Landscape Architects
- August 3, 2012 City of Wichita District I Breakfast
- August 6, 2012 City of Wichita District Advisory Board II
- August 6, 2012 Oz Bicycle Club
- August 8, 2012 East Rotary Club
- August 8, 2012 Optimist Club
- August 9, 2012 Reveal the Path movie
- August 29, 2012 Wichita Area Builders Association
- August 29, 2012 City of Wichita all District Advisory Boards
- October 4, 2012 Wichita-Sedgwick County Metropolitan Area Planning Commission
- October 15, 2012 City of Wichita Park Board
- September 19, 2012 City of Wichita District Advisory Board VI
- September 25, 2012 Fabrique Neighborhood Association
- October 1, 2012 City of Wichita District Advisory Board I
- October 1, 2012 City of Wichita District Advisory Board IV
- October 1, 2012 City of Wichita District Advisory Board V
- October 3, 2012 City of Wichita District Advisory Board III
- October 12, 2012 City of Wichita Transit Advisory Board
- December 14th, 2012 City of Wichita Transit Advisory Board

APPENDIX E

BETTER BLOCK



Better Blocks Website	2
Event Details	3
Better Blocks Press Release	4
Better Block Summary Presentation	6
Better Blocks Conceptual Site Layout	23

A Better Block event was held April 27th and 28th 2012 on E Douglas Ave between Hydraulic and Kansas streets. The street was temporarily redesigned with curb bulbs, a pedestrian plaza, bike lanes and a temporary mid-block crosswalk. The street was further activated with pop-up businesses, food trucks and activities. The project was a “community revitalization effort” to demonstrate how multi-modal street improvements and activation can also improve a street.

The event served as an opportunity to demonstrate how bicycle facilities can be accommodated on the roadway.

Better Blocks Website

Team Better Block

<http://teambetterblock.com/?project=wichita-better-block>



[HOMEPAGE](#) [PROJECTS](#) [BLOG](#) [ABOUT US](#) [CONTACT](#)

WICHITA BETTER BLOCK



THE FIRST BETTER BLOCK PROJECT



THE BETTER BLOCK ON TEDX



SAN ANTONIO

1 of 3

9/6/2012 9:57 AM

Event Details



You are invited to help temporarily transform and improve a street in Wichita. This transformation will occur during a Better Block event scheduled for this spring as part of the Wichita Bicycle Master Plan. You can learn more about this exciting event by attending a **public meeting at 4:30 p.m. on Friday, February 17th** in the **Wichita City Hall First Floor Board Room**. The meeting will include a presentation on how an area can be improved with enhanced bicycle, pedestrian and transit access - mixed with art, culture, pop-up businesses, and street life. You will also learn how you can get involved and provide input about the event. We look forward to a great turnout and are excited about building a Wichita Better Block together!

Event Details

What: Wichita Bicycle Master Plan Better Block Introduction Meeting

Time: 4:30 p.m. – 6:00 p.m.

Date: Friday, February 17, 2012

Location: Wichita City Hall (455 N. Main Street), First Floor Board Room

Security: Screening is required for all City Hall visitors. Dangerous items, back packs, and packages are not allowed. Delays may occur so attendees should plan on arriving early.

Parking: Bicycle racks are available on the bottom floor of the City Hall parking garage and at the north entrance to the City Hall atrium. Automobile parking is available in the metered visitor parking lot is located directly south of City Hall and the long-term visitor parking lot southwest of City Hall. For more information please see the following City webpage: <http://www.wichita.gov/Government/ParkingSecurity.htm>

About the Plan and Additional Information

The City of Wichita Bicycle Master Plan will help to make bicycling in Wichita easier, safer, and more convenient. The plan will identify and prioritize strategies to provide both new and enhanced bicycle facilities, and increase both the number and frequency of people bicycling in Wichita. It will also provide a framework and strategies for improving the connectivity, safety, comfort, and convenience of the bicycle network. To learn more about this exciting civic initiative

please visit the project Web site.

<http://www.wichita.gov/CityOffices/Planning/AP/Comprehensive/BicycleMasterPlan/>

More information about Better Blocks and examples from projects throughout the country are available on the Team Better Block Website: <http://betterblock.org/> .

In an effort to help reach as many people as possible, please forward and share this information.

Thank you,

Scott Wadle, AICP
Senior Planner
Advanced Plans Division
Wichita-Sedgwick County
Metropolitan Area Planning Department
T 316.268.4421
F 316.268.4390

Better Blocks Press Release

DATE: December 21, 2012
RELEASE

FOR IMMEDIATE

CONTACT: Scott Wadle, 352-4855

Two-Day Better Block Event Kicks Off Today

The two-day Better Block event starts today. It will occur from 4 to 9 p.m. today and from 9 a.m. to 1 p.m. on Saturday at the intersection of Douglas Avenue and Hydraulic Street in the Douglas Design District.

Better Block is a temporary transformation of Douglas Avenue as a more bicycle-, pedestrian-, and transit-friendly street, mixed with public art, culture, pop-up businesses and street life. The Better Block event is part of the City of Wichita Bicycle Master Plan; a plan to make getting around on a bicycle safer, easier, and more convenient. The event will also provide people opportunities to experience the following features.

- Ride your bicycle in the bike lane and cycle track
- Relax with sidewalk seating
- Experience public art
- Utilize later and more frequent bus service (Friday night)
- Discover the enhanced pedestrian crossing
- Enjoy an assortment of dining and shopping opportunities
- Admire the pedestrian scale lighting
- Try the back-in angled parking

Also, at 5 p.m. today, Vice Mayor Janet Miller will present the Tour de Cure and Bike Month Proclamation at Tanya's Soup Kitchen in the Better Block. For more information about Better Block and the Wichita Bicycle Master Plan, please visit www.wichita.gov and click on the Bicycle Master Plan icon.

Better Block Summary Presentation

Summary of the Wichita Better Block



The "Better Block" project is an urban revitalization project that temporarily reengineers an area with bicycle, pedestrian and transit infrastructure mixed with art, culture and family activities. As part of the City of Wichita's Master Bicycle Plan this Better Block was built with the community and the following sponsors:





Better Block Process

- Staff kickoff
- Community meeting
- Community walk
- Volunteer coordination, flyer & volunteer spreadsheet
- BB plan
- BB starter kit
- Community build
- BB staging plan
- BB Mobilization
- BB Setup and Takedown

Community Meeting



Poster

APRIL 27th - APRIL 28th

The Better Block Project

DOUGLAS AVE. (B/W HYDRAULIC & KANSAS)
AS PART OF THE CITY OF WICHITA MASTER PLAN AND FINAL PHASE IN THE DOUGLAS DESIGN DISTRICT

DOUGLAS AVE. | B/W HYDRAULIC

CITY OF WICHITA

WICHITA BICYCLE 40

THE BETTER BLOCK

Toole Design Group

The Wichita Bicycle Master Plan Presents: The Better Block Project.
4PM - 9PM April 27th, Friday & 9AM - 1PM April 28th, Saturday
Located at Douglas Avenue, between Hydraulic and Kansas Avenues.
Experience the temporary transformation of Douglas Avenue in a more bicycle, pedestrian, and transit friendly street.

- Ride your bicycle in the bike lanes
- Relax with sidewalk seating
- Experience public art
- Utilize later bus service
- Discover enhanced crosswalks
- Enjoy an assortment of dining and shopping opportunities
- Admire the enhanced night time lighting

For more information or to take part, visit: <http://wichita.isanbetterblock.com>

Community Walk



Flyer

WICHITA
LET'S BUILD A
BETTER BLOCK



PRE-BUILD WORKSHOP
APR 20, 5PM - 11PM
APR 21, 9AM - 3PM
122 S HYDRAULIC ST

STAGING AND SETUP
APR 27, 3PM - 10PM
APR 28, 7AM - 2PM
KANSAS ST @
E DOUGLAS AVE

6 POPUP
SHOPS



A BIKE
FRIENDLY
STREET



LANDSCAPED
AVENUE

HTTP://WICHITA.TEAMBETTERBLOCK.COM

The "Better Block" project is a community revitalization effort that temporarily demonstrates how to revision an area with bicycle, pedestrian and transit infrastructure mixed with art, culture and street life. As part of the City of Wichita's Bicycle Master Plan, the community is invited to help build a Better Block at the intersection of E. Douglas and Kansas Street.

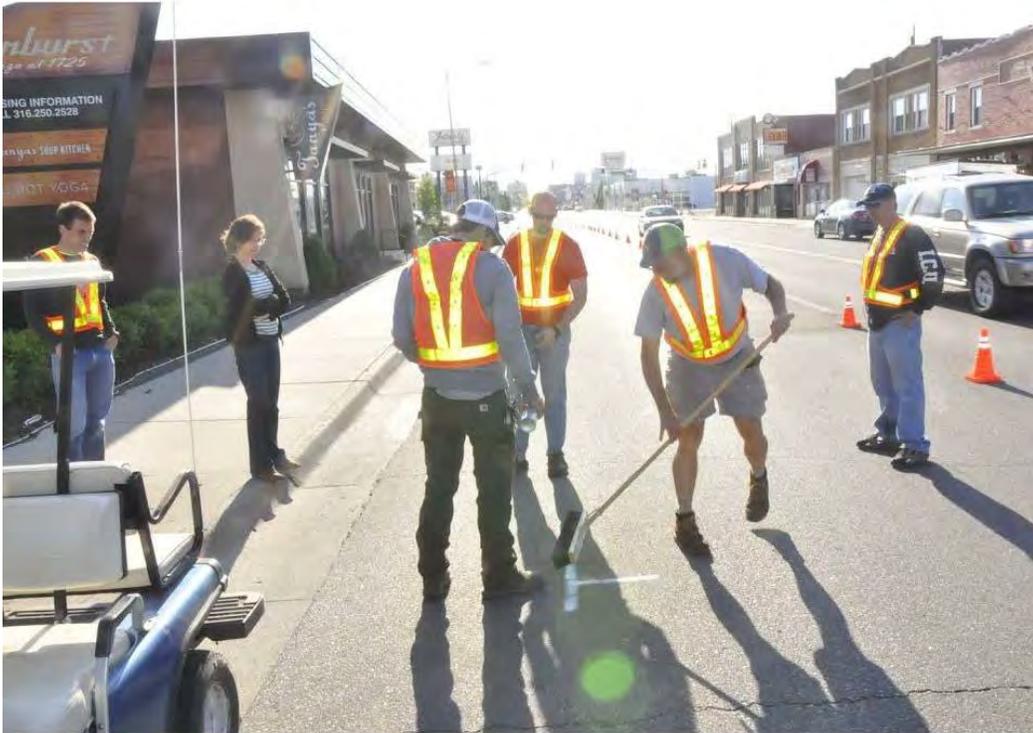
 BIKE INFRASTRUCTURE

VOLUNTEER

MATERIAL CHECK LIST

- GLOVES
- CLOSED-TOE SHOES
- PAINT BRUSH / ROLLER
- DRINK

Community Build



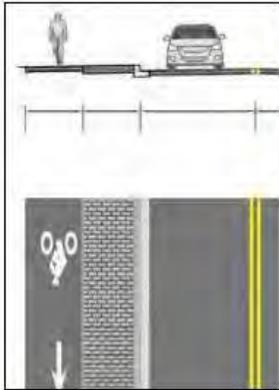
Landscape and Streetscape Plan



Complete Street Treatments

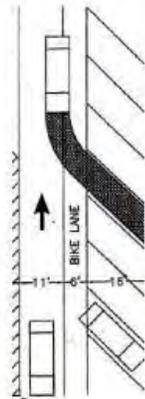
- Cycle track or buffered bicycle lane
- Bicycle lane
- Back-in angle parking with Bicycle Lane
- Pedestrianized bulb-outs
- Placemaking with pop-up shops
- Landscaping and hardscaping

Cycle Track



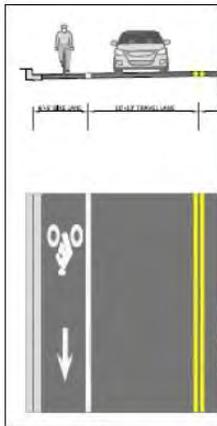
Effectiveness	Recommendation
★★★★★	Use to attract women, children, and elderly riders. Prefer wider sidewalk in association with treatment.

Reverse Angle Parking / Bicycle Lane



Effectiveness	Recommendation
★★★	Could be widely used as a road diet in retail and destination locations. Need enforcement to reduce front-end parking.

Bicycle Lane



Effectiveness	Recommendation
★★★★	When applied with on-street parking, requires bulb-outs.

Bulb-out / Ped Plaza



Effectiveness	Recommendation
★★★★	Works best in proximity to retail. Create clear delineation between bicycles and pedestrian zones.

Mid-Block Crosswalk



Effectiveness	Recommendation
★★★★	Include horizontal deflection to reduce automobile speeds.

Placemaking

- Pop-up stores
- Branding for area
- Building murals
- Informational signage
- Music on street
- Food and beverage on street
- Sandwich board signs
- Café seating



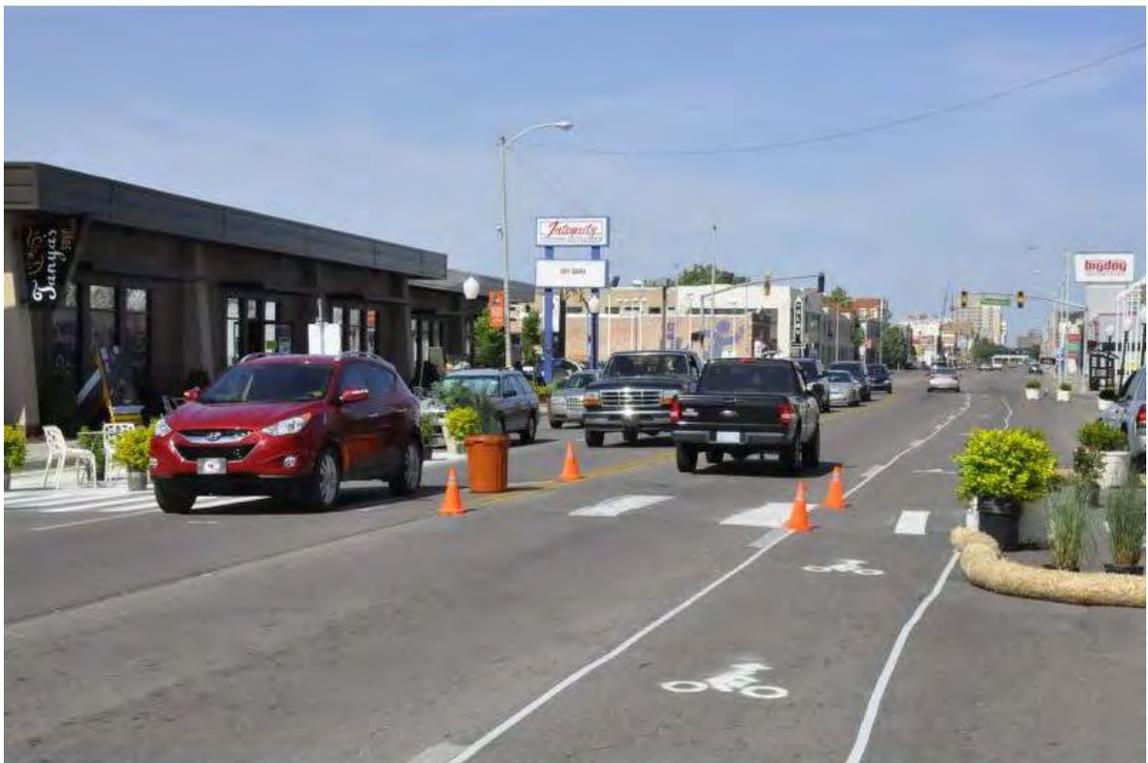
Streetscaping

- 100 Plants and shrubs
- 30 large planters
- Eight historic street lamps
- Three park benches
- Eighty café seats
- Back in angle parking sign
- Bike lane signage
- Bicycle parking
- Crosswalk











Quotes

- “I want to buy a house here” Woman visiting the area for first time.
- “I don’t want the Better Block to leave” Local resident
- “Wichita needed this!” – Leon Moeder, Local property owner
- “Please make the crosswalk stay!” Angela Mallory, Donut Whole business owner
- “How can we make these changes permanent?” – Ken Stoeffel, property owner

Recommendations

#1 Design streets on a block by block scale with an eye to the adjacent land uses and neighborhoods.

#2 Test street designs using the Better Block cone, observe and refine method

#3 Use the Better Block approach to kick-off design concepts and master plans.



Better Blocks Conceptual Site Layout



STREET IMPROVEMENTS

- A** BACK IN ANGLED PARKING - A safe way to unload the family & easier way to pull into traffic.
- B** CYCLE TRACK - Bicycle lane separated from traffic by a median.
- C** BICYCLE LANE - Bicycle lane separating on street parking from moving traffic.
- D** BICYCLE RACK - Like parking valet for your bike.
- E** KIOSKS - Local/Regional Information centers.
- F** PARKLET - Extending the curb line into the road with-out having to move infrastructure (utilities, storm pipe, curb, etc.)
- G** OUTDOOR SEATING AREA - Locations that provide outdoor space for people and/or businesses.
- H** MID-BLOCK CROSSINGS - Allows people to travel across the street more often and calms traffic in the area.
- I** BUS STOP - An easy place for busses to pickup/drop off passengers.



AREA AMENITIES

- J** POP-UP SHOPS - Start up local vendors displaying good & services.
- K** PUBLIC MARKET/GARDEN/OPEN SPACE - General location (ie. parking lots) that can be used for multiple uses at in a day.
- L** PUBLIC ART - Paintings, sculptures, performances, ect.
- M** FOOD TRUCKS - Local vendors serving food during regular times of the day and at special events.
- N** BIKE-IN THEATRE - Pop-up community event for the family.
- O** HISTORIC DESIGNATIONS - Locations or structures identified for the significance to the area/community.
- P** GATEWAYS - A place making marker that informs people that they have arrived.



Better Blocks Website

Team Better Block

<http://teambetterblock.com/?project=wichita-better-block>



[HOMEPAGE](#) [PROJECTS](#) [BLOG](#) [ABOUT US](#) [CONTACT](#)

WICHITA BETTER BLOCK



THE FIRST BETTER BLOCK PROJECT



THE BETTER BLOCK ON TEDX



SAN ANTONIO

The Wichita Better Block wrapped up after a weekend transformation that included build out of cycle racks, pedestrian bulb-outs, reverse angled-parking, safer cross walks, and pop-up businesses. A wide four-lane road with parking was converted into a pedestrian and bicycle friendly street that encouraged slower speeds and more sidewalk activity. Check out the photos for highlights: Email Team Better Block at info@teambetterblock.com

CONTACT US



Douglas Avenue before the Better Block project



Douglas Avenue during the Better Block



BETTER BLOCK



THE LIVING PLAZA PROJECT



TEAM BETTER BLOCK PRESS

The New York Times

The Washington Post



dwell

APPENDIX F

MEDIA



Wichita Bicycle Master Plan in the Media:

1. September 1, 2011 KWCH 12 Eyewitness News *What will it take to get you riding a bike in Wichita?*
2. September 2, 2011 Wichita Business Journal, *Wichita seeks input on bicycle travel*
3. October 3, 2011 The Wichita Eagle, *Public input sought for city's bicycle plan*
4. October 4, 2011 KAKE News, *City Seeks Public Input for Bicycle Master Plan*
5. October 18, 2011 The Compass – Quivira Council's e-newsletter, *Wichita Bicycle Master Plan*
6. November 2011 Oz Bicycle Club Newsletter
7. November 22, 2011 Coaster Bicycle Club, *Wichita Bicycle Master Plan Team Hits the Streets*
8. December 2011 Health and Wellness Coalition of Wichita Newsletter
9. February 2012 KWCH 12 Eyewitness News, *Wichita 'Better Block' event planned for more bike friendly streets*
10. February 2012 Bike\Walk Alliance-Wichita BWA Commuter, *Better Block Event*
11. February 2012 KWCH News, *What will it take to get you riding a bike in Wichita?* Video
12. February 17, 2012 KWCH 12 Eyewitness News. *Wichita plans for more "bike friendly" streets*
13. April 27, 2012 The Wichita Eagle. *Better Blocks event to transform intersection at Douglas, Hydraulic*
14. May 1, 2012 KSN.com. *Wichita closer to completing bicycle master plan*
15. August 18, 2011 to May 1, 2012 Facebook posts
16. July 22, 2012, The Wichita Eagle, *Events aim to boost Douglas Design District's profile*
17. July 24, 2012 KFDI FM 101.3: *City Council Receives Master Plan for Bicycles*
18. August 01, 2012 Health and Wellness Coalition of Wichita News Letter
19. August 24, 2012 KSN TV, *Will Wichita spend millions on bike routes?*
20. August 28, 2012 KSN TV, *Bicycle enthusiasts will be updated on master plan.*

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What will it take to get you riding a bike in Wichita?

September 01, 2011 | By Kim Hynes | KWCH 12 Eyewitness News

(WICHITA, Kan.) — What keeps you from riding a bike to work, school or just for fun? That's what the City of Wichita wants to know. It's trying to find ways to make the city more bike friendly.

It's an effort some cyclists welcome. They meet a few times each week to ride the streets of Wichita. "I certainly think Wichita could do better as far as bike lanes and just being biker friendly," said Tony Bontz. For instance, he says most Wichita roads don't have shoulders so cyclists are forced to take up a driving lane. "If I had a shoulder to ride on to be safe I'd much prefer that," he said.

That's the kind of detail the city wants to know. It launched an on-line survey to get opinions on how to make Wichita a better place for cyclists. "We don't want to guess at what people want, we really want to hear from them," said Barry Carroll with the Bike Walk Alliance of Wichita. The city will take the input and put together a bicycle plan so one day there will be more than the hard core cyclists on the road. "Your average cyclists, families and children could get on the bike lanes and be safe," Carroll said.

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The survey will be available through October 21st.

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July 25, 2008

Wichita Council Approves New Bicycle Ordinance
May 4, 2010

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Wichita bike survey

Link: Survey on Biking in Wichita

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Electricity Breakthrough:

54-year-old man ends slavery to electricity monopoly. Discover the underground kit he used before they shut it down! [Watch Video](#)

This was printed from Wichita Business Journal



Wichita seeks input on bicycle travel

Wichita Business Journal by Josh Heck, Reporter

Date: Friday, September 2, 2011, 10:18am CDT



Josh Heck
Reporter
[Email](#)

The [city of Wichita](#) is asking residents to identify ways to make biking in the community safer and easier.

The city launched [an online survey](#) Friday for residents to offer feedback. The survey asks people for reasons they bike or choose not to. It also includes an interactive map for people to identify their favorite routes and locations that might be improved.

City officials also have scheduled a public open house from 4:30 to 7:30 p.m. Oct. 4 at Wichita City Hall, 455 N. Main.

The city's goal is to create a master plan for upgrading the city's bicycle network.

City leaders say the plan is necessary in part because Wichitans rated their satisfaction with the city's bicycle travel as "much below" residents in comparable cities on the 2010 National Citizen Survey.

The city already has taken measures to add more bike paths, [including one that opened in May](#).

Bike travel also is being discussed as city leaders try to [decide how to revamp the Douglas Avenue streetscape](#).

Related:

[Wichita](#)

Public input sought for city's bicycle plan

By RICK PLUMLEE
The Wichita Eagle

Published Monday, Oct. 3, 2011, at 12:50 p.m.
Updated Monday, Oct. 3, 2011, at 12:56 p.m.

ARTICLE 111 COMMENTS

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WICHITA — Residents are being asked to provide input on the city's bicycle master plan during an open house from 4:30 to 7:30 p.m. Tuesday on the first floor of City Hall, 455 N. Main.

Those attending will have a chance to draw potential bicycle routes, vote on priorities and ask questions. An overview of the planning process will be presented by the city.

For more information and to participate in a bicycle survey, go to <http://bit.ly/ofAPqy>.

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- 1 Man charged after cooking own meal at Denny's
- 2 Judge scolds lawyer; Focus on two jailers
- 3 Shots fired into air at crowded QuikTrip parking lot
- 4 Facebook posts help Wichita police solve crimes
- 5 Wichita State knows senior-day loss would dampen MVC celebration
- 6 SEARCHABLE DATABASE: Daily booking report from Sedgwick County Jail
- 7 Fiery motorcycle crash on west Kellogg sends rider to hospital
- 8 Opinion Line (Feb. 24)
- 9 Miranda Lambert to play Intrust Bank Arena in April
- 10 'Sit-in' to protest Wichita school closings set for Friday



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City Seeks Public Input For Bicycle Master Plan

The council is trying to identify ways to make bicycling safer, easier and more convenient.

