Arkansas Bicycle and Pedestrian Transportation Plan

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Table of Contents

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EXECUTIVE SUMMARY

The quantified benefits of cycling and pedestrian activities and the positive impact of planning and investments are shown to provide citizens improved mobility, travel options, personal health, fitness, and furthermore deliver economic growth in tourism, benefits in livable communities, and reduced health care costs at the local, regional, and statewide level.

Nearly two-thirds of all Arkansans participate in outdoor recreation each year, generating $10 billion in consumer spending. This is due in part to Arkansas' unique location and natural environment that allows road cycling, running, mountain biking, hiking, and many other activities.

Over the years, the Arkansas State Highway and Transportation Department (AHTD) and other state and local jurisdictions have increased emphasis on bicycle and pedestrian planning. AHTD adopted the very first bicycle and pedestrian plan in 1998. In 2005 the Bicycle and Pedestrian Accommodation Policy was developed by AHTD to provide a framework for incorporating bicycle and pedestrian considerations into project development. Local communities are encouraged to adopt their own bicycle and pedestrian plans to address bicycle and pedestrian needs.

In 2012, the League of American Bicyclists (LAB) released its annual Bicycle Friendly States Ranking and Arkansas was at the bottom of the list. At that time, then-Governor Mike Beebe named members to the Governor's Bicycling Advisory Group (GBAG) and charged them to find ways to improve the state's ranking. The cooperative actions among the GBAG, AHTD, and Arkansas Department of Parks and Tourism (ADPT) led to the update of this Bicycle and Pedestrian Transportation Plan.

For nearly two years, representatives from the AHTD, ADPT, the Arkansas State Police, the Arkansas Commission on Law Enforcement Standards and Training, and the Arkansas Department of Health collaborated to learn the pedestrian and cycling needs in all corners of the state. Through engagement of a very active Technical Advisory Committee (TAC), additional representation was included from local cycling retail outlets, statewide and regional cycling and pedestrian representatives, metropolitan planning organizations, planning and economic development districts, the Arkansas Municipal League, and the Arkansas Public Transportation Coordinating Council.

In various regions of the state there are differing thoughts and influences on many topics including level of engagement, investment, and maturity of cycling and pedestrian activities.

After seven public meetings, 25 stakeholder meetings and nearly 1,000 survey responses we know the following:

- 88 percent of the respondents are employed.
- Nearly half of the respondents have a daily commute of less than five miles.
- Nine of ten have auto access and four of five commute to work by auto.

Likewise, nearly 80 percent of the respondents were considered casual or experienced riders. Another 14 percent limit their riding to neighborhood streets. The remaining six percent of the respondents reported that they do not bike at all.

For pedestrian activities, one of ten respondents said they walk to work regularly and 40 percent said they are comfortable walking more than three miles.

From the extensive stakeholder input it is obvious that Arkansas is a premier destination for mountain biking and on-road bicycle touring. Furthermore, many Arkansas residents desire to have livable and walkable communities.

To determine the different aspects related to regional needs and activities, the stakeholder involvement was conducted in four regions across the State. Regional activities included an inventory of local assets, existing and potential partnerships, areas of concern, and bicycle and pedestrian needs. There were also site visits conducted in each of the regions. The regional results are presented in Chapter 4 – Regional Reports.

The following topics were considered by the participants as the most important:

- Access to destinations and safe travel to urban destinations.
- Urban and suburban sidewalks.
- Cycling improvements on low and medium volume roadways.

Mini cyclists participating in a 4th of July parade.

- Acknowledgement of cycling and walking as legitimate modes of transportation.
- Safety education programs (motorists, cyclists, children).
- Surface improvements to rural roadways.

The TAC was instrumental in refining the results of the public engagement activities into a list of objectives, tasks, and responsible parties as listed below.

1	Enhance laws and policies, enforcement, and local empowerment to promote alternative transportation and increase safety.
2	Sustain and continue to improve a robust bicycle and pedestrian program in Arkansas.
3	Consider innovative or non-traditional funding sources.
4	Review of the bicycle and pedestrian accommodation guidelines for Arkansas highways.
5	Develop a Statewide Bikeway Network using a tiered system that coordinates and connects to the United States Bicycle Route Numbering System.
6	Research and develop marketing strategies to be used at the state, regional, and local levels.
7	Further integrate bicycle and pedestrian safety into the Toward Zero Deaths campaign.
8	Provide leadership and support for education and advocacy efforts that relate to the built environment.

Specific strategies which have been identified are listed with the entity most likely to affect a change.

AHTD:

- Developing a Statewide Bicycle Network, including the designation of U.S. Bicycle Routes across the State.
- Reviewing and considering updating the Bicycle and Pedestrian Accommodation Guidelines upon adoption of this plan.
- Analyzing bicycle and pedestrian crash data in urban areas and identifying countermeasures to be included in the Highway Safety Improvement Program.

Bicycling and walking improvements can help transform urban neighborhoods.

- Integrating bicycle and pedestrian training into on-going and routine staff training activities for planning, design, and maintenance practices.
- Reviewing the guidelines for shoulder and center line rumble strips, on an as needed basis.
- Identifying ways to improve communications with local cyclists regarding AHTD maintenance activities.
- Developing an online suitability map accessible through the internet, including access for mobile devices.
- Reviewing and updating the Arkansas Bicycle and Pedestrian Plan as needed.

Arkansas Department of Parks and Tourism:

- Developing the Trans-America bicycle touring route through Arkansas.
- Exploring the use of non-traditional funding sources at the federal, state, and local levels.
- Investigating the development of a Local Bicycle and Pedestrian Assistance Program including potential funding mechanisms.
- Developing an online suitability map accessible through the internet, including access for mobile devices.
- Conducting a field review of all highway guide and recreational information signs in the vicinity of major mountain bicycling venues, trailheads, and shared-use paths to ensure appropriate signage is presented.
- Publishing a study that uses examples from Arkansas to document and promote the economic and other benefits of cycling and trail development.
- Developing bicycle hub communities to serve as gateways to bicycle touring regions and mountain biking areas.
- Developing a coalition of businesses, foundations, and user group partners to educate about bicycle-based tourism and to coordinate marketing efforts.
- Conducting a statewide assessment of rail corridors with low use, and abandoned and reverted corridors to determine which may have the most potential for development as shared use paths.
- Conducting a statewide personal travel survey.
- Surveying in-state and out-of–state participants in bicycle touring and mountain biking to determine needed improvements and enhancements.
- Developing a music history and heritage-based cycling tour of the Arkansas Delta region.
- Coordinating federal and state land managers to inventory trails, trail mileage, and trail amenities open to mountain bicycling.

Bike Lanes promote safety on city streets.

Arkansas Department of Health:

- Providing education and technical assistance at the local level for Complete Streets policies.
- Providing technical assistance to local communities to develop master pedestrian and bicycle plans.
- Implementing community mentoring programs regarding lessons learned, sample policies, infrastructure design, etc. through the Growing Healthy Community projects.
- Conducting walking or bicycling audits on an annual basis (as funding will allow).
- Continuing to support the Arkansas Coalition for Obesity Prevention and their programs.
- Exploring innovative funding sources for local assistance.

Governor and Arkansas General Assembly:

- Reactivating the Arkansas Bikeways Commission, including a pedestrian component.
- Studying the state liability laws to increase motorists' liability/consequence when involved in crashes with pedestrians or cyclists.
- Modifying the school siting laws to make walking and cycling to school more feasible.
- Enacting legislation to require all new public schools to include shared-use paths or bikeways within the school property and appropriate access to ensure safe bike and pedestrian travel to the school.

Local Jurisdictions:

- Encouraging and providing technical support to communities interested in developing and adopting local bicycle and pedestrian plans.
- Encouraging municipal and county governments to develop Complete Street policies for their jurisdictions.
- Exploring innovative or non-traditional funding sources.

Arkansas State Police:

- Analyzing bicycle and pedestrian crash data in urban areas and identifying countermeasures.
- Creating a multi-media safety education campaign.

As communities become more densely developed and more interconnected, and as travelers' desires change to other modes, there is a need to reassess bicycle and pedestrian needs in Arkansas.

During the development of the Bicycle and Pedestrian Plan, Arkansas' LAB ranking improved to 36th in 2015. For that trend to continue, there are more improvements to be made.

These efforts and those attributed to other agencies and jurisdictions will be undertaken as staff and funds become available.

1 INTRODUCTION

Origins of the Plan

With successful development of the Arkansas River Trail and the Razorback Greenway, Arkansas is seeing a growing interest in bicycling and walking. Developing local trail systems, making it safe for kids to walk to school, and developing mountain bicycling venues and on-road touring routes are becoming high priority projects in many local communities. Recognizing these and other factors, the Arkansas State Highway and Transportation Department (AHTD) identified the need to update the state's bicycle and pedestrian plan.

In May 2012, the League of American Bicyclists (LAB) released its annual Bicycle Friendly States Ranking; Arkansas was ranked 50th. The state responded by forming a Governor's Bicycling Advisory Group (GBAG) to study how Arkansas could improve its ranking. The GBAG included executive and management level staff from the following five agencies:

- Arkansas State Police (ASP)
- Arkansas Commission on Law Enforcement Standards and Training (ACLEST)
- Arkansas Department of Health (ADH)
- Arkansas Department of Parks and Tourism (ADPT)
- Arkansas State Highway and Transportation Department (AHTD)

State Highways with wide shoulders are popular routes.

Photo courtesy of Crafton Tull

The GBAG, led by AHTD, identified a number of near-term actions that could be undertaken by each agency aimed at improving conditions for bicycling in Arkansas. AHTD committed to continue administering federal-aid funds provided for bicycling and pedestrian improvements to the transportation network and provide funding and leadership for development of a new bicycle and pedestrian transportation plan.[1]

The process for developing a new plan began in 2013 and ran for two years through 2015. During this time period, completion of the projects noted in the side bar resulted in improvement of the state's annual ranking in the LAB evaluation; it rose to 38th in 2013, 37th in 2014, and 36th in 2015.

While Arkansas has made forward progress, other states are "upping their game" as well. This Plan is designed to chart a clear course for Arkansas by moving towards a state that is known for great walking and bicycling conditions.

State Agency Partnership

AHTD provided leadership and funding for development of this Plan, however the strategy used in the planning process facilitated participation from multiple state agencies. Moreover, because bicycling and walking trips are typically short distances and take place predominantly at the local level, municipal and county governments and Metropolitan Planning Organizations (MPOs) were engaged as key partners in this effort.

To facilitate state agency involvement, AHTD used the Governor's Bicycling Advisory Group (GBAG) for overall project direction. To ensure broad, local jurisdiction and public involvement, AHTD created a Technical Advisory Committee (TAC) for the project. The TAC included representatives from each of eight MPOs, Arkansas' Planning and Development Districts, the Arkansas Municipal League, and bicycle and pedestrian advocates from various statewide organizations and local communities (for a complete list see Appendix E: Acknowledgements).

1 While the LAB ranking is based upon the State's performance regarding only bicycle transportation, it was recognized that a statewide process should address both pedestrian (which includes people with disabilities) and bicycle travel.

The GBAG convened three times over the course of the project; initially to provide background and later to develop specific goals and objectives. The TAC convened three times and assisted with public and stakeholder outreach and prioritization of the draft list of recommendations. Each group had considerable interaction with the AHTD project management staff and the project team.

While the Plan was initiated with a traditional focus on bicycling and walking as modes of transportation, the Governor's Bicycle Advisory Group paid particular attention throughout the planning process to the economic benefits that both recreational and transportation bicycling can provide in the State. These benefits – such as new economic development in walkable neighborhoods and growth in bicycle tourism – emerged as a central focus of this Plan given their potential to impact all Arkansas communities, no matter how small or large, rural or urban. The next section of this chapter presents a detailed discussion of economic benefits related to bicycling and walking; it is supported by references to a wide variety of studies and reports about the experiences of states similar to Arkansas.

Bicycling and Walking Means Business: The Opportunity for Economic Benefits in Arkansas

Studies and stories from around the country demonstrate that good planning and smart investments in bicycling and walking not only provide citizens improved mobility, travel options, personal health and fitness, but also deliver quantifiable economic benefits at the local, regional, and statewide levels. Robust bicycling networks and safe walking environments have the potential to generate millions of dollars in state and local economic benefits for Arkansas, including contributions to tax revenue.

Economic impacts will be felt in many ways, by attracting the workers and professionals that Arkansas needs to stay competitive, supporting growth in tourism, and generating customers for the small businesses that thrive in walkable main streets and neighborhood commercial centers. Improved safety for bicycling and walking will reduce economic losses and health care costs related to bicycle and pedestrian crashes. More people bicycling and walking more often will reduce health care costs related to major diseases that are linked to obesity and physical inactivity. Still further, bicycling and walking for

Bicycle and Pedestrian Activities Completed
2012 - 2014

1. The Arkansas Department of Parks and Tourism developed an educational booklet, Bicycle Safety in Arkansas, which was jointly published in 2013 by the ADPT, ASP and AHTD.
2. The Arkansas State Police updated the Arkansas Driver's License Study Guide* to better explain state law related to motorists' and bicyclists' responsibilities to safely share the road. Five new questions were added to the examination for driver's learner permits.
3. The state law enforcement agencies partnered to modify bicycle safety and transportation law curricula for both in-service officer training and recruits, making them current with recent changes in state law.
4. The Arkansas Department of Health continued its grassroots outreach efforts including its Small Grant program to support local community efforts to combat obesity and its related health problems through the promotion of active living. Efforts include changing the built environment in order to make it better for bicycling and walking. In 2013, the Arkansas Coalition for Obesity Prevention (ArCOP) provided technical assistance to five new Growing Healthy Communities (Camden, DeQueen, El Dorado, Hot Springs, and Yellville), and awarded health-related regional project grants to three community projects that address the built environment and walkability.

http://asp.arkansas.gov/news-releases/detail/state-bicycle-safety-guide-published

https://www.arkansashighways.com/publications/Bike%20safety-doc12a.pdf

Photo courtesy of Crafton Tull

Pedestrian friendly environments support local economies.

routine transportation activities can reduce energy consumption costs and other environmental impacts inherent in our motor vehicle-based transportation system.

LOCAL ECONOMIC AND LIVABILITY BENEFITS

At the local level, the economic benefits of bicycle and pedestrian-friendly communities are becoming increasingly clear to community leaders—they help attract professional talent, encourage neighborhood revival, and stimulate local economies.

Attracting Professional Talent

As was heard during the public outreach for this Plan, Arkansas cities like Jonesboro and Fort Smith are looking to attract and retain a skilled and committed workforce, including professors, medical specialists, managers and top executives for public and large non-profit institutions like hospitals, universities and colleges. Moreover, the Arkansas Economic Development Commission has identified workforce development and attracting skilled employees as among the state's most pressing economic challenges. In 2014, the Director of the Commission called it "an emergency."[2]

To stay competitive, Arkansas must be able to attract new and expanding businesses. These businesses and institutions are looking to locate in communities where young, family-oriented and highly skilled workers want to live.[3] As a result, cities and counties must invest in creating the bicycle- and pedestrian-friendly places that these workers demand for themselves and their families. Recognizing this, many Mid-America cities like Oklahoma City,[4] Chattanooga,[5] and Indianapolis[6] are making major investments in sidewalks, trail systems and on-road bikeways, both to benefit their existing residents and to attract the skilled workforce of tomorrow.

Reviving Neighborhoods

Bicycling and walking improvements can help transform urban neighborhoods and small towns, whether along a specific corridor or in an entire downtown business district. Many Midwest cities are focusing on bicycle and pedestrian access and safety as central components of revitalization efforts. The Cultural Trail in Indianapolis is an 8-mile long urban trail that connects six central city cultural districts. It is positively impacting downtown real estate prices. With $63 million in public and private investment, the Trail has generated an estimated economic impact of $865 million, helped create over 11,000 jobs and added five acres of new pervious surfaces in the heart of downtown.[7]

The Broad Avenue Arts District initiative in Memphis sought to attract art-related businesses to revitalize the Broad Avenue corridor by changing the street itself. The city installed a high quality bike lane and improved the pedestrian environment. Since this time, the corridor has seen 16 new businesses, 29 property renovations (17 at previously vacant locations), and 40,000 visitors to the Arts Walk.[8]

2 Jobs Chief: Workforce Quality an 'Emergency' in Arkansas, TheCityWire.com; http://www.thecitywire.com/node/34402#.VSKQMmfD-po

3 PwC and the Urban Land Institute. Emerging Trends in Real Estate® 2014. Washington, D.C.: PwC and the Urban Land Institute, 2013, page 9.http://uli.org/wp-content/uploads/ULI-Documents/Emerging-Trends-in-Real-Estate-Americas-2014.pdf

4 For example, Project 180 is transforming 180 acres of Downtown Oklahoma City into better pedestrian and walking environments. http://www.okc180.com/

5 Chattanooga has received three awards in the past decade for "livability" and was selected as a model city for the biennial ProWalk ProBike Conference in 2010. http://www.downtownchattanooga.org/new/live/overview

6 http://www.indy.gov/eGov/City/DPW/Documents/0752-1253%20ProgressReport_03-12WEB.pdf

7 Cultural Trail Facts, http://indyculturaltrail.org/alongthetrail/facts-and-figures/

8 Broad Avenue Corridor, "Broad Avenue Corridor: Fostering a Choice Neighborhood Fueling Economic Development" presentation. http://www.advocacyadvance.org/site_images/content/Broad_Ave_Corridor_general_info_update.pdf

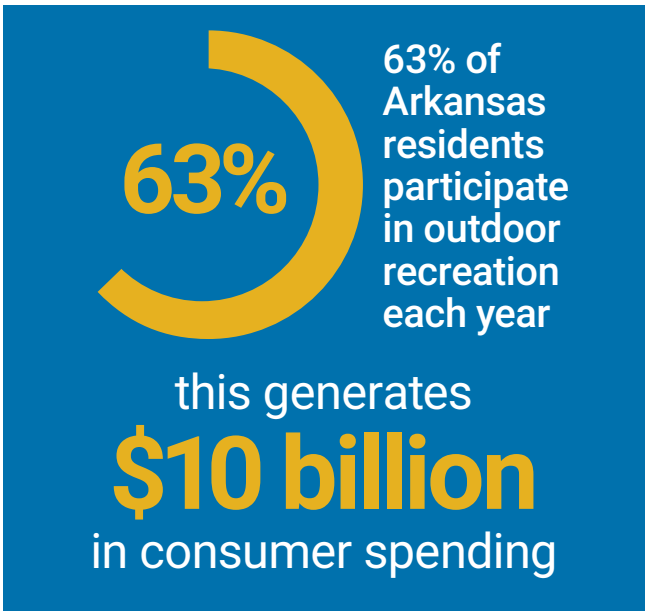
Arkansas cities are also embracing these strategies. In downtown Little Rock and North Little Rock, the development of the Arkansas River Trail has created a center piece around which waterfront redevelopment has been stimulated on both sides of the river. The trail and its associated bridge crossings link the Clinton Presidential Center, Heifer International Headquarters, Verizon Arena, and Dickey-Stephens Park with the convention center, numerous downtown hotels, restaurants and the River Market. The bicycle and pedestrian connectivity provided by the trail system has become a major attraction for the entire central Arkansas region. The Arkansas River waterfront regularly buzzes with pedestrians and cyclists, local strollers and tourists, lunch crowds, concert goers and weekend shoppers.

Higher Revenues and Property Values

While high quality trail systems will draw out-of-town visitors to local communities, they also have positive economic impacts by stimulating local spending and increasing property values. They meet a wide range of recreational needs because they accommodate bicycling, running and walking activity, and are accessible to a broad range of individual skill and endurance levels. Paved, shared use paths such as the Razorback Greenway and Arkansas River Trail, can be used by individuals, families, seniors, children, and people with disabilities, creating a broad market from which economic benefits are drawn.

A 2004 study done for the Virginia Department of Conservation on the Washington and Old Dominion Trail in suburban Northern Virginia found that the trail averaged 1.7 million total trail visits annually, generating $12 million in spending by local and out of region visitors. The study found that over 50 percent of the spending generated by the trail ($7 million), was spent in northern Virginia.[9]

Economic benefits are also accrued as property values increase. A study of home values near Indianapolis' Monon Trail showed that living close to the trail had real value to home buyers. The study found that when comparing two identical houses (the same number of square feet, bathrooms, bedrooms, and comparable garages and porches, etc.), the home within a half mile of the Monon Trail would sell for an average of 11 percent more than one located further away.[10]



TOURISM

Tourism is an important source of employment in Arkansas. In 2014, 8.3 percent of workers in Arkansas were employed in the leisure and hospitality sector, according to the Bureau of Labor Statistics.[11] Outdoor activities like bicycling and walking contribute significantly to tourism activity in Arkansas and nationally. According to the Outdoor Industry Association, outdoor activity in Arkansas, undertaken by both local residents and tourists, generates $10 billion in consumer spending and directly and indirectly supports 126,000 Arkansas jobs, produces $2.9 billion in wages and salaries, and generates $696 million in state and local tax revenue. At least 63 percent of Arkansas residents participate in outdoor recreation each year, [12] either in their home community or as part of a trip to another area of the state.

9 The Washington & Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economics Final Report; Prepared for the Virginia Department of Conservation; December 9, 2004; Principal Investigators: J.M. Bowker, USDA Forest Service, Southern Forest Research Station; John C. Bergstrom and Joshua Gill, University of Georgia, Department of Agricultural and Applied Economics; Ursula Lemanski, National Park Service

10 Lindsey, Greg, et al, "Property Values, Recreation Values, and Urban Greenways," Journal of Park and Recreation Administration, Volume 22, Number 93, pp. 69-90, Fall 2004. http://staff.washington.edu/kwolf/Archive/Classes/ESRM304_SocSci/304%20Soc%20Sci%20Lab%20Articles/Lindsey_2004.pdf

11 Bureau of Labor Statistics, Arkansas. http://www.bls.gov/eag/eag.ar.htm#eag_ar.f.3

12 The Outdoor Recreation Economy, Arkansas, Outdoor Industry Association, http://outdoorindustry.org/images/ore_reports/AR-arkansas-outdoorrecreationeconomy-oia.pdf

Nationally, bicycling and running are the most popular outdoor activities engaged in by tourists and local residents alike; they rank among the top three (along with fishing) among both youth and adult populations, with over 50% of the total U.S. population participating at some level.

Recreational bicyclists, both from out-of-state and in-state, are attracted by one or all of the following: 1) on-road touring routes in scenic and culturally unique areas, 2) hard surface trails (shared use paths), and 3) mountain biking opportunities. Attracting bicyclists to Arkansas, and creating more places to bicycle, will support the state's economy and the economic sustainability of local communities, both large and small.

On-Road Bicycle Touring Routes

Bicycle touring and large-group/charity rides are growing in popularity, as are vacation tours offered by outfitters and self-guided bicycling weekends. For example, a cursory review of organized group and charity rides now conducted annually in Arkansas, identified more than fifty large group or charity rides, which can draw from several 100 to 5,000-6,000 participants.[13]

A national survey of participants in organized recreational bicycle rides found that more than 1 million Americans participated in 1,700 U.S. recreational road-riding events, and spent nearly $140 million on food, lodging, and other purchases at these events. Nationally, revenue from recreational road riding events topped $240 million.[14]

Yet, bicycling for recreation is not an entirely new phenomenon. Enjoying Arkansas' back roads and great scenery on a two-wheeler is actually an old Arkansas tradition. In the early 1970s, three formal State Commissions[15] partnered with the Arkansas Chapter of the League of American Wheelman, and published a statewide map of 23 scenic and historic touring routes, one of the first maps of this kind published by a state highway agency.

13 This does not include competitive races or festivals oriented to competitive events.

14 Bikes Belong Survey: The Size & Impact of Road Riding Events, November 2009 http://b.3cdn.net/bikes/cc8f95c90baa58e083_hzm6brs5t.pdf

15 Arkansas Highway Commission, Arkansas Bikeways Commission and the Arkansas Parks and Tourism Commission.

Courtesy of Arkansas Highway and Transportation Department

An illustration from the early 1970s statewide map of bike routes

Based on studies conducted in a variety of states, we know that today's bicycle tourists tend to be more affluent than the average tourists. For example, fifty-six percent of cyclists touring through Montana have a median household income of $75,000-150,000. Ten percent earned over $200,000. And they tend to spend more than many other visitor types. Again in Montana, bicycling tourists spend about $75 a day per person compared to $58 for visitors who arrived by car.[16] Many of today's avid cyclists have disposable income to spend on Arkansas businesses.

In 2012, Travel Oregon, the state tourism promotion agency found that Oregon's approximately 100,000 bicycling tourists spend $1.2 million a day – $400 million a year.[17] This spending directly supports 4,600 jobs creating annual earnings of approximately $102 million. Arkansas has some of the most scenic areas of the American Midwest, and cyclists can choose from

16 Nickerson, et al, "Analysis of Touring Cyclists: Impacts, Needs, and Opportunities for Montana," Institute for Tourism and Recreation Research, University of Montana, Missoula, MT, December 2013, http://www.adventurecycling.org/default/assets/File/US BRS/Research/Multi-dayCyclingStudyWeb.pdf

And –Vélo Québec, UQAM's Transat Chair in Tourism, "Cycle tourists in Quebec are highly educated: more than two-thirds have a university degree. Cycle tourists from outside Quebec have a higher annual income than those who live in the province. 52% of respondents from outside Quebec earn $100,000 or more a year, compared with 35% of local cycle tourists." "Average spending per trip for bicycle tourists and their families in Quebec is $675, or an average of $214 per day." http://www.velo.qc.ca/en/pressroom/20150428145143/Cycle-tourists-Quality-tourists-for-regions-throughout-Quebec

17 The Economic Significance of Bicycle-Related Travel in Oregon, Detailed State and Travel Region Estimates, 2012 April 2013, Dean Runyan http://www.deanrunyan.com/doc_library/bicycletravel.pdf

the hills of the Ozarks or the plains of the Mississippi Delta, and in both areas find low traffic roads, history and all types of Americana in roadside attractions.

Regional and Long Distance Trails

Regional and long distance trail systems attract the widest range of cyclists who may be interested in day trips or multi-day touring. Non-local trail visitors spend money on food, gasoline, supplies, gift shopping, overnight accommodations; and may buy or rent equipment as well. Economic benefits are significant.

- In the Dayton, Ohio region, the Miami Valley trail system is a regional recreational draw that has an estimated annual economic impact of between $13 million.
- The Great Alleghany Passage is a 132-mile trail system from Cumberland, MD, to Pittsburgh, PA. Bicyclists on overnight trips spend an average of $114 per day there. In 2011, business owners in the small communities along the trail reported that, on average, 30 percent of their gross revenue was directly attributable to the trail users.[18]
- The 400,000 annual visitors to Missouri's Katy Trail State Park, a 240-mile long rail-trail, has a total annual economic impact of $18.5 million, supporting 367 jobs. One in four trail users were overnight visitors, who spent an average of $700 per trip for motel/B&B guests or $231 per trip for people camping.[19]

While the Arkansas River Trail in the Little Rock/North Little Rock area is almost complete, the state has a number of other feature trails and trail systems emerging, including the Southwest Rail-Trail linking Little Rock and Hot Springs, the Razorback Greenway in Northwest Arkansas (Grand Opening May 2015), and the Delta Heritage Trail (DHT) between Memphis and Arkansas City. The DHT will be a part of the Mississippi River Trail (MRT) which links Minneapolis and New Orleans. This trail will be a boon for Arkansas. A 2003 Iowa State University study of the potential economic impacts of the MRT for Iowa found that annually, $18.5 million in new spending could be expected as a result of developing the MRT, most of it happening in rural parts of the state.[20]

Arkansas River Trail

Photo courtesy of Crafton Tull

Mountain Biking

In addition to on-road bicycling and bicycling on shared use paths, mountain biking is a major part of bicycle tourism in Arkansas. There are four *Epic Rides* designated by the International Mountain Bicycling Association (IMBA) and two IMBA Ride Centers (Bentonville & Fayetteville). *Epic Rides* are the "gold standard" of mountain bicycling venues. Only two other states, have more Epic Rides than Arkansas with California having six and Colorado having five. As a result, some of the cities near these rides are already emerging a premier mountain bicycling destinations, including Hot Springs, Mountain View, and Fayetteville. Websites that cater to mountain bicycling enthusiasts list more than 80 mountain bicycling trails throughout the state. Anecdotal evidence suggests

18 2012 Trail Town Business Survey Report for The Progress Fund, Center for Regional Progress, Frostburg State University, May 2012 http://www.atatrail.org/docs/Trail_Town_Business_Survey_Final_Report.pdf

19 "Katy Trail Economic Impact report," Synergy Group, July 30, 2012

20 Iowa's Mississippi River Trail Plan, Sponsored by the Iowa Department of Transportation, Prepared by the Center for Transportation Research and Education at Iowa State University, Ames, Iowa, 2003; http://ctre.iastate.edu/research/detail.cfm?projectID=501

that enthusiasts are already coming to Arkansas from metropolitan areas within a day's drive, including Kansas City, St. Louis, Memphis, Oklahoma City and Dallas/Fort Worth; and they are also coming from Arkansas' own population centers, including the Little Rock area and Northwest Arkansas.

