

bicycle element



6.1 Introduction

The Mid-America Regional Council promotes regional transportation investments that support a rising quality of life for everyone. The bicycle is a mode that provides an important and supportive role in the regional transportation system. As a result, transportation investments which further bicycling support the policy framework of the LRTP.

Goal: Support a healthy, strong, regional economy

Investments in bicycle-safe streets are wise. The benefits include among other things: increased access to jobs and mass transit; increased citizen self-reliance; transportation options for those without a motor vehicle; stimulated local economy; improved citizen health through physical exercise, and; improved roadway safety. In many communities, bicycle facilities draw tourist activity and generate sizable economic returns. The economic, social, and environmental benefits of a viable bicycle transportation system go beyond transportation.

Goal: Maximize access to opportunity for all area residents

The bicycle provides citizens with an affordable and efficient means of transportation. A regional network of bikeways throughout the Kansas City region will connect communities, thereby increasing mobility of citizens and maximizing access to housing, community centers, transit stops, parks, schools and places of work.

Goal: Support a quality built and natural environment

Air quality is an issue of concern for the Kansas City region. Many trips by area residents from home are short trips under two miles. Motor vehicle trips under two miles account for a disproportionate amount of emissions because a majority of the pollution created by automobiles occurs in the first few minutes of operation, before pollution control devices can work effectively. By substituting non-motorized trips for motor vehicle trips, regional air quality will improve. The Environmental Protection Agency reports that for every gallon of gas burned, 20 pounds of carbon dioxide (CO₂) is released into the air. CO₂ is the leading greenhouse gas suspected of global warming. By comparison, bicycling requires no fossil fuel consumption and produces no net CO₂. In addition the bicycle creates very little noise pollution, much less noise than trains, automobiles and trucks.

Goal: Promote the safety and well-being of the traveling public

Many residents perceive the Kansas City area to be “bicycle unfriendly,” offering a hostile environment for all but the most experienced cyclists. Improving the safety of roadways for all cyclists, as well as providing off-road options, is an objective of the LRTP.

BICYCLE ELEMENT ACTION TABLE

Transportation Outlook 2030 included an action plan at the closing of each chapter. This 2005 Update evaluates the progress made in each action item since the 2002 publication of Transportation Outlook 2030. The following table details the status of the Bicycle Action Plan.

Transportation Outlook 2030 Actions	Status		Comments
	Planning	Implementing	
REGIONAL LEADERSHIP			
Regional bicycle/pedestrian coordinator	●	●	MARC has employed a Bicycle/Pedestrian Coordinator since 2000.
Bicycle/pedestrian advisory committee	●	●	BPAC meets bimonthly.
Regional promotion	●	●	Funded through Congestion Mitigation Air Quality program and listed in Transportation Improvement Program as #970032. Products and events include: Regional Bikeway Map 2004, College Bicycle Safety brochure, 2nd Annual Bicycle Commuter Challenge, billboard campaign, and Favorite Places Survey.
Use of design guidelines	●	◐	MARC encourages local communities to use the design guidelines developed by the MARC Bicycle/Pedestrian Advisory Committee and the Kansas City American Public Works Association (KCAPWA). The design guidelines were approved by MARC and the KCAPWA. MARC uses these design guidelines to review project submittals.
Use of regional bicycle plan	●	◐	The Regional Bicycle Plan is updated at least on a triennial basis. Communities are surveyed for changes to their local bicycle plans. This information is consolidated into the Regional Bicycle Plan. The plan is consulted whenever federal funded projects are proposed.
Use of review criteria for Transportation Improvement Program	◐	◐	Multimodal Level of Service has been incorporated in the Surface Transportation Program review criteria. Improvements are needed in the review criteria for bicyclist needs at intersections.
Federal Surface Transportation Program (STP) fund flexibility	◐	◐	MARC supports the use of STP funds for improvements that advance bicyclist needs. Bicycle accommodations are not currently required in proposed projects.
● = Achieved and Ongoing ◐ = In Progress ○ = Not Yet Planned/Implemented			

Actions	P	I	Comments
Statewide bicycle policies	●	○	MARC works closely with MoDOT official on projects within the region and at the statewide level through the Missouri Bicycle Pedestrian Advisory Committee. MARC continues to work with KDOT on local projects and will encourage the development of a statewide bicycle/pedestrian committee that is both inclusive and active.
MetroGreen corridors	●	●	The MetroGreen plan was updated and adopted in 2002. In 2003 MARC hired a MetroGreen Trails Planning Manager. In 2004 MARC organized the MetroGreen Alliance to support and coordinate the plan. The Alliance includes the MetroGreen Civic Leadership Board, the MetroGreen Technical Advisory Group, and the Friends of MetroGreen.
Use of consistent signage	●	●	MARC supports the use of consistent signage through the adoption of regional design guidelines. Guidelines exist both for the signage of the MetroGreen System and bikeways within the roadway.
Provide linkages and address barriers	●	●	A number of communities continue to develop bikeway linkages both on road and off. Barriers are being addressed in a number of different ways depending on circumstances.
Address bridge accessibility	●	●	Appropriate bicycle access to and over bridges remains an unresolved issue for many older bridges, particularly for the major river and highway crossings. Progress is being made to better accommodate bicyclists and pedestrians on new designed bridges. This will continue to be an important issue to monitor.
Major Investment Studies	●	●	MARC staff has been involved in studies of major corridors to ensure that bicycle accommodation is addressed.
Public transit accommodations for bicyclists	●	●	MARC, through its work on Smart Moves, has been working to address public transit accommodations for bicyclists. Bicycle carriers on buses are becoming routine.
LOCAL BICYCLE PLANNING			
Develop local bicycle plans	●	●	Through technical assistance and help in coordinating the connection of bikeways across community lines, MARC continues to support local communities that are developing and implementing local bicycle plans.
Address bicyclists needs in local plans	●	●	The number of communities that address bicyclists' needs in local plans has grown. However, recreational paths are more common than purely transportation-oriented bicycle networks in these local plans.
Coordination with Capital Improvement Plans	●	●	MARC continues to encourage local agencies to incorporate bicycle facilities to create comprehensive bicycle networks.
● = Achieved and Ongoing ● = In Progress ○ = Not Yet Planned/Implemented			