Reporter: KAKE News
Email Address: news@kake.com



Story 5 Comments

Tuesday, October 4, 2011 Font Size: [A] [A] [A]

Wichita leaders are asking for help as the City develops a new bicycle master plan.

The council is trying to identify ways to make bicycling safer, easier and more convenient. The plan will also create new facilities hoping to boost bicycling across Wichita. The council is considering the improvements after Wichitans rated bicycle travel "below satisfaction" in a recent survey.

The American Recovery and Reinvestment Act will help fund the project.

Concerned residents are being asked to take an online survey to identify their favorite routes. Meetings will also be held to provide more information on the proposed changes.

A bicycle master plan open house is scheduled at City Hall, 455 N. Main, from 4:30 to 7:30 p.m. Tuesday, Oct. 4.

[Click here to post or read all 5 comments.](#)

Related Links

- Bicycle Survey
- Bicycle Master Plan

More Stories

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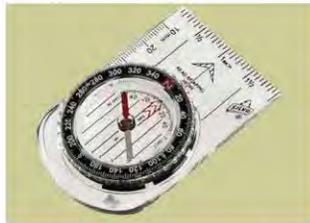
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The Compass

providing direction for Quivira Council scouts...

Calendar of Upcoming Events

- October Scouting For Food month
- October 14-16 Webelos Woods at Camp Kanza
- October 15 Climbing/Shooting Sports weekend event
- October 21-23 Southwinds Fall Camporee
- October 21-23 HP-WB Fall Camporee
- October 22 God and Country Retreat
- November 5 POW WOW Cub Scout Leader training
- November 12 Geocaching weekend event
- November 12 Rangemaster training event

Check the [Quivira Council Calendar](#) for more information!

Quick Links

- [Quivira Home Page](#)
- [Quivira Council Calendar](#)
- [BSA Health Form](#)
- [Quivira Council Camps](#)
- [Leave No Trace](#)
- [Scout Stuff](#)

In This Issue

- Popcorn
- QSR memorabilia
- Scouting for Food
- POW WOW
- Weekend Events
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- Jamboree website is live!
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- Rank Advancement policy
- Chess merit badge
- Catholic Religious Awards
- Habitat for Humanity
- Encampment 2013
- Wichita Bicycle Master Plan

[Click here to sign up for our electronic newsletter or to sign up for a specific area of interest!](#)

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Popcorn Show and Sell

Just a quick reminder that if your Pack, Troop, Crew, Team or Ship is planning to pre-order Trail's End Popcorn this year, the deadline to enter the order online is Monday, October 3, 2011.

Not participating in Show and Sell? Please disregard this email. It is being sent to every

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Wichita Bicycle Master Plan



The City of Wichita is creating a new Bicycle Master Plan and as a first step is asking Wichita residents to help identify ways to make bicycling safer, easier and more convenient. Below are links to an online survey that asks why you do and do not bike; and an interactive map where you can identify your favorite routes and locations that can be improved. The survey takes about 10 minutes or less to complete.

- Survey: <http://www.surveymonkey.com/s/BikeWichita>
- Interactive Map: http://communitywalk.com/Bike_Wichita

The City of Wichita Bicycle Master Plan will identify and prioritize strategies to provide new and enhanced bicycle facilities and increase both the number and frequency of people bicycling in Wichita. The plan will provide a framework and strategies for improving the connectivity, safety, comfort, and convenience of the bicycle network. To learn more about this civic initiative please visit the project website.

<http://www.wichita.gov/CityOffices/Planning/AP/Comprehensive/BicycleMasterPlan/>

In addition to the survey, there will be a public open house event on Tuesday, October 4th from 4:30 p.m. to 7:30 p.m. The Open House will be on the first floor of City Hall, 455 N Main. This will be a wonderful opportunity for scouts and their families to provide input, learn more about the process, and get involved in a civic project.

The scouts in Quivira know a lot about the existing bicycle facilities in Wichita, because of the more than 50 miles worth of rides needed for the cycling badge. It would be fantastic to get their input about bicycling in Wichita.

[Forward email](#)

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Wiz Words

By Delores Craig

Now we are really into the fall season. We are probably all slowing down. How many of you go with the trainer to keep you in shape for the winter? I have been reading about the pros and cons of indoor efforts to maintain fitness. All agree that no matter what your sport you do need to add in some weight bearing exercise for the sake of your metabolism and your bones. Both benefit. So think about making sure that is part of your routine for winter fitness.

On another note, I attended the open house to help with the process of developing a master plan for bicycling in Wichita. It was a great success. Those of us that worked the bike valet operation had plenty of bicycles to tend! I was impressed, and proud to see so many Ozzies there. It appears that the Wichita bicycling community is very vocal: the consultant said he had worked with many major cities and got the most input from Wichita. I was not surprised since we usually have something to say. There will be another open house to show off the draft of the plan, and that will be in late spring, probably May or June. Ben Scortino and Barry Carroll are both on the steering committee, so we should be able to keep up with events through them.

Finally, we are fast approaching the Christmas Party, which is award time and recognition of volunteers. Please let me know if you are due a patch for miles. We have patches for 1000 miles, 2500 miles, and 5000 miles. Since I have been to every ride I could find this year I am now above 6000 and expect to hit 7000. I feel a little obsessed with the miles and bicycling but it is still fun, so what the heck! How about your miles? Be sure to let me know I will bring all the patches and announce the different levels, so be ready to stand when it is your turn. Ditto for volunteers. I have noticed we have a faithful band of people who make Oz happen every year. Let's all take proper credit, and let's all thank those who work so hard. Thank you.

I went on Octoginta this weekend and noticed that almost no one said anything when they went past. I was hoping for a 'on your left' or something. It is common courtesy and safety demand that we call out (on your left) when we approach walkers or other bicyclists.

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COASTERS



Bicycle Club. Wichita, KS.

CoastersBicycleClub.com Virtual Club House for the CBC

News and Info on the Kustom/Classic Bicycle Scene and Casual Cycling in the Wichita area

Tuesday, November 22, 2011

Wichita Bicycle Master Plan Team Hits The Streets

From the City Of Wichita website...

The Wichita Bicycle Master Plan consultants recently had a great opportunity to see the fall colors in Wichita, as they traveled more than 1,200 miles collecting data about the Study Network roadways. The roadways were identified during the planning process as potential locations for future bicycle facilities. The data they collected includes width measurements, number of lanes, parking configuration and other information. This information will be used to help to create the Draft Bikeway Network, a recommendation for a feasible network of bicycle facilities that serves all parts of the City. Look for more information about the Draft Bikeway Network this spring.

Read more [here](#).

Posted by [Randy](#) in [Wichita Cycling News](#) at 20:33 | [Comments \(0\)](#) | [Trackbacks \(0\)](#)



Defined tags for this entry: [wichita bike news](#)

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Annual Event Web Sites

[Art of the Bicycle](#)

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Event Calendar

Fri, 02-24 - [Park City Chill](#)
Sat, 03-17 - [St Patrick's Parade \(22 Days\)](#)
Sat, 04-14 - [Coasters At Tulip Time \(50 Days\)](#)
Sun, 04-22 - [3rd Annual Midwest Bicycle Swap \(58 Days\)](#)
Sat, 06-23 - [Bikes And Bugs \(120 Days\)](#)
Thu, 08-30 - [Delano Bicycle Block Party \(188 Days\)](#)
Sun, 09-30 - [8th Annual Midwest Bicycle Fest \(219 Days\)](#)

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Latest Comments

Randy about [Photos From Believe In Christmas Event](#)
Fri, 12.23.2011

This evening I spotted 2 of the give-away bikes being ridden down the sidewalk. I knew they were the bikes because one was the boys and the other the girls and the girls still had streamers. Nice to know they are getting use.

Randy about [Elves Wanted!](#)
Thu, 12.08.2011

Yes assembly will be done indoors. I believe the only time spent outdoors will be loading them into trucks.

Ward about [Elves Wanted!](#)
Thu, 12.08.2011

Will we be working outdoor? Thanks.

Randy about [Elves Wanted!](#)
Wed, 12.07.2011

I'm sure that's fine. They'll also need help loading bikes into trucks. I had forgot to post that they are also assembling bikes on Sunday beginning at 1:00pm. I just updated the post.

grillmaster nitch about [Elves Wanted!](#)

Wed, 12.07.2011
I have to work, but sine its going on till 6pm, I might drop by after work and jump in, assuming thats ok?

Wichita Weather



Wind direction:



North/Northwest at 18.41 mph

Subject: Don't go to the doctor? Really?

Having trouble viewing this email? [Click here](#)



Health & Wellness Coalition of Wichita

December, 2011

Dear Debbie,

Recently I heard about an employer that was discouraging their employees from using their health benefits. They were trying to educate their employees on why their health insurance premium was increasing. I understand what they were trying to do but the thinking and message was inaccurate. Health care costs keep getting more expensive but instead of discouraging usage we need people to see their physician regularly for preventive care. It costs a lot less to go see your doctor for a checkup to find out you have high blood pressure (and get a prescription for medication) then it is for someone to have a heart attack, go by ambulance to the hospital and have open heart surgery. Ching, ching! Also, it's much cheaper to go to your doctor and find out you are pre-diabetic then to be rushed to the ER because you've lost your vision; now you are diabetic. A colonoscopy procedure is much cheaper than cancer treatment. It's not about using your health benefits. It's about how you use your health benefits. Prevention is the key, pure and simple. Get checked, follow your doctor's advice, take your medications and costs will begin to fall. Oh, and healthy eating and exercise won't hurt either.

Merry Christmas and Happy New Year from all of us with the Health & Wellness Coalition!

Toole Design Group Travels Wichita



The Wichita Bicycle Master Plan consultants recently traveled more than 1,200 miles collecting data about Wichita roadways in order to help identify potential locations to include in the Draft Bikeway network. You can learn more about this and other exciting bicycling related initiatives (TransitTalks.com, WAMPO Safety Plan, WAMPO Regional Pathway System Plan) by clicking on the Wichita Bicycle Master Plan link above.



Wellness Supports Company Culture



If you want to fully engage your employees in your worksite wellness program-you have to make them feel supported and connected to the company culture. [Click here](#) for the most popular resources for surveying employees to help you

fiveChild Care Providers Receive Award



Twenty three child care providers from the Wichita area received an award for their efforts and dedication to the mini-grant program, Starting Fit with Child Care. Providers served five servings of fruits and vegetables every day, reduced screen time to just 30 minutes/day and allowed at least 60 minutes/day of active play for the children. For complete information on Starting Fit [click here](#).



Eat Smart Play Hard Wichita!



Kansas schools, including Wichita, are featured in the Eat Smart, Play Hard newsletter. [Click here](#) to learn about the healthier Kansas menus and what is happening with physical

Coalition Receives Shopping Matters Grant



HWC has received a grant from Share Our Strength to hold supermarket tours in January and February 2012. These tours are designed to show area families how to make healthy choices at the store on a limited budget. During the tour, dubbed *Shopping Matters*, participants will get plenty of hands-on practice as they learn how to compare unit prices, purchase fruits and vegetables on a budget, compare food labels, and pick out whole grains. More information is coming in January, 2012.

Transit Talks



Wichita Transit wants to hear from you. [Click here](#) to join the conversation. Good ideas have already surfaced. Let your voice be heard too.

done if you want to build a healthy, supportive culture in your organization.



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Wichita 'Better Block' event planned for more bike friendly streets

Wichita officials plan an event to make an area downtown more bike friendly.

More KWCH Top Videos Videos



Noon Update: James... (02:25)

Rodney's Friday... (02:00)

Mark's Friday... (02:00)

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Noon Update: James Rowray takes the stand
Rodney's Friday afternoon forecast (02:00)
Mark's Friday morning forecast (02:00)
Bruce's Friday morning sports wrap (03:01)

Top Sports Videos



Bruce's Friday morning sports wrap
Rising Star: Goddard's Tylor Woodruff (01:41)
KU gets ready for Mizzou (02:36)
Shockers get ready for Drake (03:16)

Klose Up: Eyewitness News...



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The BWA Commuter

Headline



Members and Friends,

Planning for the "[Ride the Divide](#)" film screening has been going very well. A huge THANK YOU to all the sponsor below, as well as the individuals and businesses that have offered to assist in promoting the event.

TICKETS

Tickets are selling fast. But don't worry. There are plenty to go around. Tickets will be available at the door, but if you want to avoid a line, check with our sponsors....you can get tickets currently at The Bicycle X-Change, The Bicycle Pedaler and Heartland Bicycle. Tickets will soon be available at Johnson's Garden Centers (W. 13th Location beginning Monday), and we're working to get tickets to all other sponsors. KMWU will be giving away tickets, so members will have a chance soon: watch your email next week.

RAFFLE

Many of the fine sponsors listed below have graciously donated a great lineup of prizes to raffle. Every attendee gets a ticket to win a prize. The list keeps growing, so your chances are getting better day by day!

BETTER BLOCK EVENT

The [City of Wichita](#) is participating in an event called [Better Block](#), which will ultimately transform a section of Douglas Avenue in one day. The project coordination and question/answer session for this event is scheduled to be the same day as the Ride the Divide screening. We are partnering with the City of Wichita and Better Block to get lots of our members and friends to attend. This event will be such a great project for Wichita, and is a huge step in the right direction to becoming a safer and better place to run, walk and bike. Please make an attempt to join the Better Block event, and then head over to the Murdock Theatre for a great film.

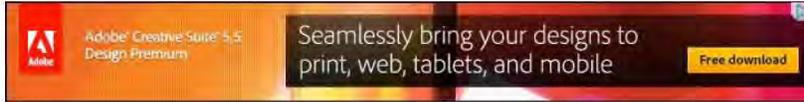
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What will it take to get you riding a bike in Wichita?

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- Link: Survey on Biking In Wichita

By Kim Hynes
KWCH 12 Eyewitness News
9:58 p.m. CDT, September 1, 2011

(WICHITA, Kan.)— What keeps you from riding a bike to work, school or just for fun? That's what the City of Wichita wants to know. It's trying to find ways to make

the city more bike friendly.

It's an effort some cyclists welcome. They meet a few times each week to ride the streets of Wichita. "I certainly think Wichita could do better as far as bike lanes and just being biker friendly," said Tony Bontz. For instance, he says most Wichita roads don't have shoulders so cyclists are forced to take up a driving lane. "If I had a shoulder to ride on to be safe I'd much prefer that," he said.

That's the kind of detail the city wants to know. It launched an on-line survey to get opinions on how to make Wichita a better place for cyclists. "We don't want to guess at what people want, we really want to hear from them," said Barry Carroll with the Bike Walk Alliance of Wichita. The city will take the input and put together a bicycle plan so one day there will be more than the hard core cyclists on the road. "Your average cyclists, families and children could get on the bike lanes and be safe," Carroll said.

The survey will be available through October 21st.

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Wichita plans for more "bike friendly" streets

February 17, 2012 | By Melody Pettit | KWCH 12 Eyewitness News

(WICHITA, Kan.) —

24-year old Kenzie Brister loves riding her bike but knows just how dangerous it can be, especially in Wichita.

"There are not very many bike lanes and only a few paths, none that go east and west," Brister said.

That's why she's excited about the cities plan for a "better block" event.

It's fad that's popping up all over the country that involves one block that is completely transformed into a trendy destination; one that's specifically bike and pedestrian friendly.

"We like to focus on a single block and put all our energy into how can we change this and make this into a vibrant and exciting destination," said Team Better Block's Jason Roberts.

The transformation will happen at Douglass and Hydraulic. While it will only be temporary, local bikers hope Wichita officials will consider making them permanent.

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The "Better Block" event will be April 27th and 28th but there will be a series of community meetings before then to get people involved in the project.

The first meeting will be March 9th at 6 in the evening.

Wichita city leaders are holding a public meeting Friday to talk about an upcoming "Better Block" event, designed to temporarily transform and improve a street in Wichita.

The street transformation will occur this spring as part of the Wichita Bicycle Master Plan, which aims to make local bicycling easier, safer and more convenient. The meeting will include a presentation on how an area can be improved with enhanced bicycle, pedestrian and transit access - mixed with art, culture, pop-up businesses, and street life.

• [Click Here to Read the Master Plan](#)

The Bicycle Master Plan will identify and prioritize strategies to provide new and enhanced bicycle facilities and increase the number and frequency of people bicycling in Wichita. It will also provide a framework and strategies for improving the connectivity, safety, comfort, and convenience of the bicycle network.



[Back to web version](#)

Thursday, July 5, 2012

Posted on Fri, Apr. 27, 2012

Better Block event to transform intersection at Douglas, Hydraulic

By Fred Mann
The Wichita Eagle

The intersection of Douglas and Hydraulic near downtown Wichita will be temporarily transformed this afternoon for a two-day Better Block event.

The area will be made more friendly for bicycle, pedestrian, and transit traffic, mixed with public art, culture, pop-up businesses and street life.

The Better Block event is part of Wichita's bicycle master plan, intended to make getting around on a bicycle safer, easier and more convenient.

The event will be held from 4 p.m. to 9 p.m. today, and from 9 a.m. to 1 p.m. on Saturday.

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Wichita closer to completing bicycle master plan

Published: 5/01 9:03 pm

Updated: 5/01 10:15 pm

WICHITA, KANSAS – Wichita bicyclists have been asking for more and safer bicycling routes, and it looks like they will get them, as the city comes a step closer to finalizing the bicycle master plan.

Glenn Mertes is closely watching the developments of the city's bicycle master plan, and with good reason.

"I was riding up Seneca Street one time and got hit by one car, and about got hit by another one on the same day," said Mertes, a member of the Wichita Coasters Bicycle Club.

For years, Mertes and other bike riders have been working towards a more bike friendly neighborhood to help keep accidents like his from happening.

Tuesday, the bike community got a look at the proposed bicycle facility addition and voted on the ones they would like to see.

"We'll take that information back to the steering committee and they will review, and then take that into consideration," said Scott Wadle, a senior planner.

Right now, the city has 60 miles of facilities like the bike path near the Keeper of The Plains. It's a popular spot, but some say it's still not enough.

"We can use some more for transportation, and not just recreational," said Vicky Hastings, a cyclist.

The proposed additions include bike boulevards, shared lanes, road shoulders, bicycle lanes, and side paths, just to name a few.

"Some of these other paths are going to be great, really great additions," said Mertes.

City officials say the overall goal is to increase cycling, improve safety, and promote the culture.

A Better Block event in Wichita last week was an example how all of those things could change the face of the city.

"Anything that gets people out and involved in the community will all be great," said Michael Scanga, owner of Bicycle X-Change Shops in Wichita.

Bicyclists say opening up more pathways will open up more opportunities.

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WICHITA BICYCLE MASTER PLAN
OPEN HOUSE
 Tuesday, May 1, 2012
 Wichita City Hall
 455 N. Main Street, 1st Floor
 4:30 PM to 7:30 PM

Wichita Bicycle Master Plan Open House Event #2

Public Event · By City of Wichita

Tuesday, May 1, 2012 4:30pm until 7:30pm

Help make bicycling safer, easier, and more convenient - review the draft Wichita Bicycle Master Plan. The open house will be an opportunity for you to review the recommended bikeway network maps, funding strategies, and draft plan text. The event format is come and go, so stop by anytime during the event. A presentation will be provided at 6:00 p.m.



1st Floor Board Room, Wichita City Hall
 455 N. Main Street, Wichita, Kansas
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Going (1)

 Scott Wadle

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Wichita Better Block
 Saturday, April 28, 2012
 9:00am until 1:00pm
 Douglas Avenue - Hydraulic Avenue to Minneapolis Street

Wichita Better Block - Saturday - Douglas and Hydraulic

Public Event · By City of Wichita

Saturday, April 28, 2012 9:00am until 1:00pm

Douglas Avenue - Hydraulic Avenue to Minneapolis Street

Experience the temporary transformation of Douglas Avenue as a more bicycle, pedestrian, and transit friendly street.

- Ride your bicycle in the bike lanes
- Relax with sidewalk seating
- Experience public art
- Discover enhanced crosswalks
- Enjoy an assortment of dinign and shopping opportunities
- Admire the enhanced night time lighting

For more information or to take part, visit: <http://wichita.teambetterblock.com/>

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Going (10)



Maybe (4)



Invited (49)



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Wichita Better Block Community Walk

Public Event · By City of Wichita

Thursday, March 8, 2012 5:30pm until 6:30pm

Intersection of Douglas and Kansas (one block east of Hydraulic)

The Community Walk is a Better Block event and is also part of the Wichita Bicycle Master Plan. During the walk participants will discuss ideas on how to make the area more bicycle friendly and make plans for the Better Block event this spring!



Donna Goltry

very exciting

March 5 at 8:35pm



City of Wichita

Make plans to attend the Wichita Better Block Community Walk on March 8th!

March 5 at 7:26am



City of Wichita

The City is planning a Better Block event! We need your help to temporarily transform a street in Wichita. The idea is to show people what a permanent street transformation might look like. Other cities have participated in this event and it seems really cool! If you want to learn more come to an informational meeting from 4:30 – 6:00 p.m. tomorrow night in the first floor board room at City Hall! Hope to see you there!



Like · Comment · February 16 at 2:24pm · 🌐

Cherrie L. Hill, Joanna Hoffman Taylor, Scott Wadle and 6 others like this.

2 shares

 **Robert Trowbridge** what street is being transformed?
February 16 at 5:49pm

 **City of Wichita** Douglas at Hydraulic
February 22 at 11:09am

 **Douglas Design District** Can't wait!!!
March 5 at 8:06am

 **Richard Moreno** thank you Wichita for thinking ahead. Oh and thanks for the dodosapient lecture everyone should see this.
March 9 at 12:55pm



City of Wichita

Where's your favorite place to bike in Wichita? Did you know planning and developing bicycle facilities goes back more than 40 years? The Wichita Bicycle Master Plan team is keeping the momentum going!! Learn more at <http://wichita.gov/CityOffices/Planning/AP/Comprehensive/BicycleMasterPlan/>



City of Wichita - Bicycle Master Plan Main

wichita.gov

Upcoming Events No upcoming events are currently scheduled. We anticipate that the draft Plan will be available for review during the Spring of 2012.



Like · Comment · December 9, 2011 at 12:56pm ·

Linda Graber, Cheryl Cardinale and Ronn Houtz like this.



Jason Steele And with government it'll take another40

December 9, 2011 at 1:08pm · 1



Van Randall I enjoy all of the City's paths. Too bad it took 40 years to get to this point. When is the Redbud Trail going to be complete?

December 9, 2011 at 2:22pm · 1



City of Wichita Hi Van - the Planning Dept. staff told us they expect final plans for the Redbud Trail to be submitted in March and the construction should be completed in the Fall of 2012.

December 12, 2011 at 7:41am · 1



Van Randall Thank you. I hope to see the Redbud developed in to Butler County in my life time.

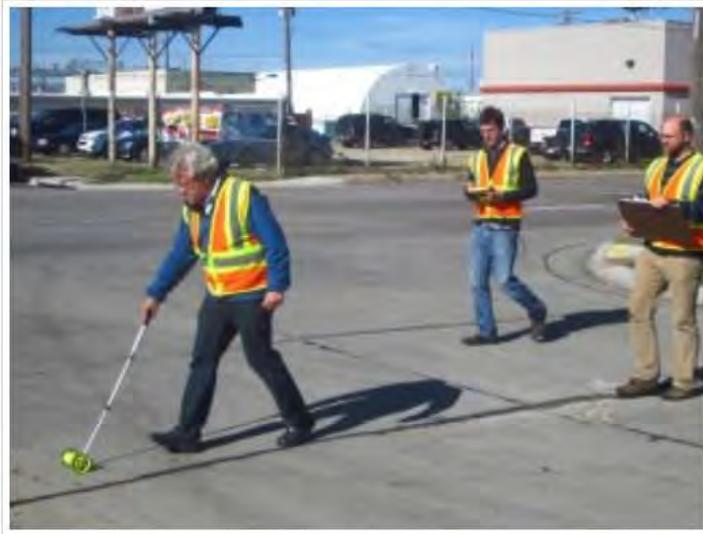
December 12, 2011 at 8:04am



City of Wichita

The Wichita Bike Master Plan team recently traveled more than 1,200 miles surveying the streets! Check out this link to learn more about those efforts and other community initiatives related to bicycling in Wichita.

<http://wichita.gov/CityOffices/Planning/AP/Comprehensive/BicycleMasterPlan/Announcements/TooleDesignGroupTravelsWichita.htm>



Like · Comment · November 23, 2011 at 8:03am ·

Linda Graber, Robert Schneider and Scott Wadle like this.



City of Wichita

Keep up the good work Wichita! Last week the Wichita Bicycle Master Plan Survey reached 1000 survey responses, the most ever recorded by the project consultant Toole Design Group. If you haven't filled out the survey you can access it here: <http://www.surveymonkey.com/s/BikeWichita>. The survey will be available until October 21, 2011.