The Outdoor Industry Association in the U.S. estimates that annually, bicycle related travel and tourism is a $47 billion industry. Mountain Bicycling is estimated to account for 15 percent of bicycling activity[21] and it is growing in popularity, not only in the U.S. but around the world. Mountain bicycling is a part of a growing trend in *adventure tourism* (42 percent of all U.S. and European holiday travel) and is increasingly served by companies that offer mountain biking vacations, costing the consumer an average of $250 a day and generating considerable spending in their destination communities.[22]

While there are no studies that specifically quantify the economic impacts of mountain bicycling as a sector of the overall U.S. bicycling economy, there are numerous studies that focus on the local economic impacts to specific communities and regions with major mountain bicycling resources and high levels of activity.

The June 2014, University of Oregon Study of Oakridge, Oregon[23] is instructive: Oakridge is a small mountain town of 3,200 residents located in the Willamette National Forest of the Oregon Cascades. For 80 years it was a timber town, but the last mill closed in 1989 and the town struggled economically for 20 years thereafter. Today, the estimated value of all goods and services produced by the town is $98.6 million and mountain bicycling is responsible for 4-5 percent (approximately $2.3 to $4.9 million). Three businesses in town estimate that 75% of their revenue results from the 10,700 to 15,900 trips mountain bikers make to Oakridge annually. Mountain bicycling is now helping grow Oakridge's economy.

21 Outdoor Recreation Participation Topline Report, 2011, http://outdoorindustry.org/images/researchfiles/OIA_Participation2011Topline.pdf?133

22 Mountain Bike Holidays: The Growing Tour Market, Presentation at the 2014 IMBA World Summit, Steamboat Springs, Colorado; by Zac Cole, PHD, Assistant Professor, University of North Carolina at Greensboro, Bryan School of Business and Economics.

23 Adapting to the New Economy: The Impacts of Mountain Bike Tourism in Oakridge, Oregon, June 2014, Nicholas S. Meltzer, University of Oregon, Department of Planning, Public Policy, and Management.

Bakeries and ice cream shops attract cyclists.

Photo courtesy of Crafton Tull

REDUCING COSTS TO SOCIETY

Health and Fitness

For the past few decades, the Arkansas population has been ranked consistently as one of the worst in the nation in terms of obesity. In 2013, Center for Disease Control data showed that 34.6 percent of adult residents self-report as obese, and an additional 35.3 percent report as overweight. Using these measures of physical fitness, Arkansas ranks ahead of only two states: West Virginia and Mississippi.[24]

More people bicycling and walking more often can have an impact on the bottom line by first impacting the waistline. A rigorous 2011 study conducted by the University of Northern Iowa's Sustainable Tourism and Environment Program found that the estimated 25,000 regular bicycle commuters and 150,000 recreational bicyclists in Iowa saves the State of Iowa $87 million in health care costs.[25]

24 Centers for Disease Control, Obesity Prevalence Maps, Behavioral Risk Factor Surveillance Systems, http://www.cdc.gov/obesity/data/prevalence-maps.html

25 Economic and Health Benefits of Bicycling in Iowa, University of Northern Iowa, Fall 2011 http://iowabicyclecoalition.org/wp-content/uploads/2012/04/2012-Economic-Impact-Study.pdf

Cost savings can be captured on the business side as well. Between 2007 and 2011, a period in which corporate health care costs increased approximately 24 percent nationally, the healthcare costs of a Twin Cities, Minnesota manufacturer, Quality Bicycle Parts (QPB), actually dropped by 4.4 percent. Their own study showed that the cost savings resulted in large part from employee participation in the well-being program they call the *Health Reward Program*, which encouraged employees to bike to work, among other lifestyle changes. QBP estimates that its wellness program has reduced productivity loss by 1.3 percent, which saved the company $903,000 over three years.[26]

In 2015, the League of American Bicyclists named eight new businesses to its list of Bicycle-Friendly Businesses in Arkansas, which now total seventeen. This list includes Walmart Headquarters in Bentonville, Garver in Fayetteville and North Little Rock, Kimberly-Clark Corporation in Conway, and the Arkansas Foundation for Medical Care in Little Rock.

In recognition of receiving the bicycle friendly designation, David Hoke Sr., the Associate Director for Health and Well-Being at Walmart said, "Walmart is honored to be named a Gold-level Bicycle Friendly Business. With our innovative bike share program and over 8 miles of trails surrounding our home office campus, our associates can improve their health and well-being while at the same time helping to reduce our carbon footprint and supporting our company's commitment to sustainability."[27]

The Cost of Motor Vehicle Crashes

Another public health concern with financial impacts is the cost of motor vehicle crashes, which the National Transportation Safety Administration (NHTSA) classifies as either injury or fatality crashes, depending upon the consequences suffered by those involved. Overall, NHTSA estimates that motor vehicle crashes cost society $871 billion in 2010, in medical, property, and lost productivity costs. Nationally, the share of these crashes involving pedestrians and bicyclists caused $19 billion in economic costs and $90 billion in comprehensive costs.[28]

Annually, Arkansas hosts more than 50 large group or charity rides.

Photo courtesy of Crafton Tull

It is estimated that the total combined *injury* and *fatality* crashes involving pedestrians and bicyclists is costing the State about $720 million a year.[29] Reducing bicycle and pedestrian fatalities and injuries by half will dramatically reduce this drain on the State's overall economy.

26 "Quality Bike Products Health and Wellbeing Program," Quality Bicycle Parts http://www.streetsblog.org/wp-content/uploads/2012/03/Quality-Bike-Products-Health-Reward-Program.pdf

27 http://www.bikeleague.org/content/league-awards-161-bicycle-friendly-businesses

28 Blincoe, L. J., Miller, T. R., Zaloshnja, E., & Lawrence, B. A. (2014, May).The economic and societal impact of motor vehicle crashes, 2010. (Report No. DOT HS 812 013). Washington, DC: National Highway Traffic Safety Administration. http://www-nrd.nhtsa.dot.gov/Pubs/812013.pdf

29 "For this calculation, it is assumed that Arkansas's share of the nation's bicycling and walking injuries is the same as its share of the nation's bicycling and walking fatalities, 0.8 percent. Therefore, by multiplying the national cost of bicycle and pedestrian injuries and fatalities, $90 billion, by 0.008, we derive the estimated cost of bicycle and pedestrian injuries and fatalities for Arkansas: $720 million."

Plan Vision, Goals and Objectives

Over the past 15 years, many studies have solidified the case for bicycling and walking as a sound public investment that yields real economic benefits, while also improving transportation and recreation options, public health, and environmental quality. Likewise, in the past 20 years AHTD, has invested $185 million in bicycle and pedestrian improvements through the replacement or installation of sidewalks, ramps, striping for pedestrian and cyclists, and Transportation Alternatives Program. Encouragement of bicycling and walking promotes neighborhood livability and social cohesion, with valuable results.

Each of these benefits were raised and discussed by the citizens and community leaders who engaged in the public involvement activities as part of this Plan (a description of those activities along with more detailed findings is provided in Chapter Two). As the Governor's Bicycle Advisory Committee reviewed the public comments and learned about the experiences of other states and communities that have embraced non-motorized transportation, it became clear that investing in bicycling and walking for economic reasons would be an approach that many Arkansans could rally around, in urban, suburban, and rural parts of the state. It also became evident that many elected officials, agency leaders, and citizens from around the State have already come to this conclusion and they see that Arkansas is on the cusp of a tremendous opportunity. That opportunity provided the vision for this Plan.

Shared use paths reconnect people with nature.

Photo courtesy of Crafton Tull

The Vision

By fully embracing bicycling and walking, both as forms of transportation and recreation, Arkansas communities can provide transportation and lifestyle options for their citizens and strengthen the economic and social vitality of their communities.

THE GOALS

To pursue this vision, the Plan establishes three overarching goals for the State's bicycle and pedestrian initiatives:

Goal 1: Realize the economic benefits of bicycle and pedestrian-friendly communities and bicycle-related tourism and recreation on Arkansas' roads, shared use paths and mountain bike trails.

Goal 2: Develop a statewide Bicycle and Pedestrian Network that supports a) on-road bicycling for recreation and transportation, b) pedestrian access and safety within municipalities and unincorporated rural communities, c) development of shared use paths with regional and/or statewide significance, and d) access to mountain bicycling venues.

Goal 3: Conduct research and analysis leading to implementation of specific strategies for achieving zero pedestrian and bicyclist deaths from crashes with motor vehicles by 2025, and reducing injury crashes by 50 percent (over 2010-2014 levels).

THE OBJECTIVES

The following eight objectives define areas of activity that are central to achieving the goals.

Objective 1: Enhance laws and policies, enforcement, and local empowerment to promote alternative transportation and increase safety.

Objective 2: Sustain and continue to improve the bicycle and pedestrian program in Arkansas.

Objective 3: Consider innovative or non-traditional funding sources.

Objective 4: Review of the bicycle and pedestrian accommodation guidelines for Arkansas highways.

Objective 5: Develop a Statewide Bikeway Network using a tiered system that coordinates and connects to the United States Bicycle Route Numbering System.

Objective 6: Research and develop marketing strategies to be used at the state, regional, and local levels.

Objective 7: Further integrate bicycle and pedestrian safety into the Toward Zero Deaths campaign.

Objective 8: Provide leadership and support for education and advocacy efforts that relate to the built environment.

To achieve these objectives, thirty-five (35) specific action strategies are recommended for implementation. These action strategies are presented and discussed in Chapter Five.

Inside the Bicycle and Pedestrian Plan

2 In Chapter Two, a description of the public outreach activities is provided along with a summary of statewide findings from these activities.

3 Chapter Three introduces a key recommendation of this Plan: creation of a Statewide Bikeway Network.

4 Chapter Four provides a regional summary of findings organized around four quadrants of the state: Northwest, Northeast, Central & Southeast, and Southwest. The regional reports reveal some important variations in feedback based upon geography, provide a brief inventory of bicycle and pedestrian assets, and discuss a sampling of the site visits conducted in each region to ensure that the Plan be grounded in field-verified experiences of bicycling and walking conditions in a diverse set of settings throughout the state.

5 Chapter Five concludes the Plan with a set of specific program and physical network development recommendations, which are organized around the eight objectives and 35 action strategies.

More detail on several key aspects of this Plan is provided in the following appendices:

Appendix A: Online Survey Questions and Responses

Appendix B: WikiMap Inputs

Appendix C: List of Study Corridors and Areas Identified in the Preliminary Statewide Bikeway Network

Appendix D: Guidance for Local Bicycle and Pedestrian Planning

Appendix E: Acknowledgements

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2 PLAN DEVELOPMENT PROCESS

Public Meeting: Hot Springs, Arkansas

Photo courtesy of Arkansas Department of Health

Plan Development Process

The plan development process focused on two methods for evaluating existing conditions and assessing needs related to bicycle and pedestrian modes of transportation, including a) extensive outreach with the public and stakeholder groups, and b) establishing a baseline description of existing conditions using available data and new data compiled and collected as a part of this planning process. This chapter summarizes the methods and findings related to each of these efforts.

Public and Stakeholder Outreach

The Arkansas State Highway and Transportation Department (AHTD) staff and the project team developed a public outreach strategy at the beginning of the planning initiative in the Fall of 2013. Planned outreach efforts included the following: 1) conducting meetings with representatives of stakeholders such as local bicycling and walking advocates, local elected officials, local and regional planners, representatives from universities and others; 2) conducting public open houses in a limited number of communities throughout the State; 3) use of an online survey to gather general perspectives about bicycling and walking; and 4) use of online interactive maps (WikiMaps) to assess existing conditions and needs. Due to the size of the state and its geographic diversity, the online public input tools were used to ensure broad public access to the planning process. In addition to these input tools, a project website was maintained throughout the two year process to keep the public informed of progress and provide access to interim reports.

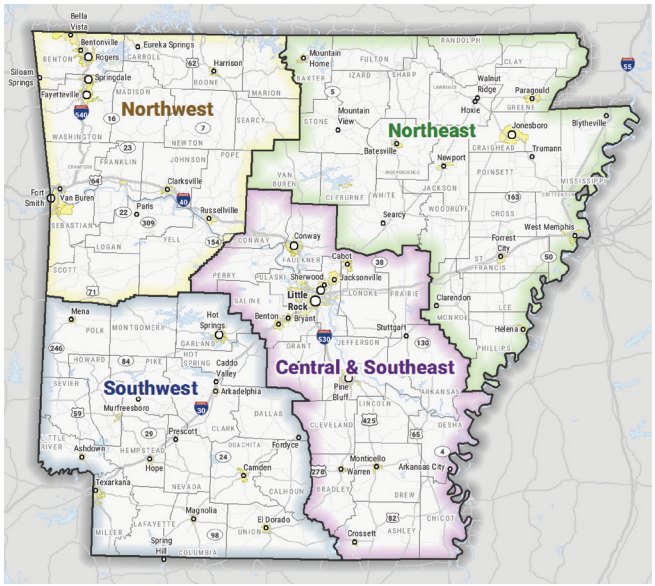


FIGURE 1

GATHERING INPUT

To facilitate organization of the public outreach activities, the State was divided into four regions: Northeast, Central/Southeast, Northwest and Southwest (*see Figure 1--map of public outreach regions*). One public meeting, using an o*pen house* format, was conducted in each region, except for the Northwest region where open houses were provided in both Springdale and Fort Smith. The State's eight Metropolitan Planning Organizations (MPOs) were invited to participate in the Technical Advisory Committee, which assisted with planning and coordinating the public outreach. As a result, local and regional transportation planners were able to provide the project team valuable assistance arranging meeting sites, inviting stakeholders and publicizing the open house events.

AHTD staff and project team members were present at all of the public and stakeholder meetings. In conjunction with the public meetings, AHTD staff and the project team made one or two site visits in each region to review bicycle and/or pedestrian conditions that local transportation planners believed to be instructive in some way, either by example of poor conditions that need to be remedied, or of best practice bicycle and/or pedestrian design treatments that should be replicated. A discussion of these site visits and related findings is provided in Chapter Four.

Public Meetings

Public open houses were conducted in the following five locations in the spring of 2014:

- Little Rock, University of Arkansas at Little Rock, April 1, 2014; 6:00 pm – 8:00 pm
- Springdale, Arvest Ball Park Community Room, April 3, 2014; 6:00 pm –8:00 pm
- Jonesboro, Arkansas State University, May 8, 2014; 6:00 pm –8:00 pm
- Fort Smith, Riverfront Pavilion, May 19, 2014; 6:00 pm –8:00 pm
- Arkadelphia, Arkadelphia Recreation Center, May 22, 2014; 6:00 pm –8:00 pm

At each location, a brief presentation about the planning process was provided along with a question and answer period. Stations were set up with maps of the region and the state, and participants had the opportunity to mark locations where they a) believed that bicycle and pedestrian improvements were needed, or b) where they

bicycled or walked often due to good conditions or the presence of other attractions. Computer work stations were provided for participants to fill out the online survey and use the online WikiMaps (see description below) to provide detailed input related to bicycling or walking. General comment cards were provided as well.

The information gathered in the mapping exercises was reviewed by the project team and used to help identify the preliminary Statewide Bikeway Network proposed in this Plan. While detailed transcripts of each public meeting were not created, the team used the maps to create a record of the conversations. A video of the meeting in Jonesboro was produced by Arkansas State University.[1]

Overall, more than 170 people participated in the public meetings which were also attended by AHTD project staff and staff from state agency partners.

Stakeholder Meetings

A total of twenty-five stakeholder meetings were conducted around the state in the spring of 2014 in concert with the public meetings. An effort was made to locate some of these meetings in communities other than those that hosted a public open house, enabling the outreach efforts to achieve fairly broad statewide coverage.

The stakeholder meetings reached more than 215 people, including local planners, public works staff, elected officials, university staff, bicycle shop owners, and citizens involved in their communities advocating for bicycling and walking concerns. Many communities within the Little Rock and Northwest Arkansas metropolitan areas were represented at stakeholder meetings conducted in Little Rock, Conway, Springdale, Johnson and Fayetteville. Many smaller communities were also engaged through these meetings including: Batesville, Mountain View, Hot Springs, Texarkana, Magnolia, El Dorado, Camden, Pine Bluff, Jonesboro, Paragould, Hughes, and the West Memphis area. Some state universities were engaged as well, in Little Rock, Conway, Fayetteville, and Jonesboro.

Stakeholder participants were provided questions in advance of the meetings to stimulate thinking and outline the types of issues in which they were interested. The following list of nine topics covers the breadth of issues and concerns that were raised and documented in the stakeholder outreach meetings:

1. The extent and nature of bicycle and pedestrian activity in the area.
2. The status of bicycle and pedestrian planning in the area.
3. AHTD related topics--including planning, design, and maintenance of state roadways.
4. Staff training issues and interagency coordination concerns.
5. Location specific comments related to bicycle and/or pedestrian needs and issues.
6. Motorist/pedestrian/bicyclist safety and safety education issues.
7. Safe routes to school program activities.
8. Trail development topics.
9. The nexus between bicycling and walking with health care and/or economic impacts.

A detailed summary of comments provided at each of the twenty-five stakeholder meetings is available on the AHTD website.[2]

Online Survey

More than 920 people from across the State participated in the online survey. The survey asked 33 questions. In addition to basic demographic questions, eight questions asked about walking trips; eleven about bicycling trips, and two about statewide priorities (see Appendix A for a complete list of questions and a summary of the responses). Findings from the survey are discussed below (see *Key Findings*).

Online Interactive Maps

The project team provided an interactive online map called a WikiMap. This tool enables members of the public to provide structured, location-specific input for a bicycle or pedestrian plan. The project team customized the map to gather information that would be most useful for Arkansas' Plan. Because of the Plan's focus on both bicycling and walking, a pedestrian-oriented WikiMap and a bicycle-oriented WikiMap were provided. See Appendix B for the types of information that was requested from WikiMap users.

1 https://vimeo.com/95317526

2 http://www.arkansasbikepedplan.com/about-the-program#StakeMtg

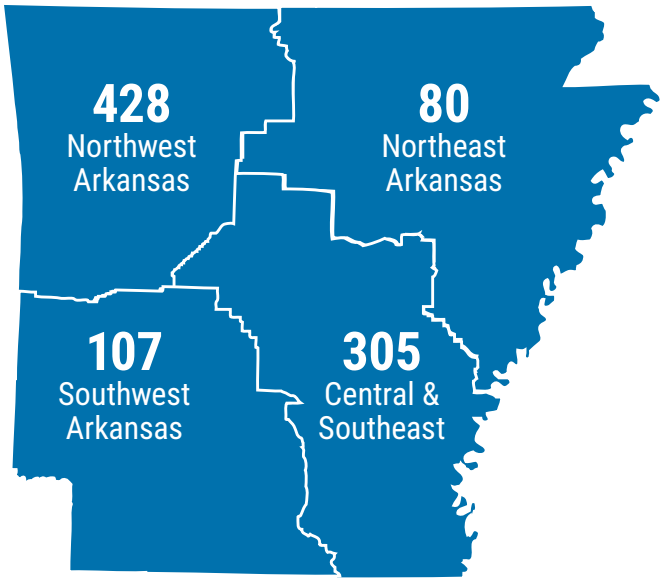
Key Findings

This section provides a summary of findings from all of the public outreach activities described in the previous section. In Chapter Four, additional detail from each of the four planning sub-regions is provided.

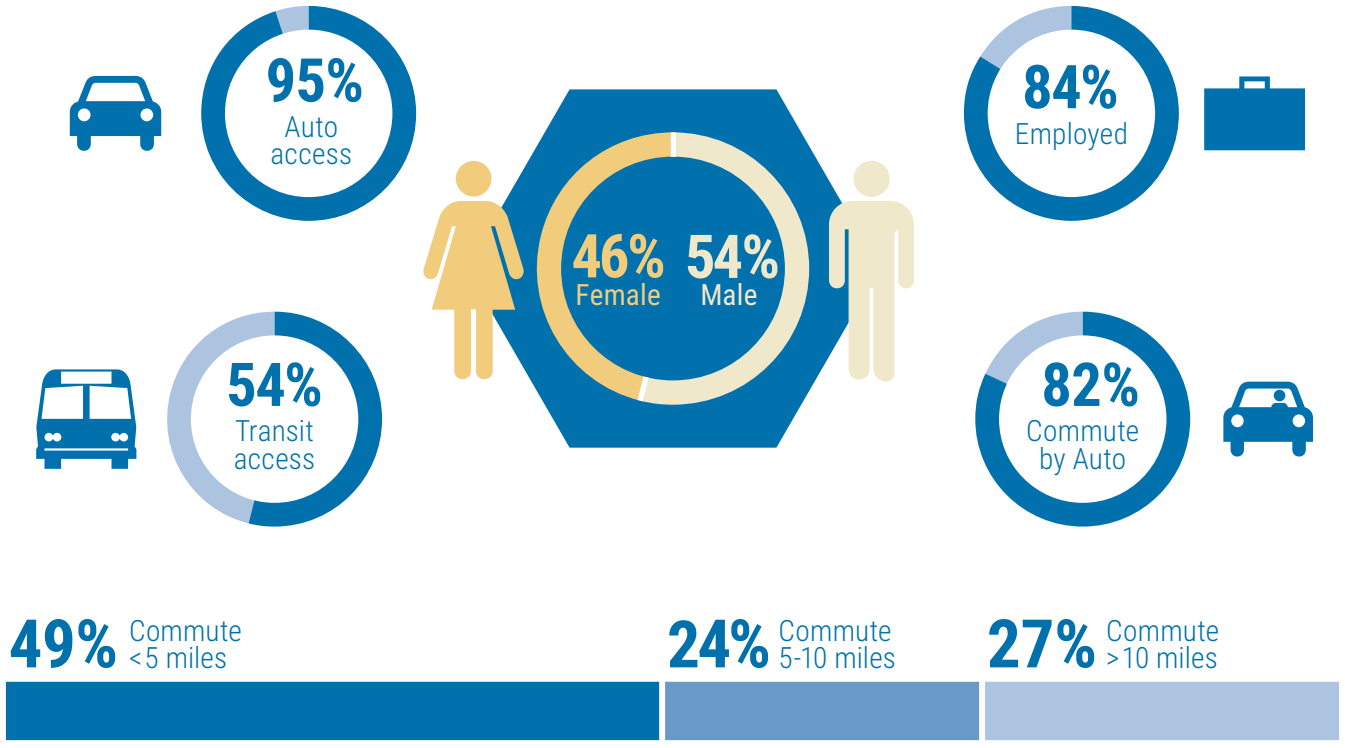
ONLINE SURVEY

Survey responses were received from 920 Arkansas residents and 5 non-residents. Within Arkansas, most of the responses came from Northwest Arkansas or the Little Rock metropolitan area. The participation rates from Jonesboro, Hot Springs, Fort Smith and Russellville were also strong. Conducting a statistically valid sample of the state's population was not possible for this study, however this survey revealed how bicycling and walking in the state is viewed by those who are actively engaged in these activities.

Responses by Region



Transportation Profile of Survey Respondents



Travel Characteristics of Survey Respondents

As shown by the details below, most survey participants bicycle, at least infrequently, but mostly as a form of recreation and exercise rather than utilitarian transportation. Likewise, among these survey participants, walking is done primarily for recreation and leisure activity.

BICYCLE TRAVEL

Out of 920 respondents, 70 (7.6%) said they do not bicycle at all. Of the remaining respondents:

40% said they are "experienced" riders who are comfortable riding in most traffic settings

39% describe themselves as "casual" riders that prefer paths and streets where traffic is manageable

Only **14.4%** said they are "less confident," i.e. that they only feel safe on paths and neighborhood streets

44% of survey respondents said that they bicycle frequently for recreation and/or fitness; 26% do so almost daily

Those who bicycle almost daily or frequently do so for the following activities:

Commute to work: **20%**

Shopping, running errands: **22%**

Visiting friends: **27%**

For those who bicycle, preferred facilities include the following:

Shared use paths or trails: **86%**

Bike Lanes: **76%**

Roads and streets with low traffic volumes: **56%**

Sidepaths along roadways: **54%**

The major deterrents to bicycling more often included the following:

Lack of bicycle facilities: **80%**

Motorists don't exercise caution around cyclists: **77%**

Traffic is too heavy: **70%**

Dangerous intersections: **63%**

Desirable destinations are too far: **31%**

PEDESTRIAN TRAVEL

4.5% said they have a physical limitation that affects their ability to bicycle or walk

34% said that they walk for leisure/recreation almost daily; **45%** frequently

9.3% said they walk to work regularly; **6.7%** frequently; **19%** infrequently; **65%** never

40% said they are comfortable walking more than 3 miles

Pedestrian Highlights

Seventy-three (73) percent of respondents said that a lack of sidewalks and trails is a factor that keeps them from walking more often; only 50 percent cited destinations being too far as a reason they do not walk more; and 46 percent said that heavy traffic and dangerous intersections are a deterrent.

This suggests that improving the physical network of pedestrian accommodations, especially as they relate to travel along and across arterial roadways, is critical to making Arkansas communities more pedestrian-friendly.

Bicycling Highlights

Improving on-street bicycling conditions is always a priority for cyclists in communities across the U.S, and Arkansas was no different: many of the survey comments stressed bicycle infrastructure needs. However, when asked what types of *non-infrastructure* programs or other measures would encourage them to bicycle more often, communities tend to have varying perspectives. In Arkansas, the highest priorities include the following:

a. Motorist education about cycling laws and how to respectfully share the road with cyclists (68% rated this a HIGH priority)

b. Increased enforcement of traffic laws (56% rated as a HIGH priority)

c. Increased roadway maintenance (53% rated as a HIGH priority)

d. Improved wayfinding (50% rated as a HIGH priority)

Low priorities included establishing a bike sharing program and providing better access to transit.

Economic Impacts

A number of questions in the survey sought to identify how other community values might be related to bicycling and walking. The following findings were found to be instructive for this Plan:

- Sixty-six percent of respondents said, "Yes, friendly bicycle or walking conditions was an important consideration in their choice of where to live."
- When asked to, "rate the importance of various reasons for investing in bicycle and pedestrian infrastructure?" Respondents rated the following reasons as HIGH priorities (out of high, medium and low):
  - 83% rated, creating safe routes for walking and biking to schools, as HIGH.
  - 79% rated, increasing health and physical activity, as HIGH.
  - 77% rated, improving access in center cities, town centers and main streets, as HIGH.
  - 73% rated, supporting access to the natural environment, as HIGH.
  - 63% rated, supporting tourism and economic development, as HIGH.

Improving access around transit stations and stops and providing affordable transportation options, independence for youth, seniors and disabled people were each rated as of MEDIUM importance.

How to Encourage More Bicycle and Pedestrian Travel

When asked, "*What is the most important activity to undertake to increase the amount of bicycling and walking that occurs for utilitarian transportation?*" the following actions received the largest majorities of respondents rating the activity as HIGH importance:

- 84% said, *building more paths and trails.*
- *76%* said *building more on-road bicycle facilities and accommodations.*
- 73% said, *improving sidewalks.*
- 71% said, *eliminating gaps in sidewalk networks and in bike routes.*

Improving maintenance, slowing traffic, and traffic safety education and enforcement campaigns were rated at lower levels.

WIKIMAPS

The majority of information gathered from the WikiMaps were location-specific comments identifying *good bicycling routes* and *routes that need improvement*. In conjunction with the mapping input gathered at the public meetings, these contributions were instrumental in identifying a preliminary Statewide Bikeway Network, which is discussed in Chapter Three.

PUBLIC MEETINGS

The public meetings were found to be effective for informing interested citizens about the Plan development process. Press coverage was generated in Little Rock and Jonesboro. The response from the public was overwhelmingly favorable, with many participants expressing gratitude for being asked for their thoughts about bicycle and pedestrian safety and the need to provide for these transportation modes.

As with the WikiMap tool, the comments gathered on maps were useful for the project team in developing a preliminary Statewide Bikeway Network. When routes were confirmed by multiple sources, i.e. by numerous citizens at public meetings, by WikiMap tool users, and by evidence that they are used by the bicycling community and marketed by recreation agencies, they could be included in the preliminary Statewide Bikeway Network with greater confidence.

STAKEHOLDER MEETINGS

The stakeholder meetings were invaluable as a source of input for the Plan. Existing policies that are proving to be effective were identified and confirmed in this process, and those that are problematic in their application were also identified and discussed. The following seven concerns were found to be common among all types of communities and among various bicycle and pedestrian constituencies throughout the State:

1. There is a need to change the mindset of both the public and political leadership regarding bicycling and walking, to ensure that these travel modes are viewed as legitimate transportation options; and to ensure that motorists respect the rights of bicyclists and pedestrians to use public streets and roads.
2. Arkansas is becoming more urbanized; effective partnerships among municipal, county, regional and state agencies are critical for making meaningful improvements for bicycle and pedestrian travel.

3. Elected officials at the municipal level and some members of the business community are recognizing that making their community bicycle and pedestrian friendly is key to creating livable communities that can be competitive in tomorrow's economy.
4. AHTD should provide safe and effective designs for roadway improvements when bicyclist and pedestrians are being accommodated.
5. There is a need for AHTD to vary its approach for providing bicycle and pedestrian accommodations along state roads based upon their rural, suburban or urban context, and their typical traffic volumes and speeds.
6. Local communities are concerned about safe bicycle and pedestrian access to public schools.
7. There is a need for transportation and planning agencies at all levels of government to address staff training needs related to effective and safe accommodation of bicyclists and pedestrians in the public realm.