Actions	P	I	Comments
Address bicycle needs in local projects	●	●	MARC continues to help local communities identify and address the need for a variety of on-road and off-road bicycle facilities to meet the needs of all user skill levels and trip purposes through local transportation, parks and recreation and/or land-use plans. While many communities still prefer off-road trails, the use of on-road bikeways has increased in the past three years.
Address maintenance issues for bicycle facilities	●	●	This remains an important and largely unresolved issue for some communities. While funding for new trail construction projects is scarce, it seems that local funds to maintain bikeways are even scarcer.
Address bridge accessibility	●	●	Bicycle accommodation across bridges, including those over streamways and highways, continues to be an issue. The need to balance competing interests routinely puts bicycle accommodation behind other modes. More work needs to be done with local communities and state agencies to assess bridge accessibility and ensure future bridge improvements include accommodation of bicyclists and pedestrians.
Local traffic ordinances	●	●	In 2003, MARC hosted the Community-Oriented Bicycle Safety Course for Law Enforcement to increase awareness of the need for local ordinances regulating bicycle and pedestrian traffic (e.g., helmet laws, safer crossings).
Strategies to reduce traffic speeds to improve safety	●	○	While traffic calming is addressed in MARC's Creating Quality Places and Transit-Supportive Development initiatives, there has not been great emphasis on this topic.
Mixed-use development to accommodate bicycling	●	●	Local governments, including Raytown and Kansas City, Mo., have used MARC's Creating Quality Places and Transit-Supportive Development initiatives for their local plans and zoning ordinances.
Neighborhood linkages to accommodate bicycling	●	●	MARC promotes the concept of neighborhood linkages through the Creating Quality Places and Transit-Supportive Development initiatives. These linkages are also addressed when MARC works with communities on local bicycle plans and projects. Linkages are an important and well-covered topic in the adopted guidelines developed by MARC and KCAPWA.
Commercial development that accommodates bicycling	●	●	Bicycle access to commercial development is addressed in the Creating Quality Places materials. While there are examples of projects like the Zona Rosa in Kansas City, Mo., northland, a vast majority of new development projects still do not accommodate bicycling customers.
Bicycle parking to accommodate bicycling	○	○	Local communities should consider the adoption of local ordinances requiring bicycle parking as part of public and private development.
<p>● = Achieved and Ongoing ● = In Progress ○ = Not Yet Planned/Implemented</p>			

6.2 Background

The impetus to create the regional and local bicycle plans was provided by the enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which requires that communities incorporate intermodal transportation alternatives, including bicycles, within their long-range transportation plans. The Transportation Equity Act of the 21st Century (TEA-21), in 1998, continued to promote intermodal transportation alternatives. Section 1202(a) of TEA-21 states, “Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction and transportation facilities, except where bicycle and pedestrian use are not permitted.”

The Federal Highway Administration (FHWA) prepared a landmark report in 1994 titled the *National Bicycle and Walking Study* (NBWS). Benefits from increased bicycling include improved air quality, reduced congestion of area roadways, transportation options for those without a motor vehicle, increased fitness and additional recreational opportunities. In view of these considerations, the Federal Highway Administration established two overall goals in their report:

- Double the percentage of total trips made by bicycling and walking in the United States from 7.9 percent to 15.8 percent of all travel trips; and
- Simultaneously reduce by 10 percent the number of bicyclists and pedestrians killed or injured in traffic crashes.

Nationally, the total number of reported walking and bicycling trips increased from 7.9 percent (1990 *Nationwide Personal Transportation Survey*) to 9.5 percent (2001 *National Household Travel Survey*). This was a 1.6 percent increase over eleven years. MARC conducted a household travel survey in 1990 and 2004. The percentage of total trips made by bicycling and walking in the region increased from 3.4 percent in 1990 to 4.3 percent in 2004, an increase of 0.9 percent over fourteen years. If the region maintains its current rate of growth (0.06 percent per year) it will achieve 5 percent by the year 2015.

Nationally there has been a significant decline in pedestrians and bicyclists killed in motor vehicle collisions. Bicyclists and pedestrians represented more than 16 percent of all traffic fatalities in 1993, by 2003 the percentage dropped to 12.3 percent. Overall, since the NBWS was released, combined pedestrian and bicyclist fatalities have dropped 18 percent. Regionally, bicycle and pedestrian crashes combined represent 1 percent of all crashes reported from 1998 to 2003. The regional percentage is significantly lower than the national percentage. However, the lower percentage of bicycle and pedestrian trips as a whole is likely the reason for this. The overall trend from 1998 through 2003 has seen a decline in the percentage of total bicycle and pedestrian collisions with motor vehicles. In view of the adopted Federal Highway Administration goals, and the current trends documented at both the national and regional level, this plan proposes to:

- Increase the percentage of total trips made by bicycling and walking in the Kansas City region from 4.3 percent to 5 percent of all trips by the year 2015; and
- Simultaneously continue the downward trend of the number of bicyclists and pedestrians killed or injured in traffic crashes.