Like · Comment · September 29, 2011 at 11:58am ·

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WICHITA BICYCLE MASTER PLAN

OPEN HOUSE

Tuesday, October 4, 2011
Wichita City Hall
415 N. Main Street, 1st Floor
8:00 PM to 7:00 PM

Going (8)



Maybe (2)



Invited (42)



Wichita Bicycle Master Plan

Public Event · By City of Wichita

Tuesday, October 4, 2011 4:30pm until 7:30pm

Help make bicycling safer, easier, and more convenient - share your ideas and priorities for the new Wichita Bicycle

Master Plan. The open house will include a presentation at 6:00 p.m. and opportunities for participants to:

- prioritize goals and objectives;
- provide l...See More





City of Wichita

Help enhance Wichita's status as a bike-friendly city by weighing in on a new Bicycle Master Plan on Tuesday at City Hall.



City of Wichita - City News City Seeks Public Input for Bicycle Master Plan

www.wichita.gov

The City of Wichita is creating a new Bicycle Master Plan. As a first step, the City is asking Wichita residents to help identify ways to make bicycling safer, easier, and more convenient. Today, the City launched an online survey that asks residents why they do and do not bike; and an interactive m...

Like · Comment · October 3, 2011 at 1:54pm ·



City of Wichita

Learn more about the planning efforts to make bicycling in Wichita safer and more convenient! Check out the Wichita Bicycle Master Plan project at <http://www.wichita.gov/CityOffices/Planning/AP/Comprehensive/BicycleMasterPlan/>



City of Wichita - Bicycle Master Plan Main

www.wichita.gov

Upcoming Events Tentative October Public Open House EventGet InvolvedYou can stay updated about the Wichita Bicycle Master Plan in the following ways: 1. Check out this website for the latest information 2. Check the City of Wichita Facebook page 3. Register for project updates using the my...

Like · Comment · August 18, 2011 at 10:04am ·

Delano Wichita
Delano Neighborhood
News

Delano Bike Path meeting

Posted on July 7, 2012 by DelanoWichita

The Delano Bike Path – the former rail corridor that runs from McLean south of the new library site to Seneca between Joe’s and McDonald’s – has become an important project to diverse groups in and around Delano. WPD would like to solve the graffiti/blight problem along the backs of businesses there. Downtown Delano businesses would like to see the higher-speed “through” traffic routed away from their doorsteps, and the additional parking at the Seneca end (an 86-space public lot is part of the project). Cyclists would like to see more bike paths. Friends University would like to see improved parking and transit options at their new off-campus art department. Delano residents would like to see more park/greenspace (it’s a walking path as well, a sort of linear park).

Planner Scott Wadle will be at the July DNA meeting to explain Wichita’s overall bicycle plan and how Delano fits into it. Join us Tuesday, July 17 at 7 pm at West Side Christian, 1819 W. Douglas. If you ride your bike, you can lock up on the northeast corner of Douglas and Vine, at Wichita Transit racks and Delano racks.

This entry was posted in [Businesses](#), [Neighbors](#), [Visitors](#) and tagged [bicycle](#), [bike path](#), [bike racks](#), [dna](#), [parking](#), [west side christian](#). Bookmark the [permalink](#).

Monday, July 23, 2012
Posted on Sun, Jul. 22, 2012

Events aim to boost Douglas Design District's profile

By Denise Neil
The Wichita Eagle

Old Town and Delano have become hubs of artsy, musical hipness over the past several years — aided in part by the Final Friday gallery crawl that draws big crowds downtown on the last Friday of every month.

Now, another near-downtown neighborhood on the rise is looking to join the cool kids club.

The Douglas Design District, which stretches along Douglas from one block east of Oliver to Washington, is developing a reputation as a fun place to mingle, dine on doughnuts and soup and listen to music. It's a particularly interesting development, say business owners in the area, considering that just a few years ago, it was considered a place no one would — or really should — venture to after dark.

But now, store owners are banding together to help capitalize on energy created last spring at the Better Block Party, an event that drew 2,500 people to Douglas between Kansas and Hydraulic and featured food, music and frivolity. The event was designed to show how the Douglas Design District — named because of the nearly 40 home-design shops it also houses — could work and feel if it were designed to be more pedestrian- and bicycle-friendly.

“The block party built the momentum of these people, and there's kind of a little tribe of us in the Design District who are willing and able to establish ourselves as a part of Wichita, like Delano and Old Town,” said Maureen Masters, a spokeswoman for the area. “We are establishing our identity.”

Masters, an old friend of Donut Whole co-owner Michael Carmody, has been charged by the Douglas Design District board with increasing its profile, and so far, she's put together a long list of Final Friday events that she hopes will make the area, a three-mile stretch that includes more than 300 locally owned businesses, as well known as its near-downtown counterparts.

She'll start this week with a Final Friday event that will include an unveiling of a new mural, created by artist Jonathan Clark on a wall adjacent to the Donut Whole's parking lot at 1720 E. Douglas. (Read a recent article about Clark and his artistic family attached to this story at Kansas.com/entertainment.) The event also will include live music, though Masters hasn't settled on an exact location for that. (Check Friday's GO! section for more details.)

The events will continue every Final Friday through the end of the year and will include a food truck rally in September and a Rock Paper Scissors tournament in November.

Masters hopes that Final Friday attendees will begin to view the district as the "gateway to Final Friday" and that they'll patronize the businesses — Tanya's Soup Kitchen, The Donut Whole, Mike's Wine Dive, The Anchor and more — before and after participating in official Final Friday events.

The district, Masters said, really came to life after The Donut Whole — a 24-hour doughnut shop that features all-ages shows — opened in 2009. Tanya's Soup Kitchen reopened right across the street last year, giving the area a whole new energy. Now, the street boasts a long list of high-profile businesses, including the new Guitar Works shop next door to the Donut Whole. It also includes several tattoo parlors, Abode Venue, Aspen Boutique, Margarita's Cantina, the Crown Uptown, the Spice Merchant, Clifton Square and star/Wichita native Kirstie Alley's residence.

Carmody remembers that when he and partner Angela Mallory planned their business, he told people it would be part doughnut shop and part community center, and that's what it's become, he said.

"We're big on this neighborhood," Carmody said. "We've watched it turn around in big ways the past few years, and we're proud of that."

Reach Denise Neil at 316-268-6327 or by e-mailing dneil@wichitaeagle.com.

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Read more here: <http://www.kansas.com/2012/07/20/v-print/2416669/events-aim-to-boost-douglas-design.html#storylink=cpy>



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City council receives master plan for bicycles

By George Lawson
CREATED JUL 24, 2012

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The Wichita city council has seen the first draft of a 10-year master plan for bicycle use in the community. The plan was developed by a 19-member steering committee that used online surveys and other methods to get input from the community, and the plan was presented to the council during a workshop meeting Tuesday.

The plan calls for bike lanes, lane markings, shared pathways and other improvements to improve bicycle travel and safety across the city. Scott Wadle with the city's planning department says 60 percent of the people responding to an online survey expressed an interest in bicycling, but safety is their big concern.

The development of shared use pathways for cars and bicycles would have the biggest cost, at around \$650,000 per mile. Bike lanes with parking areas would have the lowest cost, at \$28,000 per mile. The plan is suggesting

\$500,000 in the city's capital improvement plan every other year for bicycle projects, and the city would also go after federal grants.

Vice mayor Janet Miller, who served on the steering committee, said it's a realistic plan with projects that can be accomplished in the next 2 or 3 years.

The plan will be taken to the city's district advisory boards, neighborhood associations and other community groups for more input. It could come back to the city council in November for approval.

Subject: Don't go to the doctor? Really?

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Health & Wellness Coalition of Wichita

December, 2011

Dear Debbie,

Recently I heard about an employer that was discouraging their employees from using their health benefits. They were trying to educate their employees on why their health insurance premium was increasing. I understand what they were trying to do but the thinking and message was inaccurate. Health care costs keep getting more expensive but instead of discouraging usage we need people to see their physician regularly for preventive care. It costs a lot less to go see your doctor for a checkup to find out you have high blood pressure (and get a prescription for medication) then it is for someone to have a heart attack, go by ambulance to the hospital and have open heart surgery. Ching, ching! Also, it's much cheaper to go to your doctor and find out you are pre-diabetic then to be rushed to the ER because you've lost your vision; now you are diabetic. A colonoscopy procedure is much cheaper than cancer treatment. It's not about using your health benefits. It's about how you use your health benefits. Prevention is the key, pure and simple. Get checked, follow your doctor's advice, take your medications and costs will begin to fall. Oh, and healthy eating and exercise won't hurt either.

Merry Christmas and Happy New Year from all of us with the Health & Wellness Coalition!

Toole Design Group Travels Wichita



The Wichita Bicycle Master Plan consultants recently traveled more than 1,200 miles collecting data about Wichita roadways in order to help identify potential locations to include in the Draft Bikeway network. You can learn more about this and other exciting bicycling related initiatives (TransitTalks.com, WAMPO Safety Plan, WAMPO Regional Pathway System Plan) by clicking on the Wichita Bicycle Master Plan link above.



Wellness Supports Company Culture



If you want to fully engage your employees in your worksite wellness program-you have to make them feel supported and connected to the company culture. [Click here](#) for the most popular resources for surveying employees to help you

fiveChild Care Providers Receive Award



Twenty three child care providers from the Wichita area received an award for their efforts and dedication to the mini-grant program, Starting Fit with Child Care. Providers served five servings of fruits and vegetables every day, reduced screen time to just 30 minutes/day and allowed at least 60 minutes/day of active play for the children. For complete information on Starting Fit [click here](#).



Eat Smart Play Hard Wichita!



Kansas schools, including Wichita, are featured in the Eat Smart, Play Hard newsletter. [Click here](#) to learn about the healthier Kansas menus and what is happening with physical

Coalition Receives Shopping Matters Grant



HWC has received a grant from Share Our Strength to hold supermarket tours in January and February 2012. These tours are designed to show area families how to make healthy choices at the store on a limited budget. During the tour, dubbed *Shopping Matters*, participants will get plenty of hands-on practice as they learn how to compare unit prices, purchase fruits and vegetables on a budget, compare food labels, and pick out whole grains. More information is coming in January, 2012.

Transit Talks



Wichita Transit wants to hear from you. [Click here](#) to join the conversation. Good ideas have already surfaced. Let your voice be heard too.

done if you want to build a healthy, supportive culture in your organization.



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Health & Wellness Coalition of Wichita | 402 N Market | Wichita | KS | 67202

Bicycle enthusiasts will be updated on master plan

Published: 8/28 5:21 pm

Updated: 8/28 5:22 pm

WICHITA, Kansas -- Bicycle enthusiasts in Wichita will find out more about the city's master plan.

It should include more bicycle lanes and paths.

In May, the bicycle community got a look at the proposed additions and voted on the ones that they wanted to see included in the plan.

Since then, a steering committee has been working to include those changes and improvements.

The meeting is scheduled for Wednesday from 6 p.m. to 8:30 p.m. in the city council chambers.

We Recommend

[Shots fired for the third weekend in a row in Old Town \(KSN\)](#)

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Will Wichita spend millions on bike routes?

Reported by: Craig Andres

Email: candres@ksn.com

Published: 8/29 8:37 pm

Updated: 8/29 10:19 pm

Wichita, Kansas -- Wichita has a master plan to add a lot for cyclists. It's big bucks and the city has big plans. Will it fly with the public?

"It's going to be tough to say. Money's pretty tight now but money's available for this and so let's use it and make it because gas isn't going to get cheaper," says cyclist Gary Vreeland.

Vreeland is one of several who stopped by city hall Wednesday night to check out the city plan, and give some input.

"We've got a real good opportunity here and we want to make the most of it," said Vreeland at the meeting.

The plan is to add more to the bicycle network.

"Number one, they (cyclists) want to be safe from motor vehicles and this plan helps," explained Scott Wadle.

Wadle is the Senior planner with the Wichita-Sedgwick County metro planning department.

"This will make it easier, safer and more convenient to get around on two wheels," said Wadle.

The plan is to go from about sixty miles of bike paths and lanes, to around two hundred.

The cost will be about \$12.5 Million over ten years.

"The plan recommends using existing funding that's already in capital improvement plan for the city," explains Wadle. "There's approximately \$500 thousand every other year for bike enhancements. And over the course of the next ten years, if we can leverage funding from the (federal) government, we could have that \$12.5 Million."

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APPENDIX G

TECHNICAL GUIDANCE



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Off-Street versus On-street Bicycle Facilities: Choosing an Appropriate Facility Type

The bikeway design options in the Wichita Bicycle Master Plan (Plan) include bicycle lanes, shared lane markings, paved shoulders, bicycle boulevards, side paths (shared use paths that parallel a roadway) and shared use paths. The design guidelines for side paths and shared use paths are the same.

The draft 2012 AASHTO Guide for the Development of Bicycle Facilities (draft AASHTO Guide) provides guidance for the best application of these facilities. While they are not strict rules, they provide a good starting point and have been used in the development of Plan recommendations.

Multiple Facility Types on a Single Corridor

Corridors that effectively accommodate bicycles often combine multiple facility types, each type being used where appropriate. For example, a shared-use path can connect to a bicycle boulevard to create a continuous corridor. A corridor may start with bike lanes, travel along a bike boulevard, and then transition back to bike lanes.¹ Transitions between facilities should be functional, intuitive and as infrequent as possible. A good rule of thumb for designing transitions is that good engineering should invite good use. For example, a path that transitions to an on-street facility should transition a bicyclist to the correct side of the street thereby reducing the possibility of wrong-way riding.

Guidelines for Choosing an Appropriate Facility

The following guidelines, taken from the draft AASHTO Guide, were used to provide direction for selecting facilities as shown on the Wichita Bicycle Network Map.

¹Draft AASHTO Guide for the Development of Bicycle Facilities. 2012 (24).

Type of bikeway	Best use	Motor vehicle design speed	Traffic volume	Classification or intended use	Other considerations
Paved shoulders	Rural highways that connect town centers and other major attractors	Variable. Typical posted rural highway speeds (generally 40-55 mph)	Variable.	Rural roadways; inter-city highways	Provides more shoulder width for roadway stability. Shoulder width should be dependent on characteristics of the adjacent motor vehicle traffic, i.e. wider shoulders on higher-speed roads
Bike lanes	Major roads that provide direct, convenient, quick access to major land uses. Also can be used on collector roads and busy urban streets with slower speeds	Generally, any road where the design speed is more than 25 mph	Variable. Speed differential is Generally a more important factor in the decision to provide bike lanes than traffic volumes	Arterials and collectors intended for major motor vehicle traffic movements	Where motor vehicles are allowed to park adjacent to bike lane, ensure width of bike lane sufficient to reduce probability of conflicts due to opening vehicle doors and other hazards. Analyze intersections to reduce bicyclist/motor vehicle conflicts. Sometimes bike lanes are left “undesigned” (i.e. bicycle symbol and signs are not used) in urban areas as an interim measure
Bike boulevard	Local roads with low volumes and speeds, offering an alternative to, but running parallel to, major roads. Still should offer convenient access to land use destinations	Use where the speed differential between motorists and bicyclists is typically 15 mph or less. Generally, posted limits of 25 mph or less	Generally less than 3,000 vehicles per day	Residential roadways	Typically only an option for gridded street networks. Avoid requiring bicyclists to make frequent stops. Use signs, diverters, and other treatments so that motor vehicle traffic is not attracted from arterials to bike boulevards
Shared lanes (shared lane markings)	Space constrained roads with narrow travel lanes, or road segments upon which bike lanes are not selected due to space constraints or other limitations	Variable. Use where the speed limit is 35 mph or less	Variable. Useful where there is high turnover in on-street parking to prevent crashes with	Collectors or minor arterials	May be used in conjunction with wide outside lanes. Explore opportunities to provide parallel facilities for less confident bicyclists. Where motor vehicles allowed to park along shared lanes, ensure marking

			open car doors		placement reduces potential conflicts with opening car doors
Shared roadways (no special provisions)	Minor roads with low speeds and volumes, where bicycles can share the road with no special provisions	Speed differential between motorists and bicyclists is typically 15 mph or less. Generally, speed limits of 30 mph or less	Generally less than 1,000 vehicles per day.	Neighborhood or local streets	Can provide an alternative to busier streets in a gridded street network. On a non-grid network, may be circuitous or discontinuous
Shared use path: independent corridor	Linear corridors in greenways, or along waterways, highways, active or abandoned rail lines, utility rights-of-way, unused rights-of-way. May be a short connection, such as a pathway connector between two cul-de-sacs, or a longer connection.	n/a	n/a	Provides a separated path for non-motorized users	Analyze intersections to anticipate and mitigate conflicts between path and roadway users. Design path with all users in mind, wide enough to accommodate expected usage. On-road alternatives may be desired for advanced riders who desire a more direct facility that accommodates higher speeds

Additional Considerations - Side Path versus On-Street Facility

The Wichita Bicycle Master Plan includes recommendations for on-street bike lanes, shared lane markings, and off-street side paths (shared use paths). In addition to using the general guidance from the draft 2012 AASHTO Guide, the recommendations were developed with the following considerations in mind:

- Arterial continuity: Continuous facility types are recommended along arterials wherever possible to minimize the number of transitions. For example, if an arterial street already has a sidepath with a missing section, the recommendation will be to complete the missing section with a path, not an on-road facility.
- Frequency of driveways: Driveways can function as mini intersections. Arterials with a high frequency of commercial driveways are sometimes not the best location to install a sidepath, especially if there is room for an on-street facility. That said, there are some locations where an off-street facility with multiple driveways is still better than a high volume, high speed, and narrow lane roadway.
- Available Space: Sidepaths are only recommended where there is available right-of-way; and on-street facilities are only recommended where there is available pavement within the

improved portion of the right-of-way. The Plan does not recommend moving existing curbs to accommodate on-street bicycle facilities.

- Structures: The configuration of most structures such as bridges, and over and under passes cannot be significantly changed without extensive rehabilitation and expense. Consequently, the decision to install an on- or off-street facility will usually be determined by the existing cross section – i.e. a sidepath must connect to a sidepath on the bridge; bike lanes on the street should connect to bike lanes on the bridge. Bicyclists should not be encouraged or expected to cross busy arterials at non-signalized locations to access bridge facilities as would be the case if bicyclists were riding on-street with the flow of traffic and a bicycle facility was provided on only one side of the bridge.
- Directness of Route: Bicyclists will often ignore routes that require multiple turns or add significant distance. In some cases, adding a sidepath as opposed to an on-street facility allows for more direct connections, especially short path connections that help avoid busy intersections or other barriers.

On-Street Bicycle Facility Design Approach

The following guidelines are a supplement to the MUTCD Part 9: Traffic Control for Bicycle Facilities and the AASHTO *Guide for the Development of Bicycle Facilities*. They are not design standards, and should not be used as such. Application of guidance provided in this document requires the use of professional engineering judgment when installing bicycle lanes, shared lane markings and other bicycle facilities.

Bicycle Lanes

The minimum width for a bicycle lane between a parking lane and a travel lane is 5 feet. The inside bicycle lane line (parking lane line) should be located 7 to 8 feet from the face of the curb or roadway edge. Generally, a narrower parking lane is desirable to encourage motorists to keep the vehicle as close to the edge of the roadway as possible to maximize the available travel lane width, which will improve the bicyclist's level of comfort on the roadway.

The minimum width of a bicycle lane next to a curb (no parking) is 5 feet from the face of curb, but the bike lane must also be at least 3 feet from the joint between the gutter pan and the road pavement (4 feet preferred). In general, bicycle lanes should be no wider than 6 feet to discourage motor vehicles from using them as a travel lane. Bicycle lane lines should not be extended through a marked crosswalk.

Bicycle lanes should be one-way facilities and carry bicycle traffic in the same direction as adjacent motor vehicle traffic. Two-way bicycle lanes on one side of the roadway are not recommended when they result in bicycles riding against the flow of motor vehicle traffic.

Considerations for Use of Dotted versus Solid Bicycle Lane Lines

Solid lines should be used at all locations where through moving motorists are to be discouraged from entering the bicycle lane. Parking motorists may cross the solid line as necessary to park their vehicle.

Dotted lines (2-foot lines with 4-foot gaps) should be used to demarcate areas where motorists are likely or are to be encouraged to merge into or across the bicycle lane for turning movements. Dotted lines should be used 50-200 feet in advance of intersections where motorists are permitted to turn right. Green bike lanes (not in AASHTO), when used, are often placed within the dotted merge area. Where there is a parking restriction in advance of an intersection, including bus stops, the dotted line should be continued through the parking restriction. The dotted line should generally discontinue at the crosswalk or back edge of the perpendicular street sidewalk if a crosswalk is not present on the near side of an intersection. On the far side, the dotted line should become a solid line at the back edge of the sidewalk or the tangent point of the curb radius (whichever is larger). A dotted line through an intersection may be desirable to provide additional guidance through intersections where bicyclists must cross more than 4 lanes of traffic or cross uncontrolled intersections of any width. Finally, dotted lines may be used through minor intersections where the side streets are stop controlled.

Considerations for Bicycle Lane Symbol Placement

The bicycle lane bicycle with rider symbol with an arrow should be used to identify bicycle lanes. Typically, the bike lane arrow and rider symbol should be located within the center of the bike lane. To reduce wearing, bicycle lane symbols are typically not located within dotted bike lanes; however, it may be desirable to place bicycle lane symbols within dotted lines at locations of frequent conflicts between merging motorists and through-moving bicyclists.

Considerations for Bicycle Lane Symbol Placement Frequency

Bicycle lane symbols should be placed at the far side of an uncontrolled intersection, at both sides of an arterial intersection with traffic control, and at mid-block locations where block faces are more than 250 feet. Where there are marked crosswalks, the tip of the bicycle lane symbol should be placed 25 feet beyond the far side of the marked crosswalk. The frequency of placement of a bicycle lane symbol will depend on a number of factors, including the following:

- Visibility to motorists and bicyclists (markings should be placed to take into account changes in topography or not be blocked by overhanging vegetation or signs when looked at from a distance).
- Generally, the markings should be located in accordance with the proposed guidelines (far side of intersections; then mid-block if block faces are more than 250 feet long).
- Generally the markings should not be located adjacent to each other when located mid-block. It is recommended that they be separated by a minimum of 20 feet.
- Markings may be adjusted from the above dimensions to stay out of the wheel track of turning vehicles to lengthen lifespan.

Bicycle Lanes and Right Turn Lanes

The following figures illustrate several scenarios in which bicycle lanes are integrated into a roadway with dedicated right turn lanes. It is recommended that the transition for tapering centerlines and travel lanes (moving the lines gradually to the right or the left) to create space for bicycle lanes follow standard MUTCD and AASHTO practices.