Complete documentation of the twenty-five stakeholder meetings is available on the AHTD website.[34] Because a tremendous amount of valuable information was gathered through these meetings, Chapter Four of the Plan provides more detail, organized by region.

Inventory of Conditions and Assets

Due to the large volume of roadways owned and maintained by the AHTD, the scope of this planning process did not include a detailed evaluation of existing conditions for bicycling and walking on the State Highway System. However, in conjunction with public outreach efforts, field visits were undertaken during the project teams' visit to each outreach region. The locations of these visits were selected by local transportation planners from the Technical Advisory Committee, and the findings are presented in the regional reports included in Chapter Four.

In addition to these site visits, data describing existing conditions, facility inventories, and other assets related to the issues discussed in the Plan were compiled from available data sets provided by the AHTD, ADPT and other sources. A summary of that data is provided in Table 1.

Inventory of Conditions and Assets	Statewide	Northeast	Central and Southeast	Northwest	Southwest
Plans					
Metropolitan Planning Organizations with Bicycle, Pedestrian or Trail Plans	4	0	1	2	1
Municipalities with Plans (over 25,000 pop.)	17	3	4	7	3
Existing Bicycle Assets					
Feature Trails/Trail System (count/miles)	7/132 mi	2/33 mi	1/17 mi	3/47 mi	1/35 mi
Shared Use Path Development Opportunities (count/miles)	13/387 mi	5/93 mi	2/71 mi	2/77 mi	4/146 mi
Touring Routes (count)	40	9	14	7	10
Mountain Bike Parks (count)	15	2	4	6	3
Epic Rides (count)	4	1	0	1	2
Heritage Trails (count/miles)	6/611 mi	1/162 mi	1/43 mi	3/301 mi	1/105 mi
Scenic Byways (count)	10	1	2	5	2
Large Group/Charity Bicycle Rides					
Annual/Regular Bike Rides (Count)	53	9	17	19	8

TABLE 1

34 http://www.arkansasbikepedplan.com/about-the-program#StakeMtg

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3 STATEWIDE BIKEWAY NETWORK

2008 Tour of Arkansas, Bicycle Race

Photo courtesy of Arkansas Department of Parks and Tourism

Statewide Bikeway Network

Arkansas is among a number of states experiencing a significant increase in long distance bicycling for recreation, both from out-of-state visitors and in-state residents. Based upon the input gathered through this planning process, the state agencies that have partnered to develop this Plan believe that a Statewide Bikeway Network should be developed. To launch this effort, a preliminary Statewide Bikeway Network is identified and discussed in this section of the Plan.

This section includes the following: a) a discussion of the reasons why a Statewide Bikeway Network should be developed and designated; b) an explanation of the analysis and methodology undertaken to develop this concept; and c) recommended next steps.

Why Identify a Statewide Bikeway Network?

Many of the cities, counties, and Metropolitan Planning Organizations in Arkansas have adopted bicycle master plans that include a network of existing and future bicycle routes and proposed infrastructure investments. However, these plans predominately focus on local and regional trips and are not designed to focus on inter-jurisdictional trips made by bike.

Adopting a Statewide Bikeway Network can help state agencies strengthen the partnerships needed to create a bicycle network that serves a range of users and types of trips throughout the state. The discussion below explores the purpose and benefits of the preliminary Statewide Bicycle Network for state agencies, metropolitan planning organizations, regional planning and development districts, tourism promoters, the hospitality and tourism industry, and local communities.

CAPTURING ECONOMIC BENEFITS

A Statewide Bikeway Network will enable the State to promote visitation to Arkansas for bicycle tourism as well as better serve the recreational bicycling needs of Arkansas residents. These routes can be named and/or numbered where appropriate, have unifying themes, and will provide unique experiences that can be marketed to cyclists and outfitters and promoted by communities and tourist-oriented businesses along the route.

HELP BICYCLISTS SELECT ROUTES THAT MEET THEIR NEEDS FOR COMFORT AND SAFETY

With careful roadway selection and a regular program of physical improvements and maintenance, the State will be able to publish a statewide bike map that provides cyclists guidance regarding which roads and trails may be most suitable for their skill and comfort levels. Additionally, as routes are made ready for use, they can be signed to indicate route identity, provide wayfinding guidance and other information users need enroute. Before bicycle touring routes can be promoted and marketed with confidence, pre-trip and on-trip information needs to be compiled and made available. Cyclists want to find routes that will meet their individual, family, or bicycling group's needs, in terms of scenery, safety, comfort, challenge, trip length, and available amenities.

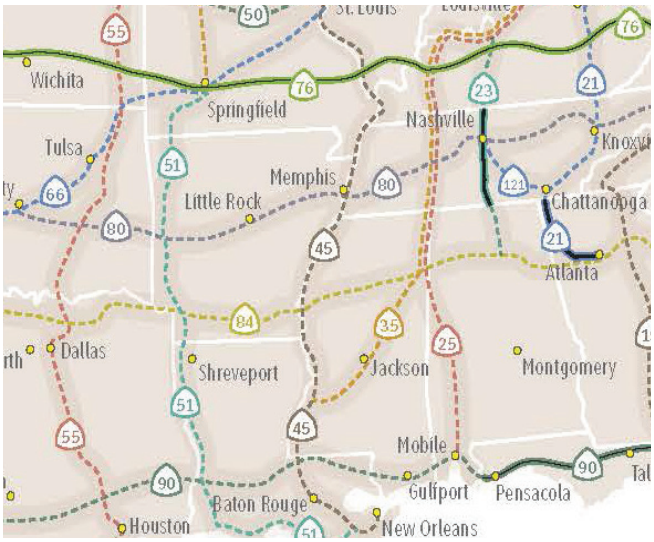
ARKANSAS' CONTRIBUTION TO REGIONAL AND NATIONAL BICYCLING NETWORKS

The statewide route designation process will enable Arkansas to gain the advantages of having portions of regional and national bicycle networks, such as the U.S. Bicycle Route System (US BR) and the Mississippi River Trail.

U.S. Bicycle Route Network

In 2009, the American Association of State Highway and Transportation Officials published a National Corridor Plan (NCP) map for the United States Bicycle Route System, see Figure 2. This plan identifies three *priority* U.S. Bicycle Route corridors (US BR 45, 51, 80 and 84) and four *alternate route* corridors through Arkansas.[3] Inclusion in the National Corridor Plan does not constitute designation. Rather, the NCP provides each state a framework that sets the stage for local planning that takes place at the state or regional level. States are encouraged to conduct further study and propose specific routes for formal designation and signage. It is understood that corridors may be added or existing corridors shifted based upon the findings of state led route studies and interstate coordination efforts. As specific routes are designated the route numbering system is augmented or modified as needed.

3 Numbered corridors and alternate routes are 50 miles wide and intended to provide a starting point for state-by-state study and planning. Details about the route study and designation process can be found on the website of the Adventure Cycling Association: http://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/



Courtesy of Adventure Cycling Association

FIGURE 2: U.S. BICYCLE ROUTES—IN ARKANSAS

Courtesy of Mississippi River Trail, Inc. (MRT, Inc.)

FIGURE 3: MISSISSIPPI RIVER TRAIL (MRT)—ARKANSAS SECTION

In addition to routes 45, 51, 80, and 84, the process for this Plan has already identified an additional route suitable for further study--a diagonal link between the Southern Tier Route (US BR 90) and the TransAmerica Trail (US BR 76).

Mississippi River Trail

Arkansas is also included in a popular and important north-south route across the U.S.—the Mississippi River Trail (see figure 3). This regional effort proposes development of a shared use path (or designation of low traffic rural roads) on one or both sides of the Mississippi River from Minneapolis to New Orleans. Advocates for this trail are engaged in planning alignments and developing facilities. Interests in Memphis, Tennessee have restored the Harahan Bridge linking Memphis with West Memphis, Arkansas. Dialogue with Levee Boards in Arkansas, and the U.S. Army Corps of Engineers have resulted in agreements to develop levee top trails to complement the Delta Heritage Trail alignment, which is along an abandoned Union Pacific railroad corridor and currently being developed by the ADPT. In time, these efforts will result in a continuous off-road trail from Memphis to Arkansas City, and potentially further to Louisiana in the south and Missouri in the north.

PRIORITIZATION OF FUNDING, MAINTENANCE, AND LAW ENFORCEMENT

Designation of a Statewide Bikeway Network can aid implementation of the current Transportation Alternatives Program (TAP) and selection of projects by the TAP Committee. Also, this system can help AHTD focus on a limited portion of the 16,000 mile State Highway System as the most critical for capacity and maintenance improvements while also creating safer bicycling environments.

With a Statewide Bikeway Network, AHTD and local jurisdictions can identify roadway maintenance activities with the most impact for improving conditions for bicycling, which will aid in prioritizing routine maintenance activities.

State and local police agencies can improve enforcement efforts that will balance both motor vehicle and cyclist safety on Arkansas roadways. Enforcement activities also provide opportunities to educate both cyclists and motorists about safe bicycling and driving behaviors.

Mountain Bicycling Cane Creek

Photo courtesy of Arkansas Department of Parks and Tourism

Methodology for Developing the Preliminary Bikeway Network

Based on national best practices, the project team recognized a series of characteristics that are common to Statewide Bikeway Networks and used these concepts to guide the development of the preliminary network in Arkansas.

The Statewide Bikeway Network should:

- Be composed of bicycle touring routes with statewide or regional significance (i.e. those that traverse longer distances between cities and counties, or link important statewide destinations);
- Include both on-road touring routes and shared use paths, including routes recommended by the ADPT and trail development efforts that are ADPT priorities;
- Address the U.S. Bicycle Route System's needs in Arkansas;
- Support routes of statewide significance and purpose within Arkansas;
- Support routes related to Arkansas' history, heritage and scenic values; and
- Include shared use path routes that are of sufficient length so as to provide utilitarian transportation, a significant recreational outing or multiday touring experience, or be part of a larger, predominantly on-road route.

With these characteristics in mind, the team used the following process to develop the preliminary Statewide Bikeway Network.

PLANNING INPUTS

The project team reviewed a wide range of planning inputs including mapping of various commonly used bicycle routes around the state, and proposed routes in national or local plans.

A variety of existing geographic information system (GIS) data sets were reviewed in the route selection process. These were supplemented with information gathered from bicyclists during the course of this planning process (via the WikiMap and public meeting maps) and data provided by regional transportation planning agencies. The following data sources were reviewed:

- Recreational bicycle routes mapped and promoted by the Arkansas Department of Parks and Tourism;
- Existing Arkansas Scenic Byways;
- Statewide and regional demand maps for recreational bicycling (prepared by the project team);
- Comments from the bicycling public on the Bicycle and Pedestrian Plan WikiMap;
- Comments from the bicycling public and stakeholders at 30 meetings conducted as part of this planning process;
- Local and regional bicycling networks and trail development plans provided by metropolitan planning organizations and local governments;
- Mapping of the U.S. Bicycle Routes proposed to pass through Arkansas as part of the National Bicycle Route System—as recommended by AASHTO, for planning

purposes, 50-mile wide buffers were developed for each of the proposed routes;

- Existing, proposed and potential shared use paths of regional and statewide significance (data gathered from a variety of sources including local governments, ADPT and the Rails-to-Trails Conservancy);
- Existing, designated, heritage trail routes; and
- A cursory review of traffic conditions on select roads (shoulder width and ADT on state highways open to bicyclists).

ROUTE SELECTION IN URBAN AREAS

Selecting streets within a heavily developed urban or suburban population center is difficult because local street connectivity may provide a wide range of options, and major state highways through the community may be among the least attractive to cyclists due to high traffic volumes, vehicle speeds and lack of bicycle facilities. For this reason, the preliminary network map does not yet show specific routes through most municipalities (large or small), unless a preferred route has been developed by the local municipality or MPO.

PRELIMINARY STATEWIDE BICYCLE ROUTE MAP

Using the inputs described above, the project team developed a preliminary Statewide Bicycle Route map, see Figure 4. The preliminary Statewide Bikeway Network includes a tiered network of routes and assets that include the following: U.S. Bicycle Routes, Arkansas State Bicycle Routes, Shared Use Paths (Trails) of Statewide and Regional Significance, Mountain Bicycling Venues, and Hub Communities.

TIER 1 - U.S. Bicycle Routes

- U.S. Bicycle Route (US BR) 45—on-road routing for the Mississippi River Trail provides continuity in locations where an off-road trail cannot be provided (see also Tier 3, MRT)
- US BR 51— a north-south route along the western border of the State from Springfield, Missouri, to Bentonville through Ft. Smith and Texarkana to Shreveport, Louisiana
- US BR 80—an east-west route from Memphis to Little Rock to Oklahoma City
- US BR 84—an east-west route across the southern tier of the State, from the Greenville, Mississippi area through Texarkana to Dallas, Texas
- The Southern Tier US BR 90 to TransAmerica Trail Route Connector US BR 76—this will connect bicycle routes in Louisiana and Missouri. This connection would create a coast-to-coast corridor between Florida and Washington State. The ADPT, AHTD, and Bike Walk Arkansas propose the route from southeast to northwest Arkansas for inclusion in the U.S. Bicycle Route System.
- Additional planning may result in prioritization of alternate routes in the U.S. Bicycle Route System to provide options to riders.

Talimena National Scenic Byway

Photo courtesy of Arkansas Department of Parks and Tourism

TIER 2 - Arkansas State Bicycle Routes

These are additional routes that link the major communities, regions, and scenic features of the state and supplement the U.S. Bicycle Routes. The map in Figure 4 proposes a preliminary network that includes Highways 7, 5, 62, and 64. This mapped network is not exhaustive. For example, there are fifteen areas where additional route and/or area planning is needed, and a number of municipalities where local route planning is needed including additions or subtractions.

This Plan recommends the State create a process for formally selecting Arkansas State Bicycle Routes and addressing questions about suitability. This process may include appointing a committee to nominate and study proposed routes, establish selection criteria, and establish a nomination process that facilitates the involvement of local communities.

The following criteria could be considered for use in the route selection process for Tier 2 routes:

Draft Criteria for Tier 2 Route Selection:

- Linking major communities within the state;
- Ensuring geographic breadth across the state;
- Using existing popular or traditional in-state touring routes;
- Routes that provide safe and high quality bicycling conditions;
- Routes with scenic and cultural values enjoyed by touring cyclists;
- Routes that include significant historic sites, cultural venues or landscape features;
- Routes that are already designated by state agencies or regional planning agencies as Heritage Trail Routes, such as the following;
  - The Butterfield Stagecoach Route
  - The Trail of Tears in Arkansas
  - Civil War Trails of NW Arkansas
  - The Southwest Heritage Trail
- Connections to Bicycle Hub Communities (see below for a description);
- Connections to trailheads for off-road mountain biking venues;
- Connections to trailheads for shared use paths of regional or statewide significance; and
- Connections to state parks and public camping areas.

TIER 3 - Shared-Use Paths of Regional and Statewide Significance

This tier includes existing, developing, planned and proposed trails. The shared use paths (trails) that are included in a statewide network will evolve over time, as more communities and regions develop trail systems. Currently, the Statewide Bikeway Network could include the following shared-use paths:

- The Arkansas River Trail in Central Arkansas;
- The Delta Heritage Trail (a rail-trail component of the Mississippi River Trail);
- The Mississippi River Trail (primarily a levee top trail see also Tier 1, US BR 45);
- The Razorback Greenway in Northwest Arkansas;
- The Southwest Rail-Trail (a proposed rail-trail from Little Rock to Hot Springs);
- The Tri-County Rail-Trail (a rail-trail from Hope, AR to Spring Hill, LA); and
- A potential rail-trail conversion between Prescott, AR and Crater of Diamonds State Park.

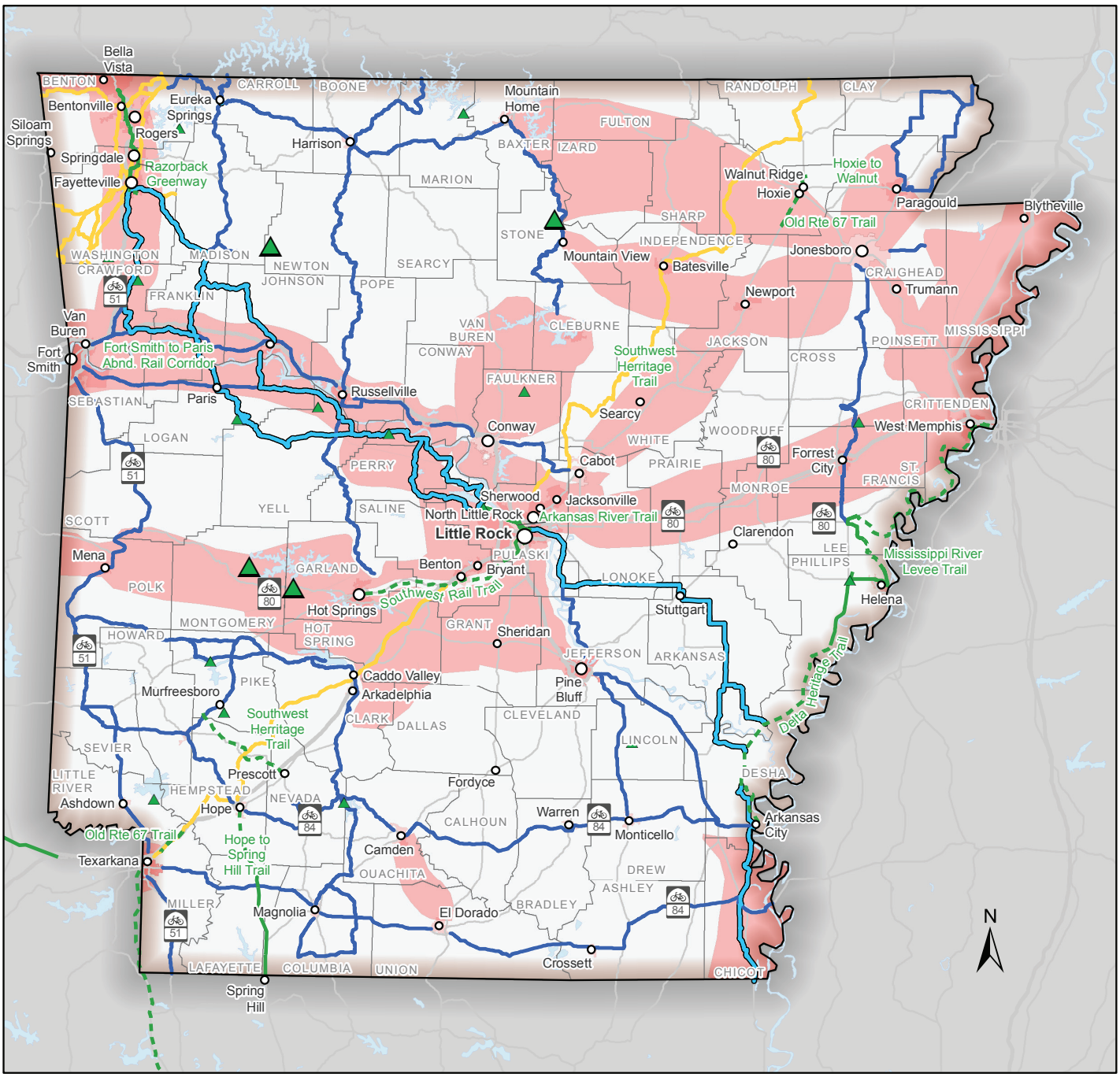
TIER 4 - Bicycle Hub Communities and Mountain Bicycling Venues

Major mountain bicycling venues, especially those in state parks, *Epic Rides* which are designated by the International Mountain Bicycling Association, and Hub Communities, a new concept growing out of this Plan, should all be formally designated as part of the statewide network of bicycling assets.

- **Bicycle Hub Communities:** The concept of Bicycle Hub Communities (BHC) is in recognition of communities interested in developing a diverse set of bicycling and walking assets to serve a wide range of recreational and transportation bicycling markets. These communities may want to market these resources aggressively as part of their tourism and economic development strategy. A special designation for communities that are *going the extra mile* will enable them to be identified as bicycle tourism centers. This identification will provide further support and motivation for all stakeholders in the community (i.e. government agencies, local bicycle organizations, local businesses, and other relevant partners) to participate in resource development and marketing efforts. Hub Communities may want to educate businesses and other entities about how to best serve recreational and tourism-oriented cyclists. Hub Communities will need to coordinate efforts to maintain, enhance and expand their set of assets that support bicycle tourism.
- **Mountain Bicycling Venues:** will include *Epic Rides*, State Parks, National Forests, and U.S. Army Corps of Engineers parks with mountain bicycling trails, and locally-owned mountain bicycling parks and trails that contribute to the overall set of bicycling assets of statewide significance.

Preliminary Statewide Bikeway Network

FIGURE 4



**Contingent upon transfer of ownership from AHTD*

Arkansas Bicycle and Pedestrian Plan

DRAFT: July 2015

0 10 20 40 Miles

- Proposed USBR TransAmerica Link
- Statewide Priority Bike Route
- Existing Heritage Route
- Study Corridor/Area
- Proposed US Bike Route Corridor
- Existing Regional Shared Use Path
- Proposed Regional Shared Use Path
- Epic Trail
- State Parks (with Mountain Biking)

Date: ***1/28/2016***

Next Steps

The map shown on the previous page is preliminary. It was developed largely based on existing routes with some analysis and input through this planning process. To move forward with planning of the Statewide Bikeway Network, the following steps will help create momentum and provide an opportunity for AHTD, ADPT, local municipalities, cycling organizations in the state and experienced cyclists to collaborate and focus on an achievable goal.

a) Complete work related to gaining formal "U.S. Bicycle Route" designation from AASHTO for a set of routes that will serve the state.

- Make the draft route developed by ADPT and cycling advocates available for wider review by the public and key stakeholders, including other cyclists, local communities along the corridor and other stakeholders who should be aware of the economic development potential that will be created by the route.
- Conduct an on-the-ground review to eliminate potential gaps in routing and expose hidden challenges.
- Assess the need for infrastructure improvements, re-routing or provision of route options.
- Finalize the proposed route.
- Prepare a request for AASHTO designation. Detailed guidance for preparing an application is provided on the Adventure Cycling website: http://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/designation/.

Citizens provide input in Fort Smith, Arkansas

Photo courtesy of Crafton Tull

b) Progress from a *preliminary* to a *designated* Statewide Bikeway Network.

- Develop and adopt criteria for designation of on-road routes and shared use paths in the Statewide Bikeway Network.
- Develop the concept of Bicycle Hub Communities and invite well-positioned communities to participate.
- Develop strategies for improving physical conditions, maintenance, traffic enforcement, and promotion of routes on the Statewide Bikeway Network (see Objective 5 in Chapter Five for additional details).

c) Encourage local communities that do not have bicycle and pedestrian plans to undertake such efforts. Appendix D, *Guidance for Local Bicycle and Pedestrian Planning*, provides guidance about local and regional bicycle and pedestrian planning for communities of varying sizes and settings—urban, suburban, and rural.

4 REGIONAL REPORTS

Downtown Bentonville, Arkansas

Photo courtesy of Crafton Tull

Introduction

At the regional level, public and stakeholder input revealed both common themes and topics unique to each region. Common themes included the need to improve on-road bikeways and arterial crossings for bicyclists and pedestrians. Factors that vary by region include the potential for generating higher levels of bicycle and pedestrian travel, and the extent to which bicycle and pedestrian travel networks need to be developed. The following regional summary reports provide a framework that highlights, compares, and contrasts bicycle and pedestrian conditions, needs, issues, and opportunities within the State's varied communities.

The regions covered in each report include the following:

- Northeast Arkansas
- Central and Southeast Arkansas
- Northwest Arkansas
- Southwest Arkansas

Overview of the Regional Reports

Each Regional Report includes eleven components which are explained below.

1 STAKEHOLDER INPUT SUMMARY

The summary includes where and when public and stakeholder meetings occurred, which constituencies were engaged, and a discussion of the most important and unique themes that emerged in these meetings.

2 THREE GREAT PLACES TO BICYCLE AND WALK

These lists were compiled from the public feedback and the project team's experience visiting the region. The list includes a combination of the most well known and loved facilities in each region and others that may be hidden gems, identified through this planning effort.

3 STATUS OF LOCAL BICYCLE AND PEDESTRIAN PLANNING

This data is based upon the AHTD staff's ongoing tracking of local planning activity, and supplemental research conducted by the project team. Research focused on municipalities of 25,000 population, or greater. Communities of less than 25,000 are not listed unless they were known to have an existing plan.

4 INVENTORY OF ASSETS

This inventory focuses only on bicycle and pedestrian assets for which reliable data sets are available:

1. Documented/Marketed Bicycle Touring Routes: This category lists only those routes that have been documented and mapped in GIS by the ADPT.
2. Heritage Trails/Scenic Byways: This category lists only those assets that have been documented in GIS at the regional or statewide levels. Information sources included the Northwest Arkansas Regional Planning Commission, AHTD, and ADPT.
3. Feature Trails/Multi-Use Trail Systems: This category lists some of the most significant trails and trail systems in each region, some of which are important locally, but may not be of regional or statewide significance.
4. Mountain Bike Parks/*Epic Rides*: This category lists *Epic Rides* designated by the International Mountain Bicycling Association (IMBA), and mountain biking venues in state parks. Regional and municipal parks with major mountain bicycling venues have not been comprehensively documented on a statewide basis.

5 RECENT FEDERAL FUNDING FOR BICYCLE, PEDESTRIAN, TRAIL PROJECTS

This section presents an overview of recent bicycle and pedestrian projects funded by Federal transportation funding programs, including Safe Routes to School (SRTS), Recreational Trails, and Transportation Enhancements (TE) programs – now called Transportation Alternatives Program (TAP). The project awards included in this section of the Regional Reports were funded within the respective timeframes, as follows:

- SRTS: 2007 - 2012
- Recreational Trails: 2006 - 2013
- Transportation Enhancements: 2011

6 PRESENCE OF ADVANCED FACILITIES

Data regarding innovative bicycle and pedestrian treatments being used in each region is covered in this section. It is based upon information gathered by the project team through field visits and dialogue with local planners.

7 OPPORTUNITIES AND POTENTIAL PARTNERSHIPS

This section identifies opportunities and potential partnerships that emerged as a part of the planning process. They represent a nexus between bicycling and walking concerns and other spheres of social activity, including health, higher education, recreation, and economic development. Some of the information was gleaned from stakeholder meetings and some came from the Arkansas Department of Health and the Arkansas Coalition for Obesity Prevention (ARCOP). Other information was compiled from internet searches and data compiled by ADPT.

8 COMMON TOPICS: STAKEHOLDER AND PUBLIC FEEDBACK

This section presents a list of bicycle and pedestrian topics that emerged as common among the four regions. Each topic is scored to indicate how important the topic/need was found to be among the stakeholders and public in each region.

A five point scale is used (0, 1, 2, 3, 4), with *zero* meaning that the issue was not raised by the public/stakeholders in this region, and *four* meaning that it was raised in multiple instances and/or its importance was heavily emphasized by those providing comments.

To rate the relative importance of each topic/need, data was reviewed from a variety of sources including the stakeholder meeting summaries, the concerns raised at public meetings, comments gathered on the WikiMap, and comments provided on the survey. The experience and knowledge of project team members were also factored into the ratings.

It is important to note that this rating has been generated by combining objective data where available, with subjective/anecdotal information. The goal of providing this information is to 1) provide a list of the important issues that are experienced by the bicycling and walking public and local stakeholders as they attempt to address bicycling and walking in their communities, and 2) provide a general assessment of the relative importance of each topic as it applies in each part of the state.

9 RECOMMENDED REGIONAL STRATEGIES

This section provides a short list of recommended strategies that relate to the region as a whole. These recommendations may relate directly to the statewide recommendations provided in Chapter Five, or they may include ideas that are related to opportunities unique to each region.

10 PRELIMINARY STATEWIDE BIKEWAY NETWORK MAP (REGIONAL HIGHLIGHTS)

This map provides a regional close-up of the Preliminary Statewide Bikeway Network. Elements on the map include the following:

- Preliminary alignment options for U.S. Bike Routes (Tier 1),
- Preliminary Statewide Priority Bike Routes (Tier 2) and study areas where these routes need to be defined in the future,
- Existing and Proposed Shared-Use Paths of Regional and Statewide Significance (Tier 3),
- *Epic Rides*, state mountain biking venues, and HUB Communities (Tier 4).

11 LEARNINGS FROM SITE VISITS

This section presents findings and lessons learned from a series of local site visits conducted in each region. Local planners selected the sites and led the site visits with the project team.

The purpose of the site visits was to give the project team direct knowledge of the types of bicycle and pedestrian issues that exist in rural, suburban and urban settings throughout the state. Most field visit locations were selected because of known safety or accessibility challenges. The site visits included review of bicycle and pedestrian treatments designed for recent projects on the State Highway System, and review of innovative treatments that are being implemented.