The MARC Bicycle and Pedestrian Advisory Committee, a modal committee of the Total Transportation Policy Committee, is charged with directing an action plan to accomplish these goals.

Currently all of the identified action items are being addressed through ongoing activities of MARC's Bicycle and Pedestrian Programs. This work is continually evaluated to improve its effectiveness.

6.3 Bicycle Plans

In early 1993 local governments in metropolitan Kansas City began discussing the development of a bicycle transportation plan. Bicycle transportation plans subsequently were published for the Missouri (Clay, Jackson, Platte and Northern Cass counties) and Kansas (Johnson and Wyandotte counties) sides of the metropolitan region in January and May 1996, respectively. The primary goals of these plans were to make the metropolitan area more "bicycle friendly," to promote utilitarian and recreational uses of bicycles, as well as to ensure a safe and desirable environment for bicycling. The plans identified a network of both on-road and off-road bikeways to meet the needs of all bicyclists' skill levels and trip purposes. Ultimately, these plans aimed to increase bicycle use to a level that meets or exceeds the national average.

These plans were developed as a guide for local government bicycle planning. Corridor plans and implementation strategies were offered in recognition of the varying needs and circumstances in each community. They were designed, however, to provide regional scope and consistency, to assure connectivity between the plans of individual jurisdictions, and to catalyze the adoption and implementation of local bicycle plans throughout the region.

The development of the two 1996 plans was carried out under the guidance of a steering committee in Missouri and a broad advisory committee in Kansas. MARC provided coordination support for the Missouri plan, and Johnson County Parks and Recreation provided management support for the Kansas plan.

Plan recommendations were based upon the analysis of 1) local plans; 2) extensive public input; 3) discussions with local jurisdictions; 4) an inventory of existing, proposed and potential bicycle routes, trails and facilities; and 5) the identification of important origin and destination points and activity clusters. Ultimately, this analysis specified physical and social opportunities and constraints within each planning region, leading to the designation of priority bicycle corridors.

Each plan formulated an integrated network of on-road bicycle routes, trails and facilities, which will be implemented over the next 20 to 30 years. Networks consist of 1) interconnected corridors and activity centers (and "bicycle zones" in Missouri) in area communities, and 2) critical linkages across barriers such as roads and rivers. The resulting network intended to create a system where cyclists have easy, safe and direct access to all points of the community.

Each plan attempted to build upon previously proposed projects, such as projected roadway improvements and the development of MetroGreen, a regional trails and gateway

system for the metropolitan region, envisioned in 1991. Approximately 70 percent of each proposed system was comprised of on-road facilities such as an on-street bicycle lane, a shared roadway, or a shared-use facility in the roadway right-of-way. Remaining areas will be developed as separate facilities including greenway shared-use trails or dedicated bicycle trails.

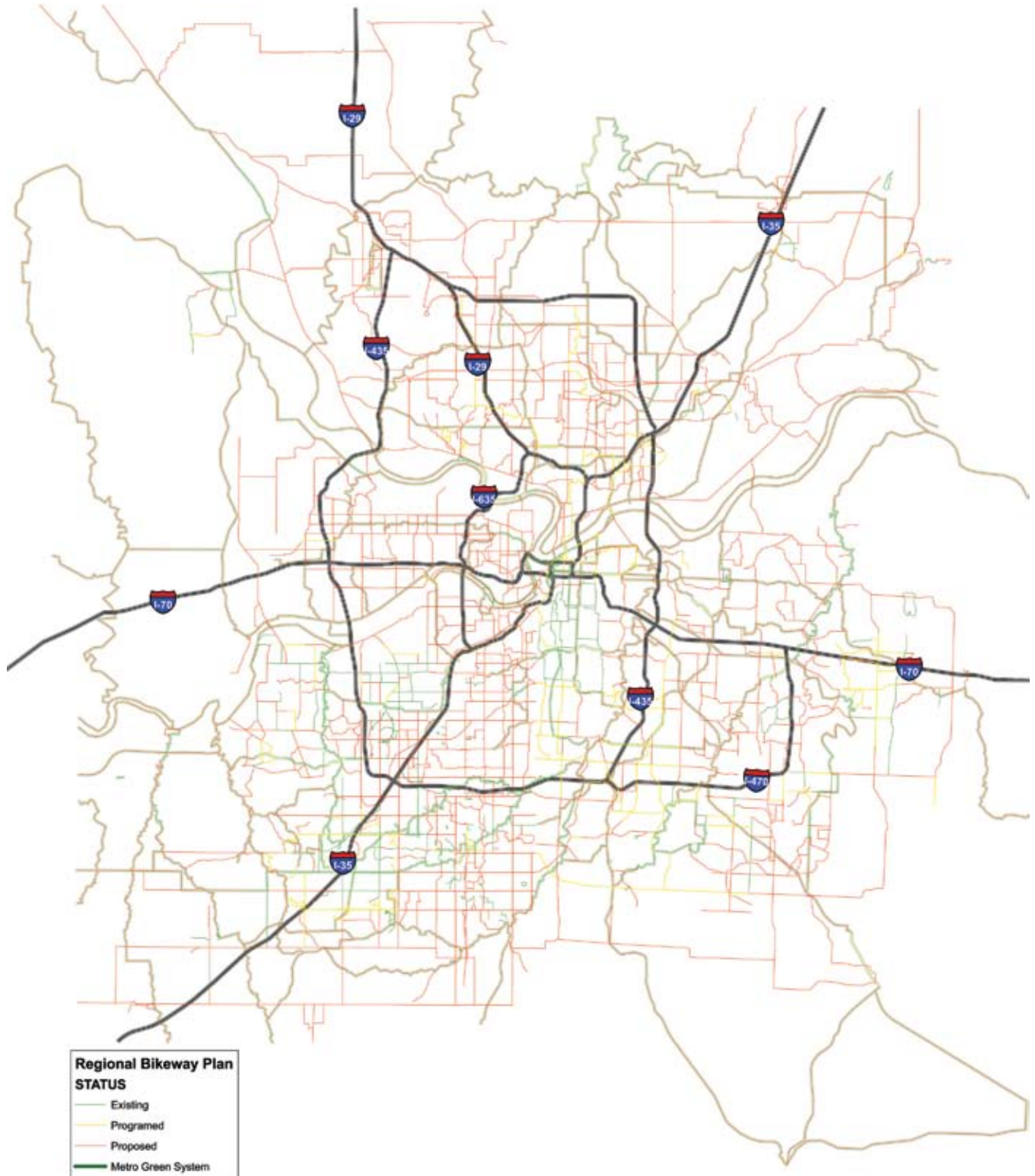
6.4 Regional Bicycle Transportation Plan