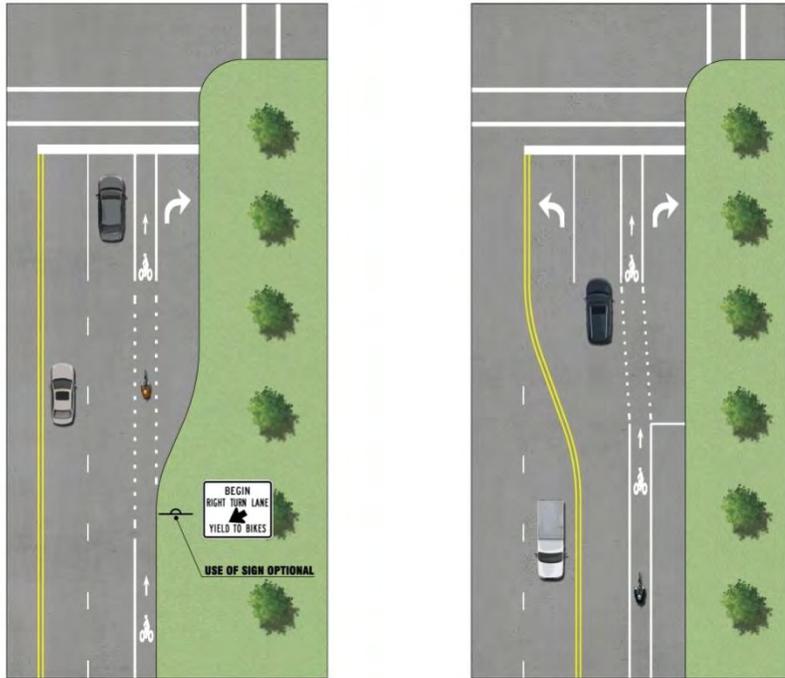


Figure: Examples of bike lanes approaching right-turn only lane (with and without parking)

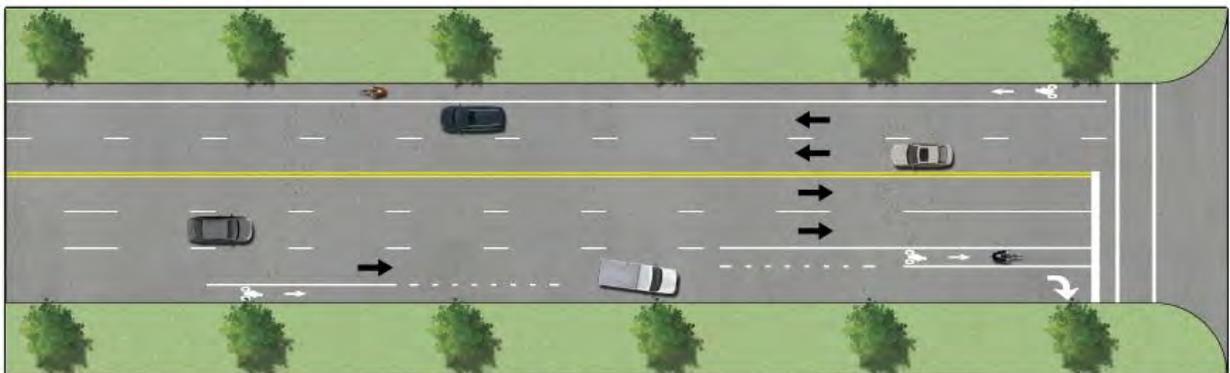
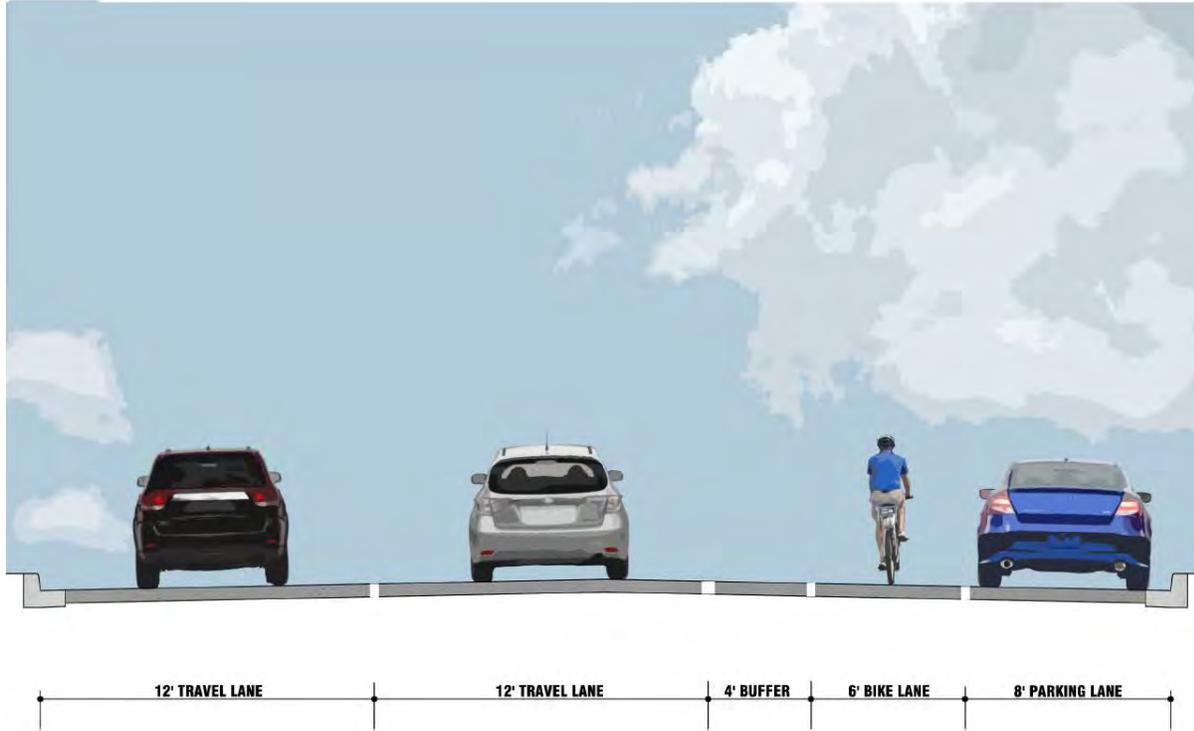


Figure: Example of Bike lane with through lane transitioning to the right-turn only lane

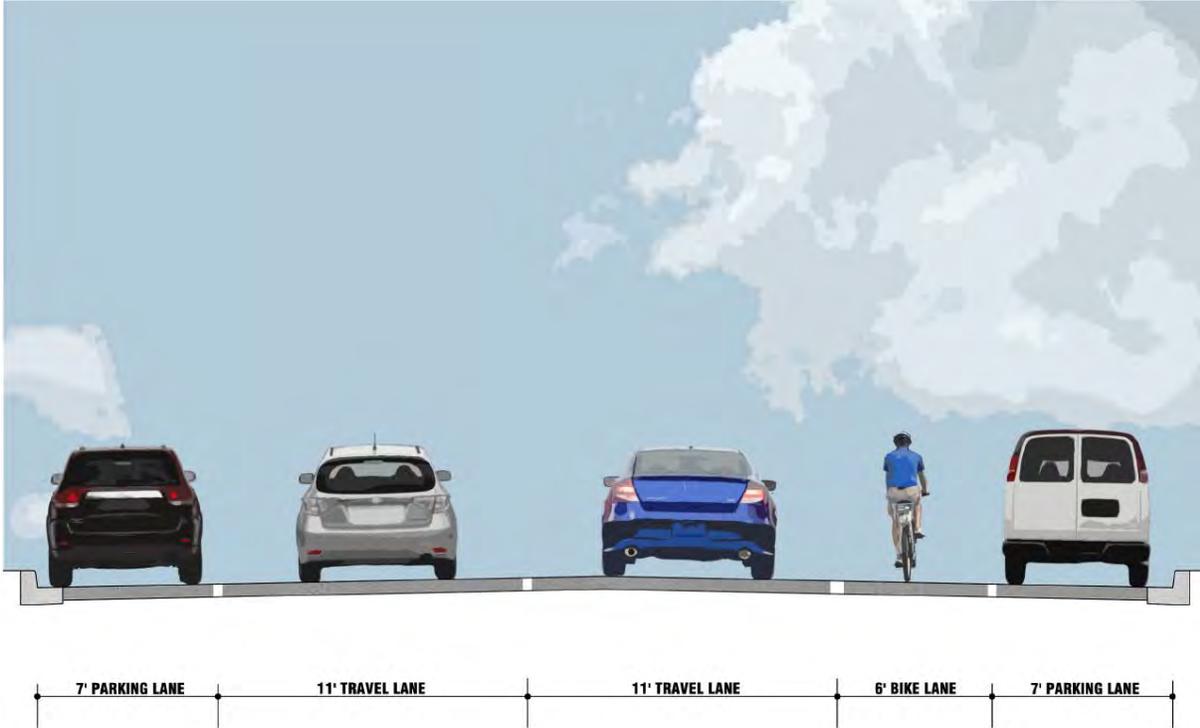
Bicycle Lanes on One-Way Streets

On one-way streets, bicycle lanes generally should be placed on the right side of the street. Bicycle lanes on the left side are unfamiliar and unexpected for most motorists. This should only be considered when

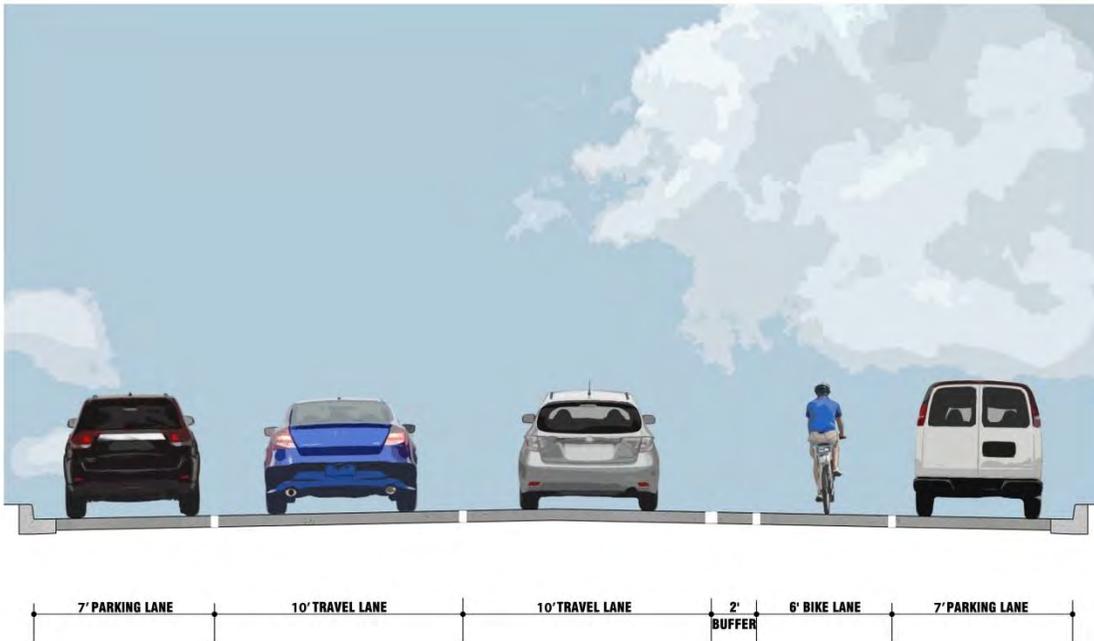
a bicycle lane will substantially decrease the number of conflicts, there are a significant number of left-turning bicyclists or the right lane is unavailable because of a special purpose lane, such as a transit lane. The following figures illustrate several different options to integrating bicycle lanes on one-way roadways in Wichita.



Option 1: Two general purpose lanes, one parking lane and buffered bike lane



Option 2: Two general purpose lanes, two parking lanes and bike lane



Option 4: Two general purpose lanes, two parking lanes and buffered bike lanes

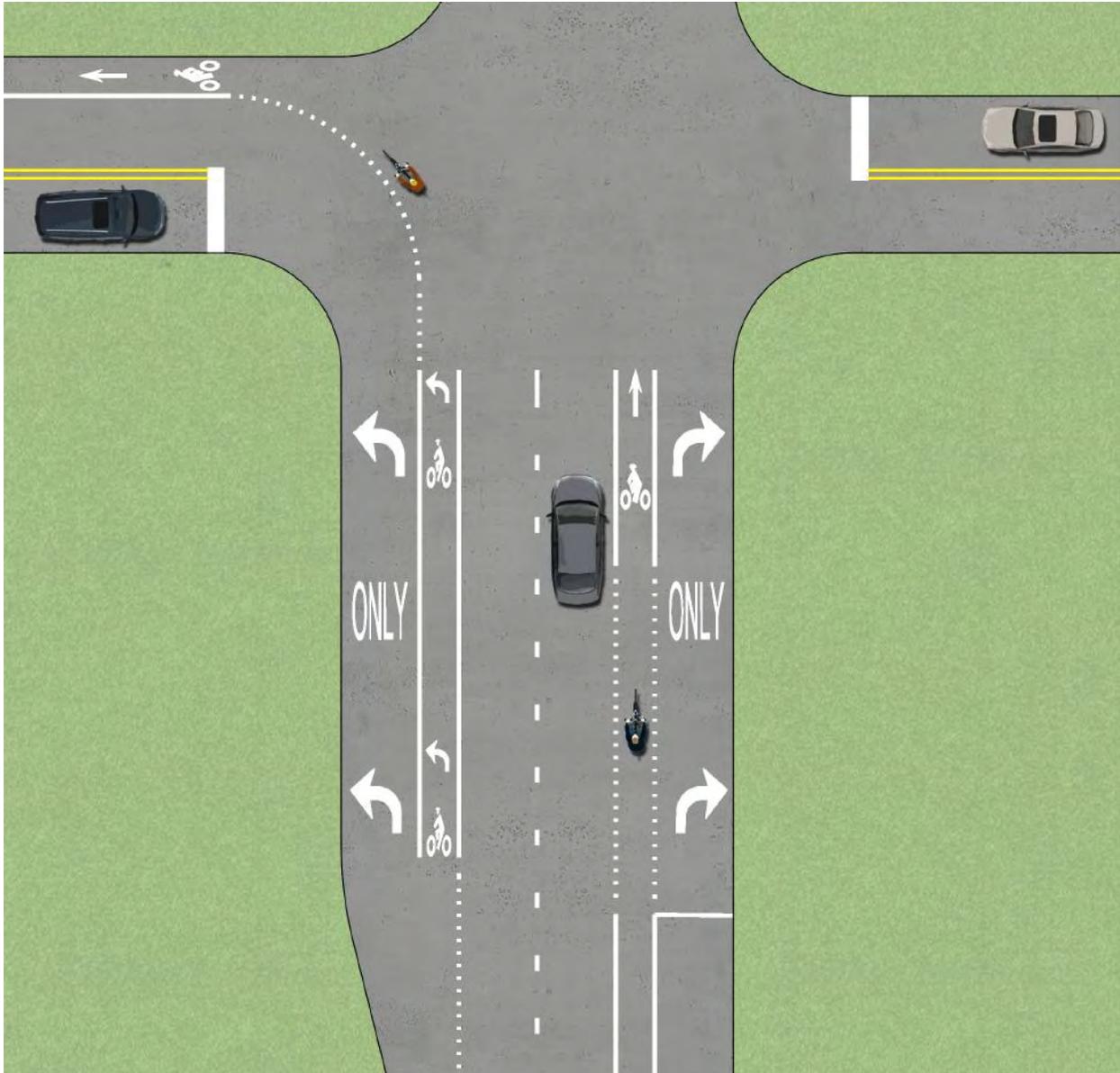


Figure X: Bike left-turn only lanes can be used on one-way streets to provide a dedicated space for left-turning bicyclists and to help direct them through the intersection to a receiving bicycle facility. Bicyclists are expected to transition from the bicycle lane on right side of street to the left-turn bicycle lane several hundred feet before the intersection.

Buffered Bicycle Lanes

A buffered bike lane is a bike lane that is separated from a travel lane or parking lane by a space of 3 to 6 feet. The lane is always one-way and is buffered by cross-hatched pavement marking, and if used, a sign for the exclusive use of bicyclists. The space between cross-hatching is flexible, but typically varies between 5 and 25 feet. Consider discontinuing cross-hatching through areas where motor vehicles may cross such as at driveway entrances and bus stops. All other guidelines and considerations that apply to bike lanes described above, also apply to buffered bike lanes. The MUTCD guidelines allow buffered bike lanes per the buffered preferential lanes found in section 3D-01.

Shared Lane Markings

A Shared Lane Marking is a pavement symbol consisting of a bicycle with two chevron markings above it that is placed in the roadway lane indicating that motorists should expect to see and share the lane with bicycles, and indicating the legal and appropriate line of travel for a bicyclist. Unlike bicycle lanes, they do not designate a particular part of the roadway for the exclusive use of bicyclists.

The following guidelines supplement the 2009 MUTCD and the forthcoming revised *AASHTO Guide for the Development of Bicycle Facilities*. They are not design standards, and should not be used as such. Application of guidance provided in this document requires the use of engineering judgment when installing shared lane markings.

The revised 2009 Edition of the MUTCD includes new provisions for installing Shared Lane Markings. The following is taken directly from the 2009 Edition of the MUTCD.

The Shared Lane Marking shown in Figure 2 may be used to:

- Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle,
- Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
- Alert road users of the lateral location bicyclists are likely to occupy within the traveled way,
- Encourage safe passing of bicyclists by motorists, and
- Reduce the incidence of wrong-way bicycling

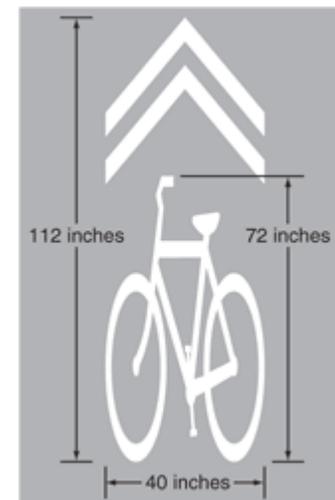


Figure 2: Shared Lane Marking Source: MUTCD, 2009 edition.

Shared Lane Marking Placement

In general, Shared Lane Markings are installed on streets where there is not enough space for bicycle lanes, or there is no desire for a bicycle lane. When bike lanes are desired but space limitations exist, a bike lane can be installed on one side of the street (the up-hill side of the street to provided dedicated space for slower, hill climbing bicyclists) and Shared Lane Markings on the downhill side. Flat streets should either have Shared Lane Markings installed on both sides (no bicycle lane) or have the bicycle lane installed on the side with the highest anticipated bicycle use (engineering judgment required). Shared Lane Markings may be the first choice (even if there is room for a bicycle lane) on some downhill sections.

Consideration for Shared Lane Marking Placement within a Travel Lane

The placement of shared lane markings will require engineering judgment as lane widths, quantity of lanes, operating speeds, and presence of parking will vary from street to street. In particular, the width of the shared travel lane and the number of available travel lanes impact typical operating behavior of motorists and bicyclists. Travel lanes with widths less than 13 feet will require motorists to partially or

fully change lanes to pass bicyclists. Travel lanes of 13 feet or greater generally allow motorists to pass bicyclists with minimal or no encroachment into adjacent travel lanes (allowing 3 feet of horizontal separation between the motorist and bicyclist).

Generally, the center of shared lane markings should be located a minimum of 11 feet from the curb or edge of roadway at locations where parking is permitted adjacent to the travel lane. Generally, the center of shared lane markings should be located a minimum of 4 feet from the curb or edge of roadway at locations where parking is prohibited.

It may be appropriate to move the shared lane marking towards the center of the travel lane (exceeding the MUTCD minimums) if engineering judgment determines that this placement will enhance the safety of the bicyclist operating within the travel lane. The shared lane marking may be moved towards the center of the lane regardless of whether it is adjacent to parking or not. In most cases, it will be a combination of two or more of the following factors which will indicate that consideration should be given to moving the Shared Lane Marking towards the center of the travel lane:

- Travel lane is less than 12 feet in width
- Speed of traffic
- Number of travel lanes (it may be desirable to place the shared lane marking towards the center of a narrower outside travel lane when a center turn lane is present or when there are multiple travel lanes in the same direction)
- Grade of roadway and expected bicyclist speed (center lane placement often works well when going downhill on streets with grade and higher bicycle speeds)
- Volume of traffic (may or may not be an issue – speed, grade, and number of lanes are more important)

Situations Where Travel Lanes Are Less than or Equal to 12 Feet in Width

Shared lane markings should be placed in the center of the travel lane where travel lanes are less than 12 feet to encourage bicyclists to occupy the full lane and not ride too close to parked vehicles or the edge of the roadway. A BIKES MAY USE FULL LANE (R4-11) sign may be used to supplement the marking. Travel lanes of this dimension are too narrow for sharing side by side with vehicles.

Situations Where Travel Lanes Are Between 12 Feet and 13 Feet in Width

Where travel lanes are 12-13 feet in width, the travel lane can appear shareable to roadway users if bicyclists operate on the right side of the lane resulting in unsafe passing maneuvers. It may be desirable to place the marking in the center, or close to the center of the lane to discourage these behaviors. A BIKES MAY USE FULL LANE (R4-11) sign may be used to supplement the marking.

Situations Where Travel Lanes Are Greater than or Equal to 13 Feet in Width

Where travel lanes are 13 feet or wider, motorists will generally be able to pass bicyclists within the same lane or will only need to slightly encroach on adjacent lanes to pass bicyclists. The Shared Lane Marking should generally be located in the right portion of the lane (per the MUTCD minimum requirements) with exceptions for locations adjacent to parking where it is desirable to encourage riding

further from parked vehicles. A Share the Road sign (W11-1 AND W16-1P) may be used to supplement the marking.

Shared lane markings should generally be used on arterial and non-arterial roadways with motor vehicle speeds 35 mph or less. Research has shown placing the marking in the center of travel lanes wider than 13 feet will likely result in poor compliance by bicyclists who will travel in the right portion of the lane which may undermine the effectiveness of shared lane markings in narrower lanes.

Considerations for Parking Lane Line Placement

Where there are no parking restrictions, the Shared Lane Marking should be placed in conjunction with a 4 inch solid or dotted white parking lane stripe (2 foot line with 4 foot gaps). The dotted line should be used through uncontrolled intersections where there is no arterial traffic control and where there are parking restrictions, including bus stops. The intent is to reinforce parking restrictions and to provide a continuous visual cue for the bicyclist to track along. The parking lane line will be located 7 to 8 feet from the face of the curb or roadway edge. Generally, a narrower parking lane is desirable to encourage motorists to keep the vehicle as close to the edge of the roadway as possible to maximize the available travel lane width, which will improve the bicyclist's level of comfort on the roadway.

Considerations for Symbol Placement Frequency

Shared Lane Markings should be placed at the far side of an uncontrolled intersection, at both sides of an arterial intersection with traffic control, and at mid-block locations where block faces are more than 250 feet long.

When placing mid-block Shared Lane markings, they should be placed in such a manner that the first Shared Lane marking a bicyclist or motorist would come upon would be the Shared Lane marking in their direction of travel. The Shared Lane markings should be offset from each other 20 feet from the tip of the leading (top) chevron to tip of leading (top) chevron.

Where there are mid-block marked crosswalks, the tip of the chevron should be placed 25 feet beyond the far side of the marked crosswalk.

Considerations for Shared Lane Marking Placement –Streets without Centerline

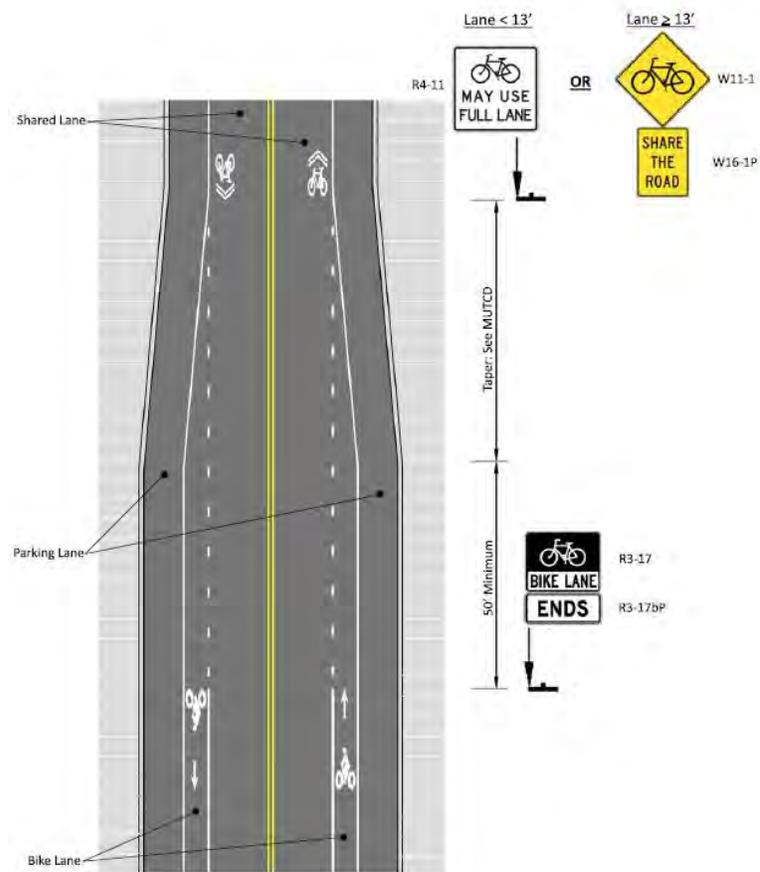
Shared Lane Marking installation on local streets or streets without a centerline should generally follow the guidelines mentioned above. However, no parking lane stripes should be installed. Utilizing the marking on non-arterial streets may require that the Shared Lane Markings be offset at intersections to prevent the symbols from overlapping. The tips of the leading (top) chevrons should be separated by at least 10 feet.

Transitions between Different Bicycle Facility Types

It is often necessary to use different bicycle facilities to provide bicycle access within the same roadway corridor due to existing roadway conditions, surrounding land uses, available right-of-way, and other characteristics. Where this condition occurs, it is important to provide transitions between different facilities. These transitions can be made safer and more understandable for bicyclists and motorists with appropriate and consistent treatments such as spot directional signs, warning signs, pavement markings, curb cuts, etc. Transitions should be provided as a part of the bicycle facility design process.

