

**PINE BLUFF AREA
TRANSPORTATION STUDY**

**BICYCLE
PLAN**

Prepared by:

Southeast Arkansas Regional Planning Commission

In cooperation with:

**Arkansas Highway and Transportation Department
Cities of Pine Bluff and White Hall
Jefferson County
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INTRODUCTION

As kids, we grew up using bicycles as our mode of transportation. We rode them to school, to the neighborhood store, to our friends' houses. We rode them when mom and dad were too busy to drive us to our destination. We rode them just for fun. Bicycles gave us one of our first tastes of independence. As is said, there's nothing new in the world, and bicycles are back in our lives as adults, providing us with these same opportunities. They can take us to our destination. They provide us with recreation. And they can give us our independence once again.

Biking as a healthy mode of transportation and as recreation provides a myriad of positive consequences. Bicycling, and a transportation system that incorporates it, can reap many benefits in terms of improving the health of individuals who are more physically active, a healthy environment through reduction in traffic congestion and resulting vehicle carbon footprint, and reducing our dependency on the automobile. Economic rewards both to the individual and to society through bicycling are also realized by reduced health care costs and reduced dependency on auto ownership (and the resulting insurance and maintenance costs). There are also other economic benefits of bicycling that are more difficult to measure, as bikeable communities create a more equitable society that provides transportation choice for all citizens. Overall, increasing the use of bicycles in our everyday lives improves our quality of life and the quality of the communities in which we live.

Briefly as described below, a community that promotes bicycling as an alternate mode of transportation as well as for recreation purposes is benefiting the community in four major ways:

Health Benefits. The issue of physical activity has never been more important than now. An alarming number of Americans are becoming more sedentary and obese and, consequently, are putting their lives at risk, reports the Center for Disease Control. Even small increases in light to moderate activity will produce measurable benefits among those who are least active. Engaging in light to moderate physical activity reduces the risk of coronary heart disease, stroke, and other chronic and life-threatening illnesses. Physical activity can also improve mental health and even lower health care costs. Older adults can also benefit from bicycling. Regular exercise provides myriad health benefits for senior adults including a stronger heart, a positive mental outlook, and an increased chance of remaining indefinitely independent—a benefit that will become increasingly important as our population ages in the coming years.

Transportation Benefits. Many of the trips that Americans make every day are short enough to be accomplished on a bicycle. The 1995 National Personal Transportation Survey (NPTS) found that approximately 40 percent of all trips are less than two miles in length—which represents about a 10-minute bike ride.

Bicycling can help to reduce roadway congestion. Many streets and highways carry more traffic than they were designed to handle, resulting in gridlock, wasted time and energy, pollution, and driver frustration. Bicycling requires significantly less space per traveler than driving. Roadway improvements to accommodate bicyclists can also enhance safety for motorists. For example, adding paved shoulders on two-lane roads has been shown to reduce the frequency of run-off-road, head-on, and sideswipe motor vehicle crashes.

Environmental/Energy Benefits. Motor vehicles create a substantial amount of air pollution. In fact, according to the EPA, transportation is responsible for nearly 80 percent of carbon monoxide and 55 percent of nitrogen oxide emissions in the U.S. Not surprisingly, many metropolitan areas do not meet the air quality standards specified in the 1990 Clean Air Act Amendments. Although individual cars are much cleaner today than they were in earlier years, if total traffic continues to grow, overall air quality will deteriorate. Moreover, every day cars and trucks burn millions of barrels of oil, a non-renewable energy source. Switching motor vehicle trips over to bicycle trips is an easy way to reduce energy needs and pollution emissions from the transportation sector.

Economic Benefits. Bicycling is an affordable form of transportation. Car ownership is expensive, and consumes a major portion of many Americans' income. According to the AAA, the cost of operating a sedan for one year is approximately \$7,800. The cost of operating a bicycle for a year is only about \$120. When safe facilities are provided for bicyclists, people can ride more and spend less on transportation, meaning they have more money to save or spend on other things.