Following the completion and adoption of both the Missouri-side and Kansas-side Bicycle Plans, MARC began to combine the two plans into the Bicycle Element of the regional LRTP. The result was a synthesis of common policy statements and a regional system of on-road and off-road bicycle facilities. The regional bicycle facilities plan was adopted by the MARC Board in 1997, and identifies more than 800 miles of both on-street and off-road facilities to improve opportunities for bicycle transportation throughout the metropolitan area. The regional bikeway system will significantly enhance the thousands of miles of local and collector roadways that already are in place. The Regional Bicycle Plan is intended to serve as a framework and guide for local and state investments.

As cities and counties adopt local bicycle plans, these plans will be incorporated into the long-range transportation plan. As MARC allocates federal Transportation Enhancements and Congestion Mitigation Air Quality program funds, projects that are consistent with regional or local plans receive additional points in the evaluation process.

In 2005, MARC initiated work to update the LRTP bicycle facility plan, and surveyed area cities and counties to obtain information on new and planned bicycle facilities. Every year considerable planning and project development occurs throughout the region. The revised bicycle facilities plan includes approximately 403 miles of existing facilities, with an additional 270 miles of facilities planned in the next five years, and an additional 2,544 miles proposed in the future (see Figure 6-1).

**FIGURE 6-1
REGION BIKEWAY PLAN - MAY 2005**



6.4.1 MetroGreen 2001 Update & Recent Greenway Initiatives

In 1991 the Prairie Gateway Chapter of the American Society of Landscape Architects prepared MetroGreen, a greenway trail vision plan for the metropolitan Kansas City region. In 2001 MARC prepared an update to that original vision. The update included inventory and GIS mapping of local trail and greenway plans from across the region. In 2004 MARC formed the MetroGreen Alliance, which is an umbrella organization of key partners dedicated to the implementation of the vision, mission, goals and objectives of MetroGreen. A MetroGreen Civic Leadership Board provides overall direction with local agency coordination through the MetroGreen Technical Advisory Group. Advocacy for MetroGreen will be provided through the Friends of MetroGreen, a group comprised of interested organizations and citizens.

The extensive local efforts underway are the result of a growing demand for resources, an increased public expression of interest, development pressures, opportunities created by new tax resources, concerns about stormwater management and water quality degradation, and the desire for connections. The region's strong population growth and expanding emphasis on health are also contributing to the increased demand for trails. As more baby boomers and elderly seek to keep fit, and as parents look for ways to encourage their children to exercise, trails will grow in popularity.

Residents and business interests recognize the positive contribution that green spaces and recreational programs make to the area's quality of life. Both Clay County and Platte County continue to build trail and greenway systems. Periodic meetings with local and county officials help coordinate the Northland system.

A core group of city and county staff meet regularly to coordinate trail and greenway projects in Johnson County and Jackson County. Developers are recognizing the value of adding trails to their projects. Winterset Park in Lee's Summit is a good example of a single-family subdivision with an extensive trail network.

Local sales tax continues to help expand local resources in several communities, including Independence, Olathe, Platte County and Lee's Summit, for park and trail facilities. A number of communities have passed stormwater utility fees (Lenexa, Overland Park, Kansas City, Mo., and Independence), and could use a portion of those funds to acquire and preserve stream corridors. Additionally, local communities are taking advantage of increased federal grant dollars for trail development.

Finally, there is a growing interest to build connections throughout individual cities and throughout the metro area. The Riverfront Heritage Trail along the Missouri River is an effort to connect Kansas City, Mo., and Kansas City, Kan., and offer redevelopment opportunities to a brownfield area.

There several exciting trail development occurring outside the Kansas City region. Work is underway to connect Kansas City to the Katy Trail across Missouri. Statewide trail development is also occurring in Kansas, such as the Prairie Spirit Trail, which runs approximately 33 miles from Ottawa to Welda. In 2003 the Nebraska Trails Council financed the development of the Quad State Trail Plan including Iowa, Nebraska, Kansas

and Missouri. The Quad State Trail is vision for a continuous trail starting in Marysville, Kan., on the Homestead Trail progressing to Lincoln, Nebr. It would continue on the Jamaica Trail and connect to the MoPac Trail on its way to Omaha, Neb. Crossing the Missouri River it then connects to the Wabash Trace Trail that runs 72 miles to the Missouri state line. The trail will then connect to St. Joseph, Mo., and Kansas City, Mo., along a series of corridors and trails. Using MetroGreen, the trail will eventually continue east along the Katy Trail to St. Louis, Mo. When completed, the Quad State Trail will be approximately 700 miles in length.