Bike Lanes to Shared Lanes

At locations where bike lanes terminate to become shared lanes it may be desirable to provide a transition to a marked shared lane for a brief distance, even if it is not desirable to mark a continuous shared lane for the remainder of the roadway. The placement of the shared lane marking should conform to guidance provided above. It is recommended that a SHARE THE ROAD sign (W11-1 and W16-1P) be used for shared lane situations where the lane is wider than 13 feet and BIKES MAY USE FULL LANE (R4-11) signs be used for narrower lane widths. The taper terminating the bike lane should also conform to the MUTCD (Figure 3B-14, 2009 MUTCD) shown here in [Figure x](#).



Path System and the On-Street Bicycle Network Transition

Where a shared use path crosses or terminates at an existing road, it is important to transition the path into the system of on-street bicycle facilities and sidewalks. Care should be taken to properly design the terminus to transition the bicycle traffic into a safe merging of intersecting facilities. For example, a path that transitions to an on-street facility should transition a bicyclist to the correct side of the street

thereby reducing the possibility of wrong-way riding. Where possible, provide additional space where paths intersect roadways, particularly at signalized locations where multiple path users are likely to be waiting to cross the street. Curb ramps at path crossings and other on-street access points should be assessed and widened where they are narrower than the path width and/or where the volume of path users is high.

Appropriate signing is necessary to warn and direct both bicyclists and motorists regarding these transition areas. Each roadway crossing is also an access point, and should, therefore be designed to facilitate movements of path users who either enter the path from the road, or plan to exit the path and use the roadway.

Bicycle Boulevard Guidance

Introduction

Bicycle boulevards are low-volume and low-speed streets that have been optimized for bicycle travel through treatments such as traffic calming and traffic reduction, signage and pavement markings, and intersection crossing treatments. Bicycle boulevards have been implemented in cities across the country, including Columbia (MD), Minneapolis, Berkeley, Seattle and Portland. Bicycle boulevards are garnering more attention as cities look to strategies for attracting more people that are “curious, but cautious” about riding their bicycles in an urban context. Bicycle boulevards allow bicyclists to avoid higher volume, higher speed roadways, offering a more comfortable and leisurely riding experience. For this reason, bicycle boulevards are more likely to attract families, and other more cautious or less confident bicyclists that are less likely to use bicycle facilities on roadways where interaction with higher vehicle volumes and speeds are likely. The primary characteristics of a bicycle boulevard are:

- low motor vehicle volumes
- low motor vehicle speeds
- logical and continuous routes that are well marked and/or signed
- convenient access routes to desired destinations (typically parallel routes to higher speed, higher volume arterial or collector streets)
- minimal bicyclist delay
- comfortable and safe crossings for cyclists at intersections

There are several resources available that provide a thorough introduction to the fundamentals of bicycle boulevards, addressing the planning, design, and maintenance of these facilities. These resources include:

Fundamentals of Bicycle Boulevard Planning and Design, Portland State University and Alta Planning+Design, 2009.

Bicycle Boulevard Design Tools and Guidelines, City of Berkeley, 2000.

Traffic Calming State of the Practice, ITE, 1999, <http://www.ite.org/traffic/tcdevices.asp>

Traffic Calming: Roadway Design to Reduce Traffic Speeds and Volumes, Victoria Transport Policy Institute, updated 12/26/11, <http://www.vtpi.org/tcm/tcm4.htm>

Because these resources provide a good background on bicycle boulevards, this section will not focus on the fundamentals of bicycle boulevards, but rather, on key steps in the planning process, how bicycle boulevards might work in the Wichita context, and the specific design considerations that are most applicable to Wichita.

Bicycle Boulevards in Wichita

Bicycle boulevards have the potential to play an important role in Wichita’s bicycle network. Wichita has an extensive path network that is the backbone of Wichita’s bicycle network. A primary objective of this Master Plan is to extend that network by supplementing paths via an on-street bicycling network.

Bicycle boulevards are an important type of on-street bicycle facility for extending the network, because the types of riders that are attracted to paths will feel comfortable using bicycle boulevards that are properly designed.

There are several areas in the city where it is possible to connect paths by way of a bicycle boulevard, which could significantly expand the reach of the bicycle network. Additionally, there are high volume, high speed arterial roadways in Wichita where on-street bicycle facilities are not feasible due to right-of-way and/or funding constraints. Developing bicycle boulevard facilities parallel to these streets is an ideal solution for expanding the bicycle network into these areas of the city.

Bicycle boulevards have the potential to provide a high return on investment because they tend to attract a wide range of bicyclists and can address additional neighborhood goals such as traffic calming, green streets, storm-water management, etc. that other bicycle facility improvements do not provide. The cost of construction will vary depending on the specific traffic calming and intersection treatments implemented. For example, new pedestrian signals will be needed as some major arterial crossings.

Recommended Bicycle Boulevards

The City of Wichita Bicycle Master Plan recommends approximately 122 miles of bicycle boulevards. The bicycle boulevard network is comprised of three typologies listed below.

- On-street connections between paths
- Residential on-street bicycle boulevards
- Mixed-facility bicycle boulevards (route a combination of bicycle boulevards, bike lanes and shared lane markings; most common)

The following are selected examples of the three typologies. They are represented on the Priority Bikeways Network Map and are recommended in the list of early implementation projects (see [page ___](#))

Connections between existing paths

9th St--this east/west route provides a residential street connection between the sidepath on Zoo Blvd and the Arkansas River Bicycle Path. This is the only missing link in the path system that extends from downtown west to 119th St.

Wassall St – this east/west bicycle boulevard connects between the Arkansas River Bicycle Path and the Gypsum Creek Bicycle Path. It would also provide a connection to the pedestrian/bicycle bridge crossing of 135.

Residential street bicycle boulevards

Piatt Ave—this corridor provides a north-south route parallel to Grove St and a the Canal Bike Trail between 2nd Ave and 21st St. The route serves as a residential street connection on the east side of I-135.

25th St/Green St/Estelle Ave/2nd Ave/Volutsia Ave/Kellogg Dr/Chautauqua Ave—this north-south route serves as a residential street route between the K-96Path and Lincoln St through Uptown, East Front and Sunnyside neighborhoods. The route provides a connection across 400/54 using a bicycle and pedestrian bridge. The route connects residents to the businesses on E Douglas Ave and E Central Ave. It also

provides north south access to the Atwater Neighborhood City Hall, Lynette Woodard Recreation Center, and an elementary school.

N Keith St//N Belwood St/W Sterling St/N Keith St/W 20th St N N West/Westfield Cir/W Westlawn St/ N Keith St/N Westfield St/Murray St/W Harvest Ln/N Westlink Ave/Delano Ave/N Caddy/W Central Ave/N Maus/W Hardtner St/N Caddy/Tee Ln/Westfield St/Shad Ln/Fairway St to W 2nd St N—This north-south bicycle boulevard follows residential streets and connects neighborhoods in northwest Wichita.

N Shocker Drive/ N Fountain/Unnamed campus roadway/ Perimeter Rd/Belmont Ave/E 24th St N/N Fountain St/ Charron Ln/E Brooks St—this bicycle boulevard provides a residential street connection between the Redbud Bicycle Path, Wichita State University and the K-96 Bicycle Path.

Mixed-facility bicycle boulevards

Murdock Ave/Broadview Ave/8th St/Crestway Ave/9th St—This east-west bicycle boulevard extends east from the Central Riverside Park and connects the Canal Route (I-135) Bicycle Path, Wesley Medical Center, McDonald Park, Edgemoor Park, a library and two elementary schools. The route follows both arterial and residential streets with several facility types: Bicycle Boulevard, bike lanes and shared lane markings.

33rd St/Coolidge Ave/Woodrow St/20th St/N Porter St/N Perry Ave—this bicycle boulevard runs north-south through Benjamin Hills and North Riverside neighborhoods between the Big Arkansas River and the Big Ditch. It provides an extension of the existing Rosalie Bradley Path along the Little Arkansas River. The route consists of Bicycle Boulevard between 13th St and 18th St and shared lane markings between 18th and 33rd St.

Bicycle Boulevard Design Considerations

Traffic Volume and Speed

There are a number of design considerations that should be made before implementing a bicycle boulevard, including how best to manage the speed and volume of motor vehicles and establish bicycle priority, how to minimize impacts to nearby residential streets, how to maintain reasonable access for emergency and service vehicles, how to guide bicyclists along the route and get them safely across arterial streets. Streets with existing low volumes (less than 1,000 ADT) are good bicycle boulevard candidates as they typically require minimal or no traffic diversion treatments. These streets may only require traffic calming measures to get speeds down to appropriate speeds and increase the comfort and safety of bicyclists. Where traffic volumes exceed 1,000 ADT, traffic reduction measures should be considered where reasonable alternative routes exist for motorists in addition to traffic calming measures. Lastly, creating arterial street crossings that are accessible, safe, comfortable, and provide quality level of service are essential to a successful bicycle boulevard route.



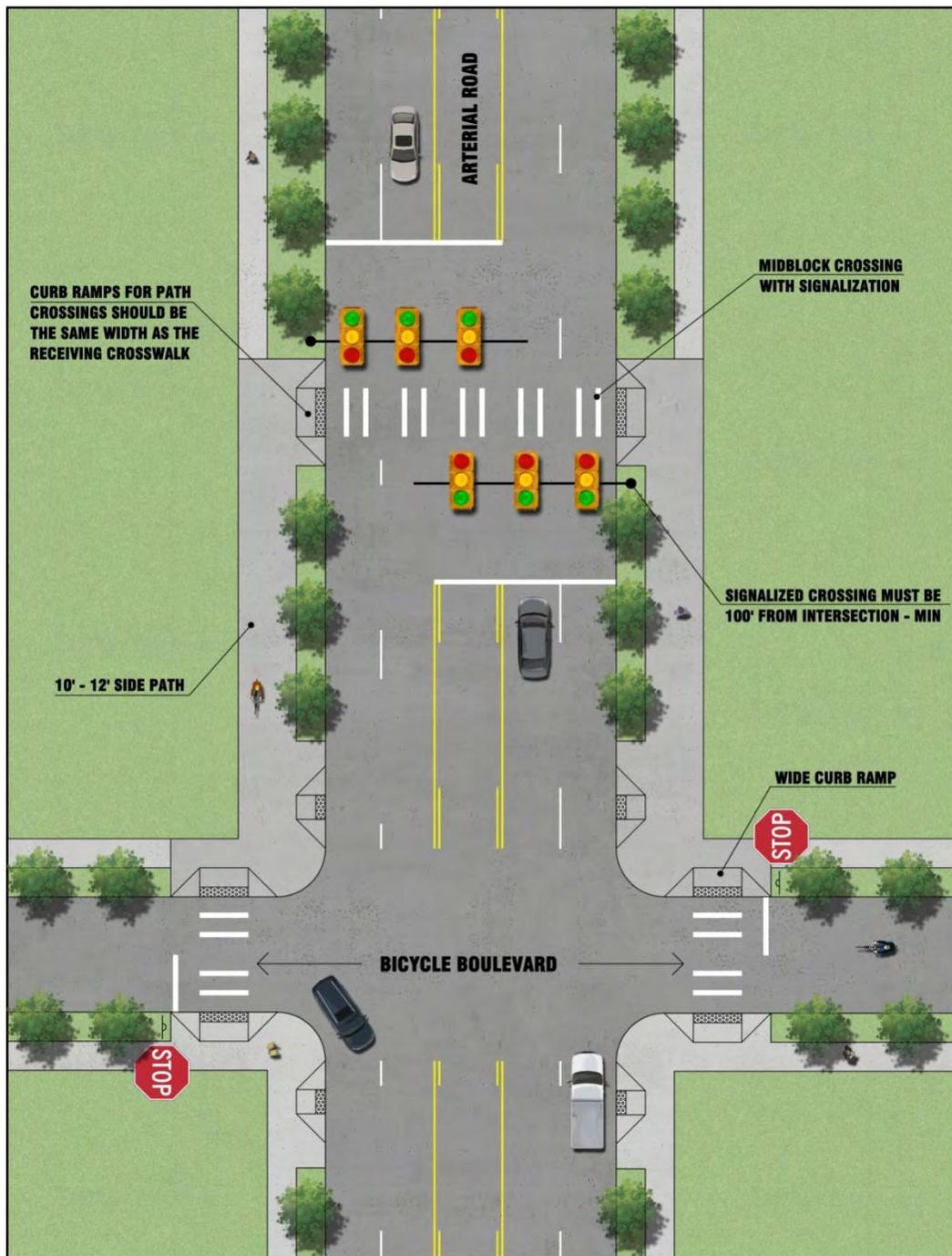
Arterial Crossings

Bicycle boulevards, which most often are developed on low volume residential streets, most commonly intersect arterial roadways at un-signalized locations, however in some cases they may utilize existing signals, or require a new signal depending on motor vehicle traffic volume and posted speed limits, and the width of the roadway. It is essential for bicycle boulevard users to be able to cross arterial roadways safely and without substantial delay or inconvenience. While many intersection crossing treatments for bicyclists were originally based on pedestrian crossing treatments, special consideration should be given to the unique characteristics of cyclists, such as cyclist positioning, crossing times, and vehicle length. Crossing treatments should accommodate groups of cyclists and longer bikes, including tandems, cargo bikes and trailer bikes.

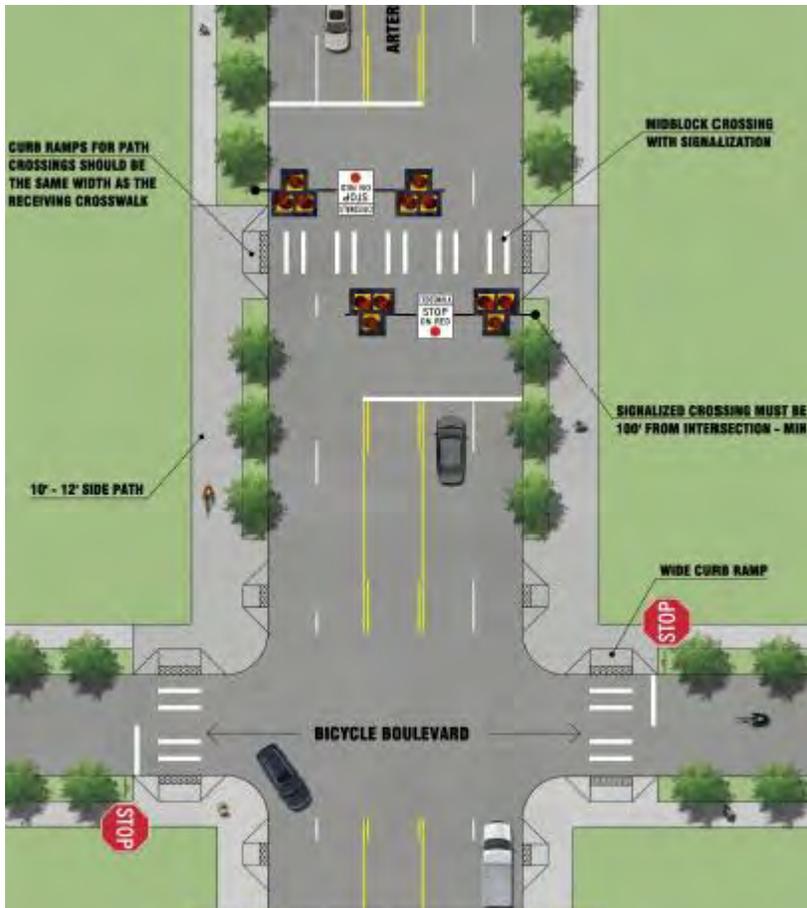
Wichita has installed numerous pedestrian signals throughout the city for facilitating pedestrian crossings of arterial roadways. Many of these pedestrian signals are classified as mid-block signals because they are located a minimum 100 feet away from the nearest stop or yield controlled side street intersecting the arterial (per MUTCD section 4F.02). Several recommended bicycle boulevards intersect with arterial roadways at locations where there are existing mid-block signals. Other recommended bicycle boulevards will require new mid-block signals where motor vehicle traffic volumes and speeds are high and the frequency of sufficient gaps for crossing the roadway is low. Key considerations for crossing locations where there are mid-block signals include:

- Directing cyclists to the crossing location using signage and/or pavement markings and distinctive infrastructure, i.e. widened sidewalks or sidepaths connecting to crossing location

- Widening sidewalks that connect to crossing location to sidepath standard, where feasible. Sidewalks should be able to accommodate both pedestrians and bicyclists while minimizing conflict between the two. In locations where there are high volumes of pedestrians using striping to separate bicycles from pedestrians should be considered.
- Transitioning from street to sidewalk. Where a cyclist is required to transition from the street to a sidewalk or sidepath (and vice versa) there is potential for conflict with motor vehicles, particularly turning vehicles. When needing to cross a lane of traffic in order to access the signal via sidewalk (from street), cyclists should be directed to make this transition using a two-step movement: first transition to sidewalk on right-side of street, then second, across crosswalk to opposite side of street where signal is located.
- Mid-block signals shall be used in conjunction with signs and pavement markings to warn and control traffic at locations where pedestrians/cyclists enter or cross a street (MUTCD).
- For guidance on Pedestrian Hybrid Beacons (HAWK signals) see MUTCD (2009 edition) Section 4f.01.



Pedestrian Signal: Recommended design for crosswalk with standard mid-block signal



Pedestrian Hybrid Beacon AKA “HAWK” (high intensity activated crosswalk). Recommended design for crosswalk with Pedestrian Hybrid Beacon (HAWK)

Bicycle Priority/Advantage

Design elements that prioritize travel on the bicycle boulevard are intended to raise awareness of the route as a bicycle priority thoroughfare and create conditions that reduce unnecessary delay for cyclists. Design treatments include pavement markings and wayfinding signage, adjustments to stop/yield control, and arterial crossing enhancements.

Employing distinctive symbols and/or colors to distinguish the bicycle boulevard from other roadway signs provides visual cues to motorists and cyclists that this is a different type of roadway. Supplementing wayfinding signage with pavement markings helps to further establish bicycle priority, and also encourages proper positioning by bicyclists while sharing the lane with motor vehicles. Unique bicycle boulevard pavement markings such as “bike dots” or extra-large “bike blvd” lettering with bike symbol may be developed. Shared lane markings are being used more



Example of Flipped Stop Sign With Custom Sign Branding the Boulevard

commonly in places like Portland and Seattle.

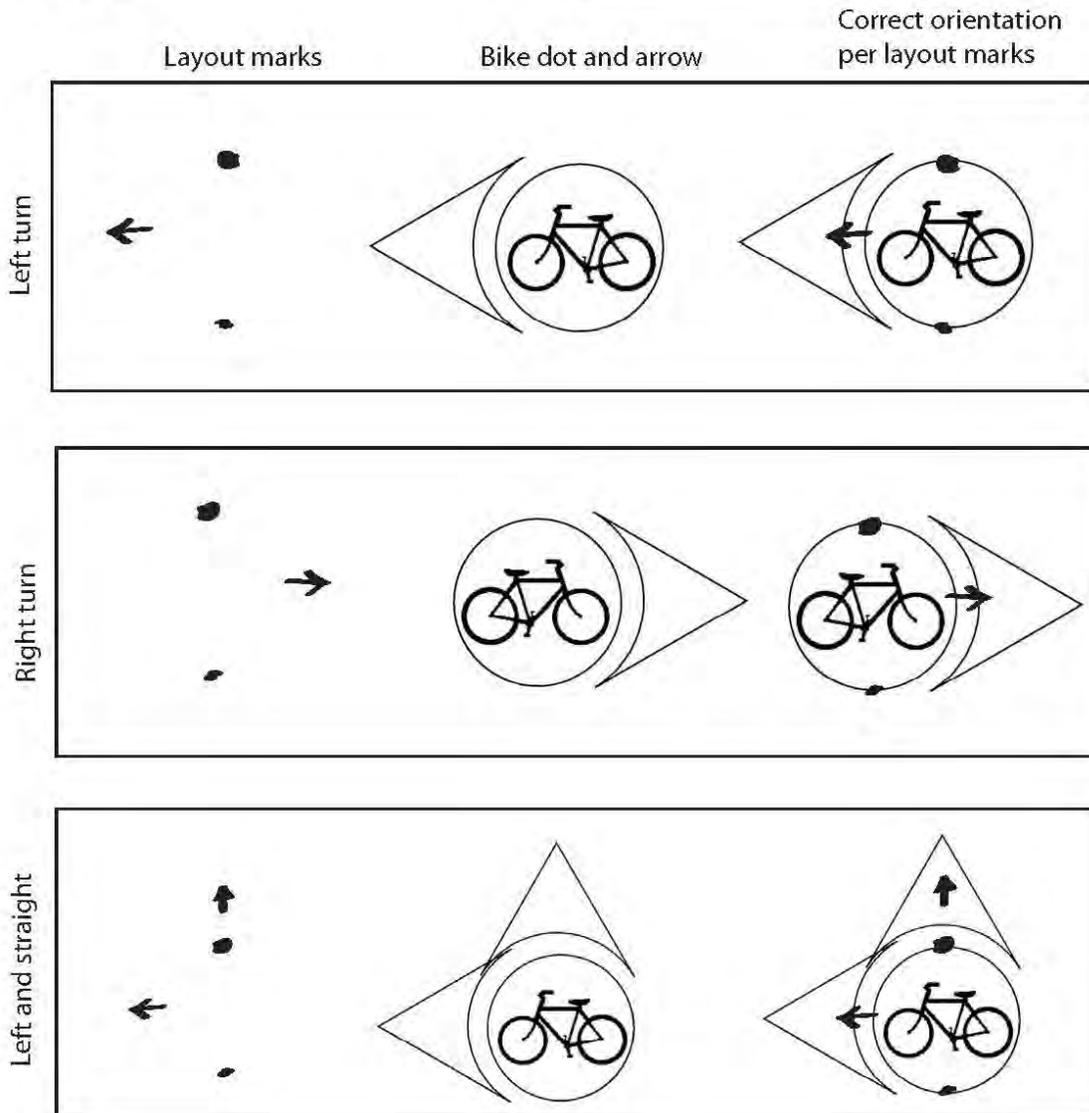
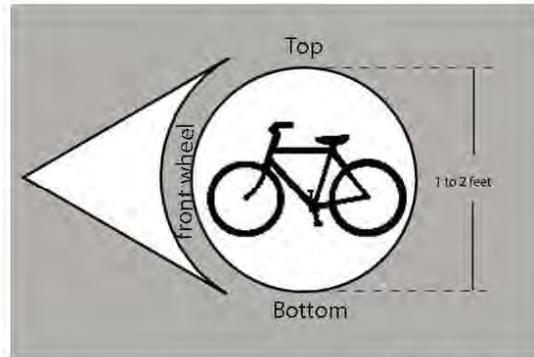
Because stop signs increase cycling time and energy expenditure due to frequent starting and stopping, they tend to result in non-compliance by cyclists. Bicyclists should be able to travel continuously for the entire length of the bicycle boulevard with a minimum of stops. Assigning stop or yield signs to control cross traffic is one way to minimize stops for bicyclists. Mini traffic circles may be an alternative to stop and yield controlled intersections. Parking may need to be removed near the intersection to improve sight distance of bicyclists and motorists approaching the intersection. After stop or yield signs are reoriented to cross streets to provide bicycle priority, an increase in motor vehicle volume or speed along the route may occur – this should be mitigated using traffic calming treatments.



A bike dot directs bicyclists at turns much like a trail of breadcrumbs

Layout Markings for Bike Dot Installation

For bike dot installation align the top of dot with the large spray paint dot. Align the bottom of the dot with the small spray paint dot. Align the arrow(s) with the spray painted arrow(s). In some cases there may be two arrows per dot. The front wheel of the bicycle should always be to the left except when there is a right arrow. With all other arrows or no arrows the front wheel of the bicycle should be to the left.



Traffic Calming Strategies on Local Streets and Collectors

There are numerous traffic calming treatments that may be integrated into a bicycle boulevard. Brief definitions are provided below for treatments which are likely to create the highest quality Bicycle Boulevards in Wichita – for more detailed information on each treatment, or to review additional treatments please refer to the resources cited below. NOTE: By means of an interdepartmental team involving members from Planning, Public Works, Police and Fire/Life Safety the city should revisit the existing traffic calming policy to better address Bicycle Boulevard implementation.

<ul style="list-style-type: none">• Mini traffic circles at 4-way intersections- raised circular islands located in the center of intersections of local streets, intended to reduce speed of vehicles approaching the intersection while minimizing delay. Stop and yield signs may be eliminated when mini traffic circles are used. Signage indicating counter-clockwise circulation should be installed in advance and/or on the traffic circle.	
<ul style="list-style-type: none">• Mini traffic circles with Neckdowns at T-Intersection. T-intersections require the use of smaller circles, limited parking restrictions within the circle, and approach neckdowns to deflect the movement across the top of the tee which otherwise could not be deflected by the circle.	
<ul style="list-style-type: none">• Chicanes – raised curb features in the middle of the road (pedestrian refuge) or along the edge (chokers or curb extensions) that create horizontal shifting of travel lanes, which reduces vehicles speeds. Chicanes are typically used on long stretches of straight roadway and are ideal for approaches to signalized intersections where motorists may be inclined to accelerate towards the signal. A “chicaning” effect may also be achieved by alternating the location of on-street parking (on one side of the street) from one block to the next.	