Quality of Life Benefits. Better conditions for bicycling have intangible benefits to the quality of life in cities and towns. The number of people bicycling can be a good indicator of a community's livability - a factor that has a profound impact on attracting businesses and workers as well as tourism. Comfortable and connected bicycle environments offer alternatives to personal vehicles and increase opportunities for social contact with others. By providing appropriate bicycle facilities and amenities, communities enable the interaction between neighbors and other citizens that can strengthen relationships and contribute to a healthy sense of identity and place.

It is for all of these reasons, and more, that Federal surface transportation law and policy has been adopted to create an integrated, intermodal transportation system which provides travelers with a real choice of transportation modes, including bicycles. Congress clearly intends for bicyclists to have safe, convenient access to the transportation system and sees every transportation improvement as an opportunity to enhance the safety and convenience of this mode of transportation.

This section of the 2035 Transportation Plan sets forth what local governments need to know and can expect in terms of planning for bicycles. In order to plan for bicycles, the scope of undertaking a successful bicycling program must be understood. The Bicycle Element provides basic information and overviews of bicyclists and the different types of bicycle facilities that can be provided, educational and law enforcement needs, existing facilities, goals and objectives in developing a bikeways system, and implementation recommendations.

BICYCLE USERS

People of all ages are bicycle riders who ride bicycles for a variety of reasons and come with a wide range of skill levels, riding speeds, and expectations. For example, the skilled rider may feel comfortable mixing with automobile traffic on heavily traveled arterials, while the less experienced rider often feels more comfortable on paths separated from auto traffic, or along quiet residential streets. As such, it's important that the bicycle network provide a wide range of facilities to meet the needs and expectations of the community.

Most bicycle travel falls into two general categories: commuter/utilitarian travel and recreational travel. There are three other categories, two of which make up a smaller segment of the bicycling population, touring and racing, and a third, which includes children and youths. The needs and destinations for each trip are different, and should be considered when envisioning a citywide bicycle system. Depending on the purpose for riding a bicycle on any given occasion, an individual cyclist could fall into more than one of these categories.

Commuting/utility riders. These riders are those who ride to and from a specific destination. These cyclists want to use the shortest, quickest route possible to transport goods and services or to travel to and from work or school. They ride for many reasons such as economics, ease of travel and parking, environmental beliefs, and pleasure. These cyclists are most likely to use a well planned bicycle transportation system. At the work end of their trip, commuters require secure, long-term parking or storage facilities. Other desirable facilities and services include showers, changing facilities, and convenient connections to transit. Cyclists making utilitarian trips require secure, short-term parking such as bicycle racks.

Recreational cyclists. These riders are those who ride for exercise or enjoyment of take day long local excursions. For these cyclists, a short, direct route is less important than the ride itself. Recreational cyclists are often destined to parks and other recreational areas, or may not have a specific destination in mind. Parking requirements are usually sort-term, and are best served with bicycle racks.

Touring cyclists. Touring is a form of recreational cycling, but at a more advance level. These cyclists are riding greater distances and are participating in multi-day rides. Many recreational cyclists move on to touring as their skill and confidence levels increase.

Racing cyclists. Racing is an extremely specialized form of cycling. These cyclists carry out rigorous training regimens and participate in organized, often regionally/nationally sanctioned races. They represent a small minority within the overall cycling user group.

Children and youth. This group of cyclists generally keeps to neighborhood streets and greenways. When children venture out onto busier roadways, they typically stay on sidewalks or separate bike paths where possible.

BICYCLE FACILITIES

Bicycle facilities are any structure, device, or improvement designed to encourage bicycle transportation including parking facilities, bike routes, safety education materials or programs, signage, traffic signal activation loops maps, grade crossings, and others. For a bicycle transportation system to function properly, facilities must be well designed and placed where cyclists will use them. Bicycle lanes, shared lanes, shoulder bike facilities, bicycle parking equipment, railroad grade crossings, and other facilities should be designed based on existing design manuals and successful past experience. Designers need to recognize that solutions to many bicycle transportation design problems may involve innovative tactics.