The descriptions below provide brief updates on the status of both on- and off-road bikeways within the region.

6.4.2 Northland

Clay and Platte Counties completed the Northland Trails Vision Plan in December 2000. This two-county plan envisions a trail system of over 600 miles of on-road and off-road facilities. The system will connect critical natural, historical and cultural sites and will provide for pedestrian, bicycle, equestrian and related uses. Platte County passed a 10-year sales tax in 2000 to support parks, trails and stormwater projects. Several trail and greenway projects are being planned and constructed, such as Southern Platte Pass (along NW 64th Street), the Missouri Riverfront Trail (along the L-385 Levee), and the Barry Road Phase I project (along Barry Road under I-29).

Excelsior Springs developed a multiuse trail along the Fishing River in northeast Clay County. The trail is part of the city's extensive bicycle facilities plan and flood control effort.

Kearney has a comprehensive trail plan that calls for the establishment of bicycle, pedestrian and equestrian trails that comprise part of the Northland trails system. The city has been successful in working with property owners to donate property for the trail system as residential and commercial development occurs. Six off-road trails have been constructed.

The city of **Liberty** adopted a bicycle/pedestrian plan in 1997 and has completed four off-road trails.

Parkville has constructed a trail along the Missouri River in English Landing Park. Platte County, in partnership with Riverside, Parkville, and the Riverside-Quindaro Bend Levee District, is planning the first-phase extension of the trail system east toward Riverside. This trail will be known as the Missouri Riverfront Trail (MRT) and will eventually extend 11.5 miles from 435 Hwy in Parkville to EH Young Riverfront Park in Riverside. Parkville is also planning additional connections from the MRT extending north.

Riverside is in the early stage of planning the first phase of the Line Creek Trail that will connect to the MRT. The city is also working with Kansas City, Mo., to extend a trail along Vivion Road.

Platte City. In unincorporated Platte County just south of Platte City, developers and the county are constructing the Prairie Creek Greenway Trail. This 6.2-mile loop trail will

connect 120 acres of County greenway property to subdivisions, retail and commercial buildings, the Platte County Community Center North and Platte Valley Park. The second phase should be completed by fall 2005. Platte City is also continuing trails north of Platte Valley Park. In coordination with a local developer, Platte City has about two miles of trail connecting to Platte Valley Park.

Weston has moved and restored an old railroad depot that is used as the city hall. The city hall parking lot will serve as a trailhead for the Weston Bluffs Trail, constructed by Platte County in partnership with the Weston and Weston Bend State Park. The 3.25-mile trail connects downtown Weston to the south end of the State Park near Beverly.

6.4.3 Jackson County

Jackson County has four off-road trails extending over 27 miles, with the largest along the Little Blue River. With funding from a tax increment financing project, the trail along the Little Blue River is being extended.

Blue Springs has constructed 25 miles of on-road and off-road bicycle and trail facilities, and has an extensive facility plan to serve the entire community.

Grain Valley has constructed one trail and has another 5.5-mile off-road trail in the planning stages.

Independence citizens approved sales tax funding for a city-wide trails master plan and development of bicycle trails (as suggested in the master plan and as opportunities arise). In conjunction with the master plan, the Independence Public Works Department is committed to provide bicycle trails or lanes on new construction projects when feasible.

Lee's Summit has adopted a comprehensive greenway plan that includes 40 miles of multiuse trails to connect parks and natural areas in the city with residential and commercial areas. The city enacted a dedicated sales tax to support parks and trail development. The city has completed work on several on-road facilities including bicycle routes and lanes.

Kansas City's Parks and Recreation Commission adopted a new Parks and Recreation, Boulevards and Greenways Plan in 1993, and has opened sections of its Indian Creek Trail along 103rd Street. The city council approved legislation adopting bicycle routes and design standards into the City's Major Street Plan in 2002. The council also overwhelmingly adopted a citywide bicycle plan ordinance known as "Bike KC." Kansas City is building a 600-mile phased network of on-street bicycle routes that primarily serve a transportation purpose. Over 90 percent of the proposed bicycle network is located on existing or future streets. The bicycle routes follow residential streets in some areas and the existing/planned arterial road system in other areas. Eighty percent of the funding for implementation of the route system comes from federal sources (e.g., Congestion and Air Quality Mitigation grants).

The **Kansas City Area Transportation Authority** has developed the Trolley Track Trail from Volker Boulevard to 87th and Troost along the old Country Club trolley right-of-way. The trail is used extensively by pedestrians and bicyclists and the future plans are to connect it to the Blue River Corridor.

The **Kansas City Port Authority** completed the Town of Kansas Bridge, a bicycle/pedestrian bridge, near 2nd and Main spanning north over the Town of Kansas Urban Archaeological Park. The bridge connects the River Market to Berkley Park and is part of the Kansas City Riverfront Heritage Trail system.

The **Kansas City Riverfront Heritage Trail** is a multipurpose pedestrian and bicycle trail system that will connect several sites of current redevelopment interest and historical and cultural importance located in the bistate urban core. Federal transportation funds have provided money for planning and a portion of construction costs. The project comprises segments from Richard L. Berkley Park on the east to the Kansas River and Kansas City, Kan., on the west. Design and some construction work is underway.

Blue River Greenway. The U.S. Army Corps of Engineers and Kansas City, Mo., are working to “green” the Corps flood control project on the lower stretches of the Blue River. A portion of this initiative will result in the development of comprehensive greenway plans for the stream corridor and connections to adjacent trail systems (e.g., Riverfront Heritage Trail, Brush Creek Corridor).