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Northeast Arkansas

Stakeholder Input Summary

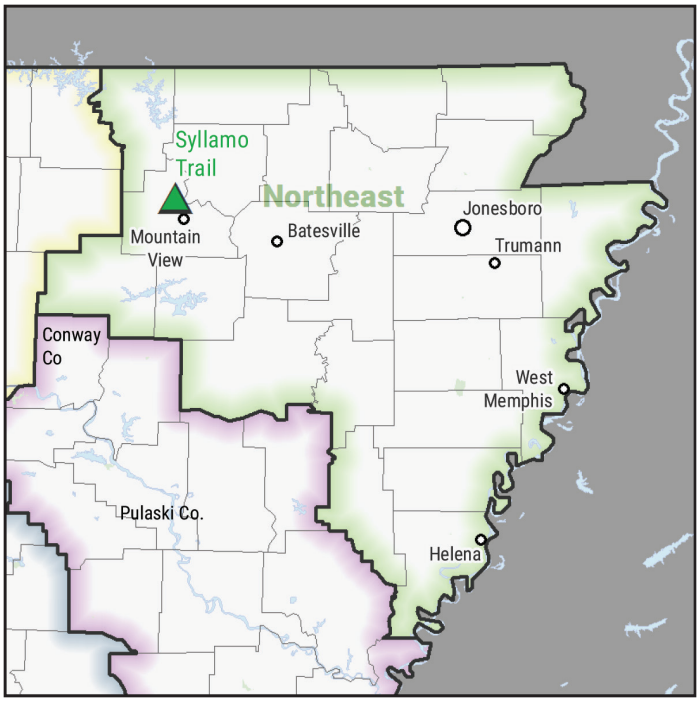
The project team conducted outreach with the Jonesboro Area Transportation Study (JATS) and the West Memphis-Marion Area Transportation Study (WMATS) on May 8, 2014. Additional meetings were held on the same day with local agency staff, elected officials, representatives from Arkansas State University (ASU), area health providers, and community stakeholders. An evening open house was held on the ASU campus in Jonesboro.

Regional routes of significance were discussed, including the Delta Scenic Byways (comprised of the Great River Road and Crowley's Ridge Scenic Byways), the Mississippi River Trail, and the Harahan Bridge connection over the Mississippi River from Memphis to West Memphis. Bicycle touring routes were discussed as a way to bring economic development to rural Delta towns, including Hughes, where the Mayor shared the town's experience of hosting bicycle touring groups in the local fire station for overnight stays.

In the City of Jonesboro, municipal government, ASU, and the medical community shared concerns on a common theme of how being bicycle and pedestrian friendly is key for marketing the community and recruiting new employees. The city recognizes that quality of life and recreational amenities are key to attracting young adults of the Millennial generation. ASU was seeking "bicycle-friendly campus" status to recruit students (which it subsequently received). Representatives from the health care community cited the need to have bicycle-friendly communities to recruit health care physicians and staff to their hospitals and clinics.

On May 29, 2014, the project team visited local staff and advocates in Mountain View, as well as the White River Planning and Development District (WRPDD) staff and the Mayor of Batesville in Batesville.

While pedestrian access to local schools was a major concern across most communities in the region, it was of particular importance in Mountain View and Jonesboro. In Jonesboro, students are no longer allowed to bicycle to school due to a bicycle fatality on campus. In Mountain View, the new schools are sited on the edge of town along a rural state road and no bicycle or pedestrian accommodations are provided, making access difficult.



3 Great Places To Bike In The Region

Syllamo Epic Ride, *near Mountain View*
Jonesboro to Trumann *(Crowley's Ridge)*
Delta Heritage Trail, *near Helena*

3 Great Places To Walk In The Region

Turtle Creek Trail, *Jonesboro*
Tilden Rodgers Park, *West Memphis*
Riverside Park, *Batesville*

MPOs	Bike Plan	Pedestrian Plan	Trails Plan
JATS			
WMATS	✓	✓	✓

MUNICIPALITIES			
Jonesboro	✓		
West Memphis *(See MPO plan)*	✓	✓	✓
Paragould			
Searcy			
Blytheville			

INVENTORY OF ASSETS

	Count	Name/Location
Documented/Marketed Touring Routes	14	Example: Mississippi River Trail
Heritage Trails/Scenic Byways (NSB)	3	Crowley's Ridge Pkwy, Great River Road NSBs; Southwest Heritage Trail
Feature Trails/Multi-use Trail Systems	4	Delta Heritage Trail, Turtle Creek Trail, Hoxie to Walnut Ridge Trail, Ten-Mile Bayou
Mountain Bike Parks/*Epic Rides*	3	Example: Syllamo Epic Ride

Public meeting in Jonesboro generates lively discussion.

Photo courtesy of Crafton Tull

RECENT FEDERAL FUNDING

	Count	Funding/Locations
Safe Routes to School Projects (2006-2012)	21	$1.78 million
TE Projects (2011)	12	$2.28 million
Recreational Trails Projects (2006-2013)	43	$2.03 million

PRESENCE OF ADVANCED FACILITIES

	Count	Funding/Locations
Bicycle Lanes	No	
Innovative Pedestrian Treatments	Yes	Harahan Bridge, potential highway bridge conversions in Newport and Clarendon
Innovative Bicycle Treatments	Yes	ASU Bike Share Program

Jonesboro, Arkansas: Pedestrian accommodations are often needed at railroad crossings.

Photo courtesy of Crafton Tull

OPPORTUNITIES & POTENTIAL PARTNERSHIPS

	Count	Name/Location
Tourism & Economic Development	5	Bicycle Tourism: Blues Trail, Delta Heritage Trail, Mississippi River Levee Trail, Harahan Bridge, White River bridges at Newport and Clarendon
Shared Use Path Development Opportunities	12	Above trails and bridge conversions should be completed, Old Route 67
Annual Large Group Bike Rides	9	Example: Ride the Ridge (Wynne)
Making the Health & Active Living Connection	2	Jonesboro: Healthcare facilities, Hughes: Delta health issues
Potential Partnerships with Colleges & Universities	16	Arkansas State (Bicycle Friendly Campus), Williams Baptist College (Rail Trail), Lyon College

Common Topics: Stakeholder & Public Feedback

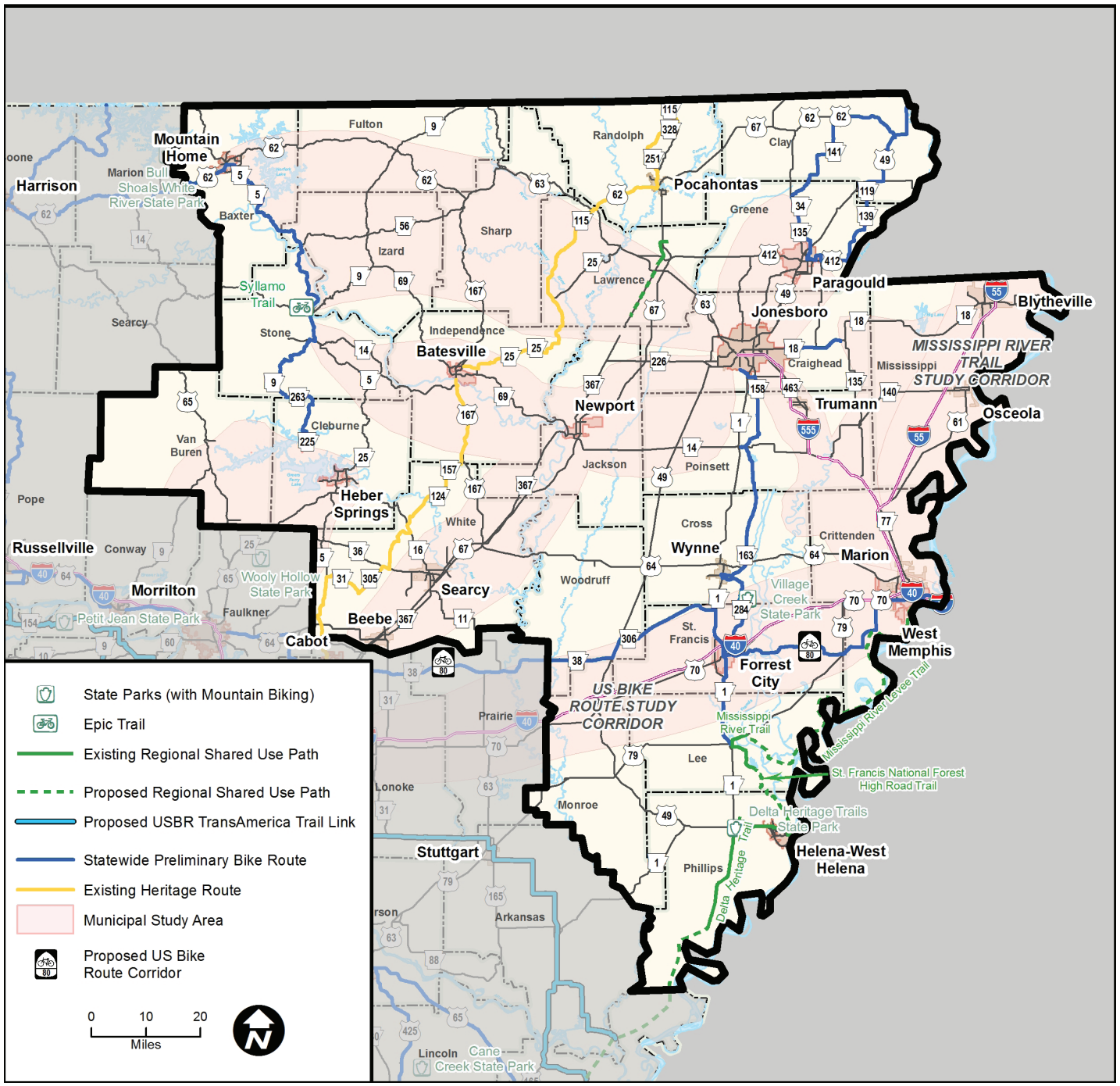
Based upon the outreach conducted in the plan development process, the following set of bicycle and pedestrian transportation topics were found to be of concern throughout most or all regions of the state. However, as might be expected, the various regions assigned varying levels of importance to each topic. The project team reviewed the data collected in the online survey, WikiMap, five public meetings, and twenty-five stakeholder meetings and developed a composite score for each topic which indicates the level of concern/importance that was expressed in each region.

Level of concern/importance expressed:	None	Low	Medium	High	Highest
					

	Bicycle and Pedestrian Needs and Issues Measure	(0-4)
Bicycle Infrastructure	Bicycle access to recreational destinations	
	Bicycle access to utilitarian destinations	
	Safe bikeways on urban arterials	
	Bikeway improvements on medium and low volume/speed roads	
	Bike route wayfinding and bike maps	
Pedestrian Infrastructure	Sidewalks, especially in cities and suburbs	
	Accessibility for physically disabled pedestrians	
Multimodal Infrastructure	Lighting along paths and sidewalks	
	More shared use paths (off-road trails)	
	Improved access to transit	
Programs, Policies, and Enforcement	Recognition and support for bicycling and walking as legitimate and important modes of travel on State and local roadways	
	Routine accommodation guidelines on bridges and roads	
	Use of Federal & State transportation funding for bicycle/pedestrian improvements	
	Trail design guidelines	
	Staff expertise regarding engineering and design for bicyclists and pedestrians	
	Services for large group bicycle rides	
	Include bicyclists and pedestrians in the Toward Zero Deaths campaign	
	Improved roadway and shoulder maintenance	
	Motor vehicle speed enforcement	
	Safety education for motorists, bicyclists, and children	
Road and Street Design	Five-lane standard cross section for urban arterials	
	Use of new road designs and treatments/context sensitive design	
	Application of rumble strips	
	Use of chip seal on rural roadway surfaces	
	Addressing the barrier effect of Interstate highways	
	Improved crossings of arterial roadways	
	Paved shoulders on rural roads	

Recommended Regional Strategies

- Develop economic development guidance and business training sessions for local elected leaders and business owners related to serving the growing population of bicycle tourists coming to experience the Harahan Bridge, the Mississippi River Trail, and the Delta Heritage Trail.
- Develop themed bicycle tours for the Northeast and Delta region related to educational, historical, and cultural themes (possible themes include the roots of famous musicians such as Johnny Cash and many blues artists, delta wetlands and wildlife, restoring and repurposing the great bridges across the Delta rivers (the Harahan Bridge between Memphis and West Memphis).



Learning from Site Visits

Mountain View: Safe Routes to School

The Highway 5 corridor (E. Main Street) has a single lane in each direction with a continuous center turn lane, no curb and gutter, and no shoulders. Mountain View Elementary, Middle, and High School are clustered together on the east side of town, 1.9 miles from the center of town.

There are no safe routes to school for most residents that wish to walk their children to the school campus or have their children ride their bikes. No sidewalks or bike lanes exist on either side of Highway 5. Painted crosswalks with signage notification are present in two locations at Highway 5 and Killian and at Highway 5 and Elementary Street. However, they don't connect to anything other than grass drainage swales on the north and south side of the highway.

The Mountain View Wilcox Memorial Air field lies just north of the school property separated only by Killian Street. The few residences that are west of the school and air field can use Killian Street to access the campus but many more residences, which are located north of Highway 5, are disconnected to Killian due to the airstrip location and no through streets.

Lessons learned:

Safe routes to schools need to be provided for students of all ages to have the option of walking to school.

Crosswalks must connect to sidewalks on either side to be safe and effective.

This situation highlighted the transportation problems that can arise when local communities must conform to the State's school siting policy.

HAWK signals minimize traffic delay by stopping motorist only when trail users are present.

Photo courtesy of Toole Design Group

Jonesboro: Pedestrian Crossings

In northern Jonesboro, the Arkansas State University (ASU) campus is located to the south of Johnson Avenue (Highway 91) with off-campus student housing and fast food establishments located to the north. Johnson Avenue, a four-lane arterial with a continuous center turn lane, creates a challenge for pedestrians. This is especially true for students living north of Johnson who are without vehicular transportation options.

The posted speed on Johnson Avenue is 45 mph, but local traffic is heavy at rush hour and typically moves at a speed higher than the posted limit. Students were observed 'jaywalking' to cross Johnson Avenue in the half-mile segment between State Street and North Caraway Road. There is one marked pedestrian crossing of Johnson Avenue at Marion Berry Parkway near the middle of the section. There are no other marked pedestrian crossings in this segment.

In this same area there are two city bus stops. Each on the north side of Johnson Avenue. There are no pedestrian crossings provided at the bus stops. Additionally, cyclists often choose to ride on the narrow sidewalks due to the high speed traffic along Johnson Avenue.

The Johnson Avenue Bicycle/Pedestrian Study was recently completed for the JATS. The goals were to revitalize Johnson Avenue to make it an attractive corridor and gateway to the city, identify appropriate pedestrian crossing locations and treatments, identify appropriate bicycle connection from ASU to downtown Jonesboro, and identify appropriate measures to improve pedestrian and bicycle safety in the corridor

Jonesboro Lessons learned:

Pedestrian accessibility should be considered when siting transit stops. Additional crossing opportunities should be considered in areas with high pedestrian volumes, such as at bus stops, student housing, restaurants, and college campus access points.

Pedestrian crossing improvements should be considered at signalized intersections, including countdown signals and high visibility crosswalks.

Sidewalks in high use pedestrian corridors such as this should be constructed at least 3 feet from the road with a planted buffer area.

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Central & Southeast AR

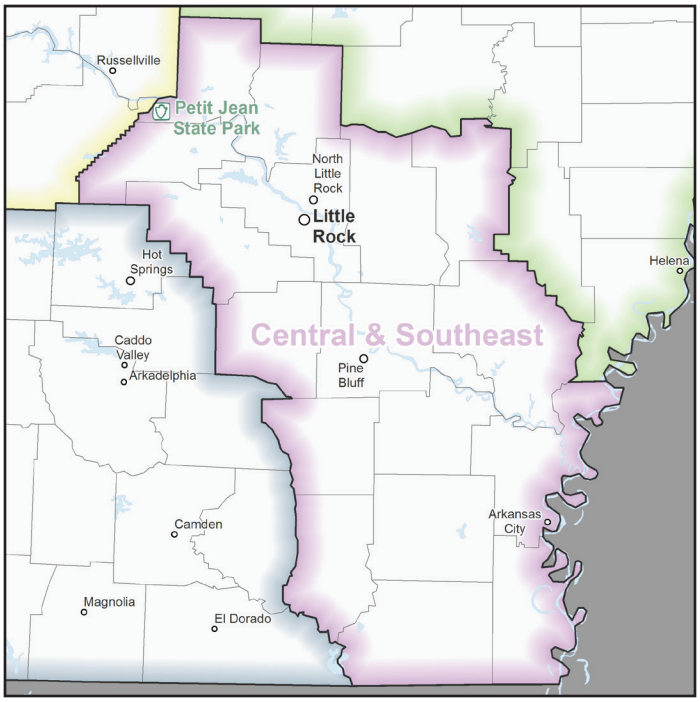
Stakeholder Input Summary

The project team conducted outreach with the Southeast Arkansas Regional Planning Commission (SEARPC) on March 31, 2014. Outreach with the greater Little Rock metropolitan area was conducted April 1 and 2, 2015

In Pine Bluff, the project team met with the staff of the Southeast Arkansas Regional Planning Commission, Pine Bluff Recreation Department staff and a local bicycle shop owner. While the Pine Bluff area has encountered recent economic struggles, bicycling remains an active recreational activity in the greater Southeast area. Local cyclists cherish their access to many rural roads which have very low traffic volumes. Walking for health, as well, is being encouraged through development of the Lake Saracen Trail and regular walking groups. The bicycle shop in Whitehall serves many of the communities in Southeast Arkansas, where, despite low population densities and a predominance of farming and forest products industries, bicyclists are not uncommon.

In metropolitan Little Rock, the project team held meetings with the Metroplan staff, Metroplan Community Partners, elected officials from municipalities in the region, and the University of Arkansas Little Rock Partnership. The Big Dam Bridge and Arkansas River Trail have sparked high levels of bicycling and walking activity in Little Rock and North Little Rock. These cities are trying to expand their on-road bikeway networks. Metroplan recently conducted a study of pedestrian and bicycle crashes and was able to identify key corridors where crashes are concentrated, however safety upgrades have not yet been implemented.

Other communities such as Bryant and Maumelle are actively engaged in pedestrian and trail infrastructure development. Communities such as Sherwood and Jacksonville, have minimally developed bicycling and walking networks, but are becoming interested. The project team also held meetings in Conway, at City offices and at the University of Central Arkansas where bicycling advocates are well organized the local officials are actively engaged in developing a bicycle and pedestrian friendly city.



3 Great Places To Bike In The Region

Arkansas River Trail, *Pulaski County*
Pine Bluff Arsenal, *Jefferson County*
Petit Jean State Park, *Conway County*

3 Great Places To Walk In The Region

Lake Saracen Trail, *Pine Bluff*
Bayou Bartholomew Trails, *Pine Bluff*
Two Rivers Park, *Pulaski County*

MPOs	Bike Plan	Pedestrian Plan	Trails Plan
Metroplan	✓	✓	✓
SEARPC	✓		

MUNICIPALITIES			
Little Rock	✓	✓	✓
North Little Rock	✓		
Conway	✓		
Pine Bluff			
Benton			
Sherwood			
Bryant			✓

INVENTORY OF ASSETS

	Count	Name/Location
Documented/Marketed Touring Routes	14	Example: Arkansas Post Ride
Heritage Trails/Scenic Byways	2	The Southwest Trail, Great River Rd National Scenic Byway
Feature Trails/Multi-use Trail Systems	1	Arkansas River Trail
Mountain Bike Parks/Epic Trails	4	Examples: Petit Jean and Pinnacle, Mtn. State Parks

Arkansas River Trail near Two Rivers Park.

Photo courtesy of Toole Design Group

RECENT FEDERAL FUNDING

	Count	Funding/Locations
Safe Routes to School Projects (2006-2012)	46	$3.8 million
TE Projects (2011)	14	$2.3 million
Recreational Trails Projects (2006-2013)	65	$4.7 million

PRESENCE OF ADVANCED FACILITIES

	Count	Funding/Locations
Bicycle Lanes	Yes	Little Rock, N. Little Rock, Conway
Innovative Pedestrian Treatments	Yes	Roundabouts in Conway
Innovative Bicycle Treatments	No	None

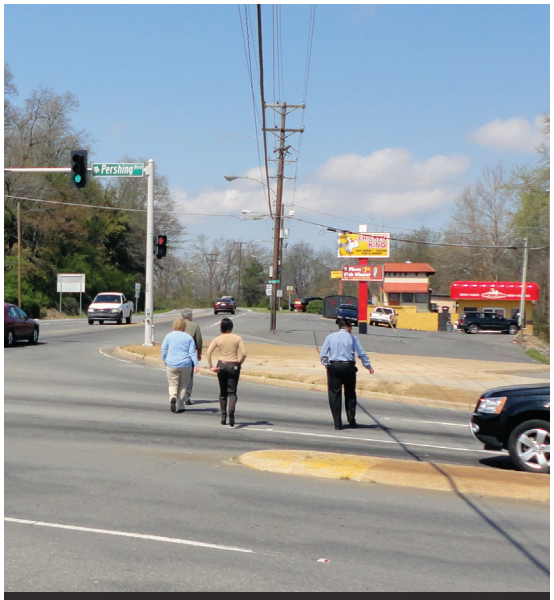

SR 365 in N. Little Rock, high pedestrian crash corridor identified in 2012 Metroplan study.

Photo courtesy of Crafton Tull

OPPORTUNITIES & POTENTIAL PARTNERSHIPS

	Count	Name/Location
Tourism & Economic Development	2	Arkansas River Trail Bridges, Delta Heritage Trail/Mississippi River Trail
Shared Use Path Development Opportunities	2	Above trails need to be completed
Annual Large Group Bike Rides	17	Example: Big Dam Bridge 100
Making the Health & Active Living Connection	2	Miracle Mile along the Arkansas River Trail, Pine Bluff Aquatics and Recreation Center
Potential Partnerships with Colleges & Universities	6	Univ. of Arkansas (LR, PB, Mont. & Medical Sci.); Univ. of Central Arkansas, Hendrix College

Common Topics: Stakeholder & Public Feedback

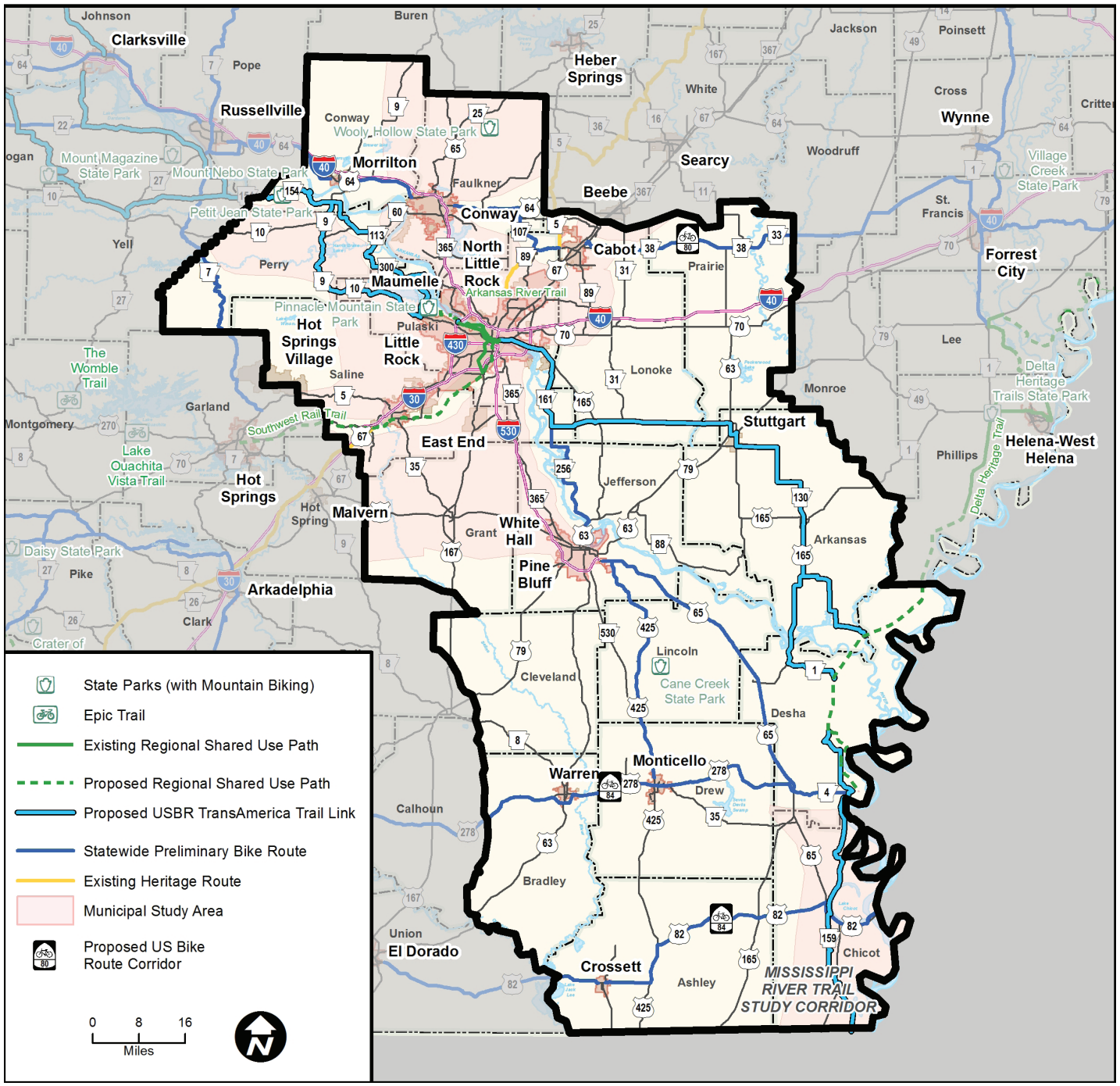
Based upon the outreach conducted in the plan development process, the following set of bicycle and pedestrian transportation topics were found to be of concern throughout most or all regions of the state. However, as might be expected, the various regions assigned varying levels of importance to each topic. The project team reviewed the data collected in the online survey, WikiMap, five public meetings, and twenty-five stakeholder meetings and developed a composite score for each topic which indicates the level of concern/importance that was expressed in each region.

Level of concern/importance expressed:	None	Low	Medium	High	Highest

	Bicycle and Pedestrian Needs and Issues Measure	(0-4)
Bicycle Infrastructure	Bicycle access to recreational destinations	
	Bicycle access to utilitarian destinations	
	Safe bikeways on urban arterials	
	Bikeway improvements on medium and low volume/speed roads	
	Bike route wayfinding and bike maps	
Pedestrian Infrastructure	Sidewalks, especially in cities and suburbs	
	Accessibility for physically disabled pedestrians	
Multimodal Infrastructure	Lighting along paths and sidewalks	
	More shared use paths (off-road trails)	
	Improved access to transit	
Programs, Policies, and Enforcement	Recognition and support for bicycling and walking as legitimate and important modes of travel on State and local roadways	
	Routine accommodation guidelines on bridges and roads	
	Use of Federal & State transportation funding for bicycle/pedestrian improvements	
	Trail design guidelines	
	Staff expertise regarding engineering and design for bicyclists and pedestrians	
	Services for large group bicycle rides	
	Include bicyclists and pedestrians in the Toward Zero Deaths campaign	
	Improved roadway and shoulder maintenance	
	Motor vehicle speed enforcement	
	Safety education for motorists, bicyclists, and children	
Road and Street Design	Five-lane standard cross section for urban arterials	
	Use of new road designs and treatments/context sensitive design	
	Application of rumble strips	
	Use of chip seal on rural roadway surfaces	
	Addressing the barrier effect of Interstate highways	
	Improved crossings of arterial roadways	
	Paved shoulders on rural roads	

Recommended Regional Strategies

- Address pedestrian safety in low income communities and neighborhoods.
- Identify pilot projects that combine street redesign with redevelopment/ revitalization efforts, in order to show how land use and transportation design must be coordinated.
- Form a rural/urban partnership to support development of the Mississippi River Trail/Delta Heritage Trail that will foster social engagement between the urban populations in greater Little Rock and the rural farming communities in the Delta region.



Learning from Site Visits

Pine Bluff- Highway 79 Business - Road Widening

The project team visited a road widening project linking downtown Pine Bluff with the University of Arkansas at Pine Bluff (UAPB) on the north edge of town. The campus is on the west side of the Highway 79. There is potential for expanded commercial development on the east side. At the time of the visit, AHTD was widening the roadway to a 5-lane cross section, with 3-foot grass buffers and 5-foot sidewalks. In the past, a pedestrian overpass had been provided for students to cross the road between the campus and an athletic facility on the east side of Highway 79. This overpass was removed several years ago. The current cross section of the roadway is roughly 60 feet.

The City of Pine Bluff, in cooperation with UAPB, has put in place land use and economic development policies to encourage commercial redevelopment of the Highway 79 corridor across from the campus-encouraging campus-oriented retail businesses.

The side of campus abutting Highway 79 is almost 1,000 feet long without an intersecting road and no existing crosswalks. There are four sidewalks in this area that bring pedestrians from campus buildings to Highway 79. It is likely there will be a need for one or more mid-block crossings in this area.

Lessons learned:

In locations where local officials have put policies in place to stimulate neighborhood-oriented commercial activity, these policies should be considered. Additionally, local partners should consider the permitting and installation of lighting to enhance pedestrian and bicycling activities.