BIKEWAYS

To accommodate all kinds of cyclists, there are a number of different types of bikeways that are used. Bike paths, neighborhood connectors, bike lanes, shared roadways, and signed connections are among the most common types of bike facilities found in most communities.

Bicycle Path or Multiple Purpose Path

A bike path is physically separated from motorized vehicular traffic and dedicated entirely to non-motorized by pedestrians when often used for recreational transportation function when bikeways. When traffic are high along a selected for a safe bike route. construct and maintain, and serve the needs of the use of multiple purpose sense of security when they are required to leave the path and use other routes they must share with motor vehicles.



traffic. These routes often allow use designed for such. Bike paths are purposes, but can serve a part of a comprehensive network of counts are high and vehicle speeds corridor, this may be the best choice. However, these facilities are costly to unless designed properly, may not utilitarian cyclist. Furthermore, the paths can lull cyclists into a false

Ten feet is the recommended minimum width for a two-way, shared use path on a separate right of way. Other critical measurements include:

- 8 feet may be used where bicycle traffic is expected to be low at all times, pedestrian use is only occasional, sightlines are good, passing opportunities are provided, and maintenance vehicles will not destroy the edge of the trail.
- 12 feet is recommended where substantial use by bicycles, joggers, skaters, and pedestrians is expected, and where grades are steep.

- 2 feet of graded area should be maintained adjacent to both sides of the path.
- 3 feet of clear distance should be maintained between the edge of the trail and trees, poles, walls, fences, guardrails or other lateral obstructions.
- 8 feet of vertical clearance to obstructions should be maintained; rising to 10 feet in tunnels and where maintenance and emergency vehicles must operate.

Striped Bicycle Lanes

A bike lane is a portion of a roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. These bike facilities share the pavement surface and right-of-way with motor vehicles. If existing road cross sections allow, bicycle lanes may be the most functional type of bicycle transportation facility. The existing road or street network is usually the most efficient form of transportation. In a few cases these facilities can be added to existing roads by simply re-striping the pavement and providing signing.



However, if this is determined to be best for a given situation, the lanes must be developed on both sides of the road. All cyclists must ride with the flow of vehicular traffic, not against that flow. If bicycle lanes are constructed during an initial road construction project, they are extremely cost effective. If added during a widening or realignment project, the cost is still less than a retrofit project simply to add bike lanes.

Bicycle lane width:

- 4 feet: minimum width of bike lane on roadways with no curb and gutter
- 5 feet: minimum width of bike lane when adjacent to parking, from the face of the curb or guardrail
- 11 feet: total width for shared bike lane and parking area, no curb face
- 12 feet: shared bike lane and parking area with a curb face

Bicycle lane stripe width:

- 6-inch: solid white line separating bike lane from motor vehicle lane (possibly increased to 8-inches where emphasis is needed)
- 4-inch: optional solid white line separating the bike lane from parking spaces

Signed Shared Roadways

This type of bike route shares the road surface with motor vehicles. No physical separation exists between the bicyclist and motorist, and no pavement markings are present. However, there should be signing along these routes to inform the motorist that bicycles may be present and to assure the cyclist that he/she is on an approved bicycle route.

These bike routes are identified by signing as preferred bike routes and are designated as such for several reasons:

- Continuity between bicycle lanes, trails or other bicycle facilities;
- Marking a common route for bicyclists through a high demand corridor;
- Directing cyclists to low volume roads or those with a paved shoulder; and
- Directing cyclists to particular destinations (e.g. park, school or commercial district).

In addition, designation indicates that there are particular advantages to using the route rather than an alternative route. If the route differs from the routing recommended for motorists, directional signs that indicate to cyclists as to where they are being directed should be used.