- **Speed tables or raised crosswalk** - long and broad, flat-topped sections of raised roadway (3-4 inches high and 22 feet wide) that slow traffic by requiring motorists to reduce their speed. Speed tables are more comfortable than speed humps for bicyclists to ride over without reducing their speed. A 22 foot table has a motor vehicle design speed of 25 miles per hour.



- **Speed cushions** – Similar in design to speed humps, speed cushions are rounded raised areas placed in the center of travel lanes to reduce vehicle speeds. They are generally 10 to 14 feet long (in the direction of travel) with. These are designed to allow free passage of larger chassis vehicles such as fire trucks through the flattened area.



- **Speed humps** – Speed humps are rounded raised areas placed across the roadway to reduce vehicle speeds. They are generally 10 to 14 feet long (in the direction of travel).
- **Speed humps with raised islands** are an effective combination on streets with low parking demand.



Traffic Reduction Strategies

Traffic reduction design elements are intended to maintain existing low volumes or reduce the overall volume of motor vehicle through trips on the bicycle boulevard, while allowing continuous through travel by bicyclists and other non-motorized users. Impacts on nearby local streets and emergency response should be analyzed before implementing traffic reduction elements.

<ul style="list-style-type: none">• Partial Diverters - restrict motor vehicle access while allowing bicycle and pedestrian access, typically restricting through movements or left turns. This type of treatment is typically placed on minor streets at an intersection with an arterial street to manage motor vehicle volumes on the minor street.	
<ul style="list-style-type: none">• Diagonal Diverters – restrict through motor vehicle access completely at standard 4-way intersections while allowing bicycle and pedestrian access. This type of treatment is typically placed on minor streets at an intersection with an arterial street to manage motor vehicle volumes on the minor street.	
<ul style="list-style-type: none">• Median Closures – restrict through motor vehicle access completely at standard 4-way intersections while allowing bicycle and pedestrian access requiring right in and right out motor vehicle movements. This type of treatment is typically placed on minor streets at an intersection with an arterial street to manage motor vehicle volumes on the minor street. This treatment can be used to facilitate bikes crossing the arterial or transitioning from the arterial to the bike boulevard.	

The above traffic calming and traffic reduction design elements have been in use in several communities for many years. However, concerns regarding traffic calming and reduction that occur on the bicycle boulevard are likely to be similar to concerns that are raised when these improvements are implemented anywhere else in the community. Most commonly, residents and officials will raise concerns about four potential issues related to traffic reduction and calming:

- Access to property;
- Impact on traffic patterns;
- Enforcement issues with motorcycles and mopeds; and
- Emergency response.

These are all legitimate concerns that need to be addressed, and can be addressed through a combination of good design and enforcement, if needed. It is important to keep in mind that eliminating or modifying traffic diversion and calming design elements that are part of a larger system may reduce their effectiveness. Poorly designed traffic diversion and calming elements on so-called bicycle boulevards may backfire creating new traffic problems, such as attracting through motor-vehicle traffic to a bicycle boulevard with fewer stops. This reduces the comfort and safety of cyclists, may negatively impact the neighborhood, and negatively influences opinions regarding the utility of bicycle boulevards in general.

To address each of these concerns it is important to involve stakeholders early. For residents living along a planned bicycle boulevard street, and concerned about accessing their property, presenting the design so that they can see how their access is affected is an important first step. Trial installations of design elements can alleviate resident concerns regarding access by allowing them to “try out” design features and allow any necessary modifications to be made before the city commits to a permanent installation. It is also very important during the initiation and conceptual planning phases to highlight the positive attributes of bicycle boulevards and the benefits residents can expect, including fewer cars on their street, fewer speeders, less noise, and generally, a more livable street.

When motor vehicle traffic is restricted or calmed on the bicycle boulevard it may induce an increase in motor vehicle traffic on adjacent streets. It is important to examine the impacts of traffic calming diversion elements both on the proposed bicycle boulevard and nearby streets, and include mitigation (e.g., additional traffic calming on adjacent streets) for any impact in their designs. Again, trial installations can allow residents to “try out” the design features and allow the city to evaluate and address impacts on traffic patterns.

Where traffic diversion is used, enforcing restrictions to motorcycles and mopeds may be needed. However, experiences in other communities have shown such violations to be seldom-it is likely that motorcyclists, like motorists, prefer to use the higher speed parallel streets when they are available nearby.

Traffic-calming elements can be a concern to fire and police personnel if the design substantially increases response times to properties along the bicycle boulevard. Having the support of the fire and police department is critical-without it development of a bicycle boulevard may be delayed or

permanently deferred. Emergency services need to be engaged early in the planning process in order to identify acceptable design elements. Traffic reduction and calming design elements may be designed in such a way that allows a wide-chassis vehicle, such as a fire truck, to pass over, while preventing a similar movement of most passenger vehicles. Again, trial installations of street closures, medians, chicanes, or other design elements that may present an access concern to emergency services may be used to evaluate impacts on emergency responses.

Road Diets and Bus Operations

Four – to Three-lane Road Diet Conversion

The recommended bicycle network for Wichita includes a number of roadways where a four – to three – lane “road diet” conversion is recommended in order to provide roadway space for bicycle lanes. The resulting cross section of recommended road diets would include two vehicle travel lanes plus a center left-turn lane and a bicycle lane on both sides of the roadway. As a result, buses operating in these corridors would stop in-lane when boarding and alighting passengers, possibly causing delay for other vehicles. This memo is intended to provide information on the factors that help determine when bus operations may negatively impact motor vehicle travel speeds.

Recommendations

The factors listed below for consideration of bus turnouts may be used as guidance for determining when bus operations could result in significant impacts to roadway travel speeds in a four- to three-lane conversion scenario. Recommendations in this Plan represent a conservative application of these factors. Corridors where the following transit-related factors are present should be considered for a 4 – to 3-lane conversion:

- Traffic speeds are 35 mph or less
- Bus volumes are 6 or less per hour
- Average peak hour dwell times are less than 30 seconds per bus.
- Passenger volumes are less than 30 boardings an hour

Bus Operations and Effects on Travel Speeds

Research indicates that the presence of heavy vehicles and frequent stop/slower moving vehicles such as buses can result in slower vehicle travel speeds on three-lane cross-sections versus four-lane cross sections.² The degree to which vehicles such as buses, which stop frequently, affect travel speeds of other vehicles is a function of traffic volumes and the percent of volume that buses represent in the overall mix of traffic. Using model simulations of two road conversion projects, it was found that approximately 50 percent of the speed reduction occurred at and above 20 percent heavy vehicles for a roadway with volumes of 750 vphpd.³ These findings indicate that where the volume of buses is low, the impact of bus operations on the travel speeds of other vehicles will be less. Research that specifically addresses the impacts of bus operation factors such as number and spacing of stops, headways, and dwell times on travel speeds on 3-lane roadways is not available.

² Knapp, Keith, K. Giese and Woochul Lee, *Urban Four-Lane Undivided to Three-Lane Conversion Guidelines*, August 2003.

³ Knapp, Keith, K. Giese and Woochul Lee, *Urban Minor Arterial Four-lane Undivided to Three-Lane Conversion Feasibility: An Update*, July 2003.

Bus Turnouts

Bus bays or turnouts may help to reduce travel speed impacts associated with stopped buses. Bus bays are provided primarily on high-volume or high-speed roadways, such as suburban arterial roads. Additionally, bus bays are frequently constructed in heavily congested downtown and shopping areas where large numbers of passengers may board and alight. Turnouts can be in the form of wider parking lanes or separate bus only areas outside of the travel way. The ability to provide bus turnouts is contingent upon available right-of-way or the ability to remove on-street parking. Bus turnouts should be considered where feasible as part of an overall road diet design. Report 19 of the Transit Cooperative Research Program (TCRP) provides guidelines for the location and design of bus stops, including when turnouts should be considered. The report suggests a number of factors that should be used to determine when turnouts should be considered. For Wichita, the most critical among these factors are:⁴

- Traffic speed exceeds 40 mph
- Bus volumes exceed 10 in the peak hour
- Passenger boardings exceed 20-40 per hour
- Average peak hour dwell time exceeds 30 seconds per bus

While one or more of these criteria may be met on any given roadway, best engineering judgment is needed to determine the potential travel speed impacts, and whether or not a bus turnout is the most appropriate treatment for mitigating these impacts.

One critical caveat is the authors of the TCRP Report determined the quantity of traffic in the curb lane created a limitation on the effectiveness of separate turn outs (or bus bay) finding:

“Evidence shows that bus drivers will not use a bus bay when traffic volumes exceed 1000 vehicles per hour per lane. Drivers explain that the heavy volumes make it extremely difficult to maneuver a bus out of a midblock or near-side bay, and that the bus must wait an unacceptable period of time to re-enter the travel lane. Consideration should be given to these concerns when contemplating the design of a bay on a high-volume road. Using acceleration lanes, signal priority, or far-side (versus near-side or midblock) placements are potential solutions⁵.”



Figure 1 - Example of Lane Blocking By Bus Operator

⁴TCRP Report 19, page 27. Only the factors most relevant to Boston roadway operations are listed here.

⁵ TCRP Report 19, page 27

The report indicated a preferred curbside lane width for bus turnouts to be 10-12 feet separate from traffic.

2011 AASHTO Green Book

The 2011 AASHTO Green Book provides general guidance for vehicle lane widths and discusses considerations for bus operation on arterial roadways in urban areas. The AASHTO Green Book generally provides design strategies to minimize delay and disruption to traffic flow. The Green Book generally recommends the installation of bus turn outs with acceleration/deceleration lanes to minimize the disruption of traffic flow, but recognizes this is rarely possible on urban arterial roadways.

The Green Book also recognizes the challenges of constrained urban roadways noting that bus operation creates interference with other traffic when the bus stops within the travel lane⁶. It specifically notes “bus operators may not use the turnout if they have difficulty maneuvering back into traffic.” Other than suggesting the use of far side stops to minimize conflicts with turning vehicles and accommodate large demand for vehicle storage on near-side approach, the Green Book provides no additional guidance for bus stop design and refers the reader to TCRP Report 19 referenced previously.

⁶ Page 500, 2004 AASHTO Green Book

Sidepath Design Approach

A sidepath is a one or two-way shared use path that parallels a roadway. In many cases making connections between path access points, between on-street facilities and a path access point, or to mid-block crossing locations is best accomplished through short sidepath segments, particularly where a dedicated, independent right-of-way is not available. This is particularly true where the most direct connection between two paths or a path and on-street bicycle facility is within an arterial corridor, where it is not possible or desired to have on-street bicycle facilities. AASHTO guidelines recommend sidepaths be a minimum of 10 feet in width (12 feet preferred), with a minimum distance of 5 feet between the path and the roadway curb. Where the separation is less than 5 feet, a physical barrier or railing should be provided between the path and the roadway. The revised AASHTO Guide for the Development of Bicycle Facilities provides a lengthy discussion of the design considerations associated with sidepaths. Below are some illustrations of design considerations important for sidepaths:



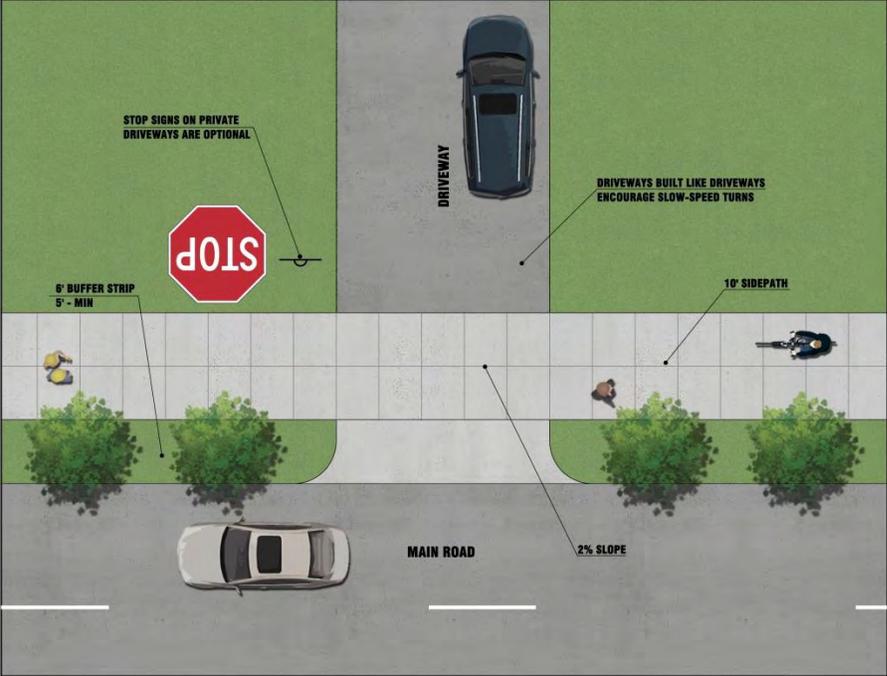
Sidepaths should be a minimum 10 feet wide (12 feet preferred) with a 2' clear zone on either side of the paved surface (flat & clear of obstructions). Paths should be separated from the roadway by a minimum 5 feet (6 feet preferred).

Sidepaths and Driveways

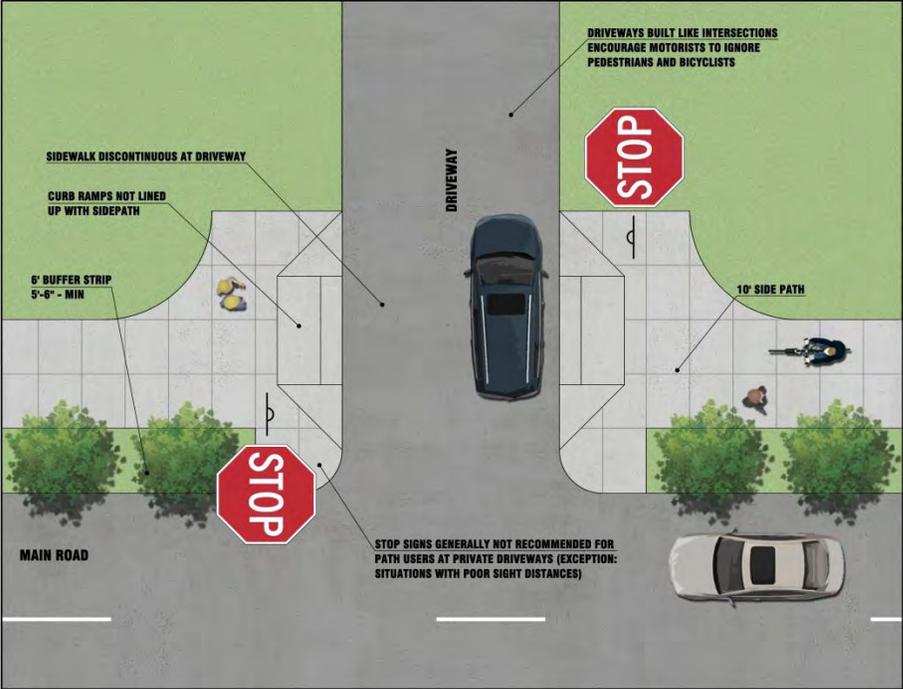
Where sidepaths intersect driveways there is potential for conflict between vehicles exiting and entering the driveway and side path users crossing the driveway. The following figures illustrate the preferred and not preferred approach to driveway and sidepath design at driveway/sidepath intersections.

Further guidance on sidepath design can be found in Chapter 5 of the revised AASHTO Guide for the Development of Bicycle Facilities.

Best Practice (preferred): Driveways should look like driveways



Not Preferred: Driveways should not look like roadways.



Bike Parking

The *Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines, 2nd Edition* covers virtually everything related to bicycle parking, including recommended racks, site layout, security, aesthetics, weather protection, lighting maintenance etc. Model legislation for determining required parking for new developments is also provided.

The APBP guidelines are applicable in both urban and suburban contexts. The only significant difference will be scale. The number of bicycle parking racks needed at a particular location may be less in suburban and semi-rural areas. This difference in demand will immediately be captured if parking requirements are based on density and distance (addressed in APBP Guidelines). Lower densities and longer distances from population centers will generally result in lower demand for bicycle parking.

Bicycle racks should be designed so that they:

- Support the bicycle at two points above its center of gravity.
- Accommodate high security U-shaped bike locks.
- Accommodate locks securing the frame and one or both wheels (preferably without removing the front wheel from the bicycle.)
- Provide adequate distance [minimum 36" (91cm)] between spaces so that bicycles do not interfere with each other
- Do not contain protruding elements or sharp edges.
- Do not bend wheels or damage other bicycle parts.
- Do not require the user to lift the bicycle off the ground.

Bicycle Wayfinding Protocol and Best Practices

Introduction

This appendix provides guidance for establishing a comprehensive bicycle wayfinding system in Wichita, including current practice; future opportunities; policy and regulatory framework; sign types; sign components; and sign placement. In addition, this document also provides examples of best practices from Chicago and Seattle. The Wichita Bicycle Master Plan recommends developing a bicycle network that consists of on- and off-street facility improvements on more than 332 miles of roadway, in addition to the more than 60 miles of existing bicycle facilities. In order to help ensure that the City realizes the maximum benefit from the proposed and existing facilities wayfinding signage could be utilized.

Wayfinding signs provide multiple benefits, including but not limited to the following.

- They provide information about destinations, direction and distance to help bicyclists determine the best routes to take to major destinations.
- They provide information that helps bicyclists understand and use the bicycle network (including on-and off-street facilities) without the use of a map.
- Directional signs also provide additional messaging to motorists to expect bicycles on the roadway.
- The presence of signs encourages bicycling on designated corridors because users feel the signs will direct them to the best route for getting to their destination.

Wichita Current Practice

Bicycle signs have been installed in Wichita along some shared use paths. These signs designate the paths as bicycle routes and help bicyclists identify preferred bicycle routes. Signs are generally installed during new shared use path construction.



Existing bike route sign in Wichita

Wichita Bicycle Network Wayfinding Signage Opportunities

The City of Wichita may wish to consider installing two general categories of signed routes to work in unison and provide bicyclists with a navigable system along designated bicycle routes.

- **Named Routes:**
 - Paths such as the Arkansas River Bicycle Path
 - Recreational loops such as the loop utilizing the Zoo Blvd Path, Ark River Path, and Westdale Dr. A loop that combines path segments with on-street segments.
 - Bicycle Boulevards. An example might be Piatt Ave from 21st St to 2nd St .
- **Un-named Network Routes:**
 - Routes between destinations such as transit, schools, business districts, major employment centers, or major path access points.

The type and phasing of facility improvements may vary depending on a number of criteria, including expected user volumes, roadway constraints, vehicle volumes and speeds, feasibility, destinations served, and relative importance in the overall network. Wayfinding can be an important component of establishing the network, because in some cases wayfinding signage could be installed prior to additional recommended facility improvements.

The phasing of signing and other bicycle network improvements do not need to occur at the same time, because wayfinding signs may be used alone (i.e. signed route) or in combination with other treatments such as pavement markings (e.g. bike lanes and shared lane markings). For example, for some lower speed/lower volume roadways installation of wayfinding signage may proceed the striping of bike lanes, and in this sense could be used as an interim step toward implementing additional recommended treatments.

In addition, the City may find it makes sense in some cases to add additional signed routes to the bicycle network without installing a bike lane or shared lane marking. Any decision to do so may be based on the following criteria:

- Alternate routes parallel, and within close proximity (less than a half mile) to a route with bicycle facilities
- Lower volume streets
- Spur routes, or routes that may span a relatively short distance and terminate at a specific destination or loop back into the main route

Policy and Regulatory Framework

Standards and guidance for the use of signage for bicycle purposes is provided by the following documents:

Manual on Uniform Traffic Control Devices (MUTCD) Guidelines

The Manual on Uniform Traffic Control Devices (MUTCD 2009 edition) includes standards for:

- Sign design for directional bicycle signs;
- Sign installation such as minimum height of signs above ground and horizontal placement from edge of the roadway or path; and
- Symbols and appropriate abbreviations for destination names.

The most recent update to the MUTCD in 2009 introduces new sign types and provides additional right-of-way placement guidelines for directional signs.

American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design and Operation of Bicycle Facilities

The AASHTO Guide provides supplemental information to the MUTCD. The guide explains the use and benefits of different sign types for bicycle wayfinding.

Americans with Disabilities Act (ADA) Guidelines

The ADA Standards of Accessible Design offer guidance on sign assembly placement to maintain the proper vertical and horizontal clearance for pedestrians. These guidelines will apply in locations where sign assemblies need to be placed adjacent to or in the sidewalk.

Sign Types

Bicycle route signs are signs that guide bicyclists along designated contiguous bikeways. The bikeways may consist of on- and/or off-street bicycle facilities. The signed bikeways create a bicycle route and a network of bicycle routes creates the bicycle route system.

The bicycle route sign system, or wayfinding system, is the system of signing bikeways in a consistent, standardized fashion. Bicycle route sign systems are designed for bicyclists who are familiar with the city's landmarks and districts, but unfamiliar with the preferred route to their intended destination(s). The sign system provides bicyclists with direction, destination and distance information. Generally there are three different primary categories of signs that can be provided in order to assist the bicyclist (listed below).

1. **Decision and Spot Decision Signs (D1):** at decision points where two or more routes intersect or where guidance is required
2. **Named Route Signs (M1):** along designated named routes
3. **Route Designation or Confirmation Signs (D11):** to confirm a route choice and provide guidance at a turn in a route



Decision and named route signs from Seattle. On paths, both sign types are used to mark the route and provide direction to destinations on and off the path.



D1-1c

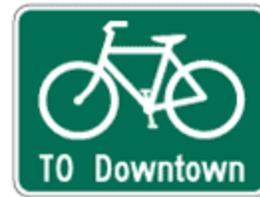
2009 MUTCD Figure 9B-4



M1-8



M1-8a



D11-1c

2009 MUTCD Figure 9B-4

Decision Signs (D1-1c series)

2009 MUTCD Figure 9B-4

Decision signs mark decision points where two or more bicycle routes intersect. Decision signs are installed on the approach to an intersection. Signs include direction, destination and distance (in miles) information.

Sign Placement in the Right-of-Way: Place 30+ feet on the approach to a decision point or intersection of another signed bicycle route. To allow for comfortable merging across travel lanes for left

turns place the decision sign at the appropriate distance from the intersection based on the number of lanes that a bicyclists must merge across:

- No merge: 30 feet
- One lane merge: 100 feet
- Two lane merge: 200 feet

Sign Specs: 36"X6", white on green and retro-reflective.

Sign Placement on Post: Directional sign organization at a given decision point will be based on the following guidelines:



1. Install D1-1c signs on the approach to intersections where signed routes intersect and where routes lead directly to the intended destination. The bicycle route system can connect business districts, schools, parks, neighborhoods and other important locations that are directly on designated routes.
2. The number of destinations provided on a given post is not to exceed three. This allows for proper vertical clearance to be maintained. Three signs per post is also about the maximum amount of information that can be read by a passing bicyclist.
3. The number of signs on a given post pointing in the same direction is not to exceed two. Limiting destinations to two in one direction is necessary to provide space for destinations in other directions, because this sign type will be installed at intersecting routes.
4. The sign with the nearest destination should go at the top of the assembly with the most distant destination at the bottom. If destinations are equal in distance, the sign with an up arrow should be placed on top. This arrangement allows for the nearest destination to “fall off” the top of the sign and subsequent destinations to move-up as the bicyclists approaches.
5. When directional blades are placed on named routes or they direct users directly to named routes, named route signs (M1-8a and supplementary signs) may be placed on the same sign post below the D1-1c sign(s). Placing multiple sign types on one post will reduce the number of posts used as well as provide all necessary information for bicyclists in one location.

Sign Content: Destination and directional information will be unique on most signs. Determining destinations is important to the function of the network. Distance information will be determined by the spacing of decision points and destination locations.

1. Identify and Rank Destinations:
 - Develop a list of all destinations and rank them in a hierarchy. For example:

- Primary: paths, bridges, business districts, neighborhoods, regional parks, downtown
 - Secondary: Institutions, transit stations, other municipalities
 - Tertiary Destinations: other public institutions/facilities, airport, designated bicycle streets
 - The ranking will help determine the sign content at a given decision point within the network.
2. Provide distance measurements in tenth of a mile increments such as 4.3, 1.2. This allows for detailed destination information in denser urban areas. If mileage on a sign is a whole number, do not include the tenth mile placeholder. For example use “4” rather than “4.0”
 3. If a bike route terminates at a location where there is no destination use the name of the final cross street or bike route as the destination.