In locations with a high potential for pedestrian or cycling activity, reduction of vehicle operating speed and bicycle lanes should be considered. Additionally, local partners should consider the permitting and installation of lighting to enhance pedestrian and bicycling activities.

With a three or five-lane cross-section, the center turn lane can provide opportunities for locating mid-block crossings with median refuges and/or sections of tree-planted medians. These extra amenities would provide shade for pedestrians and cyclists, reduce stormwater runoff, and enhance the aesthetic appeal of the street.

North Little Rock—Pike Avenue High Pedestrian Crash Corridor

The site visit was conducted along Pike Avenue (Highway 365) between West 21st Street and West Pershing Boulevard. This area was identified in a Metroplan study as a high pedestrian crash location. The roadway has a standard five-lane urban cross section, i.e. two travel lanes in each direction and a center lane that can be a two-way left turn lane or dedicated left turn lanes at select intersections. The surrounding neighborhood appeared to be low-income and working class with some public housing complexes nearby. Commercial retail establishments were located along the eastern edge of the roadway, but the western edge was vacant. At Pershing Boulevard there are shopping centers on the southwest and southeast corners, respectively.

This area proved to be an excellent example of how a number of poor urban design characteristics compound to form a chronically dangerous place for pedestrians. The wide road along Pike Avenue and lack of development facing the western side of the road created an environment with little street life, so motor vehicles tended to speed through the area. Pedestrian accommodations at the intersections were lacking consistency and completion, including some but not all of the needed components such as curb ramps, high visibility crosswalks, pedestrian push buttons, and countdown signal heads.

The residential neighborhood, which flanks Pike Avenue on both sides, generates walk-in customers for the convenience, grocery and drug stores, and fast food restaurants in the area. As a result many pedestrians trips have an origin and destination on opposite sides of the street, and crossing is a must.

At Pike Avenue and Pershing Boulevard the shopping centers were set so far back from the roadways that pedestrians going from one shopping center to the other typically "jay-walk" at a location about 200 feet south of the signal.

Lesson Learned:

Urban intersections should be improved with complete pedestrian accommodations. Providing high visibility crosswalks on roads with high speed traffic can help ensure that motorists see where pedestrians may be crossing. Curb radii should be reduced to ensure that right turning movements are made at slow speeds. Efficient land use and well-designed commercial areas are essential for organizing safe and efficient pedestrian movements.

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Northwest Arkansas

Stakeholder Input Summary

The project team conducted outreach with the Northwest Arkansas Regional Planning Commission (NWARPC) on April 4 and 5, 2014. The team visited the Frontier MPO on May 18 and 19, 2014.

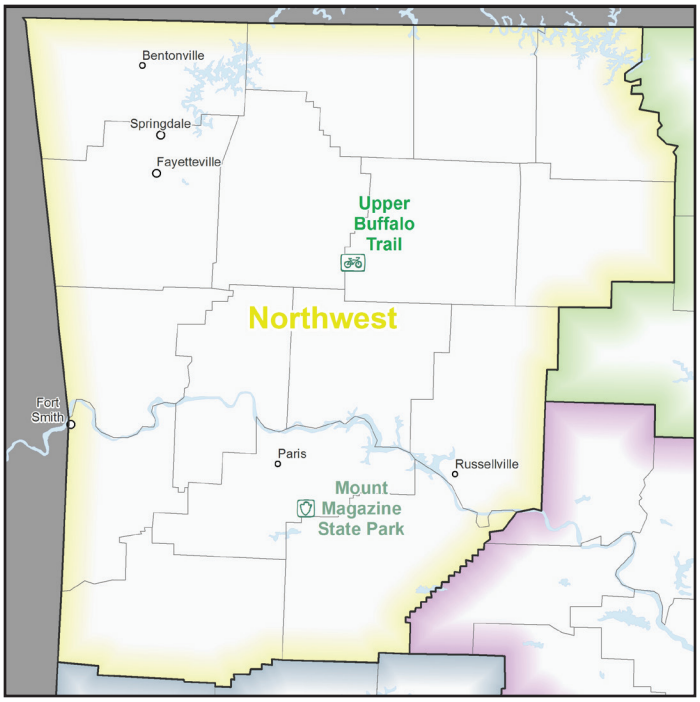
The NWARPC staff hosted an evening public open house in Springdale, and stakeholder meetings with NWA Trails Advisory Council, the NWARPC Staff and Active Transportation Committee, and Razorback Transit at the University of Arkansas.

Arkansas State Highway Commissioner, Dick Trammel, was in attendance at the stakeholder meeting with the Active Transportation Committee. The NWARPC briefed the project team about their regional bicycle and pedestrian plan which was under development concurrently with this plan. The Northwest Arkansas Regional Bicycle and Pedestrian Plan was adopted in 2015. The Plan is a regional network of bicycle and pedestrians on-road and off-road trail facilities and routes within 32 communities in Benton and Washington counties.

Key concerns raised by stakeholders in Northwest Arkansas included the following:

- Interstate 49 is a bicycle and pedestrian travel barrier on the west side of this metropolitan area and local communities have difficulty negotiating space for proper accommodations under the freeway, at interchange and non-interchange locations.
- Child bicycle and pedestrian safety education is an important value in this community and they have created their own curriculum resources to support this activity and to share with the rest of the state.
- There is recognition within the business community and elected officials that the creation of bicycle and pedestrian friendly communities is key for the region to compete on a global level for employees, and support the image of world class corporations based here.

In Fort Smith, the project team discovered a strong philosophical difference between local communities regarding how cyclists should be accommodated. The City of Fort Smith believed that cyclists should be accommodated off-road, because the roadways were too dangerous, especially arterial roads. The officials in Sebastian County felt strongly that roads should be retrofitted to better accommodate cyclists on wide shoulders and bike lanes, in addition to development of trails and greenways in non-road corridors.



3 Great Places To Bike In The Region

Razorback Greenway, *Fayetteville to Bentonville*
Upper Buffalo Trail, *Ozark National Forest*
Mount Magazine, *Paris, AR*

3 Great Places To Walk In The Region

Crystal Bridges Museum of American Art, *Bentonville*
Lake Dardanelle State Park, *Russellville*
Spring Street, *Eureka Springs*

MPOs	Bike Plan	Pedestrian Plan	Trails Plan
NWARPC	✓	✓	✓
Frontier	✓	✓	

MUNICIPALITIES			
Bella Vista	✓	✓	
Bentonville	✓	✓	
Fayetteville	✓	✓	✓
Fort Smith			✓
Rogers	✓	✓	
Russellville			✓
Springdale	✓	✓	

INVENTORY OF ASSETS

	Count	Name/Location
Documented/Marketed Touring Routes	8	Example: Pea Ridge Tour
Heritage Trails/Scenic Byways	8	Examples: Trail of Tears Butterfield Coach Trail
Feature Trails/Multi-use Trail Systems	4	Razorback Greenway; Lake Dardanelle State Park; Fort Chaffee Trails; Ben Green Park
Mountain Bike Parks/Epic Trails	7	Examples: Lake Fort Smith State Park; Devil's Den State Park; Upper Buffalo Trail

Razorback Greenway linking Johnson and Fayetteville, Arkansas

Photo courtesy of Toole Design Group

RECENT FEDERAL FUNDING

	Count	Funding/Locations
Safe Routes to School Projects (2006-2012)	37	$1.9 million
TE Projects (2011)	15	$2.5 million
Recreational Trails Projects (2006-2013)	66	$3.3 million

PRESENCE OF ADVANCED FACILITIES

	Count	Funding/Locations
Bicycle Lanes	Yes	NARTS Area
Innovative Pedestrian Treatments	Yes	HAWK Signal on Razorback Greenway
Innovative Bicycle Treatments	Yes	Protected Bicycle Lane on the Razorback Greenway

HAWK signal stops traffic for trail users along the Razorback Greenway in Rogers, Arkansas.

Photo courtesy of Toole Design Group

OPPORTUNITIES & POTENTIAL PARTNERSHIPS

	Count	Name/Location
Tourism & Economic Development	6	Potential Hub Communities: Clarksville, Fayetteville to the Bella Vista Area, Fort Smith/Al-ma, Harrison, Eureka Springs; Russellville, Fort Chaffee Community Development
Shared Use Path Development Opportunities	2	Fort Smith to Paris Abandoned Rail Corridor, Fort Smith Waterfront Trail
Annual Large Group Bike Rides	19	Example: True Grit Ride 100—Fort Smith
Making the Health & Active Living Connection	2	Siloam Springs and Springdale Farmer's Market
Potential Partnerships with Colleges & Universities	4	Arkansas Tech in Russellville; University of the Ozarks in Clarksville; University of Arkansas - Fayetteville, Fort Smith

Common Topics: Stakeholder & Public Feedback

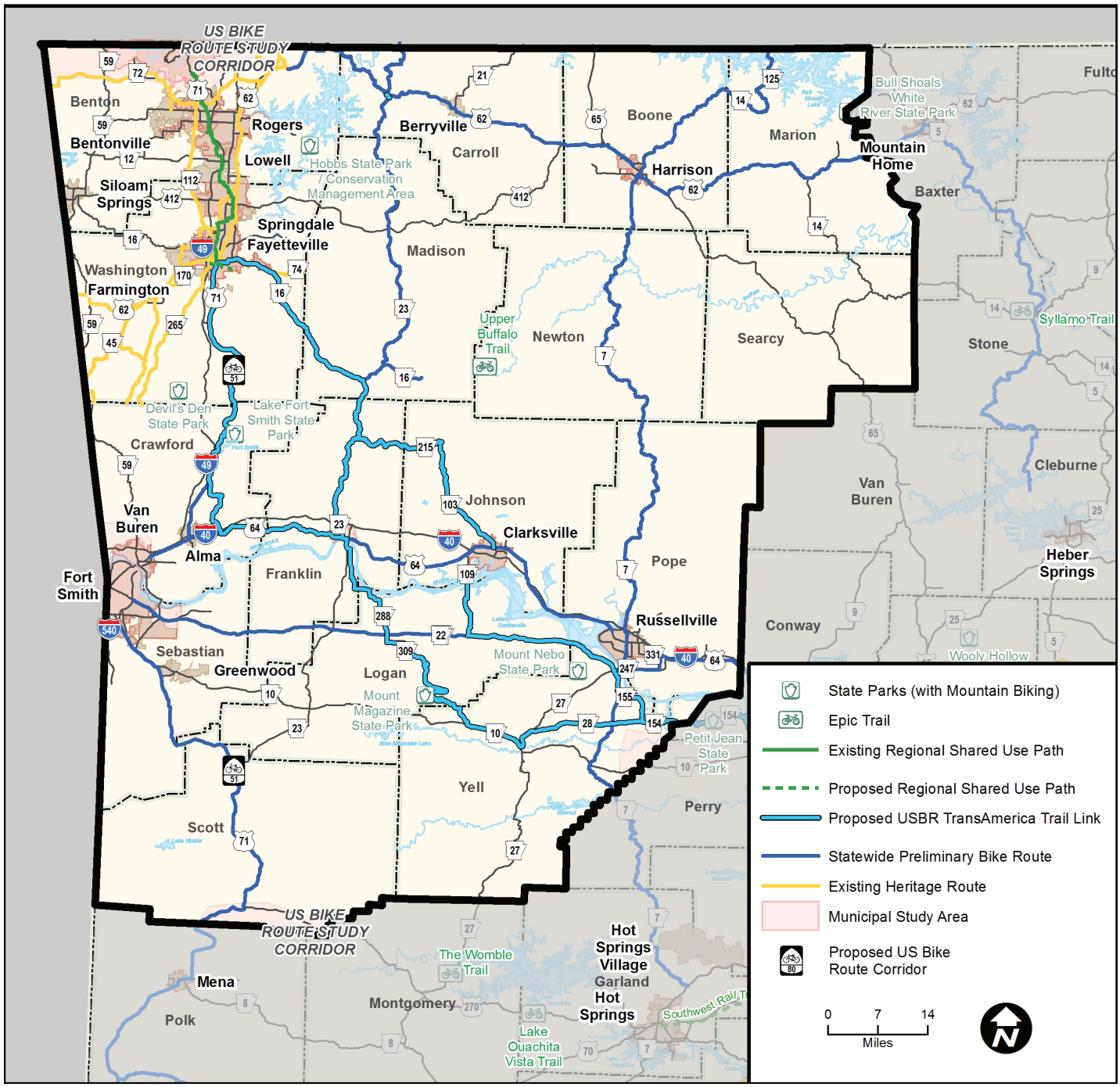
Based upon the outreach conducted in the plan development process, the following set of bicycle and pedestrian transportation topics were found to be of concern throughout most or all regions of the state. However, as might be expected, the various regions assigned varying levels of importance to each topic. The project team reviewed the data collected in the online survey, WikiMap, five public meetings, and twenty-five stakeholder meetings and developed a composite score for each topic which indicates the level of concern/ importance that was expressed in each region.

Level of concern/importance expressed:	None	Low	Medium	High	Highest
					

	Bicycle and Pedestrian Needs and Issues Measure	(0-4)
Bicycle Infrastructure	Bicycle access to recreational destinations	
	Bicycle access to utilitarian destinations	
	Safe bikeways on urban arterials	
	Bikeway improvements on medium and low volume/speed roads	
	Bike route wayfinding and bike maps	
Pedestrian Infrastructure	Sidewalks, especially in cities and suburbs	
	Accessibility for physically disabled pedestrians	
Multimodal Infrastructure	Lighting along paths and sidewalks	
	More shared use paths (off-road trails)	
	Improved access to transit	
Programs, Policies, and Enforcement	Recognition and support for bicycling and walking as legitimate and important modes of travel on State and local roadways	
	Routine accommodation guidelines on bridges and roads	
	Use of Federal & State transportation funding for bicycle/pedestrian improvements	
	Trail design guidelines	
	Staff expertise regarding engineering and design for bicyclists and pedestrians	
	Services for large group bicycle rides	
	Include bicyclists and pedestrians in the Toward Zero Deaths campaign	
	Improved roadway and shoulder maintenance	
	Motor vehicle speed enforcement	
	Safety education for motorists, bicyclists, and children	
Road and Street Design	Five-lane standard cross section for urban arterials	
	Use of new road designs and treatments/context sensitive design	
	Application of rumble strips	
	Use of chip seal on rural roadway surfaces	
	Addressing the barrier effect of Interstate highways	
	Improved crossings of arterial roadways	
	Paved shoulders on rural roads	

Recommended Regional Strategies

- Conduct a bicycle and pedestrian facility design training in the Ft. Smith area, possibly sponsored by the Frontier MPO.
- Organize bicycle and pedestrian outreach efforts in Clarksville and Russellville to explore community interest in these issues; include outreach to Arkansas Technical University and the University of the Ozarks.
- Explore development of Hub Communities in Eureka Springs, Harrison and Clarksville
- Explore the potential to extend the Arkansas River Trail west from Little Rock to reach Fort Smith.



Learning from Site Visits

Razorback Greenway

In Springdale, the project team visited two portions of the recently completed Razorback Greenway: A High-intensity Activated crossWalK (HAWK) signal in Rogers where the trail crossed West Pleasant Grove Road; and a protected bike lane segment in Springdale, where the trail was routed along Silent Grove Road.

The HAWK beacon provides added safety at a trail crossing of a high speed roadway, where the signal for a crossing movement is unlikely to be activated by motor vehicles because the intersecting road is a long driveway to a church, and active only intermittently.

Silent Grove Road is on a steep hill, and at either end, the trail continued on an alignment to the east of the road. Rather than putting bicycle lanes on each side of the road, requiring the southbound direction of trail users to cross the road at each end of the segment, a two-way protected bicycle lane was placed in the east side of the road. This allows the trail to easily leave the roadway, going east without trail users being forced to cross the traffic of Silent Grove Road.

Lessons Learned:

By first considering the needs of the most vulnerable roadway users, an arterial crossing and an on-road trail segment were designed to improve the safety of trail users, optimize their travel experience, and yet not inconvenience motorists by having unnecessary stops when trail traffic is low or non-existent.

Transitioning mixed bicycle and pedestrian traffic on shared-use paths to on-road, protected bicycle lanes and sidewalks is a best practice for continuing a trail like experience in a roadway environment.

Protected bicycle lanes facilitate trail continuity along the Razorback Greenway in Springdale, Arkansas.

Photo courtesy of Toole Design Group

State Highway 265, Fayetteville

At another site visit location, in Fayetteville, a segment of Highway 265 was widened between East Joyce Boulevard and East Mission Boulevard Bicycle lanes were designed and installed, however they were not found to be consistently 5 feet wide, and in one location narrowed to 3 feet at the bottom of a hill on a curve. At Joyce Road the bicycle lanes were not continued through the intersection.

Pedestrian treatments were poorly designed. The curb radii were extremely generous. With the added turn lanes, a four-lane median-divided roadway of 70 feet almost doubled in width. The crosswalks are 130 feet in places. Additionally, the pedestrian signal call buttons were difficult to reach. A person in a wheelchair could fall off the edge of the sidewalk while reaching for the buttons.

Lessons Learned:

Where bicycle and pedestrian facilities are included in road widening projects, they should be designed following national standards and best practices.

New bike lane on State Highway 265 in Fayetteville, Arkansas

Photo courtesy of Toole Design Group

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Southwest Arkansas

Stakeholder Input Summary

The project team conducted outreach with the Texarkana MPO on May 21, 2014. Meetings were held with local municipal staff and elected officials, local advocates, representatives from the Chamber of Commerce, and AHTD District 3 representatives. The team also met with Southwest Arkansas Planning and Development District (SWAPDD) staff, as well as representatives from Southern Arkansas University and local municipalities at the SWAPDD office in Magnolia.

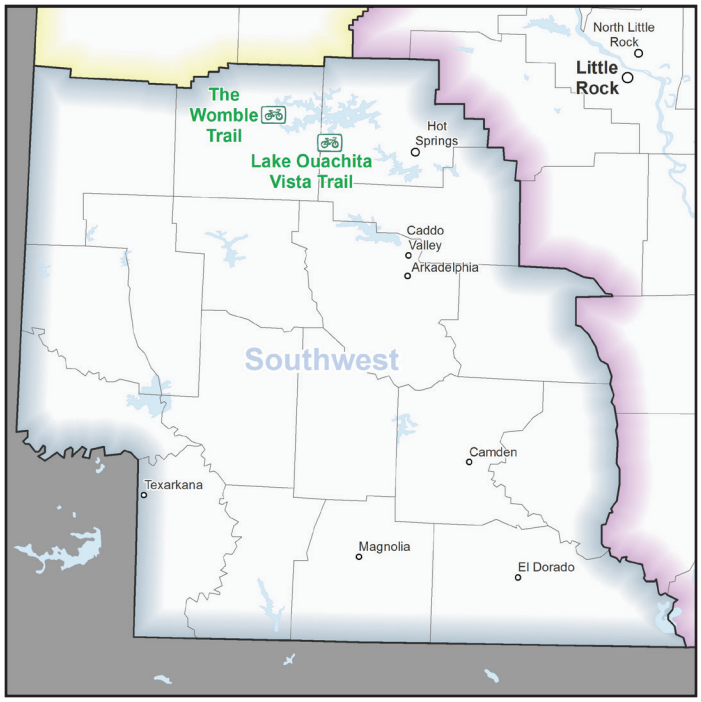
The Northeast Texas Trail, a 130-mile long rail-to-trail project, runs from New Boston, Texas (just 20 miles west of Texarkana) to Farmersville, Texas (just outside Dallas). This connection would provide a link from Texarkana to Dallas. Additional trail possibilities include the old Highway 67 right of way northeast of Texarkana as well as the rail line from Texarkana to Shreveport, which no longer has tracks but has not yet been officially abandoned. Participants indicated that Texarkana could benefit economically by adding bicycle facilities along its wide downtown roads and providing a bicycle connection from downtown to the City's existing trail system.

In Magnolia, representatives from Camden and El Dorado described their bicycle and pedestrian planning efforts, including Camden's implementation of walkability initiatives supported by the Arkansas Coalition for Obesity Prevention (ArCOP).

The project team visited the Tri-Lakes MPO on May 22, 2014, in Hot Springs. The team met with area municipal and MPO staff, elected officials from City and County government, and local advocates, as well as AHTD District 6 and District 4 representatives. A public open house was held that evening in Arkadelphia, where several bicycle touring routes were discussed.

In Hot Springs, walkability and providing alternatives to motor vehicle travel were among the issues raised most frequently by stakeholders. Providing infrastructure to accommodate people with physical disabilities, as well as cyclists, was a prominent issue. Several roads in the community have no sidewalks, forcing wheelchair users into the street in some locations.

Throughout this region stakeholders were concerned about the use of rumble strips and chip seal, provision and maintenance of bikeable shoulders, and the desire for Complete Streets and context sensitive road design.



3 Great Places To Bike In The Region

Womble and LOViT ***Epic Rides***, *near Lake Ouachita*
Skyline Ride, *Caddo (around De Gray Lake)*
Diamond Loop *(around Crater of the Diamonds St. Pk.)*

3 Great Places To Walk In The Region

Nix Creek Trail, *Texarkana*
Feaster Trail, *Arkadelphia*
Hot Springs Creek Greenway Trail, *Hot Springs*

MPOs	Bike Plan	Pedestrian Plan	Trails Plan
Tri-Lakes	✓	✓	✓
Texarkana	✓	✓	

MUNICIPALITIES			
Hot Springs	✓	✓	✓
Texarkana (see MPO Plan)	✓	✓	
El Dorado			
Camden	✓	✓	
Magnolia			
Garland Co.			✓

INVENTORY OF ASSETS

	Count	Name/Location
Documented/Marketed Touring Routes	11	Examples: Diamond Loop, Old Washington
Heritage Trails/Scenic Byways	4	Talimena Scenic Drive, Arkansas Scenic 7, Southwest Heritage Trail
Feature Trails/Multi-use Trail Systems	1	Hot Springs Greenway Trail, Hope to Patmos Rail-Trail
Mountain Bike Parks/Epic Trails		Examples: Womble Epic, LOViT Epic

Bicycle and pedestrian planning in Texarkana, Arkansas.

Photo courtesy of Crafton Tull

RECENT FEDERAL FUNDING

	Count	Funding/Locations
Safe Routes to School Projects (2006-2012)	8	$0.57 million
TE Projects (2011)	16	$3.18 million
Recreational Trails Projects (2006-2013)	52	$2.68 million

PRESENCE OF ADVANCED FACILITIES

	Count	Funding/Locations
Bicycle Lanes	No	Shared Lane markings on Central Avenue, Hot Springs
Innovative Pedestrian Treatments	No	None
Innovative Bicycle Treatments	No	None

Urban shared-use path

Photo courtesy of Crafton Tull

OPPORTUNITIES & POTENTIAL PARTNERSHIPS

	Count	Name/Location
Tourism & Economic Development	Many	Main Street Associations, Federal land managers, various Hub Communities
Shared Use Path Development Opportunities	5	Southwest Rail-Trail, Northeast Texas Trail, Old Highway 67; Hope to Spring Hill Rail-Trail, Rail-Trail from Texarkana to Shreveport
Annual Large Group Bike Rides	8	Example: Ouachita Challenge Tour & Race
Making the Health & Active Living Connection	2	Camden and Arkadelphia
Potential Partnerships with Colleges & Universities	7	Henderson State University, Ouachita Baptist University, Southern Arkansas University

Common Topics: Stakeholder & Public Feedback

Based upon the outreach conducted in the plan development process, the following set of bicycle and pedestrian transportation topics were found to be of concern throughout most or all regions of the state. However, as might be expected, the various regions assigned varying levels of importance to each topic. The project team reviewed the data collected in the online survey, WikiMap, five public meetings, and twenty-five stakeholder meetings and developed a composite score for each topic which indicates the level of concern/importance that was expressed in each region.

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	Bicycle access to utilitarian destinations	
	Safe bikeways on urban arterials	
	Bikeway improvements on medium and low volume/speed roads	
	Bike route wayfinding and bike maps	
Pedestrian Infrastructure	Sidewalks, especially in cities and suburbs	
	Accessibility for physically disabled pedestrians	
Multimodal Infrastructure	Lighting along paths and sidewalks	
	More shared use paths (off-road trails)	
	Improved access to transit	
Programs, Policies, and Enforcement	Recognition and support for bicycling and walking as legitimate and important modes of travel on State and local roadways	
	Routine accommodation guidelines on bridges and roads	
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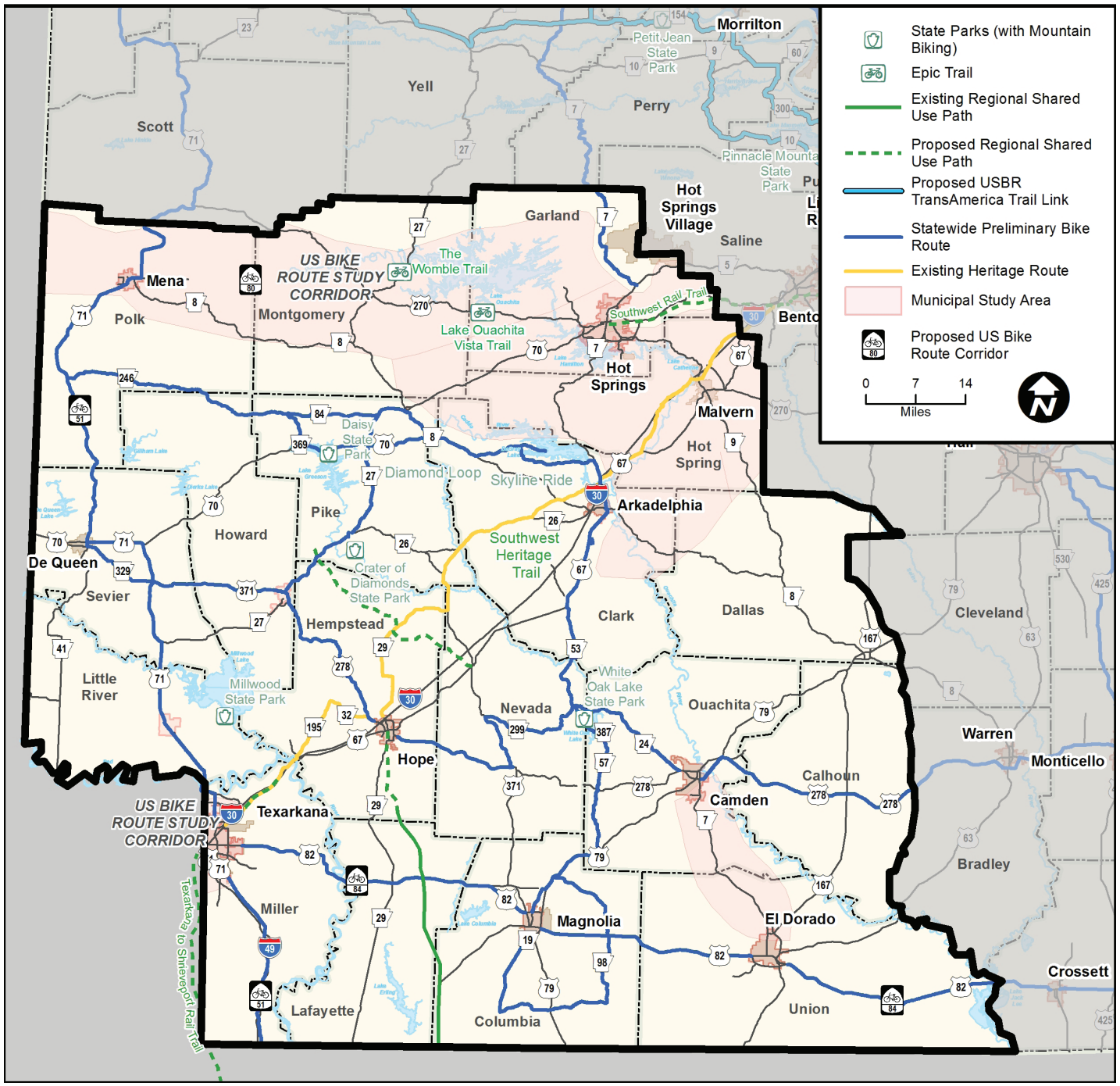
Road and Street Design	Five-lane standard cross section for urban arterials	
	Use of new road designs and treatments/context sensitive design	
	Application of rumble strips	
	Use of chip seal on rural roadway surfaces	
	Addressing the barrier effect of Interstate highways	
	Improved crossings of arterial roadways	
	Paved shoulders on rural roads	

Recommended Regional Strategies

- Develop a regional approach to planning of Hub Communities and promotion of bicycle tourism; capitalize on Lake Ouachita Vista Epic Trail (LOViT) and Womble Epic Rides; connect the LOViT to downtown Hot Springs and then Little Rock via the Southwest Rail-Trail.
- Local governments along with Metroplan, Tri-Lakes MPO, and AHTD should pursue acquisition and development of the Southwest Rail Trail.
- Conduct a regional study of abandoned, unused and little-used railroad corridors, and abandoned roadways (i.e. US 67) to identify new rail-to-trail and road-to-trail conversion opportunities.
- In coordination with all AHTD Districts, create maintenance guidelines along selected bicycle touring routes which will include periodic shoulder debris cleanup and limits on use of chip seal overlays.