Raytown has made improvements to 87th Street along its southern boundary to include bicycle lanes and sidewalks. In 2003 the mayor appointed a Raytown Bicycle Task Force to help create a more bicycle-friendly community. A roadway evaluation begun in 2003 has produced a bicycle compatibility map. The Bicycle Compatibility Index (BCI) is a model that was developed at the University of North Carolina Highway Safety Research Center to assist transportation planners and traffic engineers with the operational evaluation of roadways for bicyclists. Raytown is using the BCI model to develop a plan that connects and revitalizes residential areas to local schools and commercial areas. Citizens have worked to promote safe bicycling through the use of the city public access cable station, and public bike rides. The conversion of the Rock Island Railroad corridor to a trail system is a high priority for city leaders.

6.4.3 Johnson, Leavenworth and Wyandotte Counties

Johnson County. The Johnson County Parks and Recreation Department completed 17 miles of continuous greenway trails along Mill Creek from Olathe to the Kansas River. The County has a three-mile trail along Turkey Creek in Merriam. The county has a dedicated property tax for streamway development. The trail system is widely used and supported by area residents, and serves as a model for other efforts around the region. The county adopted a new parks and streamways plan that identifies additional greenways to be added to its system.

Leawood has constructed trails along Indian Creek and Tomahawk Creek in the southern part of the community. Johnson County Parks and Recreation worked with Kansas City, Mo., to connect the Indian Creek trail across the state line in 2002.

Lenexa has adopted an extensive trails plan and requires connections within and between subdivisions. The city has completed links in their local bicycle transportation plan.

Olathe recently renewed its 1/8th-cent park sales tax. The city has constructed 16.5 miles of 8-foot-by-10-foot trails, 8.4 miles of bike lanes, and approximately 23 miles of arterial roadways with “share the road” signs or 13-foot-wide curb lanes. Additional trails and bike lanes are currently in the planning and construction stages throughout the city. A new transportation plan, integrating bicycling, walking and transit into a comprehensive and coordinated city-wide system, is slated for completion in September 2005. Olathe was awarded Transportation Enhancement funding for Federal Fiscal Years 2006–2007 from the Kansas Department of Transportation in May of 2005. The funding will help construct a bicycle/pedestrian path along Little Cedar Creek and construction of a bike/pedestrian path along Lone Elm Road.

Overland Park adopted a Greenway Linkages Plan in 1991, which calls for a system of bicycle and pedestrian links that cover the southern half of the city. This plan is updated annually and has expanded in scope (mileage) from its original version. A study is underway to expand this Linkage Master Plan to include the older portion of the city from 103rd Street north to the common boundary with Kansas City, Kan.

To date the city has installed nearly 65 miles of off-road segments within recreation lands and some street rights-of-way. Overland Park has completed links connecting Olathe to Leawood along stream corridors; completion of the entire Indian Creek streamway from the state line west to the I-35 corridor in Olathe; and the construction of 3.7 miles along Nall Avenue from 103rd Street south to 135th Street. This later portion links the Indian Creek system with the Sprint Campus and Overland Park Convention Center.

Shawnee adopted a Bicycle and Trail Plan and has constructed both on-road and off-road trails with 8.5 miles of bike lanes. The city has modified its street design standards to incorporate bicycle facilities for designated corridors.

Gardner has adopted a trail plan and design guidelines and has constructed 1.5 miles of off-road trails.

Leavenworth has constructed three on-road bicycle facilities, and three off-road trails are in the planning stages. The city has a walking trail along the Missouri River in the downtown area that serves the community center.

The **Unified Government of Wyandotte County/Kansas City, Kan.**, is finishing construction on a portion of the Heritage Riverfront Trail from downtown Kansas City, Kan., across Woodwether Bridge and the Kansas River into Kansas City, Mo. Other projects include on- and off-road bicycle facilities along major roadways and off-road trails to connect local parks. The Unified Government has acquired conservation easements along two streams, including Marshall Creek. They also have long-term plans to build trails running north/south and east/west to create a loop around and through the county.

6.5 Implementation Strategies

Proposed implementation strategies seek to capitalize on existing and potential opportunities throughout the region. The recommended bicycle plan is not intended to be restrictive or comprehensive. Rather, it is intended to offer guidance in the development of local plans, while providing for connectivity among key origin and destination points and activity centers in the area.

Local communities should identify criteria consistent with local objectives that assist them to set priorities for bicycle facility development, including: 1) connectivity of origins and destinations; 2) reduction of accidents; 3) public support/commitment; 4) cost effectiveness; 5) funding commitments; 6) right-of-way availability; 7) network development; and 8) barrier elimination.

These criteria could also include streets and roads with low average daily traffic counts; streets with extra-wide driving lanes; rural or urban roadways with paved shoulders; or a graded shoulder area that could be paved.

While the proposed bicycle network offers a long-term vision to enhance bicycling opportunities in the region, implementation will require the dedication and work of many people over an extended time. When fully developed, this regional bicycle facility network will provide an interconnected system of bicycle facilities throughout the Kansas City metropolitan area, allowing cyclists safe and effective access to major destinations throughout the region.

6.6 Issues Opportunities & Constraints

6.6.1 Barrier Elimination

Among the most significant impediments to bicycle travel are the barriers posed by the transportation infrastructure itself. Major transportation facilities such as freeways and bridges frequently create barriers for cyclists because they are not lawfully permitted or have no provision for their safe accommodation. Efforts to overcome such obstacles may include bike lanes, wide curb lanes or paved shoulders to provide additional roadway width.