Wide Outside Lanes

This is another type of shared lane. On a two, three, four, or five lane cross section, these are the outer lanes. In urban areas, paved shoulders are not normally provided on major roads. A wider outside (or curbside) lane allows a motorist to safely pass a cyclist while remaining in the same lane, and this can be a significant benefit and improvement for cyclists, especially more experienced riders. A wider outside lane also helps trucks, buses, and vehicles turning onto the major road from a driveway or wide street.



Dimensions:

- 14 feet: recommended width for wide outside lane width must be useable and measurement should be from the edge line/ joint of the gutter pan to the lane line.
- 15 feet: preferred where extra space required for maneuvering (e.g. on steep grades) or to keep clear of on-street parking or other obstacles.

When average daily traffic counts and average vehicle speeds are low enough, these facilities are adequate.

Paved Shoulders

These are bicycle facilities using the paved shoulders of a roadway primarily in rural areas. No pavement markings are used, and signing is typically done on a case by case basis. This can often be the best way to accommodate bicyclists on streets and highways outside central cities, and they have the additional attraction of providing a variety of benefits to motorists and other road users as well.

Dimensions:

- Less than 4 feet: any additional width of paved shoulder is better than none at all, but below 4 feet a shoulder should not be designated or marked as a bicycle facility.
- 4 feet: minimum width to accommodate bicycle travel. This measurement should be the useable width and should not include the gutter pan or any area treated with rumble strips.
- 5 feet or more: minimum width recommended from the face of a guardrail, curb or other barrier.

Widths should be increased if there are higher levels of bicycle usage, motor vehicle speeds are above 50 mph, or there is a higher percentage of truck and bus traffic.

BIKEWAY SIGNS AND MARKINGS

Wherever you travel in the United States, and however you travel, you are guided by and are expected to abide by a common set of roadway signs and pavement markings. For instance, STOP signs all look alike and are the same color; lane markings follow a consistent pattern; traffic signals operate in the same way. Some signs are regulatory or mandatory, while others are advisory or are informative, and certain signs warn you of conditions that may affect your journey. Each type of sign or marking has a common shape and color depending on its function. All of this helps to ensure that traffic flows safely and efficiently whether you are driving on the New Jersey Turnpike or traveling on Arkansas' Scenic Highway 7.

When you ride a bicycle in the street, you are typically required to follow the same rules of the road, and bicycle riders have the same set of signs and markings as you would if you were driving a motor vehicle. However, there are some signs and markings that relate specifically to bicycling. Signs denoting bike lanes or the intersection of a shared use path with a roadway may have specific instructions or significance for bicyclists.

All of the roadway signs, markings, and signals you encounter as you travel across the country are governed by the Manual on Uniform Traffic Control Devices (MUTCD), a detailed manual that is managed by the Federal Highway Administration. The MUTCD "contains all national design, application, and placement standards for traffic control devices. The purpose of these devices, which includes signs, signals, and pavement markings, is to promote highway safety, efficiency, and uniformity so that traffic can move efficiently on the Nation's streets and highways." The Federal Highway Administration has an extensive [web site on the MUTCD](#) that includes answers to many commonly asked questions about the Manual, including one that confirms its status: "all traffic control devices nationwide must conform to the MUTCD. There are no exceptions."

The most current version of the MUTCD is the December 2009 edition. Part 9 of the Manual describes signs, signals, and markings for bicycle facilities, and can be found on-line at <http://mutcd.fhwa.dot.gov/pdfs/2009/part9.pdf>. MUTCD goes into great detail on sizes and placement of signage. The following pages show typical bicycle facility signs and offer a few of the schematics from Part 9 on how signs and markings should typically be placed. When determining signing and markings, please refer to the Manual as it is much more comprehensive than shown here.