Directional Spot Signs (D1-1b series)

Spot signs are similar to directional signs but provide direction and destination information only. Use D1-1b signs when a destination is off the signed route or when getting to the route requires additional wayfinding. Spot signs may include the words “To” and “Via” where necessary and may vary in width to accommodate limited space in the right of way. Spot signs do not need to be followed by a confirmation sign.



D1-1b

2009 MUTCD Figure 9B-4

Spot signs may be used where:

1. Guidance to signed bicycle routes from adjacent roadways, sidepaths etc. or access to important facilities such as a path is needed.

2. Guidance from signed bicycle routes when important destinations are a short distance off the signed route. In such cases, a directional sign may indicate the best access point from the signed route to the destination. Use

additional spot signs to guide bicyclists to that destination.



M1-8

M1-8a

2009 MUTCD Figure 9B-4

Named Route Signs (M1-8 series)

The M1-8 or M1-8a signs are placed along named regional on-road routes and paths to assist users in wayfinding along named routes or to confirm that they are traveling on the desired route. The M1-8 or M1-8a signs should be used with supplementary signs such as directional arrows (M5 and M6 series)



Spot sign along bicycle route in Seattle.

and the words “North”, “South”, “East”, “West”, “To”, “End”, “Begin”, etc. (M3, M4 series). The M1-8 series of signs are small in size and are a cost effective way to mark bicycle routes.

When using the M1-8 or M1-8a signs, there are pros and cons to the use of route numbers or route names. If a route already has a colloquial name, the colloquial name should be used instead of what may appear to be an arbitrary route. This will help to avoid confusion. If a colloquial name is not already utilized, then route names are encouraged. Route names can often provide additional contextual information such as destination information i.e. Smith Street Bike Route will likely follow Smith Street and Smith Street passes by X, Y and Z locations. Route numbers do not provide this context and require a bicyclist to look at a map to understand where the route goes. In areas where signed bike routes are dense, the use of numbers can be confusing because a bicyclist may have to ride on several numbered routes to get to a destination. Numbered routes can work well for cross jurisdiction travel, on routes that do not already have a colloquial name or on routes with many turns where a colloquial name is not clear. On an M1 sign, route numbers can be more visible than text from a distance.

Sign Specs: Size: 12”X18”, white on green and retro-reflective. The letters on signs should be 2 to 1.5 high for best visibility.

Sign Placement in the Right-of-Way:

On-path M1-8 or M1-8a signs may be used:

1. At path entrances and exits
2. 30’-50’ after every controlled intersection or street crossing; or
3. Every ¼ mile to mile where there is a gap in signage. Spacing will depend on the density of the street network
4. At transitional locations (such as path-to-road transitions) or in cases where bicyclists will be transitioning to sidewalks



A modified M1-8a sign at the entrance to a shared use path.

On-street M1-8 or M1-8a signs may be placed:

5. 30+ feet before a turn with an M5 or M6 arrow (follow decision sign guidelines for placement at the approach to an intersection)
6. 30-60 feet after the turn to confirm the path
7. At decision points where needed
8. Within proximity to a named route (within a few blocks), similar to a spot sign. Named route signs can be used in conjunction with a supplementary sign such as an arrow and

“To”. When farther than a few blocks off the designated route, decision signs can be used to direct users to named route

Sign placement on post: M1-8 or M1-8a signs can be mounted on the same post, below regulatory, warning or destination signs.

1. M1-8 or M1-8a signs may be placed back-to-back or back-to-back with regulatory or warning signs.
2. When multiple M1-8 or M1-8a signs are placed on the same post, they can be stacked depending on height and visibility. The current route should be the top sign.

Route Designation, Turn and Confirmation Signs (D11-1c series)



D11-1c

2009 MUTCD Figure 9B-4

These signs confirm that a bicyclist is on the correct route. The sign is used in two ways:

1. Route Confirmation Sign: Signs are placed on the far side of an intersection following the directions indicated by decision signs and at intervals along the route to confirm that the bicyclist is still on the

correct route.

2. Turn Sign: at turns in a route with an arrow (M5 or M6 series sign).

In this case D11-1c and an arrow sign are placed on the approach to an intersection.

Confirmation signs will include destination information generally with the text “To” the location indicated on the directional sign. When a confirmation sign is used on a named route, an M1-8 or M1-8a sign may be placed below the confirmation sign.



Trail Name Sign (M8)

A path name sign would be added to street name sign assemblies at intersections of paths and roadways.

Sign Specs: 24”X18”, white on green and retro-reflective.

Street Name Signs

Install street name signs at path /roadway intersections. This helps path users find path entrances and identify cross streets along paths. Placing bicycle and pedestrian legends on the path name sign indicates to motorists that the information on the sign can be disregarded.



Supplemental Signs

Supplemental signs provide additional

information to D11-1 or M1 series signs. Cardinal direction signs (M3 series) and alternate route signs (M4 series) are placed above the M1 series. Arrow signs in the M5 and M6 series are placed below D11-1 and M1 signs to provide directional information.

General Sign Components

The following guidelines outline general rules for the signs

1. For all signs use upper and lower case letters
2. Use Clearview Series C font which is approved for use by the Federal Highway Administration. It strikes a balance between visibility and maximum characters per sign.
3. Use two-inch high capital letters. This size is visible from approximately 80 feet
4. For destination names that are too long to fit on one line, use intuitive abbreviations
5. Do not use periods in the abbreviations of destination names
6. Avoid the use of diagonal arrows when possible
7. Use graffiti film on bicycle route signs that are lower to the ground, particularly on paths. This will increase the longevity of the signs.

Sign Placement Guidance

Guidance on signage placement is important to providing a legible sign system. Predictable and uniform placement of directional signs at traffic controlled intersections and at intervals helps to provide proper guidance particularly if a turn in a route is to occur.

For bicyclists, a good baseline distance required to read a sign and determine an action is 30 feet from the intersection. Additional engineering judgment is required when placing directional signs to allow for visibility of the sign with parking and vegetation and other possible obstructions.

Roadways

Turn Signs:

1. Follow placement guidelines for decision signs.

Confirmation Signs:

2. 30-60 feet on the far side of the intersection after decision points, preferably within sight of the decision sign.
3. 30-60 feet after stop controlled or signalized intersections.
4. Or after every 1/4 mile to mile of unsigned segment along designated on-street routes depending on the density of the street grid.

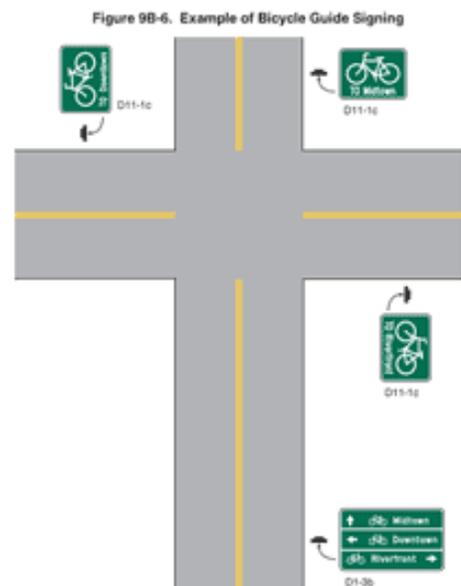


Figure 9B-6 from the 2009 MUTCD provides general lateral placement of D11-1 and D11-1 signs at an intersection.

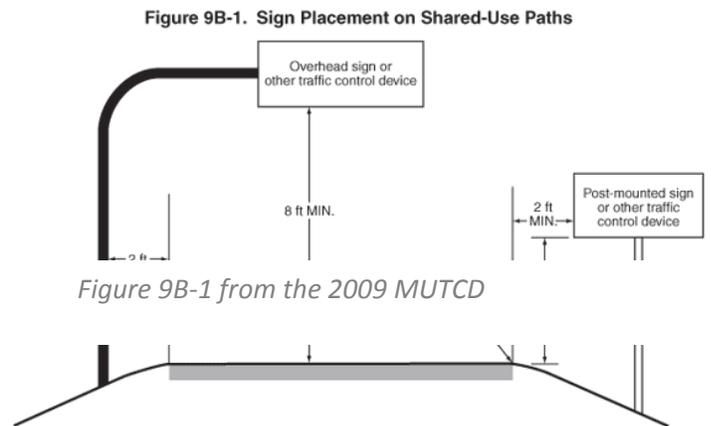
Sign content:

1. If there are two destinations in one direction, a confirmation sign may include two lines of text. This may require reduction of the bicycle symbol.

Sign mounting height is also outlined in the MUTCD ([section 2A.18](#)), however, due to speed and sight line differences between bicyclists and motor vehicles, minimum post heights are recommended for bicycle signs.

Mounting height guidance:

1. Sidewalk Clearance: 7 feet of clearance from the bottom of the sign to the ground should be allowed. If there are multiple signs per post, and the lowest sign is lower than 7 feet, the lowest sign cannot stick-out more than 4 inches into the sidewalk. If bicycles use the sidewalk the clearance height should be 8 feet.
2. If there is no sidewalk and few obstructions such as parked cars, optimum vertical height for bicycle signs is 7 feet from the bottom of the sign.



Shared Use Paths

Horizontal, lateral and vertical installation of bicycle signs differs for shared-use paths and roadways. For paths follow lateral and vertical sign placement guidelines in the MUTCD guidelines for signs placed along shared-use paths ([Figure 9B-1](#)):

1. 8 foot minimum vertical clearance
2. 2 foot clearance from edge of path to edge of sign
3. 4 foot minimum distance between ground and bottom edge of sign

Best Practices

The cities of Chicago and Seattle provide examples of best practices for bicycle wayfinding. Below are descriptions of their wayfinding systems.

Chicago

The City of Chicago has implemented an extensive directional

sign system for bicycles using destination-based signage for the on-street bicycle network. The MUTCD D11-1c and D1-1c series signs were developed by the City of Chicago in an effort to consolidate the amount of signage required by the 2003 MUTCD for bicycle wayfinding using the D11-1, D1-1 and supplemental signs. The D11-1c provides specific destination information, such as “To Evanston” in lieu of the general “BIKE ROUTE” text of the D11-1 sign. This is helpful in distinguishing different routes in a dense bicycle route network. The D11-1c is used by the City of Chicago as a confirmation sign to confirm a route selection. The sign is to be placed on the far side of an intersection after a route choice had been made. The D1-1c consolidates direction, destination and distance information onto one small sign. Several D1-1c signs can be installed together at the approach to a decision point to provide information on multiple routes. The D11-1c and the D1-1c were developed by the City of Chicago and later incorporated into the 2009 edition of the MUTCD.

Seattle

The city of Seattle also has a directional sign system for bicycles. Modeled after the Chicago system, the Seattle system also uses the D11-1c and D1-1c series of signs. Because Seattle has an extensive off street path system, additional signs were required to distinguish named routes. The M1-8 series of signs are used in Seattle to mark named routes. These signs are installed along named routes with supplementary signs from the M2, M3, M4, M5 and M6 series. M1 signs are also installed at decision points on paths with D1-1c or D11-1c signs (see figure).

Many of Seattle’s paths are named. In order to include the colloquial route name on the M1-8a sign, adjustments were made to the sign. The route number was replaced with route name within the main body of the sign. The space at the top of the sign was used for a logo. This complete sign system helps bicyclists get to destinations throughout the city and provides



2003 MUTCD guidelines for directional bicycle signs. Right: Chicago developed the D1-1c sign to consolidate direction, destination and distance information onto one sign.



Decision signs preceding an intersecting signed bike route in Chicago.



guidance to and along named bicycle routes.

Bicycle Counts

In order to track progress of the plan and the growth of trips by bicycle within the city of Wichita, organized bicycle counts are recommended to be conducted on an annual basis. The following instructions and forms can be used as example materials when considering a bicycle count program.

Bicycle Count Form

The following forms track the following information:

- Count location
- Time (15 min intervals) /Date
- Number of bicyclists
- Direction of travel
- Use of street or sidewalk
- Gender
- Helmet use

Two examples of the 15 minute forms follow below.

December 12

Bicycle Count Form

Time: 6:30 – 6:45

Location # _____

Your Name: _____

Directions: For each cyclist you are counting, please place two hatch marks on this page. The first mark goes directly below in one of the 16 squares, which indicate the cyclist's final direction of travel, whether or not the cyclist is on the street or the sidewalk, and the gender of the cyclist.

The second mark is placed at the bottom of this page and indicates whether the cyclist was wearing a helmet.

	Northbound		Southbound		Eastbound		Westbound	
	Riding on Street	Riding on Sidewalk						
Male								
Female								
Total								

Wearing a Helmet?

Yes

No

December 12
Bicycle Count Form

Time: 6:46 – 7:00

Location # _____

Your Name: _____

***Directions:** For each cyclist you are counting, please place two hatch marks on this page. The first mark goes directly below in one of the 16 squares, which indicate the cyclist's final direction of travel, whether or not the cyclist is on the street or the sidewalk, and the gender of the cyclist.*

The second mark is placed at the bottom of this page and indicates whether the cyclist was wearing a helmet.

	Northbound		Southbound		Eastbound		Westbound	
	Riding on Street	Riding on Sidewalk						
Male								
Female								
Total								

Wearing a Helmet?

Yes

No

Instructions to Volunteers

Date:

Time:

Count Organizers: Name and phone number

Enclosures: You should have the following in this packet:

- 1) A map showing your count location
- 2) Ten count forms (5 double-sided sheets), one for each 15-minute interval during the counts
- 3) A business-reply envelope to return the completed forms

Other Items Needed: Please make sure to bring:

- 1) a pen / pencil
- 2) something to write on (clipboard, portfolio, etc.)
- 3) some sort of timekeeping device (cell phone, watch)

Introduction: This is an annual count taken at (#) key locations throughout the city. Data collected from the counts will be used to monitor success in increasing bicycle use as called for in the Bicycle Master Plan.

Assignments: Each location will have at least one counter. Depending on the number of volunteers, some locations will have more than one counter. In these cases, please use only one set of count forms per location. Since the locations with multiple counters are expected to be busier, it will work best if one person counts and another person fill out the forms.

Conducting the Count: You have been provided with ten copies of the count form (5 sheets, each double-sided).

Each form is the same except that a specific 15-minute time period is printed at the top (i.e. 7:00 – 7:15). **Please make sure to coordinate the form you use with the correct time period**, as we want to measure variation in bicycle traffic over time. Also, make sure to **write your name and location number on each form**.

The count itself is very simple: place a hatch mark on the form for each passing cyclist, based on whether they are heading north, south, east or west (the direction in which they are going toward), whether they are riding on the street or on a path (or sidewalk), and whether the rider is a male or a female. Then place a second hatch mark for each cyclist under the “wearing a helmet?” section at the bottom of the page.

Whom do you count? Only count those cyclists passing your post in the direction(s) designated on your map! This includes anyone who is walking their bicycle past your post, kids in trailers, tandem riders, recumbent riders etc. Do not count cyclists riding by on nearby streets unless specifically instructed to do so, as this could lead to double-counting.

Returning the Count Forms: There is a business-reply envelope included with this packet. When you are finished counting, simply fold and place the 5 sheets in the envelope and drop it in the nearest mailbox.

Cancellation / Rescheduling the Count: If it is raining when you wake up on the morning of the count, call the count organizer. There will be a recorded message stating if the count is still on or not. A bit of rain will not be enough to cancel the count, but a steady pour will be.

Other Information: The accuracy of the count depends largely on thorough coverage of the (#) points during the entire morning commute. **Please make sure to get to your location on time!** If you have any problems or know that you will not be able to make it, call the count organizer ASAP (see top for phone numbers). The count organizers will be coming around to check on you during the counts.

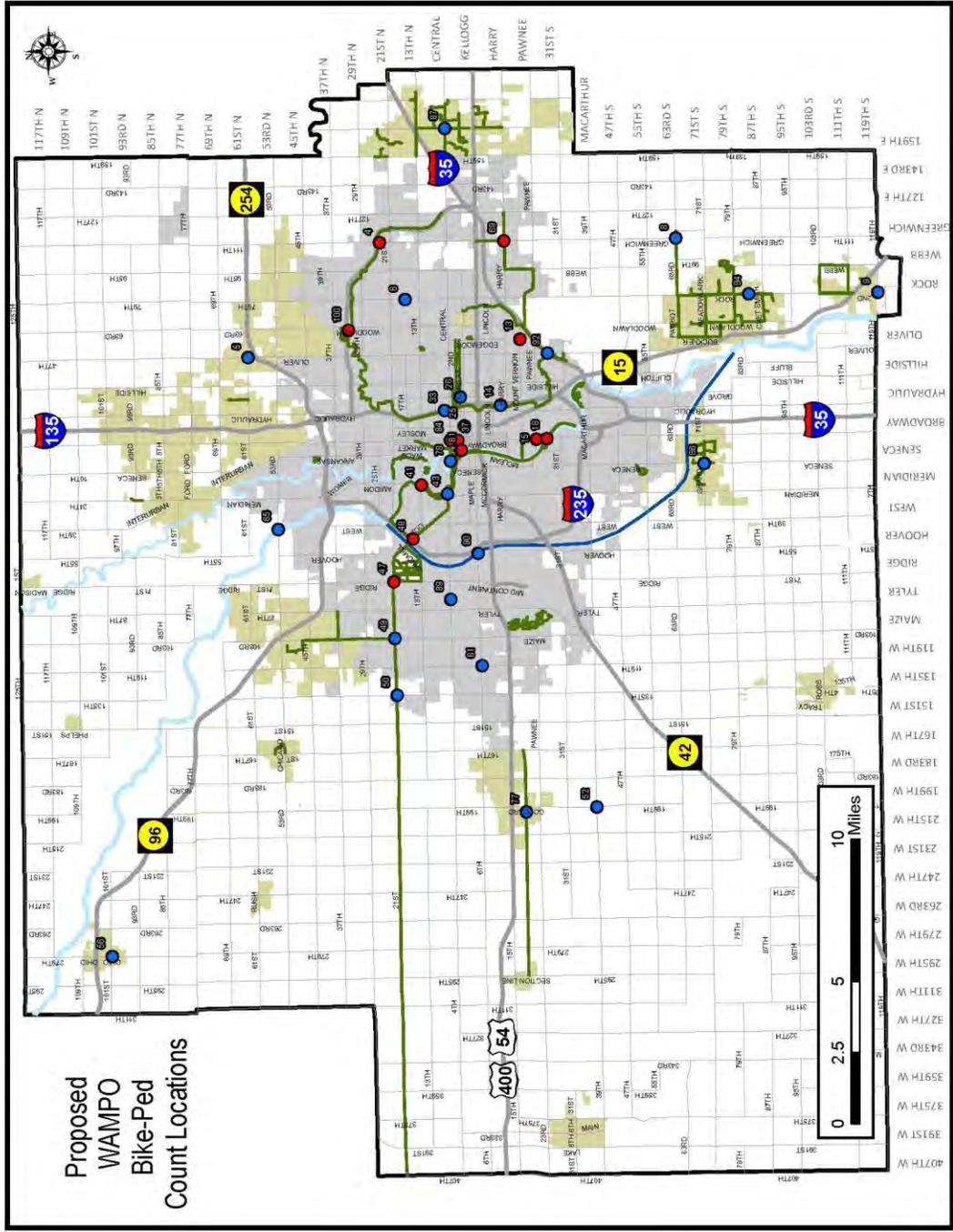
Thanks to everyone involved in this important data collection effort. This would not be possible without your help, and all of the enthusiastic responses indicate that this will be the best count ever!

Happy Counting!

Automated Count Locations Map

Legend

- Annual Tier 1
- Annual Tier 2
- Bike/Ped Facility
- Wichita - VC Floodway
- Arkansas River System
- Wichita
- Surrounding City
- WAMPO Planning Boundary



CountID	Location
4	Greenwich and K-96 BkePth
5	Oliver at 61st
6	Rock @ 17th St. Rail bed
8	63rd and Greenwich
9	K-53 and 2nd - Mulvane
13	ML Vernon and Edgemoor
14	Canal Rte at Ped Bridge
15	Pawnee and Broadway
18	Ark River Path @ Broadway
25	Douglas and Washington
26	1st Street and Grove
33	Canal Trail at Redbud
37	Broadway and 2nd
41	Ark River Path at 13th
43	Ark River Path at Central
47	Trail -21st St and Ridge
48	Zoo and Westdale
49	21st St and Maize Rd
50	21st St and 135th
52	Macarthur and 198th
56	101st and 279th Mt. Hope
61	Maple and 119th
65	53rd St Ark River Bridge
69	Harry and Greenwich
77	Prairie Snst Trail
78	Central at Nims
81	1st at Waco
84	Broadway and Central
86	Main at Grand - Haysville
87	Central and Andover Rd
89	Central at Socora
90	Maple at the Big Ditch
92	Gypsum Ck BkPath at Oliver
94	Rock - S. of Madison
100	K-96 Path Gr Plains NatCtr

APPENDIX H

FUNDING SOURCES



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There are multiple potential funding sources at the local, regional, state and federal level available for bicycle and pedestrian projects. Below is a list of these funding sources.

Local Funding

Routine Accommodation

One of the most cost effective ways to build bicycle infrastructure is to adopt a policy that ensures future roadway and other infrastructure projects include bicycle infrastructure improvements where feasible (see Chapter 4, Strategy 20). There are several common strategies for routine accommodation of planned bicycle facilities. Implement bicycle facilities during new construction and reconstruction of roadways. When repainting/striping projects are scheduled, there is opportunity to stripe in bicycle facilities. Utility projects are also an opportunity to incorporate bicycle facilities. Coordinating with other project types can be a lower cost solution for bicycle projects when compared to stand alone bicycle infrastructure projects.

CIP

The City of Wichita funds the majority of its transportation infrastructure projects through its Capital Improvement Program (CIP). The CIP is a budget document that provides a 10 year plan for financing of capital assets (i.e. buildings, roads, large equipment, etc.). The CIP identifies how much, what funding type, and when capital asset improvements/purchases will be undertaken.

Maintenance

Funding for the maintenance of bicycle facilities is provided through the City of Wichita operating budget. The responsibilities for maintenance of the City maintained bicycle facilities are generally split between the Park and Recreation Department, and the Public Works and Utilities Department. The Park and Recreation Department is generally responsible for the maintenance of the landscaping, while Public Works Street Maintenance is responsible for the paved surfaces. The maintenance of the paved surfaces comes from the same funding as maintenance of City streets.

State Funding Sources

The State of Kansas is important to the implementation of the City of Wichita Bicycle Master Plan (Plan), because infrastructure investments by the State could help to speed up implementation of the Plan. At the state-level, some Plan recommendations may be more quickly implemented by allocating additional monies in KDOT's annual budget to provide additional staffing and support for bicycle related programs. In addition, funds from federal Comprehensive Transportation Program (CTP) for spending on the construction of shared-use pathways could be pursued by incorporating bicycle infrastructure improvements into KDOT's Statewide Transportation Improvement Program (STIP).

Federal Funding Sources

Federal transportation funding is an important source of funding for states and municipalities. With the passing of the most recent Federal transportation funding Act – the Moving Ahead for Progress in the 21st Century (MAP-21) funding programs that were established under ISTEA and carried over into subsequent transportation bills (e.g. Transportation Enhancements, Safe Routes to Schools, Recreational Trails, and redevelopment of underused highways to boulevards) have been consolidated into the Transportation Alternatives Program (TAP). The Transportation Alternatives program builds upon the legacy of the TE program by expanding travel choices, strengthening the local economy, improving the quality of life, and protecting the environment.

How MAP-21 Works

The MAP-21 bill gives states more flexibility in how they allocate federal monies. States have the option to increase funding that supports walking and bicycling, keep funding levels the same, or decrease funding. Under the new bill state DOTs are to distribute 50% of TAP funding to defined Transportation Management Areas, which consist of cities or metro areas with populations greater than 200,000. The other 50% of TAP funding may also be directed by DOTs to local or regional control, or DOTs have the option to redirect this funding to other state highway programs. Governors are given the authority to opt-in or out of the Recreational Trails program on an annual basis. If they choose to opt-out, funding set aside for the Recreational Trails program automatically goes into the TAP.

The funding for each State's Transportation Alternatives program includes the nine TA eligibilities (see below); the Recreational Trails Program; the Safe Routes to School program; and "planning, designing,

or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways”.