Lack of “host” bikeways is another factor limiting bicyclists’ choice because safe, continuous, direct accommodations are not provided to meet latent demand. This lack of facilities is often due to roadways that were built prior to urban development occurring, or because local development policies and standards did not require them. Integrated bicycle planning begins at the earliest possible stage. The LRTP supports consideration of bicyclists’ needs in the design and implementation of all transportation facilities, and accommodation of such needs wherever possible.

6.6.2 Recognition of the need/demand for bicycle facilities

At the time the two 1996 plans were developed, most local communities in metropolitan Kansas City had not prepared a bicycle transportation plan or identified bicycle facilities as part of either a transportation, parks or land-use plan. Since that time a majority of the communities have developed bikeway plans. The availability of both on- and off-road bikeways is related to quality of life as they affect transportation choice, personal health, air quality, and safety.

During the update of MetroGreen, a public survey was administered with 1,247 surveys completed in the seven counties, and at least 100 surveys completed in each county. The survey results concluded that, “More than 80 percent of respondents are either very supportive (57 percent) or somewhat supportive (27 percent) of using the 1,000 mile MetroGreen system for projects such as walking and biking trails, creating transportation linkages between neighborhoods, and habitats for animals.”

In 2004 MARC commissioned the Kansas City Regional Household Travel Survey to document travel behavior characteristics of regional households. A total of 3,049 regional households were surveyed in the region. When asked about their bicycling habits, 21 percent responded that they rode the previous summer and 27 percent indicated they planned to ride that summer.

While both on-road and off-road bikeways improve the region’s quality of life, MARC lacks documentation on actual usage. And while survey results indicate that people would ride more give the opportunity, actual bicycle traffic counts are not collected because they are not as easily measured as motor vehicle traffic. Several models have been developed to predict demand. The Institute of Transportation Engineers’ Pedestrian and Bicycle Council recently began the National Bicycle and Pedestrian Documentation Project, an initiative to collect bicycle and pedestrian counts across the nation. Actual counts are needed to recognize the true demand for bikeways.

6.6.3 Consistent Design Guidelines

MARC and the Kansas City Chapter of the American Public Works Association have developed design guidelines consistent with national American Association of State Highway and Transportation Officials guidelines (<http://www.kcapwa.net/docs/specs/APWA5300.pdf>). Consistency in signage and design will allow residents to better use their bicycles in riding from one community to another. Local communities and the state departments of transportation will be encouraged to use these design guidelines and cross sections. Through MetroGreen, recommendations for signage have also been developed. Communities should incorporate the MetroGreen logo into their signage for facilities that are part of the regional system.

6.6.4 Urban Design

Urban planning and design techniques following World War II have contributed to an urban form that makes bicycling trips difficult, if not impossible. Suburban single-family housing development patterns typically limit direct access to arterial and collector streets, creating longer more circuitous routes. Because traffic is funneled in this manner, arterial streets are forced to carry a higher percentage of trips, leading to higher traffic volumes at faster speeds. The width of streets and number of lanes have also increased to accommodate more traffic. Because bicycle travel is slower and often to the right, transferring lanes to make left-hand turns is difficult or unrealistic for some bicyclists.

Nationally, recent innovations in urban design techniques have emphasized better integration of land uses, greater emphasis on shorter trips for many purposes, and improved access for bicycles. These development patterns include mixed-use development, higher-

density development, parking placed to the rear of development, and building design and placement oriented to the street. Such development patterns, if used in the Kansas City area, could result in more mobility choices and would be more easily served by public transportation. By providing bicycle access to transit services, the potential customer base is increased. Many transit stops are not served by bicycle parking. Bike carriers on buses are available on Johnson County transit and on select KCATA bus routes.

Implementation of these land-use development strategies require action by local government agencies and private developers, but are supported by the LRTP.

6.6.5 Funding

The construction of proposed bicycle facilities is the responsibility of area cities and counties. Local communities have a variety of local funding mechanisms to construct bicycle facilities. In addition, local communities may use federal Surface Transportation Program (STP) funds for bicycle facilities. Additional funding assistance is available through other federal programs, including Transportation Enhancement (TE) and Congestion Mitigation Air Quality (CMAQ) resources. The eligible uses of these funds are stipulated in FHWA guidance. Additional limitations may be imposed by the State Department of Transportation and the Metropolitan Planning Organization (MPO) documentation. The plan emphasizes on-road bicycle facilities to take advantage of funding opportunities for planned roadway improvements, and recommends that MARC's transportation committees encourage roadway projects to include bicycle facilities unless reasonable justification not to do so is provided.

6.7 Action Plan

The Mid-America Regional Council will continue its efforts to address bicycle transportation needs in the Kansas City region, working in cooperation with area local governments. Specific actions include:

6.7.1 Regional Leadership

1. **Regional Bicycle/Pedestrian Coordinator.** MARC will continue to maintain a regional bicycle/pedestrian coordinator position to assist advisory committees and local governments in the development of bicycle plans and safety education programs.
2. **Bicycle/Pedestrian Advisory Committee.** MARC will continue to support the Bicycle/Pedestrian Advisory Committee. Advise TTPC on annual objectives for MARC to preserve and promote opportunities for walking and bicycling. Include consideration of bicycling in the work of other modal committees.
3. **Regional Promotion.** MARC will continue to promote bicycling as an alternative transportation choice for short distance trips, recognizing that the scope of promotional work will be based on available funding.