Learning from Site Visit

Hot Springs: Connecting through Downtown

Downtown Hot Springs thrives on tourism in and around historic Bath House Row and Promenade. The Transportation Depot, located three blocks away (~2000 feet) from the Promenade, is the trailhead for the Hot Springs Creek Greenway that meanders south for approximately 4 miles to Lake Hamilton. The intent of the site visit was to review a proposed link between the Transportation Depot and Promenade.

The Transportation Depot is situated at a convergence of four roads where Broadway Street and Broadway Terrace run north and Church Street and Market Street offset to the east and west respectively. Since the trailhead parking is located on the eastern side of the Depot, a pedestrian crosswalk is positioned on Broadway Terrace to provide safe access to a new accessible path between properties and through the block to Malvern Avenue. The City is currently making improvements to the lighting and handrails on this cut-through.

A journey north on Malvern Avenue will complete the pedestrian connection to the historic promenade. The sidewalks on Malvern Avenue are approximately 14 feet wide with pedestrian lighting and a signalized crosswalk on the north end of the block. Convention Boulevard and Broadway Street intersect Malvern Avenue, creating a large expanse of road at the crossing point. Heavy vehicle traffic and on-street parking make the crossing even more difficult.

Convention Boulevard's crosswalk, on the eastern side of Malvern, is very long (approximately 74') and includes a median, two turn lanes, and on-street parking. Pedestrians could benefit from a center island refuge and/or curb extensions on the south side, to narrow the crossing and tighten the vehicular turn radii.

The final block continues north on a sidewalk between a parking lot and the Federal Building. The last crosswalk on the northern end of the corridor at Reserve Street can be reduced in length by adding a curb extension next to the existing on-street angle parking.

Lessons learned:

Even a short pedestrian connection (2000' from the Promenade to the Depot) can be complex when it is in an historic city center; but the value of improving safety, comfort and ADA accessibility is worth the effort.

Shortening the length of street crossings minimizes pedestrian exposure. Narrowing roadways and creating tighter turn radii slows motor vehicle traffic. Both will increase pedestrian safety and comfort.

When formalizing pedestrian "cut-throughs" such as through parking lots or between buildings, include lighting, special surface treatments, and vertical elements like railings to clearly delineate the space from motor vehicle space.

Grande Promenade: Hot Springs, Arkansas

Photo courtesy of Crafton Tull

Convention Blvd. & Malvern Avenue: Downtown Hot Springs

Photo courtesy of Crafton Tull

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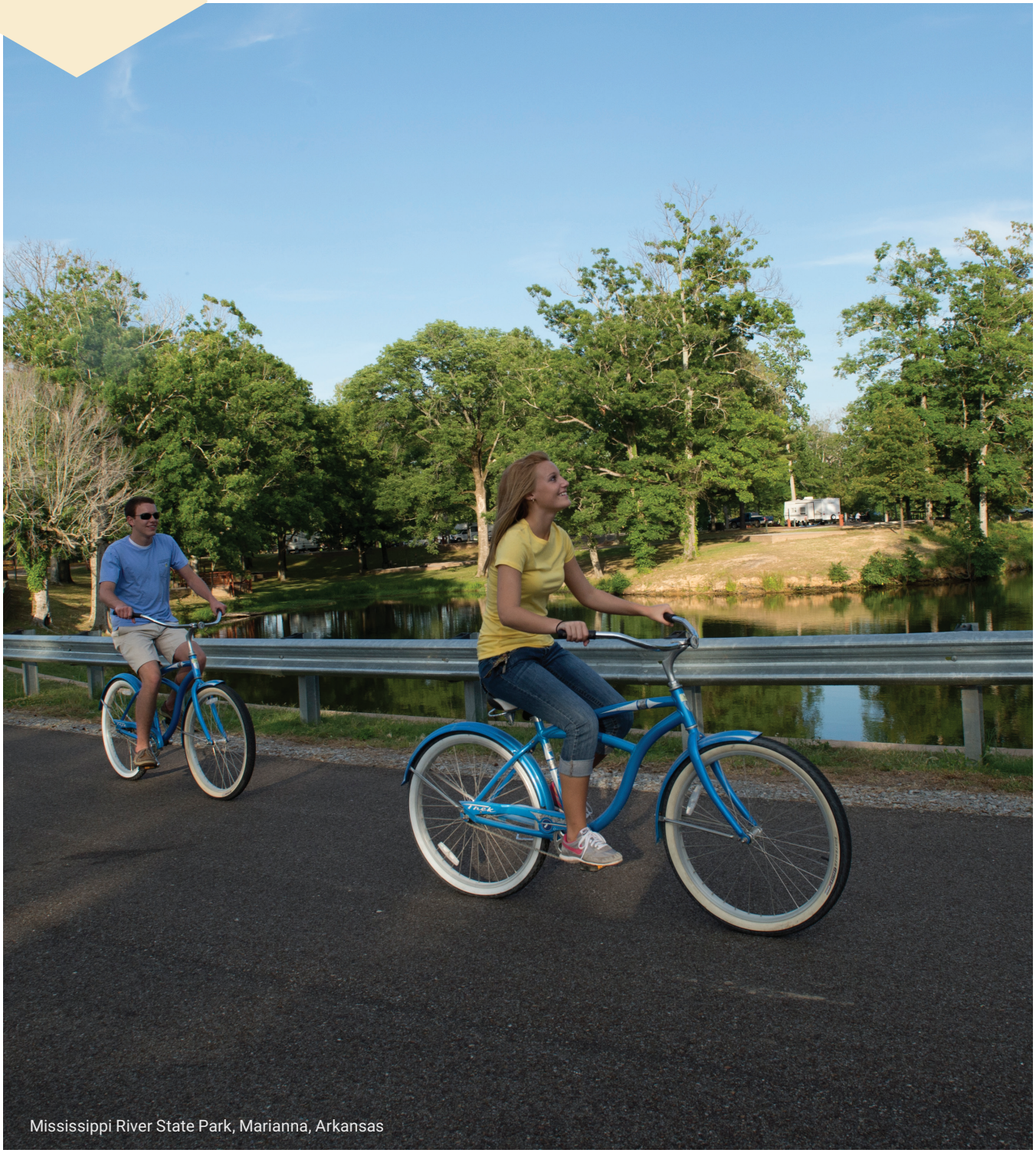
5 PLAN OBJECTIVES & ACTION STRATEGIES



Mississippi River State Park, Marianna, Arkansas

Photo courtesy of Arkansas Department of Parks and Tourism

Plan Objectives & Action Strategies

Chapter One presented the vision, goals and objectives developed by the Governor's Bicycle Advisory Group (GBAG). This chapter further explores the eight objectives and presents specific *action strategies* for each. The *action strategies* were designed to guide implementation of the Plan and were developed by the Technical Advisory Committee, in conjunction with the project team. In general, a single entity will provide leadership related to the actions listed under each objective, however many actions will require strong multi-agency partnerships and additional funding to achieve effective implementation. Next to each action strategy, proposed lead agencies, supporting agencies and other key partners are identified.

The following topics were considered by the participants as the most important:

- Access to destinations and safe travel to urban destinations.
- Urban and suburban sidewalks.
- Cycling improvements on low and medium volume roadways.
- Acknowledgement of cycling and walking as legitimate modes of transportation.
- Safety education programs (motorists, cyclists, children).
- Surface improvements to rural roadways.

Key State Agencies Responsible for Implementing the Plan

- Arkansas State Highway and Transportation Department (AHTD)
- Arkansas Department of Parks and Tourism (ADPT)
- Arkansas Department of Health (ADH)
- Arkansas State Police (ASP)

Objective 1:

Enhance laws and policies, enforcement, and local empowerment to promote alternative transportation and increase safety.

Objectives and Action Strategies

The thirty-five action strategies identified were developed from a wide variety of inputs into the planning process, including the public and stakeholder meetings, guidance from the GBAG, expertise offered by the consulting team, and review and prioritization by the project's Technical Advisory Committee (TAC). The TAC included staff from state agencies, as well as representatives from local governments, metropolitan planning organizations, and bicycle and pedestrian organizations from around the state.

Rationale:

Public and stakeholder testimony heard in the planning process made it clear that guidance from state-level policy makers is needed to confirm bicyclists and pedestrians are important and valuable components of the traveling public.

Bicyclists and pedestrians are the most vulnerable of all public roadway users and often include non-drivers such as children, youth, and seniors. For this reason, laws and policies are needed that support safety, respect, access and increased use of non-motorized transportation. The findings of numerous studies reviewed for this Plan, the experience of other states similar to Arkansas and the experience of leading communities within Arkansas, firmly demonstrate the State will enjoy significant economic benefits as a result of public investment in bicycling and walking.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Reactivate the Arkansas Bikeways Commission including a pedestrian component.	General Assembly	
2 Study state liability laws to increase motorists' liability/consequence when involved in crashes with pedestrians or bicyclists.	Arkansas General Assembly	ASP
3 Modify the school sitting laws to make walking and cycling to school more feasible	Arkansas General Assembly or AR Dept. of Ed.	ADH & AR Dept. of Ed. Local Jurisdictions
4 Enact legislation to require all new public schools to include sidewalks, shared-use paths or bikeways within school property and appropriate access roads to ensure safe bicycle and pedestrian travel to the school	Arkansas General Assembly or AR Dept. of Ed.	ADH & AR Dept. of Ed. Local Jurisdictions

Objective 2:

Sustain and continue to improve the bicycle and pedestrian program in Arkansas

Rationale:

It is appropriate for Arkansas to sustain and continue to improve ongoing bicycle and pedestrian transportation program. Because most bicycling and almost all walking takes place at the local level, it is essential to have local transportation partners collaborate in the creation and implementation of a Local Bicycle Pedestrian Assist Program (LBPA). Moreover, local communities such as Little Rock and Hot Springs are demonstrating a strong interest in improving the built environment for pedestrians and bicyclists by adopting local Complete Streets policies.

Core components of a robust program should be structured to provide assistance to local planning and implementing agencies, communication, and support for exploring the use of non-traditional funding sources at the federal, state, and local levels.

Further rationale for this objective is related to Arkansas' ranking in the League of American Bicyclists' annual list of bicycle-friendly states. To improve this ranking, the State must increase its spending on bicycling and walking.

LBPAssist Example Guidelines...

...that suggest how to apply context sensitive design treatments on roads within communities that are on an adopted bicycle/pedestrian plan.

...that suggest how to apply context sensitive roadway design practices for roadways within suburban portions of counties and municipalities, especially in CBDs, residential neighborhoods, and areas with a mix of commercial development and public facilities and services.

...that suggest how local pedestrian plans should include a prioritized set of sidewalk improvements along roadways within the municipality or county.

...that suggest how to communicate desired improvement projects to be included when street resurfacing and/or road widening or rehabilitation occurs.

...that suggest how to assess the need for new signalized crossings and/or other crossing improvements, factoring latent demand, safety needs, and potential economic impacts in addition to the volume of bicyclists and pedestrians currently crossing at the location.

SIDEBAR 1

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Within two years of adoption of this plan, the State of Arkansas (not just AHTD) has at least 4 FTE including the Bicycle / Pedestrian Coordinator working exclusively on bicycle and pedestrian activities including engineering, roadway planning and development, plan review, local assistance, grants administration, federal program administration, maintenance, and public involvement.	ADPT, ADH	Local Jurisdictions
2 Integrate bicycle and pedestrian training into on-going and routine activities for staff training planning, design, and maintenance practices.	AHTD, ADPT	
3 Investigate the following:	ADPT, AHTD, ADH	AML & MPOs, Local Jurisdictions
A) *A bicycle and pedestrian planning* ***guidance template*** *for local communities.* Provided in *draft form* as Appendix D of this Plan.		
B) *A set of* ***guidelines*** *which describe how agencies will coordinate with communities that have adopted bicycle/pedestrian plans and/or Complete Streets policies.*		
C) *Explore the use of innovative or non-traditional funds. To be matched by local communities (and MPOs where relevant)(see Sidebar 2).*		
D) *A small* ***Project Funding Program*** *using innovative or non-traditional funds to make grants to municipalities, colleges and universities, governmental agencies, or regional economic development commissions for a select set of bicycle and pedestrian project types. Local match will be required. (For a list of suggested eligible projects, see Sidebar 3.)*		
4 Identify ways to improve communications with local cyclists regarding AHTD maintenance activities.	AHTD	AHTD Districts, Bicycling Organizations, ADPT, Local Event Sponsors

Example of a Planning Assistance Program…

For non MPO communities: Annual grants, to be matched at 20 percent.

For communities in MPOs: Annual grants of up to $50,000 per community with a 50 percent match shared by the MPO and/or local community.

SIDEBAR 2

Example of a Large Group Bike Ride Coordination Protocol…

1) Coordinate with pre-event, route planning,

2) Pre-event sweeping along State roads used along the route,

3) Where needed, signs (or permit for organizer to post temporary signs) along the route that notify the driving public about the event,

4) A feedback method for reporting problems encountered, either with event participants, motorists, truck operators, or road conditions, and

5) Maintain a record of the number of participants, and estimated economic impacts in a statewide database.

The Bicycle and Pedestrian Coordinator at AHTD should develop a form to use prior to and after the event.

SIDEBAR 4

A Small Project Funding Program…

…could make grants of up to $25,000 to municipalities, counties, colleges and universities, federal agencies, or regional economic development commissions for the following purposes (local match required):

Eligible Projects:

- Shared bicycle program feasibility studies and business plans.
- On-road bicycle striping and signing projects (bike lanes, shared lane markings, signed bicycle routes, shared use path crossing improvements, etc.)
- Public bicycle parking.
- Establishing Bicycle Hub Communities that serve as gateways to bicycle touring regions and mountain bicycling areas.
- Educating local community leaders and businesses about the potential economic benefits of developing and exploiting bicycle tourism resources and ways to best serve this sector of the tourism market.
- Marketing materials, activities, information kiosks, and public services for bicyclists seeking (or engaged in) bicycle tourism or mountain bicycling opportunities in Arkansas.
- Creation of websites to promote regional or community-based bicycling resources.
- Community or regional bicycle route maps for large quantity production
- Bicycle safety information related to safe use of existing recreational or transportation related bicycling infrastructure, routes, regions or recreation areas.
- Marketing, promotional, or safety materials for walking encouragement programs that engage people in active living, healthy lifestyles, walking for transportation and recreation, and/or pedestrian safety and security in the built environment.

SIDEBAR 3

Objective 3:

Consider innovative or non-traditional funding sources.

Rationale:

Arkansas should continue to use eligible programs to help local communities address infrastructure needs. As funds are available, a regular funding cycle should be established.

This Plan recommends other partners should actively pursue the use of innovative or non-traditional funding sources.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Consider regular funding cycles for State allocated TAP funds.	AHTD FHWA	
2 Explore innovative or non-traditional funding sources.	ADH ADPT	Local Jurisdictions

Objective 4:

Review of the bicycle and pedestrian accommodation guidelines for Arkansas highways.

Rationale:

As a baseline, AHTD and the local jurisdictions should use AASHTO's Bicycle Facility Planning and Design Guidelines and the Pedestrian Facility Planning and Design Guidelines. As local jurisdictions initiate and implement Bicycle and Pedestrian Plans, local commitment to the process should be formalized.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Review the current Bicycle and Pedestrian Accommodation guidelines.	AHTD	Local Jurisdictions, AHTD Districts, Bicycle Advocacy Organizations, ASP
A) Develop common terms, definitions, and cross-sections to promote a consistent set of bicycle and pedestrian references for use by state agencies and all stakeholders.		
B) Consider development of a shoulder width design guidelines based upon posted travel speed limits, ADT, status as part of the Statewide Bikeway Network and other factors related to bicyclists' comfort and multi-modal traffic safety.		
C) For all projects, consider appropriate bicycle and pedestrian accommodations.		

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
D) Consider use of bicycle- and pedestrian-friendly intersection improvements to reduce traffic congestion, moderate speeds, reduce crashes and efficiently use existing rights-of-way.		
E) For arterial road widening project costs for urban and suburban arterials and collectors, consider appropriate cross section elements.		
F) For sidewalks along state roadways consider adopting the following minimum design guidelines: • in suburban settings, provide a 5-foot sidewalk and a 3-foot minimum buffer and ADA compliant curb ramp and driveway design. • in urban settings, provide a 5-foot minimum sidewalk and 3-foot minimum buffer, and ADA compliant curb ramp and driveway design • in urban commercial or mixed-use settings with higher density land uses, provide a minimum 5-foot buffer and minimum 8-foot clear pedestrian travel space.		
G) Require municipal governments to provide routine maintenance of buffers and sidewalks on state roadways within their jurisdiction.		
2 Encourage municipal and county governments to develop Complete Streets policies for their jurisdictions, including their applicability to state highways within their jurisdiction.	Local Jurisdictions	AHTD ADH

Bike lanes in Little Rock, Arkansas

Photo courtesy of AHTD

Objective 5:

Develop a Statewide Bikeway Network using a tiered system that coordinates and connects to the United States Bicycle Route Numbering System.

Rationale:

Chapter Four describes a Preliminary Statewide Bikeway Network and outlines a process for moving beyond the preliminary stage. The action strategies below will allow AHTD to develop this into an official Statewide Bikeway Network. As a network that includes touring routes, shared-use paths of regional and statewide significance, Bicycle Hub Communities, and access to mountain bicycling venues, it will serve a wide range of bicyclists and be marketable within the state and nationally.

Formal assessment of conditions along these routes, steady efforts to make improvements where most needed, and defined maintenance routines will ensure that signing, mapping and marketing of these routes will not result in AHTD or any local transportation agency incurring any additional liability for the portions that it owns and manages.

Highway 106 in Batesville, Arkansas

Photo courtesy of Arkansas Department of Parks and Tourism

Bicycle Hub Communities…

Bicycle Hub Communities are those that find themselves having opportunities to serve a wide range of recreational cyclists. They promote business development to serve this market by providing food, lodging, bicycle shops, information and other services for people who want to engage in recreational bicycling in the region. Hubs provide a diverse set of bicycling experiences to ensure appeal to the wide range of interests and abilities present among family members, groups of families or friends, or other parties vacationing together.

SIDEBAR 5

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Coordinate designation of U.S. Bicycle Routes: • Routes 80, 84, 51 and 45 as identified in the U.S. Bicycle Route System • Trans-America bicycle touring route through Arkansas, from southeast to northwest Arkansas (propose this route to AASHTO). • Southwest Trail Heritage route from the northeast corner of Arkansas to the southwest corner (propose this route to AASHTO).	AHTD	ADPT, Bike/Walk Arkansas; Adventure Cycling, Local Jurisdictions
2 Identify potential routes for further study within the corridors/areas identified on the Preliminary Statewide Bikeway Map. This includes routing through the urbanized areas and municipalities shown on the map. Coordinate with relevant municipalities, counties and MPOs regarding routing issues and planned bikeway improvements within their jurisdiction.	AHTD	ADPT, Local Governments, MPOs, State Bicycle Organizations
A) Adopt bicycle level of service assessment methodologies; consider one methodology for rural routes, one for urban and suburban routes, and one for trails[1].		
B) Establish criteria describing a minimum level of suitability for inclusion in the Statewide Bikeway Network (consider use of LOS methodologies, slope analyses and other factors).		
C) Evaluate the need for bike-safe shoulders or bicycle lanes along roads in the Statewide Bikeway Network, as appropriate.		
D) Research a cost-effective surface life extension treatment for low-volume roadways which also preserves riding comfort for cyclists.		
3 Review the rumble strip guideline for relevance, effectiveness, and implementation along state bike routes, on an as needed basis.	AHTD	Bicycle Organizations
4 Develop an online suitability map that is accessible for use by the public through the internet, including access for mobile devices; consider providing in other formats as may be needed.	AHTD, ADPT	Leading Bicycle Organizations, AEDC

1 A number of methodologies are available, including the Wisconsin Rural Roadway Evaluation, the Bicycle Level of Service (found in the TRB Highway Capacity Manual, Level of Bicyclists' Stress Analysis, and the Shared Use Path Bicycle Level of Service method, developed by the Federal Highway Administration.)

Objective 6:

Research and develop marketing strategies to be used at the state, regional, and local levels.

Rationale:

Over the course of the planning process, the Arkansas Department of Parks and Tourism recognized that it lacks some of the hard data that is needed to know how much recreational bicycling is happening in Arkansas as well as its economic impacts.

To make strategic investments, the state and local communities need hard data to answer these key questions:

- How many Arkansans ride bicycles recreationally?
- What type of riding is happening-- mountain biking, road riding, touring, using paved paths, or all of the above?
- How many bicycling tourists are coming to the state each year, where do they come from, what type of riding do they do, where do they go to ride, what is their experience like?

Acquiring this type of data will enable Arkansas to market cycling and pedestrian activities as economic opportunities and promote small business development in communities with opportunities for growth in recreational bicycling. It will also enable the business community, federal land managers, state agencies and bicycle organizations to set a common agenda and work together as they tap into and grow this market.

As with any of the recommended strategies involving additional responsibilities or activities, full implementation may be contingent upon additional funding sources and methods and additional staff.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Make development of the Trans-America bicycle touring route through Arkansas a top priority; it can serve as a prototype state route and model of interagency partnership in route planning and development.	ADPT	AHTD, Bike/Walk Arkansas, Adventure Cycling
2 Conduct a field review of all highway guide and recreational information signs in the vicinity of major mountain bicycling venues and trailheads and shared use path trailheads; ensure that the appropriate recreational activity symbol(s) are included on these signs (mountain bicycle, standard bicycle, pedestrian, hiker, access for the disabled, etc.).	ADPT	AHTD
3 Publish a study that uses examples from the Arkansas experience to document and promote the economic and other benefits of bicycling, trail development, and creation of bicycle/pedestrian friendly communities.	ADPT	NW Arkansas Council, ADH, Universities

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
4 Develop the concept of Bicycle Hub Communities that serve as gateways to bicycle touring regions and mountain bicycling areas. Like Oregon's bicycle tourism training programs, business and public officials within Hub Communities will receive education and training to ensure success in serving this growing market.	ADPT	Experienced Bicycle Travel Outfitters, Hospitality Industry, Consultants from model programs
5 Develop a coalition of business, foundation and user group partners to educate about bicycle-based tourism potential and coordinate marketing efforts. Include representatives of the hospitality, restaurant, outdoor recreation, and travel industries as well as the Chamber of Commerce, Convention Bureaus and others.	ADPT	AEDC, Walton Family Foundation,
6 Conduct a statewide assessment of railroad corridors with low use, and abandoned and reverted corridors to determine which may have the most potential for development as shared use paths. Consider railbanking, conversion to rail-trails, and trails with active rail lines.	ADPT	AHTD, Consultant, Rails-To-Trails Conservancy
7 Conduct a statewide personal travel survey to identify current levels of bicycling and walking for the following activities: utilitarian transportation, recreation, types of recreational biking: non-competitive mountain, touring, trails, sports training/competition, close to home recreation on local streets and trails. The research should also assess the potential to expand engagement in recreational and utilitarian bicycling and walking and factors influencing potential market expansion.	ADPT	AHTD, ADH, Universities
8 Conduct a survey of both in-state and out-of-state residents who participate in bicycle touring or mountain biking to determine what improvements would enhance the experience and likely generate more activity within Arkansas.	ADPT	Bicycling Organizations and Clubs
9 Explore development of a music history and heritage based bicycle tour of the Arkansas Delta region.	ADPT	Arkansas Heritage Department, Delta Byways Regional Tourism Assn.
10 Coordinate federal and state land managers to keep track of trails and trail mileage that is open to mountain bicycling, as well as the status of other support facilities for bicycle tourism such as camping sites, availability potable water, general conditions, participation rates and other baseline information needed to track the provision of needed support infrastructure and services over time.	ADPT	NPS, USFS, USF&W, Recreational Bicycling Organizations

Objective 7:

Further integrate bicycle and pedestrian safety into the Toward Zero Deaths campaign.

Rationale:

While the primary intention of the Toward Zero Deaths campaign is to reduce deaths resulting from motor vehicle crashes, it should also address the injury-crashes that occur among pedestrians and cyclists. From 2008 to 2012, Arkansas experienced about 450 pedestrian crashes per year, and about 160 bicyclist crashes, most of which resulted in significant injury.[1]

Because Arkansas is fortunate to have a very small number of bicyclist deaths each year, focusing solely on the reduction of bicyclist deaths may result in overlooking the need to reduce bicycle/ motor vehicle crashes. Stakeholder input indicated cyclists' concern regarding any type of crash with a motor vehicle, not just a crash that results in a death.

1 Data provided to the project team by the Arkansas State Police, Office of Highway Safety.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Analyze pedestrian and bicycle crash data in urban areas. Develop countermeasures to be included in the Highway Safety Improvement Program.	AHTD ASP	ADH, MPOs, FHWA
2 Consider the use of Federal Safety program funds toward achieving the bicycle and pedestrian safety goals, that are consistent with the SHSP.	ASP AHTD	MPOs
3 Create a multi-media safety education campaign focused on fostering greater respect among all modes.	ASP AHTD	Arkansas Broadcasters Assn. and Arkansas Press Assn., Bicycle and Pedestrian Organizations

Objective 8:

Provide leadership and support for public education and policy advocacy that relate to the built environment.

Rationale:

The Arkansas Department of Health (ADH) has conducted an ongoing program related to addressing the ways the built environment affects public health, specifically related to accident and injury prevention and obesity and over weight as a major factor in a number of diseases that negatively affect personal and public health among Arkansans. In the past, ADH partnered with a variety of other agencies and community-based organizations to start the Arkansas Coalition for Obesity Prevention (ArCOP). Some of ADH's current and near future activities in this area are supported by cooperative agreements with the Center for Disease Control that address environmental approaches to health promotion. Additionally, ADH's Strategic Plan has identified promotion of physical activity as a strategic priority. To support implementation of the Arkansas Bicycle and Pedestrian Transportation Plan and achievement of its goals, ADH will provide statewide leadership on a variety of strategies, which are listed below.

Recommended Action Strategies	Proposed Lead Agency	Proposed Key Partners
1 Provide education at the grassroots level on the importance of complete street policies for their communities for economic growth, sustainability, active living, smart growth, walking and biking.	ADH	Bicycle and Pedestrian Advocacy Organizations
2 Provide technical assistance to communities to develop master pedestrian and bicycle plans and tie those plans into the Arkansas Statewide Pedestrian and Bicycle Transportation Plan.	ADH	AHTD, Bicycle and Pedestrian Advocacy Organizations
3 Implement a community mentoring program for communities to use regarding lessons learned, sample policies, infrastructure design, etc. through the Growing Healthy Community projects.	ADH	AHTD, ARCOP
4 Conduct walking or bicycling audits annually, as funding is available, within communities throughout the state.	ADH	Municipalities, AARP, Bicycling Organizations
5 Continue support of the Arkansas Coalition for Obesity Prevention (ARCOP) and their programs addressing the built environment.	ADH	AHTD, ARCOP member groups
6 Exploring innovative funding sources for local assistance.	ADH ADPT	

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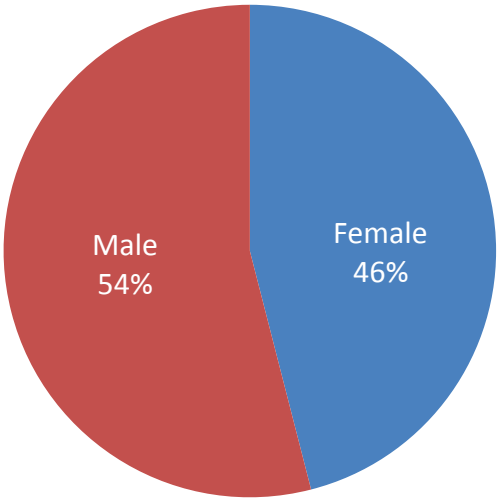
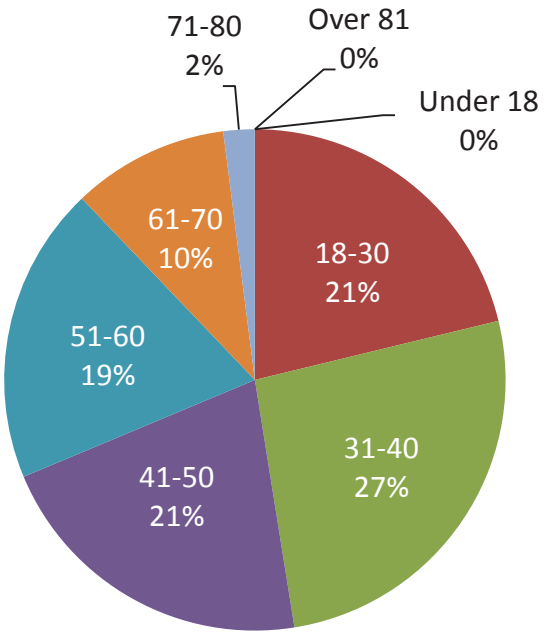
Appendix A: Online Survey Questions and Responses

1. What is your gender?



Value	Percent	Count
Female	46.4%	428
Male	53.6%	494
Total		922

2. What is your age?



Value	Percent	Count
Under 18	0.4%	4
18-30	21.0%	194
31-40	25.6%	236
41-50	21.3%	197
51-60	19.3%	178
61-70	10.1%	93
71-80	2.2%	20
Over 81	0.1%	1
Total		923

Sum	35,056
Average	38.2
StdDev	14.5
Max	71.0

3. What is your zip code?

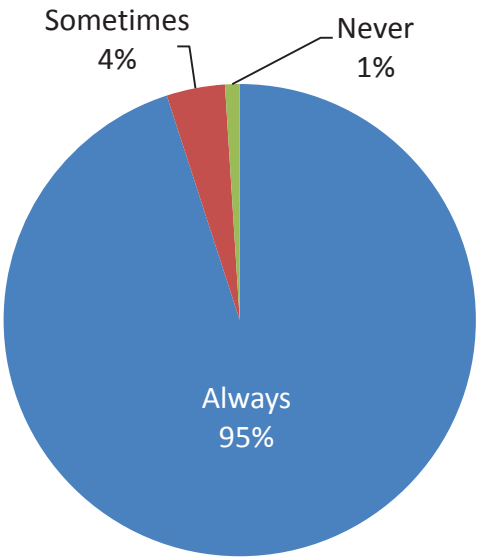
There were a wide range of responses to this question. The 25 most common zip codes are included below.