The Transportation Alternatives program is a part of the Federal-aid Highway Program. Although the program is a “grant” program under Federal regulation, it is not an “up-front” grant program and funds are available only on a reimbursement basis. Only after a project has been approved by the State Department of Transportation or Metropolitan Planning Organization and the FHWA division office can costs become eligible for reimbursement. This means project sponsors must incur the cost of the project prior to being repaid. Costs must be incurred after FHWA division office project approval or they are not eligible for reimbursement.

Eligible Activities for Transportation Alternatives Program:

1. Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non- motorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990.
2. Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
3. Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other non-motorized transportation users.
4. Construction of turnouts, overlooks, and viewing areas.
5. Inventory, control, or removal of outdoor advertising.
6. Historic preservation and rehabilitation of historic transportation facilities.
7. Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control.
8. Archaeological activities relating to impacts from implementation of a transportation project eligible under this title.
9. Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to address storm water management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff, including activities described in sections 133(b)(11), 328(a), and 329; or reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.

In addition to the eligibilities listed above from section 101 of MAP-21, eligible Transportation Alternatives projects also include any projects eligible under the Recreational Trails Program or Safe Routes to School Program (SRTS). Major changes to SRTS funding include elimination of the requirement that states spend between 10 and 30 percent of SRTS funds on non-infrastructure activities (e.g. public awareness campaigns and outreach to press and community leaders, traffic education and enforcement, student training, and funding for training, volunteers, and managers of SRTS programs), and state SRTS coordinators are no longer mandated, but are an eligible use of funds. Law enforcement activities within 2 miles of a K-8 school remain eligible for funding as SRTS projects. SRTS-related law enforcement activities can also be funded by HSIP funds, if SRTS is identified in the Strategic Highway Safety Plan. Eligible Transportation Alternatives projects also include the “planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways” as stated in Section 213(b)(4) of title 23 U.S.C. Lastly, although the language for the

national Scenic Byways program will stay intact, funding for projects has not been included in the new transportation bill. There will be no national Scenic Byways funding program.

Final rulemaking on MAP-21 is expected no later than October 1, 2012 and it is expected that some guidance issued at that time may be interim. More information, including updates, on MAP-21 and final rulemaking can be found at Advocacy Advance <http://www.advocacyadvance.org/MAP21> and from the FHWA at <http://www.fhwa.dot.gov/map21/>.

Other Relevant Funding Programs

The Transportation Alternatives program is one component of the total federal transportation funding apportionment states receive. Other programs that are part of the federal apportionment to states, and which could be important for supporting this Plan's recommendations include the National Highway Performance Program, the Surface Transportation Program, and the Highway Safety Improvement Program (HSIP). The Section 402 State and Community Highway Safety Grant Program is another potential source of funding for certain types of projects that may benefit bicyclists. The following are some details for each of these funding sources:

Surface Transportation Program (STP)

The Surface Transportation Program provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the NHS, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. Among the eligible activities under STP are projects relating to intersections that: have disproportionately high accident rates; have high congestion; and are located on a Federal-aid highway.

Highway Safety Improvement Program (HSIP)

The HSIP emphasizes a data-driven, strategic approach to improving highway safety that focuses on results. A highway safety improvement project corrects or improves a hazardous road location, or addresses a highway safety problem. Funds may be used for projects on any public road or publicly owned bicycle and pedestrian pathway or trail. Each State must have a Strategic Highway Safety Plan (SHSP) to be eligible to use up to 10 percent of its HSIP funds for other safety projects under 23 USC (including education, enforcement and emergency medical services).

State and Community Highway Safety Grant Program

Highway Safety Funds are used to support State and community programs to reduce deaths and injuries on the highways. In each State, funds are administered by the Governor's Representative for Highway Safety. Pedestrian Safety has been identified as a National Priority Area and is therefore eligible for Section 402 funds. Section 402 funds can be used for a variety of safety initiatives including conducting data analyses, developing safety education programs, and conducting community-wide pedestrian safety campaigns. Since the 402 Program is jointly administered by NHTSA and FHWA, Highway Safety Funds can also be used for some limited safety-related engineering projects. A State is eligible for these formula grants by submitting a Performance Plan, which establishes goals and performance measures to improve highway safety in the State, and a Highway Safety Plan, which describes activities to achieve those goals.

Additional information is available from the following web sites:

- [NHTSA 402 Programs and Grants](#)
- [Traffic Safety Fact Sheets for Section 402 and Related Programs](#)

- [Uniform Guidelines for State Highway Safety Programs](#)
- [Traffic Safety Fact Sheets—Links to laws](#)

National Highway Performance Program

The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State’s asset management plan for the NHS.

NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Eligible activities include:

- Construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvements of NHS segments.
- Construction, replacement (including replacement with fill material), rehabilitation, preservation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) of NHS bridges and tunnels.
- Bridge and tunnel inspection and evaluation on the NHS and inspection and evaluation of other NHS highway infrastructure assets.
- Training of bridge and tunnel inspectors.

Federal-aid Highway Program

- National Highway System funds may be used to construct bicycle transportation facilities and pedestrian walkway on land adjacent to any highway on the National Highway System
- Surface Transportation Program funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects such as maps, brochures, and public service announcements related to safe bicycle use and walking.
 - Ten percent of each state’s annual Surface Transportation Program funds is set aside for Transportation Enhancement Activities, which include facilities for pedestrians and bicycles, safety and educational activities for pedestrians and bicyclists, and the preservation of abandoned railway corridors.
 - Ten percent of each State’s annual Surface Transportation Program funds are set aside for the Hazard Elimination and Railway-Highway Crossing Programs, which addresses bicycle and pedestrian safety at hazardous locations.
- Funds from the Congestion Mitigation and Air Quality (CMAQ) Improvement Program may be used to construct bicycle facilities, pedestrian walkways, or non-construction projects such as maps, brochures, and public service announcements related to safe bicycle use.

- Funds from the Recreational Trails Program may be used for all kinds of trail projects. Of the funds apportioned to States, 30% must be used for motorized trail uses, 30% for nonmotorized trail uses, and 40% for combination trail uses.
- National Scenic Byways Program funds may be used for construction of a bicycle and pedestrian facility along scenic byways.
- Job Access and Reverse Commute (JARC) Grants are available from the Federal Transit Administration to support bicycle-related services and other projects that are designed to transport welfare recipients and eligible low-income individual to and from employment.
- High Priority Projects and Designated Transportation Enhancement Activities include numerous bicycle, pedestrian, trail, and traffic calming projects in communities.

Federal Transit Program

- Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program for Other than Urbanized Area transit funds may be used for improving bicycle and pedestrian access to transit facilities and vehicles.
- The Transit Enhancement Activity Program sets aside one percent of Urbanized Area Formula Grant funds specifically for pedestrian access and walkway and bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles.

NOTE: FTA’s Final Policy State on the Eligibility of Pedestrian and Bicycle Improvements Under Federal Transit Law (docket number FTA-2009-0052) issued 8/19/11 simplifies the process for determining whether a pedestrian or bicycle improvement qualifies for FTA funding. For the reasons outlined in this Policy Statement, and for purposes of determining whether a pedestrian or bicycle improvement has a physical or functional relationship to public transportation, all pedestrian improvements located within one-half mile and all bicycle improvements located within three miles of a public transportation stop or station shall have a de facto physical and functional relationship to public transportation.

Highway Safety Programs

- State and Community Highway Safety Grant Program (Section 402) supports State highway safety programs designed to reduce traffic crashes and resulting deaths, injuries, and property damage. Funds may be used for a wide variety of highway safety activities and programs including those that improve pedestrian and bicycle safety. States have funded a wide variety of enforcement and educational activities with Section 402 funds including safety brochures; “Share the Road” materials; bicycle training courses for children, adults, and police departments; training courses for traffic engineers; helmet promotions; and safety-related events.

Other Federal Programs

- Transportation and Community and System Preservation (TCSP) program is a competitive grant program designed to support projects that show how transportation projects and plans, community development, and preservation activities can be integrated to create communities

with a higher quality of life. Bicycling, walking, and traffic calming projects are eligible activities and may well feature as an integral part of many proposed projects that address larger land use and transportation issues.

- Safe Routes to School (SRTS) provides funds to States to improve the ability of primary and middle school students to walk and bicycle school safely. The program fund two distinct types of projects: infrastructure projects (engineering improvements) and non-infrastructure related activities (such as education, enforcement, and encouragement programs). Infrastructure funds can be utilized for on and off-street bicycle and pedestrian facilities on any public right-of-way within a two-mile radius of an eligible school.
- Highway Bridge Replacement and Rehabilitation Program (HBRP) or (BRR) funds the replacement or rehabilitation of highway bridges. If a highway bridge or deck is being replaced, and bicyclists are permitted at each end, then the bridge must include safe bicycle accommodations (at reasonable cost).

More information on many of the programs listed above can be found at the Federal Highway Administration's Bicycle and Pedestrian Program website;
<http://www.fhwa.dot.gov/environment/bikeped/>

APPENDIX I

EDUCATION, ENCOURAGEMENT, & ENFORCEMENT



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Introduction

Infrastructure is only part of the solution to making a place more bicycle and pedestrian-friendly. Efforts must also be made to address non-infrastructure elements such as unsafe behaviors of all roadway users, safe bicycling skills, and general awareness of bicyclists on the roadway. This section documents existing programs undertaken by the City of Wichita (City), partnering agencies, and volunteer organizations followed by recommendations for revised and additional programs that uphold the vision and goals set forth for the Plan.

It is worth emphasizing the important role that volunteers and advocates will play in improving conditions for bicyclists in Wichita. The City can set the course via policies and infrastructure improvements, but the actual conditions can only be impacted by the actions of all citizens both in daily conduct and organized group actions. Fortunately, there are groups, clubs and individuals dedicated to improving bicycling conditions in Wichita. There are a number of agencies and organizations that could potentially play an active role in encouragement and education efforts, including but not limited to the WAMPO, Wichita Police Department, BikeWalk Alliance of Wichita, Kansas Department of Transportation, the Health and Wellness Coalition of Wichita, Oz Bicycle Club, bike shops, Coasters Club and neighboring jurisdictions. The combined efforts of the City and its partners will help to establish and sustain a bike culture.

Education

A safe transportation system begins with an understanding of the rights and responsibilities of all residents that use the City's streets, sidewalks, and trails. Education is required to address issues such as wrong-way riding and riding without a helmet, how bicycles and cars can safely share the road, the importance of looking both ways, and compliance with stopping regulations. This information needs to reach as many residents as possible and it needs to be provided in both English and Spanish. Below is a discussion of programs and other efforts focused on educating the public about bicycling safety, some of which the City of Wichita and its partners are already offering or pursuing.

Safe Routes to School (SRTS)

Safe Routes to School (SRTS) programs are sustained efforts by parents, schools, community leaders and local, state, and federal governments to improve the health and well-being of children by enabling and

encouraging them to walk and bicycle to school. The City of Wichita, with support from the WAMPO and the Safe Kids Wichita Area Coalition, has supported SRTS applications in the past. WAMPO and the Safe Kids Wichita Area Coalition have drafted a Regional Safe Routes to School Plan which outlines objectives, goals and strategies for SRTS that should be considered when funding is available.

The majority of Wichita's public schools are located on collector streets and accessibility via walking and biking which would be greatly improved with implementation of the recommended bicycle network. Bicycle and pedestrian safety are skill sets that will benefit the children through their entire lives. Children are being driven more often than children of a generation past, and are given fewer opportunities to practice safe biking and walking skills with their parents¹. Ensuring consistent, certified instruction for all children of Wichita will help to improve safety for the City's next generations. To support pedestrian education, Wichita Public Schools could be encouraged to adopt the National Highway Traffic Safety Administration (NHTSA) Pedestrian Safety Curriculum as part of the school physical education annual curriculum. The school district could also continue to support Bike to School Day in which 30 schools participated in 2011. This event is a good opportunity to conduct bicycle education.

Wichita Health and Wellness Coalition

The Wichita Health and Wellness Coalition (WHWC) focuses on promoting physical activity for residents of the Wichita area. WHWC is an active partner in promoting bicycle safety and encouragement through several programs including the Bike Back 2 School Program for students at participating Wichita Public Schools and the Bike Friendly Business Campaign that recognizes businesses that promote bicycle friendliness.

Educating Law Enforcement Officers About Bicycles

It is important for all law enforcement officers to fully grasp the rights and responsibilities of all roadway users. Educating law enforcement officers about the laws applying to bicycles, as well as the operational characteristics of bicycles can help officers better understand what behaviors they should be targeting from an enforcement point of view.

Police Education Seminars & Rodeos

The Wichita Police Department has a Bicycle Unit that is active for special assignments only. Officers in this unit have been certified by the International Police and Mountain Bike Association (IPMBA) to instruct their unit in bicycle operations. Make funding available to support full-time bicycle police, police bicycle maintenance and police led educational seminars and rodeos. As recommended in Strategy 14, these officers or staff of the Community Affairs Section could be certified by the League of American Bicyclists to provide bicycle safety education such as seminars and experiential rodeos. The instructor begins each rodeo with an explanation of bicycle skill expectations for students. Various stations are set up to give students the opportunity to practice a variety of specific bike handling skills for operating a bike safely and legally on the street. Bicycle rodeos are provided during the school day, and at events upon request. Health fairs and safety events should be seen as opportunities to promote safe cycling clinics for children, families and adults.

City Website

The City's website is helpful and functions as a clearinghouse for several important transportation-related resources and the Plan recommends that the City utilize the web site to distribute educational

¹National Center for Safe Routes to School, *How to get Children to School*, 2011.

information (Strategy 11). The following actions could be undertaken to expand and enhance the existing City of Wichita website for bicycle and pedestrian-related content:

Create a more centralized transportation and recreation oriented bike/pedestrian section on the City's website

The City could expand and maintain an online reference that provides easy access to bicycle laws, safety tips, maps of the bicycle network, as well as links to programs that encourage people to bike more often. Ideally, this information should be presented all in one place on the City's website, or if this is not desired, then links to relevant pages, i.e. 'Transportation Planning', or 'Park and Recreation' should be compiled and provided in one place. As the City's bike program grows, so does the content on the website.

Register an additional Bike/Pedestrian web address that is more intuitive

Bicycle and pedestrian related information on the City's webpage could be placed in an intuitive location. This recommendation is not to create an entirely separate website, but to register web addresses that are easier to remember, and to link/forward those web addresses to contents' location on the City website. For example, it is easier to remember and can easily be included in flyers, emails, postcards, etc.

Add a calendar showing bicycle events

Posting bicycle events on a monthly calendar would help people become more aware about upcoming events. One example of an existing bicycle related event calendar is the one hosted by the Oz Bicycle Club on their website. The City could also partner with other agencies and interest groups that have bicycling events and publicize information about the events on the City's website, Facebook page, and distribute through email notices. All postings and event information should be available in a format that is accessible and easy to read.

Continue "report a problem" link to the City's Bike/Pedestrian Webpage

The City could provide a bicycle issue specific link to the existing "Report an Issue" reporting system for the public to report location-specific problems with City infrastructure. Place a link to the "Report an Issue" page on the Bicycle webpage will help people find the link quickly, while their concern is on their mind. Once comments are submitted on the electronic form, a City staff person is notified and has the tools needed to investigate the concern. This action could help with implementation of Strategy 7, which recommends an action to perform spot fixes for maintenance problems based on an annual work plan and public requests. The website is <http://wichita.gov/ContactUs/Report/Default.htm>.

Cross-post bicycle-related volunteer opportunities

Cities can always use help from volunteers. Strategy 7 recommends that the City establish and manage an Adopt a Path Program, there are also many other jobs that enthusiastic citizens can perform – such as helping to distribute flyers. It could be helpful to post any volunteer opportunities related to bicycling on the City's bicycle web page and/or Facebook page. The bicycle web page audience is interested in bicycling and may be willing to volunteer time to improve conditions.

Cross-post bicycle-related activities and programs

Several City departments have activities and programs that are in support of bicycling. The City's Parks and Recreation, Planning, and Public Works departments all have projects or programs that either address bicycling directly or have complementary objectives. Cross posting the efforts of other City agencies and departments will make for a more convenient experience for the web user, and will promote cooperation and joint development across City departments.

Develop a Comprehensive Safety Education Program

As resources become available, the City, in partnership with other organizations such as the Health and Wellness Coalition of Wichita, and private industry, e.g. healthcare, could develop a comprehensive safety education program/campaign programs. The tone should be cooperative, emphasizing that all modes need to be aware and respectful of each other on roads and trails. Below are additional activities that should be marketed under the umbrella of an energized and comprehensive program.

Create a brand for the safety education program

The City's bicycle program could benefit from having its own identity. Creating brands that can be applied on all new materials will help spread awareness and maintain a consistent message. The brand should be apparent on all activities and products that are associated with the program.

Create & distribute educational and promotional materials

Educational and promotional materials such as maps, bumper stickers, billboards, website content flyers, etc. having a unified theme and message can be very effective and raising awareness about bicycle safety and the benefits of driving motor vehicles with care. Many materials could be made available in both English and Spanish.

Promote and support adult bicycle safety classes

Many adults are unaware of how to properly fit and wear a helmet, signal turns to vehicular traffic and other safe road riding skills. The City could promote adult bicycle fun rides, clinics and engage volunteers that are certified bicycle instructors (by the League of American Bicyclists) to organize and conduct the clinics and rides. Clinics and rides could be posted on the bicycle calendar of events. The City bicycle web page can also provide links to those groups that provide publicly accessible clinics, rides and workshops.

Additionally the City could provide classroom space for bicycle safety workshops. Groups and clubs regularly offer clinics and workshops but have difficulty finding spaces that can provide both classroom space, and areas to practice maneuvers. Several civic buildings have meeting rooms and parking lots that can be used for instruction. These spaces are usually unused during weekend and evening hours. Providing these spaces for free would increase the frequency that clinics and workshops are offered.

Encouragement

Wichita is fortunate to have an enthusiastic cycling community. The City has multiple cycling clubs and groups that promote bicycling in and around the city and organize group rides. While many of the groups are oriented to recreational riding, their members' presence on the roads and paths increases awareness of all cyclists. In addition to recreational riders, the US Census reports that number of residents that cycle for transportation has grown year over year for the last four years.

Bike to Work Day

The purpose of Bike to Work Day (BtW) is to encourage people to try substituting a bicycle for their car for one day, with the hope that the day's experience will inspire more regular bicycle commuting. The City has partnered with the Health and Wellness Coalition of Wichita, and other organizations to host bike to work events in Wichita; and Strategy 5 recommends that the City continue to actively partner to promote and/or organize special community events to promote cycling. The City could continue to participate in Bike to Work Day and promote greater participation by encouraging its employees to bike to work, as well as holding bike commuter "lunch-and-learn" workshops. Another idea to increase participation is to partner with bicycle shops and other organizations to have a mobile cyclery unit provide free bike tune-ups. The City could also partner with health related organizations, and bicycle groups, and local restaurants to provide a breakfast station and prizes for participants (in addition to the

free lunch offered at previous BtW Day events. The City could seek partners to promote this event, and should explore other strategies for increasing the number of participants.

Create a Bicycle Facilities Map

A bicycle facility map can be an effective tool for encouraging novice bicyclists to ride more often because it helps them understand key connections for getting to their destination. Strategy 9 recommends that the City should develop a City-wide bicycle facilities map, which should be available in both print and digital formats (downloadable PDF and mobile device format). The map should provide detailed bicycle facilities information (on-street routes and off-street trails), and could potentially include safety tips, bikes on buses information. It could also include a summary of laws and regulations applying to bicyclists. The map could be designed in a format that is also viewable by people using smartphones as these are growing in popularity as navigational tools.

Bicycles and Transit

Public transit can be an attractive solution for extending bicycle trips. All Wichita Transit buses are equipped with bicycle racks which allow individuals to take their bicycles with them as they travel on the bus. The bus attached bicycle racks can be used at no additional cost.

Another way to combine bicycle and transit trips is to provide secure parking facilities at the transit station and transit bench locations. . People can choose to bike to the transit location, and then take the bus the rest of the way to their destination. Alternatively, people can choose to leave a bike waiting at the transit bench location and bike the rest of the way after the bus ride.

Partnering

Entities and interest groups outside the City will contribute to the success of the Master Plan. Below is a list of organizations that the City can collaborate with to encourage bicycling, including facilitating, organizing, or cross publicizing efforts.

Health & Wellness Coalition of Wichita – http://www.hwcwichita.org/HWC_Home.htmlThe coalition “researches and promotes evidence based programs and interventions” for healthy living in the Wichita area. The coalition has been involved in the Bicycle Master Planning process and administers grants and programs related to promoting bicycling and walking.

Bike/Walk Alliance of Wichita - Bike/Walk Alliance of Wichita is an advocacy group whose mission is to promote running, walking and biking through “advocacy, public education and collaboration”. The alliance may be a good partner in disseminating information or recruiting volunteers.

Bicycle Shops – Wichita has numerous bicycle shops through which education and encouragement information could be disseminated. Shops may also be potential sponsors of events like Bike to Work Day or community races.

Other potential partners include major employers, higher education and other schools

- Wichita State University
- Cowley College
- Southwestern College
- Friends University
- Newman University
- Wesley Medical Center
- Wichita Public Schools

- Wichita Downtown Development Corporation

Group Rides

Whether for recreation or commuting purposes, riding in groups gives novice cyclists confidence to ride both on and off-road, and introduces new and convenient routes for everyday rides. The rides can cover vast areas and provide tours of the City, or they can help people identify comfortable and convenient routes to work. The best rides are those that start and end in the same location but explore new routes and destinations, giving people a new awareness of the Bicycle Network. Group rides have the added benefit of creating a strong bicycle presence on the roads. Strategy 15 recommends that the City should be an active partner with bicycle organizations to organize and promote bicycling events. The Coaster Bicycle Club Health & Wellness Coalition of Wichita, Wichita Department of Parks & Recreation, and area bicycle shops have all been active in promoting bicycle group rides

Students can also benefit from group rides. The Safe Routes to School movement encourages young cyclists to bike to school in groups with adult chaperones. These rides increase the students' confidence in their bicycling skills and establish healthy habits for life. Bicycle trains have been especially effective for high-school aged students, providing a cheaper alternative to driving.

While the actual rides may be led by volunteers from local bicycling organizations, the City's role in this strategy can be to provide resources and materials on planned group rides by including information about the events on the City's website, Facebook, and in email distributions. The City can also link to other groups that produce how-to materials for organizing group rides or bicycle trains to school.

Achieve Bronze Level Bicycle Friendly Community Status

Cities across the nation are applying for Bicycle Friendly Community status recognize accomplishments related to bicycling and guide discussions about local challenges and opportunities for bicycling. The award criteria help to prioritize efforts and strategies to improve existing conditions. Community leaders recognize that the tiered structure of the award (bronze, silver, gold, and platinum) helps to establish milestones for future progress. Once awarded, the League of American Bicyclists (LAB) provides feedback on how to advance to the next level, making it easier for communities to organize next steps for Plan implementation. Finally, the national recognition publicly announces that the Community is committed to enhancing bicycling conditions. As of 2011 there are only 180 formally recognized Bicycle Friendly communities across the country. Strategy 16 recommends that the City should work to achieve recognition by the LAB as a Bicycle Friendly Community.

Enforcement

Police on Bikes

An effective way to engage bicyclists and model safe bicycling maneuvers is to put police officers on bicycles. The Wichita Police Department has a Bicycle Unit. As the bicycle network becomes more developed the City could provide more regular patrols by bicycle-mounted officers. These officers have increased mobility and are more accessible to pedestrians and bicyclists. Police on bicycles also tend to have a more thorough understanding of the rights and responsibilities of all users as they receive specialized training on bicycle safety skills and laws. An added benefit to using bicycles instead of cars is that officers on bicycles travel at slower speeds and are more engaged with their surroundings.

Progressive/Educational ticketing

It is likely that drivers are unaware of bicycle safety legislation. It is likely that many people do not know that Kansas recently passed a law requiring cars to give bicyclists a three-foot buffer when passing or riding alongside them. While it is everyone's responsibility to be educated on current laws, it is more

effective to educate drivers and bicyclists before issuing citations. With progressive ticketing, officers offer educational materials, and then warnings before issuing citations and fines. Offering this grace period allows drivers time to adjust to new laws. This approach can also be applied to bicycle enforcement.

Support distracted driving campaigns

Drivers that are not fully paying attention to the road and other vehicles create unsafe conditions for all modes. Bicyclists are especially vulnerable as they are often hidden in driver's blind spots. Supporting legislation that would prohibit hands-on cell phone use and texting while driving in the state of Kansas will emphasize the City's commitment to ensure safety for all modes.

Schools can also participate by conducting pledges for parents promising that they will not use their cell phones while driving, especially in school zones. The City could also consider adopting an ordinance that allows Police to issue fines specifically to individuals caught using hands-on cell phone devices while driving in school zones.