4. **Use of Design Guidelines.** MARC encourages local communities to use consistent design guidelines developed by the MARC Bicycle/Pedestrian Advisory Committee, and has supported the Kansas City American Public Works Association (KCAPWA) in the development of roadway cross sections for bikeway facility construction. The regional bikeway specifications are available at www.kcapwa.net/specifications.asp. Section(s) 5300, 5301 and 5302 of the KC APWA Blue Book are also available at www.marc.org/bikeped.
5. **Use of Regional Bicycle Plan.** The facility plan incorporates local plans and will guide both MARC and local communities to encourage the construction of bicycle facilities, particularly those that might be accomplished as part of another transportation improvement such as a road reconstruction or widening. All projects considered for federal funding should be reviewed for their impact to bicycle and pedestrian modes. If a community submits a roadway improvement project for federal funding consideration, and the long-range transportation plan identifies bicycle facilities for that transportation corridor (roadway), the local community's project will include accommodations for bicycles or address reasons for why such accommodation is not possible.

The LRTP is updated every three to five years, and information from new local bicycle plans will be incorporated into the regional plan and provide a means by which progress and facility implementation can be measured.

6. **Use of Review Criteria for Surface Transportation Program (STP).** MARC will continue to strengthen its criteria for evaluating bicycle projects and bicycle accommodations within road projects being considered for STP funds. It is recommended that roadway projects with bicycle accommodations receive additional consideration in the review process for annual funding if those projects accommodate multiple modes of travel.
7. **Statewide Bicycle Policies** MARC will continue to work closely with MoDOT and the Missouri Bicycle Pedestrian Advisory Committee to improve bicycle design considerations on state facilities. MARC has and will continue to encourage Kansas to create a statewide bicycle/pedestrian committee.
8. **MetroGreen Corridors.** MARC encourages local communities to implement the MetroGreen system as well as local trails plans. Local communities are encouraged to link trails to centers of corporate business, commercial activity centers, mixed-use development, neighborhoods, recreational parks, historic and cultural resources, and schools.
9. **Use of Consistent Signage.** MARC encourages the use of consistent signage for bicycle facilities throughout the region, including the use of the MetroGreen logo to identify routes and facilities that link communities together.
10. **Provide Linkages and Address Barriers.** MARC will continue to encourage local communities to provide regional linkages to the entire metropolitan area and to points beyond. The local facilities should provide allowances for bicyclists to safely cross barriers such as interstate highways, rivers and streams, and railroads.

11. Address Bridge Accessibility. MARC will lead the formation of a River Crossing Task Force to develop policy/planning guidance for the region regarding how to accommodate bicycle/pedestrian crossings of the Kansas and Missouri Rivers.
12. Major Investment Studies. Include bicyclist interest or representation from the Bicycle/Pedestrian Advisory Committee in Major Investment Studies, environmental impact studies, or other special study processes. Encourage studies to consider bicycle needs.
13. Public Transit Accommodation for Bicycles. MARC encourages public transit agencies to adopt policies to integrate bicycling with public transportation, including parking, bicycle carriers on buses, and storage at park-and-ride lots.

6.7.2 Local Bicycle Planning

1. Develop Local Bicycle Plans. Local communities should develop local bicycle plans that are consistent with the regional bicycle transportation plan.
2. Address Bicycle Needs in Local Plans. Local governments should address the need for a variety of bicycle facilities, on-road and off-road, to meet the needs of all user skill levels and trip purposes through local transportation, parks and recreation and/or land-use plans.
3. Coordination with Capital Improvement Plans. Local agencies should coordinate the proposed bicycle network with other planned transportation improvements to which bicycle facilities can be added. Examples include roadway improvement projects in the Capital Improvement Plan of each community. Transportation improvements might include access for bicyclists across physical barriers, mitigation of roadway hazards to bicyclists, intersection design accommodations for bicyclists, and geometric traffic flow improvements for bicyclists.
4. Address Bicycle Needs in Local Projects. The TTPC and MARC programming committees should encourage project sponsors to include bicyclist accommodations in proposed projects using federal funds.
5. Address Maintenance Issues for Bicycle Facilities. Local communities should develop appropriate maintenance strategies and schedules for bicycle facilities.
6. Address Bridge Accessibility. Local communities and state agencies should assess bridge accessibility and assure that future bridge improvements include accommodation of bicyclists and pedestrians.
7. Local Traffic Ordinances. Local communities should adopt local traffic ordinances in accordance with the Uniform Vehicle Code to clarify regulations and lead to greater compliance and enforcement of the traffic laws.

8. **Strategies to Reduce Traffic Speeds to improve Safety.** Local communities should consider traffic calming and preferential treatment of bicyclists for appropriate streets and neighborhoods.
9. **Mixed-Use Development to Accommodate Bicycling.** Local communities should promote mixed-use development that allows for bicycling distances two miles or less to important destinations such as work places, community centers, retail shopping, transit stops, schools, open space and linear park systems.
10. **Neighborhood Linkages to Accommodate Bicycling.** Local communities should promote the planning of neighborhoods with interconnected roadways so that mobility is promoted through easy access to important destinations. Encourage well-designed street networks that provide a high level of connectivity and directness, in an unbroken fashion. Quality local streets are an integral part of a larger network of routes designed to provide access to homes, shops and businesses, and to keep local traffic off major arterials and high-speed, through-traffic off local roads. Such roadways may provide ideal bike route designations.
11. **Commercial Development that Accommodates Bicycling.** Local communities should promote commercial development that is designed to facilitate employee and customer access on wide sidewalks, bicycle trails, transit service and roads.
12. **Bicycle Parking to Accommodate Bicycling.** Local communities should adopt local ordinances to require bicycle parking as part of public and private development.