Zip Code	Count
72701	76
71901	47
72703	46
72205	41
72401	38
72801	35
71913	33
72903	30
72802	28

Zip Code	Count
72034	26
72704	26
72762	23
72207	21
72404	21
72712	20
72223	18
72212	17
72758	17

Zip Code	Count
72227	16
72116	15
72201	15
72202	15
72113	14
72901	14
72764	13

4. Do you have access to a personal, motorized vehicle? (car, truck, motorcycle, etc.)

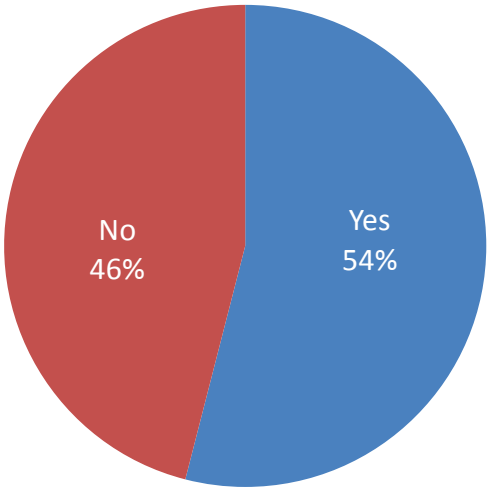


Value	Percent	Count
Always	94.6%	872
Sometimes	4.1%	38
Never	1.3%	12
Total		922

What is your access to a personal, motorized vehicle? (car, truck, motorcycle, etc.)

	Always	Sometimes	Never	Responses
Car, truck, motorcycle, etc.	0.0 % 0	0.0 % 0	0.0 % 0	0

5. Do you have access to transit?

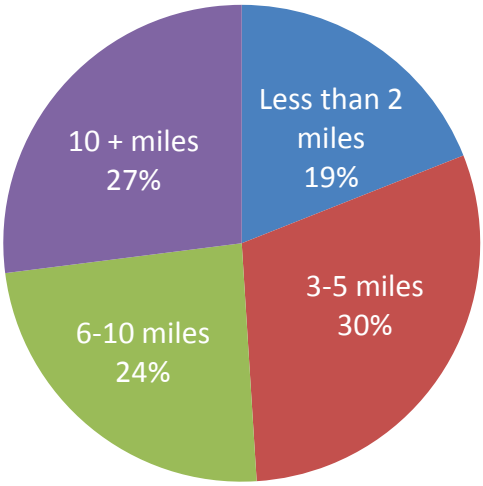


Value	Percent	Count
Yes	53.7%	492
No	46.3%	424
Total		916

6. Which of the choices below describes your employment status? (Check all that apply)

Value	Percent	Count
Work for pay OUTSIDE of the home	77.9%	717
Work for pay INSIDE of the home	6.1%	56
Looking for work	2.2%	20
Unable to work due to disability	0.9%	8
Stay-at-home parent	3.6%	33
Student	9.2%	85
Retired	7.5%	69
Other (please explain)	2.2%	20
Total		921

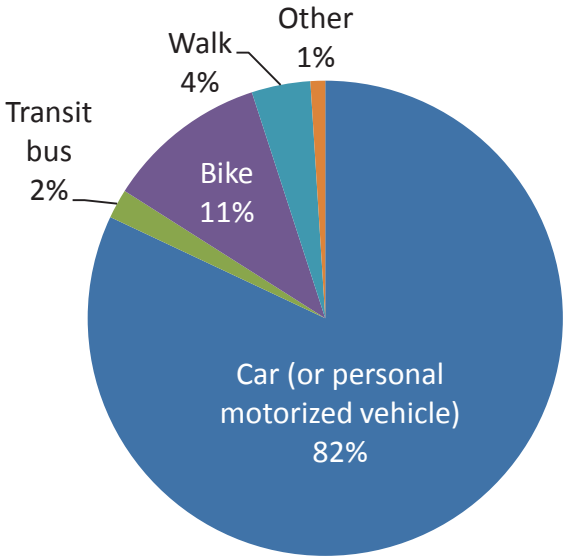
7. Tell us about your commute to work or school.



Value	Percent	Count
Less than 2 miles	19.1%	144
3-5 miles	29.9%	226
6-10 miles	24.4%	184
10 + miles	26.6%	201
Total		755

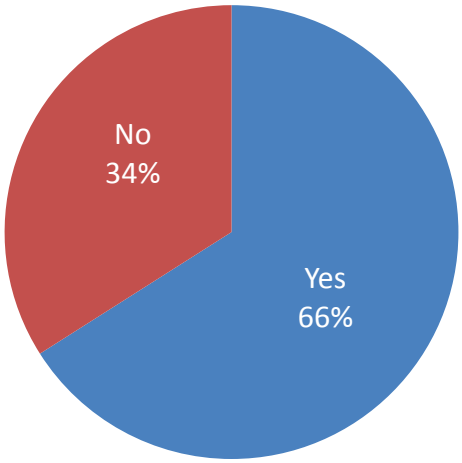
Sum	3,792.0
Average	6.2
StdDev	2.9
Max	10.0

8. What mode do you use for the longest part of your trip to school or work?



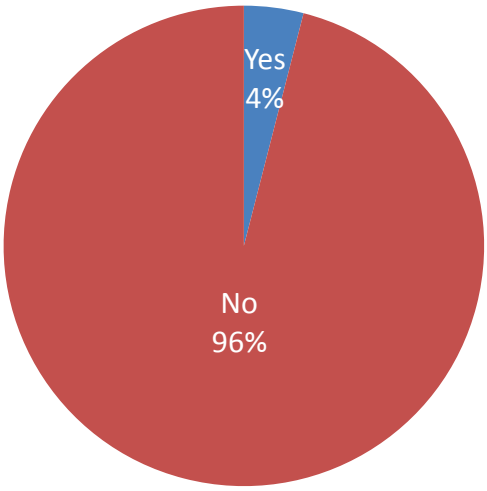
Value	Percent	Count
Car (or personal motorized vehicle)	82.5%	626
School bus	0.1%	1
Transit bus	1.6%	12
Bike	10.5%	80
Walk	4.0%	30
Other	1.3%	10
Total		759

9. Was bicycling or walking friendliness an important consideration in your choice of where you live?



Value	Percent	Count
Yes	66.1%	607
No	34.0%	312
Total		919

10. Do you have any physical limitations that affect walking or biking?



Value	Percent	Count
Yes	4.5%	41
No	95.5%	878
Total		919

11. What are those limitations? (Check all that apply)

Value	Percent	Count
Limited mobility	40.0%	16
Use mobility aid	10.0%	4
Visually impaired	0.0%	0
Hearing Impaired	2.5%	1
Prefer not to answer	12.5%	5
Other (please explain)	37.5%	15
Total		40

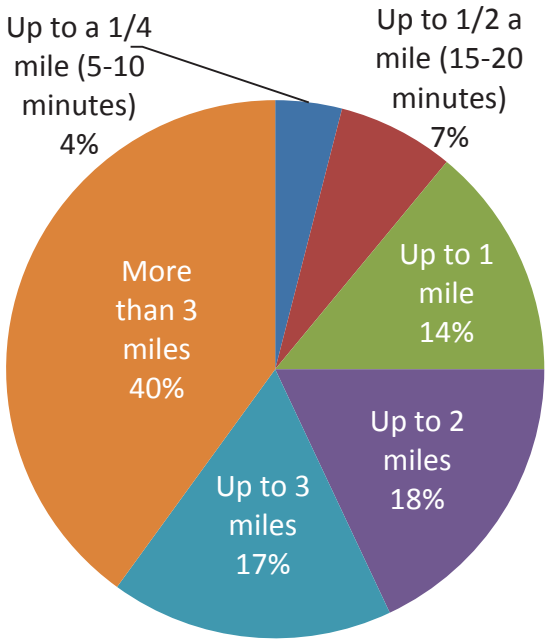
12. If you would like to receive updates regarding activities related to development of the new Plan, please include your contact information in the boxes below. We will not share your information with a third party and will only contact you with information relevant to the Plan update.

The responses to this question have been omitted to protect respondents' contact information.

13. How frequently do you walk for the trips listed below?

	Almost daily		Frequently		Infrequently		Never		I don't make this trip with other travel modes (driving, transit, etc.)		Total	
Leisure/ recreation	299	34.2%	400	45.8%	149	17.0%	26	3.0%	0	0.0%	874	100%
Fitness	293	33.8%	359	41.4%	172	19.8%	44	5.1%	0	0.0%	868	100%
Sport/ competition	55	7.3%	131	17.4%	239	31.7%	328	43.6%	0	0.0%	753	100%
Commuting to school	42	5.7%	22	3.0%	84	11.4%	588	79.9%	0	0.0%	736	100%
Commuting to work	70	9.3%	50	6.7%	142	18.9%	489	65.1%	0	0.0%	751	100%
Shopping, errands	93	11.7%	175	22.0%	266	33.5%	261	32.8%	0	0.0%	795	100%
Worship, community events	27	3.6%	108	14.4%	223	29.8%	391	52.2%	0	0.0%	749	100%
Visiting friends	78	9.8%	211	26.5%	301	37.8%	206	25.9%	0	0.0%	796	100%
Dining	58	7.5%	154	19.9%	246	31.8%	316	40.8%	0	0.0%	774	100%
To get to transit	26	3.6%	48	6.6%	137	18.7%	520	71.1%	0	0.0%	731	100%
Walking a dog/pet	233	28.8%	181	22.4%	113	14.0%	281	34.8%	0	0.0%	808	100%
Unique Individual Responses	10	47.6%	11	52.4%	0	0.0%	0	0.0%	0	0.0%	21	100%

14. What is a comfortable walking distance for you?



Value	Percent	Count
Up to a 1/4 mile (5-10 minutes)	3.8%	35
Up to 1/2 a mile (15-20 minutes)	6.6%	61
Up to 1 mile	14.4%	133
Up to 2 miles	18.2%	168
Up to 3 miles	16.9%	156
More than 3 miles	40.2%	372
Total		925

Sum	2,092.3
Average	2.5
StdDev	0.8
Max	3.0

15. What keeps you from walking more often? (Check all that apply)

Value	Percent	Count
Destinations too far/takes too long to walk	50.4%	461
Unsure of routes to take	10.2%	93
Traffic is too heavy	46.9%	429
Dangerous intersections	46.2%	423
Lack of sidewalks or paths	72.8%	666
Sidewalks/paths/crossing are in poor condition or unsuitable	40.3%	369
Weather	30.6%	280
Lack of lighted sidewalks or paths	34.9%	319
Personal security	21.9%	200

Need to transport other people or things	28.5%	261
Exposure to air pollution	2.5%	23
Access to activity centers	4.5%	41
Other	10.1%	92
Total		915

Sum	19.0
StdDev	4.5
Max	14.0

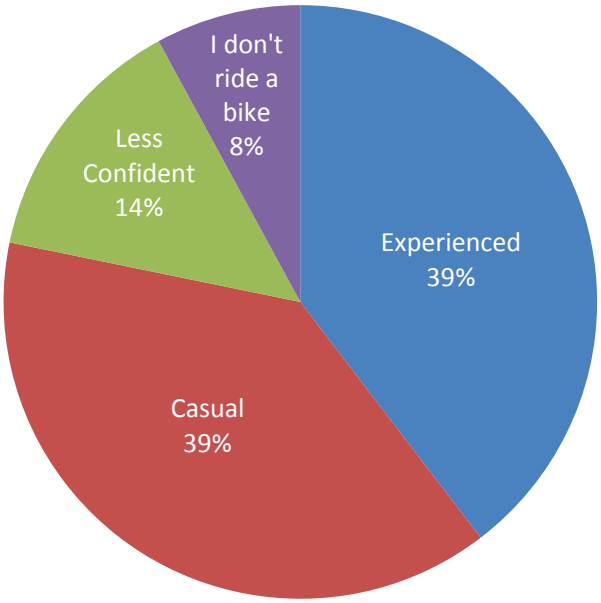
16. What improvements would encourage you to walk more often? Please rate all of the options below on the scale provided.

	High		Medium		Low		Total	
Improved pedestrian crossings (signals, crosswalks, warning-signs)	491	60.4%	238	29.3%	84	10.3%	813	100%
Improved curb ramps	165	22.4%	216	29.4%	354	48.2%	735	100%
Slower traffic	251	33.0%	256	33.6%	254	33.4%	761	100%
Improved sidewalks (wider, fewer obstructions, repaved, etc.)	649	77.4%	144	17.2%	46	5.5%	839	100%
Improved buffers between vehicles and pedestrians	568	70.0%	177	21.8%	66	8.1%	811	100%
Eliminating gaps in the sidewalks	426	54.3%	192	24.5%	166	21.2%	784	100%
Creating more direct paths to destinations	475	59.8%	199	25.1%	120	15.1%	794	100%
Improving accessibility for people with disabilities	138	19.1%	199	27.5%	386	53.4%	723	100%
Better sidewalk/pathway/street lighting or security measures	411	51.3%	266	33.2%	124	15.5%	801	100%
Better sidewalk maintenance	407	52.2%	266	34.1%	106	13.6%	779	100%
More walking paths and trails	749	88.1%	66	7.8%	35	4.1%	850	100%
Motorist education about pedestrians' rights and yielding to pedestrians	482	60.5%	208	26.1%	107	13.4%	797	100%
Better enforcement of pedestrian safety laws	449	57.2%	201	25.6%	135	17.2%	785	100%
Unique Individual Responses	50	96.2%	2	3.8%	0	0.0%	52	100%

17. What three words best describe walking in Arkansas today?
18. What three words should describe walking in Arkansas in the future?
19. What is the best city or town you have ever visited or lived in for walking?
20. What three streets or trails are most important to making walking a viable transportation option in Arkansas?

The above questions were designed to solicit open-ended responses. Due to the large quantity of unique responses provided by survey respondents, they could not be included in the appendix. The project team reviewed all the responses and considered them in the planning process, as appropriate.

21. How would you describe your bicycling comfort level?



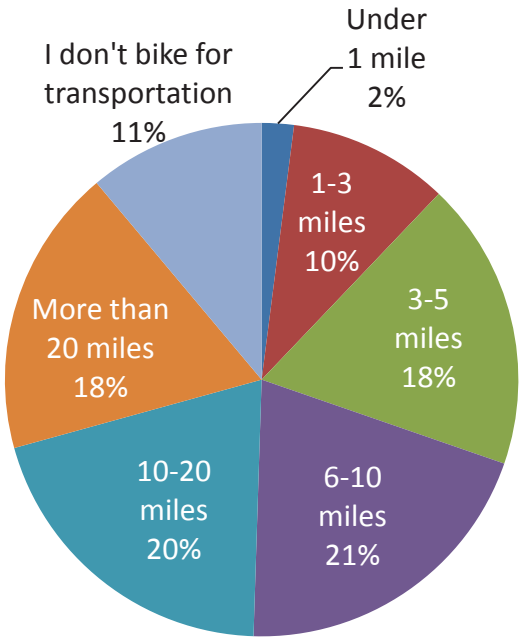
Value	Percent	Count
Experienced: confident and comfortable riding with traffic on the road in most traffic situations	39.7%	365
Casual: prefer separated paths, but will ride on some roads where space is available and traffic is manageable	38.5%	354
Less confident: only feel safe on separated paths with few traffic crossings and local streets	14.2%	130
I don't ride a bike	7.6%	70
Total		919

22. How frequently do you bike for the trips listed below?

	Almost daily		Frequently		Infrequently		Never		Total	
Leisure/recreation	222	25.5%	396	45.6%	164	18.9%	87	10.0%	869	100%
Fitness	230	26.7%	369	42.8%	167	19.4%	96	11.1%	862	100%
Sport/competition	61	7.7%	156	19.7%	179	22.7%	394	49.9%	790	100%
Commuting to school	33	4.4%	30	4.0%	78	10.3%	617	81.4%	758	100%

Commuting to work	69	8.8%	84	10.8%	181	23.2%	446	57.2%	780	100%
Shopping, errands	48	6.1%	123	15.5%	236	29.8%	386	48.7%	793	100%
Worship, community events	21	2.7%	74	9.5%	172	22.2%	508	65.5%	775	100%
Visiting friends	55	6.8%	165	20.5%	253	31.4%	333	41.3%	806	100%
Dining	36	4.6%	102	13.0%	218	27.8%	428	54.6%	784	100%
To get to transit	7	0.9%	15	2.0%	91	12.1%	639	85.0%	752	100%
Unique Individual Responses	8	47.0%	8	47.1%	1	5.9%	0	0.0%	17	100%

23. What is a comfortable biking distance for you, for transportation purposes (not including fitness, training, or leisure riding)?



Value	Percent	Count
Under 1 mile	2.3%	21
1-3 miles	10.3%	93
3-5 miles	17.9%	161
6-10 miles	20.4%	184
10-20 miles	19.7%	178
More than 20 miles	18.1%	163
I don't bike for transportation	11.3%	102
Total		902

Sum	3,481.0
Average	5.5
StdDev	3.3
Max	10.0

24. What types of facilities do you prefer to ride on? (Check all that apply)

Value	Percent	Count
Bike lanes	76.3%	668
Separated multi-use paths or trails	85.5%	749
Sidepaths along roadways	53.9%	472
On the road on low-traffic streets	55.6%	487
On the road, even if traffic speeds and volumes are heavier	9.0%	79
Sidewalks	23.9%	209
Total		876

25. What keeps you from biking more often? (Check all that apply)

Value	Percent	Count
Destinations too far/takes too long to bike	30.7%	274
Unsure of routes to take	16.8%	150
Traffic is too heavy	70.0%	626
Dangerous intersections	63.1%	564
Motorists don't exercise caution around cyclists	76.7%	686
Lack of bike facilities- bike lanes, paths, wide shoulders, etc.	79.9%	714
Poor condition of bike facilities	27.5%	246
Weather	33.0%	295
Lack of lighted routes or paths	24.2%	216
Personal security	18.6%	166
Need to transport other people or things	30.7%	274
Traveling with small children	13.3%	119
Lack of secure bicycle parking	35.0%	313
Lack of worksite amenities (showers, lockers, etc.)	25.8%	231
Exposure to air pollution	3.6%	32
Other	10.1%	90
Total		894

26. What facility improvements would encourage you to bike more often? Please rate all of the options below using the scale provided.

	High	Medium	Low	Responses
More bike lanes on major streets	74.1 % 641	16.6 % 144	9.2 % 80	865
More bike lanes on minor streets	58.1 % 493	31.4 % 267	10.5 % 89	849
More bicycle paths and trails	84.1 % 726	11.8 % 102	4.1 % 35	863
Paved shoulders on narrow streets	65.5 % 544	24.8 % 206	9.7 % 81	831
More wide outside lanes (easier to share lane with cars)	53.4 % 438	28.9 % 237	17.7 % 145	820
More shared lane markings in travel lanes	49.6 % 402	31.4 % 255	19.0 % 154	811
More buffers between bicyclists and vehicles	74.8 % 633	18.8 % 159	6.4 % 54	846
More on-road bike signage (share the road signs/bike may use full lane signs)	57.3 % 476	25.9 % 215	16.7 % 139	830
Bike accommodation through intersections and interchanges	64.6 % 536	26.5 % 220	8.9 % 74	830

27. What measures or programs would encourage you to bike more often? Please rate all of the options below using the scale provided.

	High	Medium	Low	Responses
More and better bike route wayfinding signs and bike maps	49.8 % 409	35.8 % 294	14.4 % 118	821
Better bicycle access to transit stations and bus stops	21.9 % 173	28.9 % 228	49.2 % 389	790
Increased maintenance (street sweeping/repair of roads)	53.2 % 436	31.0 % 254	15.8 % 129	819
Increased enforcement of traffic laws	55.6 % 458	28.2 % 232	16.3 % 134	824

Cyclist education on how to ride with motor vehicle traffic	39.0 % 319	35.9 % 293	25.1 % 205	817
Motorist education about cycling laws and how to respectfully share the road with cyclists	67.7 % 569	21.2 % 178	11.2 % 94	841
Better bicycle parking/storage	41.8 % 340	36.1 % 294	22.1 % 180	814
A bike sharing program	22.0 % 174	30.4 % 241	47.6 % 377	792

28. What three words best describe biking in Arkansas today?
29. What three words should describe biking in Arkansas in the future?
30. What is the best city or town you have ever visited or lived in for biking?
31. What three streets or trails are most important to making biking a more viable transportation option in Arkansas?

The above questions were designed to solicit open-ended responses. Due to the large quantity of unique responses provided by survey respondents, they could not be included in the appendix. The project team reviewed all the responses and considered them in the planning process, as appropriate.

32. How important are the items below in prioritizing investments in bicycle and pedestrian infrastructure? Please rate all options below using the scale provided.

	High	Medium	Low	Priority 4	Priority 5	Responses
Providing an independent transportation option for youth, senior citizens, people with disabilities and others with limited access to private vehicle	45.9 % 402	36.3 % 318	17.7 % 155	0.0 % 0	0.0 % 0	875
Increasing health and physical activity	78.6 % 701	17.7 % 158	3.7 % 33	0.0 % 0	0.0 % 0	892
Improving access in center cities, town centers, and main streets	77.0 % 681	18.7 % 165	4.3 % 38	0.0 % 0	0.0 % 0	884
Increasing access around transit stations and bus stops	34.0 % 293	39.5 % 340	26.5 % 228	0.0 % 0	0.0 % 0	861

Creating safe routes for walking and biking to schools	82.9 % 737	13.7 % 122	3.4 % 30	0.0 % 0	0.0 % 0	889
Supporting tourism and economic development	63.2 % 557	30.3 % 267	6.6 % 58	0.0 % 0	0.0 % 0	882
Providing affordable transportation options for low-income citizens	50.6 % 445	35.5 % 312	13.9 % 122	0.0 % 0	0.0 % 0	879
Enhancing access to and experience of the natural environment	73.4 % 649	22.2 % 196	4.4 % 39	0.0 % 0	0.0 % 0	884

33. How important are the items below for increasing biking and walking for transportation in Arkansas? Please rate all options below using the scale provided.

	High	Medium	Low	Responses
Education and enforcement of bicycle and pedestrian traffic laws	64.0 % 566	25.9 % 229	10.1 % 89	884
Slowing traffic in areas with high pedestrian and bicycle use	64.4 % 571	25.8 % 229	9.8 % 87	887
Eliminating gaps in sidewalks and bike routes	70.8 % 622	22.4 % 197	6.8 % 60	879
Improving sidewalks (removing obstructions, widening, increasing buffers from traffic, lighting, etc.)	72.9 % 638	21.3 % 186	5.8 % 51	875
More on-road bicycle facilities (bike lanes, share the road symbols, bike sensors at signals, etc.)	76.5 % 676	18.3 % 162	5.2 % 46	884
More paths and trails	84.4 % 746	13.0 % 115	2.6 % 23	884
Increased maintenance of sidewalks, bike facilities, and trails (clearing debris and snow, repairing pavement, etc.)	68.1 % 597	27.6 % 242	4.3 % 38	877

Appendix B: WikiMap Inputs

Bicycle Wikimap

Points could be created on the map representing the following items:

1. Destinations for local bike trips, where do you ride or want to ride?
    - Work
    - School or University
    - Retail Shopping Area; Entertainment or Sports Venue
    - Park, Sports Field, Rec Center, Gym
    - Library, Post Office, Church, Synagogue, Civic Center, etc.
    - Recreational Trail/Trail System
2. Destinations for major outings, holidays, vacations, multi-day trips, where do you ride or want to ride?
    - Scenic/Natural area
    - Destination Community
    - Historic site, Museum
    - Dining and Shopping District
    - Campground, Lodging, Vacation Site
    - Recreational Trail/Trail System

Lines could be drawn on the map to represent the following:

- Good Bicycle Route
- Road that needs improvements for safer bicycling
- Place where a paved trail should be built

Additionally, free form comments could be provided in association with each point and line created.

Pedestrian Wikimap

Points could be created on the map representing the following items:

- Difficult place to cross street, road or highway—needs improvements
- Bus stop that is not pedestrian-friendly
- Barrier that prevents me from walking a direct route
- Place I would like to be able to walk to
- Location where a major highway overpass or underpass is needed

Lines could be drawn on the map to represent the following:

- Segment of roadway that needs a sidewalk or an improved sidewalk
- Location where a pedestrian/bicycle path is needed
- Additionally, free form comments could be provided in association with each point and line created

In total, almost 100 distinct WikiMap users provided a total of 720 data records with associated comments. Usage levels favored the bicycle WikiMap over the pedestrian WikiMap at about 4 to 1.

Appendix C: List of Study Corridors and Areas Identified in the Preliminary Statewide Bikeway Network

	Type	Location	Notes
1	US Bike Route 80 (Eastern Option)	Memphis to Little Rock	Select one route: a) Forrest City to Cabot using various State Highways, b) Memphis to Little Rock using US Route 70, or c) Memphis to Little Rock using US Route 79 and State Highways
2	US Bike Route 80 (Central Option)	Ouachita National Forest	Select route to link Hot Springs to Mena & Oklahoma
3	US Bike Route 80 (Northeast Option)	Memphis to Central Oklahoma	Select one route: North of Arkansas River on US Route 64, or South of Arkansas River on SH 22
4	US Bike Route 84	Southern Tier of Arkansas	Select between US Route 278 through Camden and Monticello, or US Route 82 through El Dorado
5	US Bike Route 84	Texarkana Area	Select route to link Texarkana to NE Texas Rail-Trail
6	US Bike Route 51	Razorback Greenway to Missouri	Connect Razorback Greenway to US Route 62
7	Mississippi River Trail Study Corridor	Arkansas City to Louisiana Border	
8	Mississippi River Trail Study Corridor	West Memphis to Missouri	
9	Bike Route Study Area	Conway to Greers Ferry to Heber Springs to Fairfield Bay	Develop loops where feasible
10	Bike Route Study Area	Hot Springs Area	Identify loops using Hot Springs as a hub including potential for loop around Lake Ouachita and DeGray Lake
11	Bike Route Study Area	Hot Springs Area to Benton, Malvern, Arkadelphia, & Glenwood/Amity	
12	Bike Route Study Area	Link Malvern, Little Rock, Pine Bluff & Sheridan	
13	Bike Route Study Corridor	Mountain Home to Jonesboro via Cherokee Village	
14	Bike Route Study Corridor	Mountain View to Batesville to Newport to Jonesville	
15	Bike Route Study Corridor	Cabot to Searcy to Newport	
16	Bike Route Study Corridor	West Memphis to Jonesboro	
17	Bike Route Study Corridor	Lake City to Blytheville & the Mississippi River Trail	
18	Bike Route Study Corridor	Jonesboro to Paragould	
19	Bike Route Study Corridor	Fort Smith Area to Oklahoma	
20	Bike Route Study Corridor	Route 7 to West Little Rock & the Big Dam Bridge	Identify possible alternative to SH 154
21	Bike Route Study Corridor	Conway to Maumelle & the Arkansas River Trail	
22	Bike Route Study Corridor	Cabot & Jacksonville to Little Rock	
23	Bike Route Study Corridor	Clinton to El Dorado	

Appendix D: Guidance for Local Bicycle and Pedestrian Planning

Overview/Purpose

This component of the Arkansas Bicycle and Pedestrian Plan provides guidance to local governments on preparing a local bicycle and/or pedestrian plan. This guidance includes a description of typical components of a local plan and a list of tools to assist staff in completing each element. This guidance will also help communities determine the level of effort that may be needed based upon the status of a community's existing bicycle and pedestrian infrastructure and level of community programming currently being undertaken in this area.

In general, this guidance document has been prepared to provide guidance for municipalities or single communities spread across one or two municipal and/or county jurisdictions. It will also be useful for regional planning efforts at the Metropolitan Planning Organization (MPO) level, or for planning and development districts that consist of multiple counties and municipalities. However, it does not provide guidance to address the unique planning issues that arise when planning for a larger number of independent local governments.

QUESTIONS TO CONSIDER BEFORE BEGINNING THE PLANNING PROCESS

There are a number of factors communities should consider as they determine the scope and breadth of their plan. These include traditional planning considerations, such as land use characteristics and jurisdictional resources available, as well as local culture and public opinion about bicycling and walking as part of community life. Staff and community leaders involved in developing the plan's scope, goals, and objectives should consider the following questions:

- Does the community currently have a bicycle or pedestrian plan in place, or bicycle and pedestrian components of a transportation plan or comprehensive plan? How old is it? What portions of previous plans were actually advanced and/or implemented?
- What is driving the interest in a bicycle/pedestrian plan? Public interest or demand? Economic development opportunities? Tourism potential? Recreation needs? Transportation needs? Safety? Public health?
- Are there private development or major public infrastructure projects that present opportunities? State roads that need to be addressed? State funding programs that the community wants to tap?
- In general, what types of infrastructure and programming are currently in place to support walking and cycling throughout the community?
- Are there critical safety concerns that need to be immediately addressed?
- What is the jurisdiction's capacity to develop and/or implement a plan? Staff? Funding? Community leadership? Public interest?

Answers to these questions will go a long way toward determining the type of plan that is needed and the level of effort that will be required.

Common Bicycle and Pedestrian Plan Components

Bicycle and pedestrian planning can be achieved in a variety of ways; however, there are eight key components integral to creating a successful plan that leads to buy-in and ultimately implementation. The eight components are shown in Figure 1. Three of the eight plan components below are associated with the "five E's" of bicycle and pedestrian planning: Engineering, Education, Encouragement, Enforcement, and Evaluation. These five E's are used in active transportation planning to ensure a holistic approach to incorporating both engineering and programmatic recommendations into successful, implementable plans.

Figure 1: Eight Essential Components of a Local Bicycle and Pedestrian Plan

A brief discussion of each plan component is provided below. For most of the plan components discussed, a list of helpful planning tools related to that component is provided.

1. PROJECT STEERING COMMITTEE

Creating a steering committee to identify plan objectives and guide project development is integral to the bicycle and pedestrian planning process. A steering committee is an opportunity to engage key community members in the development of the plan from concept to completion. The members selected should represent a diverse group of interested stakeholders that bring different perspectives to the project and reflect a cross-section of the community. The purpose of the group is to help develop the objectives of the planning process, identify project outcomes, create community champions to support the process and resulting plan recommendations, and assist in guiding the plan's direction through the entirety of the project.

Potential Committee Members to Consider:

- Local Government Staff
- Community Leaders
- Elected Officials
- Business Community Representatives
- Bicyclists, Pedestrians, Representatives from Community Based User-Group Organizations
- Arkansas State Highway and Transportation Department (AHTD) Staff, ex officio
- Metropolitan Planning Organization Staff (if applicable)
- Planning and Development District Staff
- Arkansas Department of Health (Built Environment)

This is not an all-inclusive list, but provides a starting point to help identify individuals necessary to guide the plan development with the betterment of the community in mind.

2. INVOLVE/ENGAGE THE PUBLIC AND KEY STAKEHOLDERS

Engaging the public is a key step in the plan development process. It is an opportunity to have the community provide "hands-on" help in verifying existing conditions and identifying local needs and priorities. It is important to involve the public as early as possible in the planning process. Engaging stakeholders at critical points in the planning process provides opportunities for feedback on each phase of the plan and for obtaining affirmation and confirmation of direction before proceeding. A transparent approach where community members can see a direct relationship between the feedback provided during public involvement events and the resulting plan recommendations will build community ownership and support for the plan.

Stakeholder Involvement Toolkit:

- Open House Meetings
- Stakeholder Interviews
- Online Project Collaboration Tools
- Interactive Maps for Public Comments
- Focus Groups
- Presentations with Civic Associations
- Temporary Demonstration Events

3. REVIEW/INVENTORY EXISTING CONDITIONS

Understanding the existing context of bicycle and pedestrian infrastructure, policies, and programs is critical in assessing community needs.

Documenting the extent and condition of sidewalks, greenways, bicycle and pedestrian paths, on-road bicycle facilities, and the like, will contribute to understanding the built environment. It is also important to review ADA accessibility and the ability of existing infrastructure to accommodate bicycle and/or pedestrian improvements. Generally, the level of detail that is needed in data collection efforts is determined by the geographic extents of the plan being developed. Infrastructure inventories for a smaller geographic area, such as a corridor plan, would have a much finer grain of detail than a citywide plan. Metrics like crash data and demographics also provide a snapshot of the state of active transportation within the community.

Existing land use, development, and transportation policies establish the framework that determines how new infrastructure is constructed. The planning effort should include a process to review and evaluate these policies to better understand what will happen or not happen for bicycling and walking conditions when new development or capital projects occur.

Available Resources:

- AHTD GIS data layer
- Arkansas Geographic Information Office (AGIO)
- Local GIS data
- Local knowledge and observation
- Windshield Survey

4. IDENTIFY NEEDS

After listening to public feedback and reviewing existing conditions, a pattern of gaps in infrastructure connectivity and programmatic elements will likely emerge. Documenting these gaps and identifying community needs around bicycle and pedestrian issues will help focus attention on critical areas in the analysis, network development, and implementation phases of the project.

Toolkit for Identifying Needs:

- Walk Audit
- Bicycle Audit
- Interactive Maps for Public Comment
- Mapping Work Groups/Sessions at Public Meetings
- Bicycle Level of Service Analysis
- Bicycle Level of Stress Analysis
- ADA Accessibility Assessment
- Sidewalk Inventory
- Origins & Destinations Analysis
- Crash Analysis

5. PLAN COORDINATION

A community is made up of many initiatives, plans, and varied interests. It is important through plan development to understand where a bicycle and pedestrian plan fits into the spectrum of other community planning projects. There are a number of initiatives that may overlap with other transportation plans at the local or regional levels. Key to this is determining whether the current planning process will introduce new concepts and strategies or if the goal is to echo recommendations from previous plans. It may also be appropriate to separate seemingly overlapping projects entirely to avoid the confusion of plan priorities.

6. NETWORK DEVELOPMENT

One of the most critical components of infrastructure-oriented plans is the network. A bicycle and pedestrian network plan lays the physical foundation for realization of the community's vision. A network plan does not necessarily mean that all roads contain some type of bicycle or pedestrian facility. A network plan identifies the important locations that will make walking and bicycling safer and more viable as a transportation and/or recreation option. For a small area plan, that might mean one to three critical corridors and spot improvements to increase safety around school facilities. For a larger, more comprehensive citywide master plan, the network plan may identify miles of new active transportation infrastructure (bicycling and walking facilities) along existing roadways and a network of separated trails.

Following is a list of some typical infrastructure plan types that are defined by their physical scope:

- Bicycle Network Plan
- Pedestrian Network Plan
- ADA Accessibility Inventory
- Bikeway Signed Route Plan
- Greenway & Trail Plan
- Greenway and Trail Corridor Assessment
- Intersection Improvement Plan
- Regional Recreational Bikeway Plan
- Corridor Plan
- Main Street Plan
- Small Area Plan/Sub-Area Plan

Resources:

- Map of Road Typologies and Functional Classifications
- AASHTO Guide to the Development of Bicycle Facilities
- AASHTO Pedestrian Facility Guide
- NACTO Urban Street Design Guide
- NACTO Urban Bikeway Design Guide
- Complete Streets, Complete Networks: A Manual for Design of Active Transportation

7. POLICY & PROGRAM RECOMMENDATIONS

Along with physical improvements for walking and bicycling, policies and programming play an important role in supporting and promoting active transportation. Policies and programs set a community expectation that bicycle and pedestrian issues will be discussed during new development projects and will be part of an overall community

conversation. Policies can include internal local government resolutions and ordinances regarding complete streets, development standards requiring residential and commercial projects to provide critical bicycle and pedestrian infrastructure, and/or school transportation policies which reflect each school's desire for students to safely walk or bike to school each day.

Program Toolkit:

- Bicycle Parking Installation Program
- Bicycling Encouragement Programs
- Large Group Community Walking or Bicycling Events
- Community Quiet Street Events
- Bicycle Rodeos
- Safety Education Campaigns for Motorists, Bicyclists, and Pedestrians
- Bike/Walk to School Events
- Bike to Work Day
- Spot Enforcement Program
- School-Based Driver's Education Programs

Policy Toolkit:

- Pedestrian Facility Design Guidelines
- Traffic Calming Program and Treatment Toolkit
- Bikeway Facility Design Guidelines (Shared Use Paths and On-Road Facilities)
- On-Road Bicycle Facility Selection Policy
- Bicycle, Pedestrian and/or Trail Wayfinding Sign Protocol
- Bicycle/Pedestrian Crash Countermeasure Tools
- Bikeway Maintenance Policy
- Road Resurfacing Policy

8. LOCAL ADOPTION

Before a bicycle or pedestrian plan can be implemented, it must be adopted by the jurisdiction's governing body (or bodies). The purpose of this adoption action is to ensure the local jurisdiction is committed to the bicycle and pedestrian planning activities. This is typically accomplished through a resolution from either the City Council or the Quorum Court. A sample resolution is included at the end of Appendix D.

9. IMPLEMENTATION

The final step in the planning process is creating an implementation plan that identifies the methods, timeframe, and funding sources to complete the action items found in the list of recommendations. The implementation strategy should focus on prioritizing projects based on need and potential funding availability. Other items for consideration include identifying the lead agency responsible for implementing each recommendation, listing key partners necessary to complete each item, creating planning level cost estimates, identifying performance measures to chart progress, and identifying challenges to implementation along with keys to success.

Implementation Toolkit:

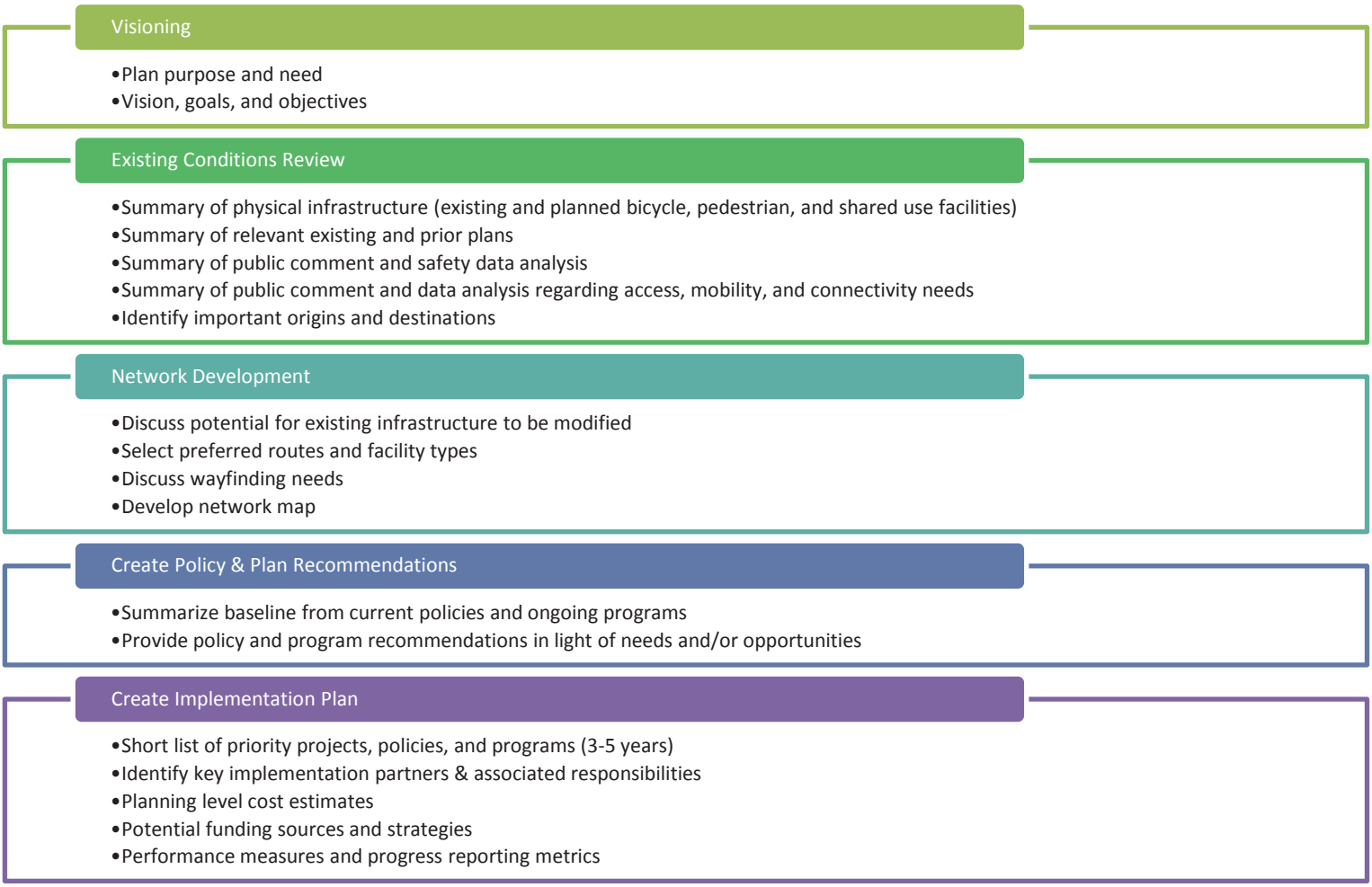
- Concept Designs or Cross Sections
- Best Practices
- Case Studies
- Pilot Projects
- Cost Estimates (including life-cycle costs)
- Jurisdictional Capacity (budget, staff time, etc.)

- Available Funding Sources
- Prioritization Tools
- Prioritization Tools

Sample Plan Outline

The outline below provides a suggested framework and content for a local bicycle and pedestrian plan. It is generally applicable for municipalities or counties, and it may be useful for regional or MPO plans as well.

Figure 2: Sample Local Bicycle and Pedestrian Plan Outline



Approach Based on Community Size & Population

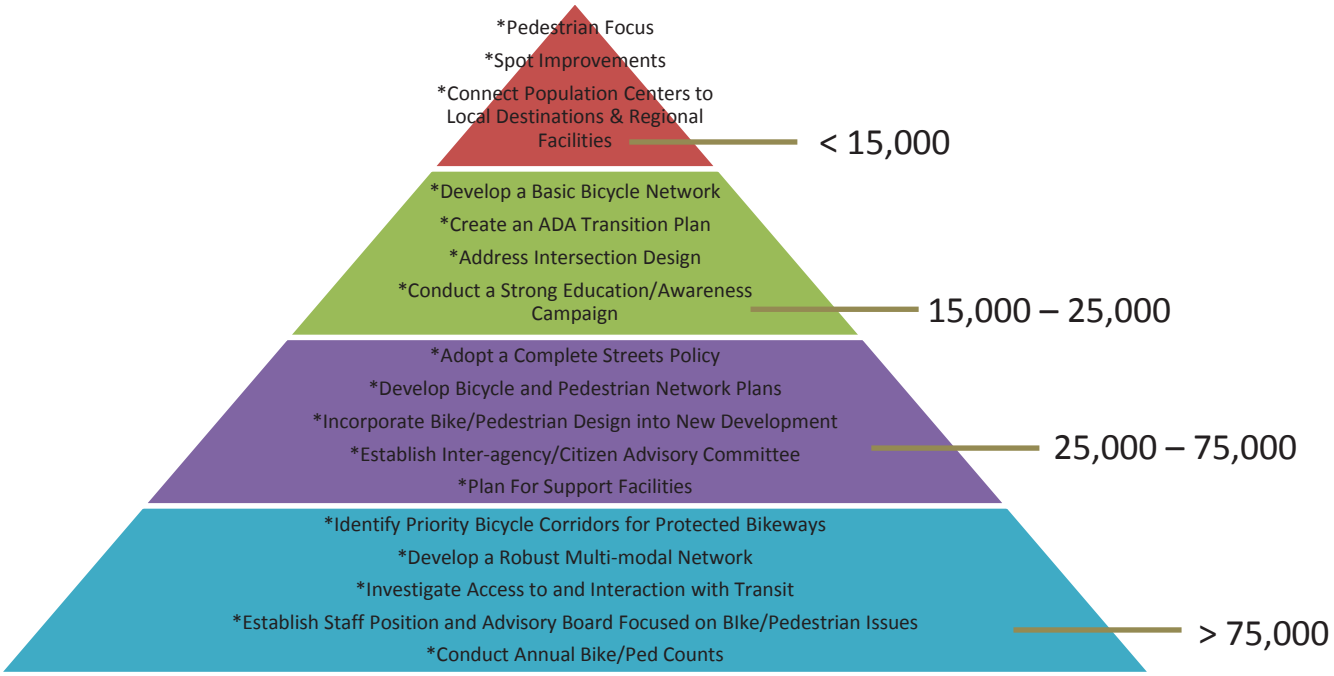
While most plans will address all of the components discussed above, not all plans will require the same level of detail in each area. The community's needs, planning history, and political environment will determine if more emphasis is placed on documenting and evaluating existing conditions, conducting public involvement activities, or developing the implementation plan. However, the community's size will also play a key role in determining the scale of overall effort needed for a bicycle and pedestrian plan.

Additionally, there is typically a relationship between a community's size, the magnitude of its needs, and the amount of resources available for plan development and implementation. For this reason, this document provides some general guidance for plan scoping based upon community size/population.

PLAN FOCUS BY COMMUNITY POPULATION

Figure 3 illustrates the relationship between population size and potential areas of focus for bicycle and pedestrian plans. As one would expect, larger communities typically need more detail.

Figure 3: Bicycle/Pedestrian Plan Focus by Community Population



POPULATION UNDER 15,000

Small communities should focus efforts primarily around pedestrian safety and mobility needs. Plans should identify key improvements necessary to connect residents with local shopping areas and public facilities such as schools and parks. Bicycle plans should focus on connections to the regional and statewide bicycling network.

Don't Forget:

- Focus on safety improvements for crossings of state roadways and other arterial roads.
- Consider bicycle and pedestrian accommodations along main street and state roadways; ensure safe accommodations to community facilities and regional destinations/connections.
- Identify priority gaps in the sidewalk network and key ADA accessibility needs.
- Consider shoulder improvements for bicycle and/or pedestrian use.
- Address bicycle and pedestrian safety education for children and students.
- Consider potential to leverage economic benefits of bicycling.

POPULATION 15,000 TO 25,000

Small towns and cities with some bicycle and pedestrian elements in place may have the capacity to perform more detailed planning analyses and prioritization. Plans conducted in communities of this size should continue to focus on pedestrian issues and introduce bicycling improvements along key corridors. Communities of this size will find that development of a citywide sidewalk, bicycle facility, and/or trail network will be useful. It is also likely that policies and programs that address active transportation will be needed to ensure a sustained effort.

Don't Forget:

- Focus on pedestrian and bicycle connections between key origins and destinations, as well as regional connections.
- Include safety improvements for crossings of state roadways and other arterial and collector roads.
- Prioritize your recommendations for bicycle and pedestrian improvements along state roadways.
- Consider conducting a sidewalk inventory, developing an ADA transition plan, or including a trail and greenway system plan.
- Consider developing a Complete Streets Policy.
- Address school-based bicycle and pedestrian safety education for students and consider needs for school-based encouragement programming.
- Consider active transportation programs for public health and fitness.
- Consider potential to capture economic benefits from bicycle tourism and recreational activities.

POPULATION 25,000 TO 75,000

Communities of this size will have a more complex transportation network that needs to be carefully assessed when planning for bicycle and pedestrian infrastructure. Areas of focus for these communities should include ADA accessibility, high quality pedestrian infrastructure in retail/commercial areas, eliminating gaps in the citywide sidewalk network and bicycle network, and planning that considers both internal connectivity and connections to county, regional, and statewide bikeway and trail networks. At this size, communities may need to consider dedicating a portion of staff resources to bicycle and pedestrian programs. Elements such as wayfinding signs, bike parking, biking and walking encouragement programs, traffic enforcement, and periodic safety audits should be addressed within the plan. Depending upon the goals communities set, bicycle and pedestrian counts may be needed.

Don't Forget:

- Adopt a Complete Streets Policy.
- Develop preferences for pedestrian- and bike-safe intersection design and accommodations in commercial areas.
- Consider using more diverse types of bicycle and pedestrian designs and treatments.
- Adopt policies that ensure the best outcomes from new developments.
- Establish a bicycle and pedestrian committee and identify staff leadership resources.
- Address bike parking and bike route wayfinding signs.
- Consider targeted enforcement programs if needed and/or regular safety reviews.
- Consider potential to capture economic benefits from bicycle tourism and recreational activities.

POPULATION OVER 75,000

Because large cities have well-developed transportation networks, the scope of plans for these communities will be more complex than for smaller communities. In addition to the components that have been discussed, the following issues may need to be addressed in these plans: a) collection of bicycle and pedestrian counts; b) analysis of crash data; c) emphasis on traffic safety enforcement; d) development of designated bicycle route networks; e) use of innovative pedestrian treatments and emerging bicycle facility types; f) improvement of access to transit; and g) development of an extensive trails and greenway network.

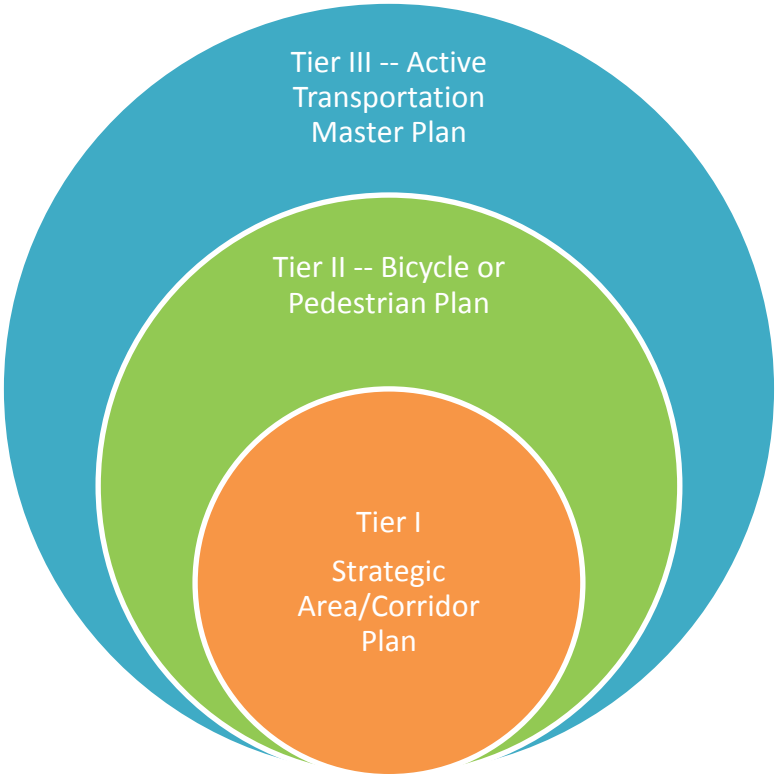
Don't Forget:

- Include details in reference manuals used by infrastructure design and review engineers, consultants and developers.
- Coordinate between law enforcement, public works, schools, recreation and parks, planning and other agencies, as this will be essential to success.
- Integrate bicycling and walking into multi-modal transportation networks.
- Ensure the jurisdiction has an ADA Transition Plan.
- Consider potential to capture economic benefits from bicycle tourism and recreational activities.

Approach Based on Plan Types

It is certainly appropriate to think about bicycle and pedestrian plans as similar in scope and structure to other types of transportation plans, whether they are mode-specific or multi-modal. For this reason, it may be helpful for some planners to approach plan scoping using a different framework. Consider the following three general plan types (Figure 4) as a level-of-effort measure that can clarify the size and complexity of scope needed. These plan types generally use the same descriptive terminology that is used throughout the field of community and transportation planning (i.e. small area, corridor, modal, master, etc.).

Figure 4: Plan Types



TIER I: STRATEGIC AREA/CORRIDOR PLAN

A strategic area/corridor plan is the simplest way to limit the scope of work for an active transportation study. It is usually where smaller communities and rural areas may want to start because they only have a few key areas where existing bicycle and pedestrian travel occurs, and/or future nonmotorized travel is likely to occur.

However, communities of any size may find that doing a plan for a discrete area/corridor(s) is the best way to make sure the effort invested is targeted, resulting in change everyone can see and experience. Plans that do not "bite off more than they can chew" are more likely to be implemented, and implemented plans build trust between government and citizens. While limited in geographic scope, strategic area/corridor plans can also address themes and issues that apply to the community at large, and as such can still provide a relevant forum for community-wide

discussion. Bicycle and pedestrian safety is typically a central theme, and emphasis should be given to encouraging bicycling and walking for recreation, healthy living, and transportation.

Even though the physical planning efforts will be limited to select corridors or small areas, the planning process should include activities that enable community-wide public and stakeholder engagement to ensure that diverse interests and points of view are heard and considered. A community-wide goal of a strategic area/corridor plan can be to raise awareness regarding the needs of bicyclists, pedestrians, children walking to school, and people with disabilities, and educate the community about the many values of active transportation and its relevance to community life.

A Tier I Plan is Appropriate When:

- This is the community's first active transportation planning initiative.
- There is limited staff and funding capacity.
- There is a need for the community to provide AHTD specific guidance about how a state highway(s) should be addressed to safety accommodate and encourage bicycling and/or walking.
- There is a need to address immediate safety and/or equity concerns.
- Small-scale, pedestrian and/or bicycle focused improvements are primarily what is needed.

TIER II: BICYCLE OR PEDESTRIAN PLAN

A Tier II plan takes the Tier I plan to the next level. A Tier II plan should develop a vision for the role active transportation can play in the community. This vision will include transportation, recreation, safety, and healthy lifestyles, and it may speak to economic development or other community needs. A Tier II plan will include identification and development of a physical network of streets, roads, and trails that provide effective bicycle or pedestrian accommodations and serve all parts of the community.

While Tier II plans can certainly include multiple areas of concern, some communities may want to limit the Tier II plan to one focus area; for example, the plan might focus on bicycling, walking, or trails but not two of these. A Tier II plan might also focus solely on addressing access for people with disabilities; such plans may be called *ADA Transition Plans*, as they will include a sidewalk inventory, an ADA accessibility assessment of public roads and trails, and lay out a multi-year approach to making the community fully accessible.

A Tier II plan will contain a map of the existing and planned network of facilities and routes and an implementation plan that includes a prioritized list of projects, potential funding sources, and timeframe for projects that are expected to be completed in the near term. The geographic comprehensiveness of Tier II plans will enable the community to provide developers more specific guidance regarding what is expected in terms of roadway/trail improvements that are tied to their development approvals.

Tier II plans will typically address safety education, encouragement and enforcement programs, and relevant policy issues that are related to roadway/trail design and roadway/trail improvement project development processes; however, the level of effort in these areas will vary depending on the particular needs of the community undertaking the plan.

A Tier II Plan is Appropriate When:

- Some bicycle and pedestrian facilities and programs are already in place.
- There is a need to identify and fill infrastructure gaps; address bicycle and pedestrian safety along and across multi-lane arterial roadways; and clearly assign agency roles and coordination needs in the development, design, prioritization, and funding of recommended improvements.
- Communities are experiencing or expect to experience significant and sustained growth.
- Cities and counties need to plan in a unified way because communities have spread well beyond municipal boundaries.
- There is a need to focus on the pedestrian or bicycle mode independently.

TIER III: ACTIVE TRANSPORTATION MASTER PLAN

The word *master* is the key word for a Tier III plan. This plan will involve most of the efforts described in Tier I and Tier II plans. In addition, a Tier III plan will address bicycling and walking, include a physical network plan, and include robust program and policy recommendations. It will address economic development potential and recreation-based tourism opportunities. It may also provide detailed and customized facility design guidance or bicycle and pedestrian crash analysis with recommended countermeasures. A Tier III plan will often be designed to be effective for a longer period of time, such as 10 to 20 years. Tier III plans will explore how the missions of many government agencies intersect on bicycling and walking and how each should coordinate and collaborate with other agencies and local bicycle and pedestrian advocates.

Tier III plans should also make recommendations for bicycle and pedestrian accommodations on all state highways within the local jurisdiction, and prioritize these recommendations. These plans may also identify locally-preferred design approaches to typical road configurations and articulate assumptions and baseline commitments upon which mutually acceptable local/state agreements can be developed.

A Tier III Plan is Appropriate When:

- Multiple jurisdictions and/or multiple agencies need to be engaged in the planning process, such as parks, law enforcement, planning and zoning, public works, MPOs, federal agencies, etc.
- Significant growth is taking place, and development review and site design are critical to the creation of bicycle and pedestrian friendly built environments.
- A focused effort is required if meaningful reductions in bicycle and pedestrian crashes resulting in severe injury or death are to be realized.
- Non-profit groups, bicycle and pedestrian advocacy organizations, school systems, the healthcare industry, the business community, federal land managers, or other institutions have capacity to support encouragement and education programs and campaigns.
- Modal conflicts, parking issues, police enforcement of traffic laws, or other more complex issues and activities need to be examined.
- Metropolitan areas have MPOs that guide transportation planning, or other regions need to address key inter-jurisdictional issues that affect bicycling and walking.

- Multi-jurisdictional planning is required to effectively develop bicycle/pedestrian tourism opportunities.

Updating Plans

Once a community has developed a Tier II or Tier III plan, subsequent planning efforts are likely to focus more on updating the original plan. Plan updates typically focus on updating the physical bicycle or pedestrian network plan, based upon what has been built and how community growth or contraction has changed travel patterns. It is important to provide a status report on previously prioritized projects and to update the implementation plan to reflect new priorities and new budget expectations. Because the field of bicycling and walking is changing rapidly, it will also be important to identify new trends in facility design, new types of educational programming, new equipment technologies, and changing cultural factors that may affect participation rates and development of encouragement strategies.

Appendix E:
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