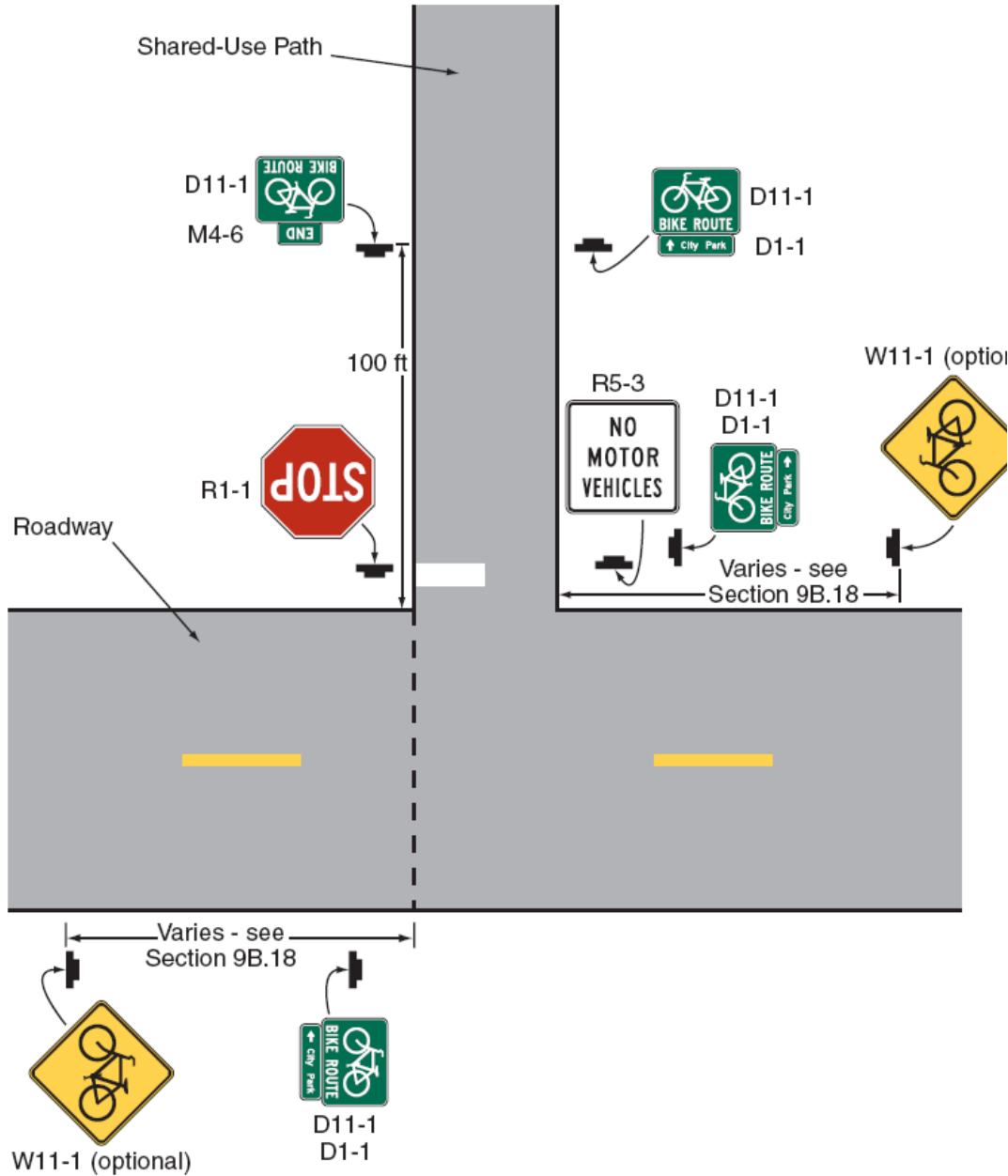
**FIGURE 7
REGULATORY SIGNS AND PLAQUES FOR BICYCLE
FACILITIES**



FIGURE 7, CONTINUED



FIGURE 8
EXAMPLE OF SIGNING FOR THE BEGINNING AND END OF A
DESIGNATED BICYCLE ROUTE ON A SHARED USE PATH



**FIGURE 9
EXAMPLE OF BICYCLE GUIDE SIGNING**

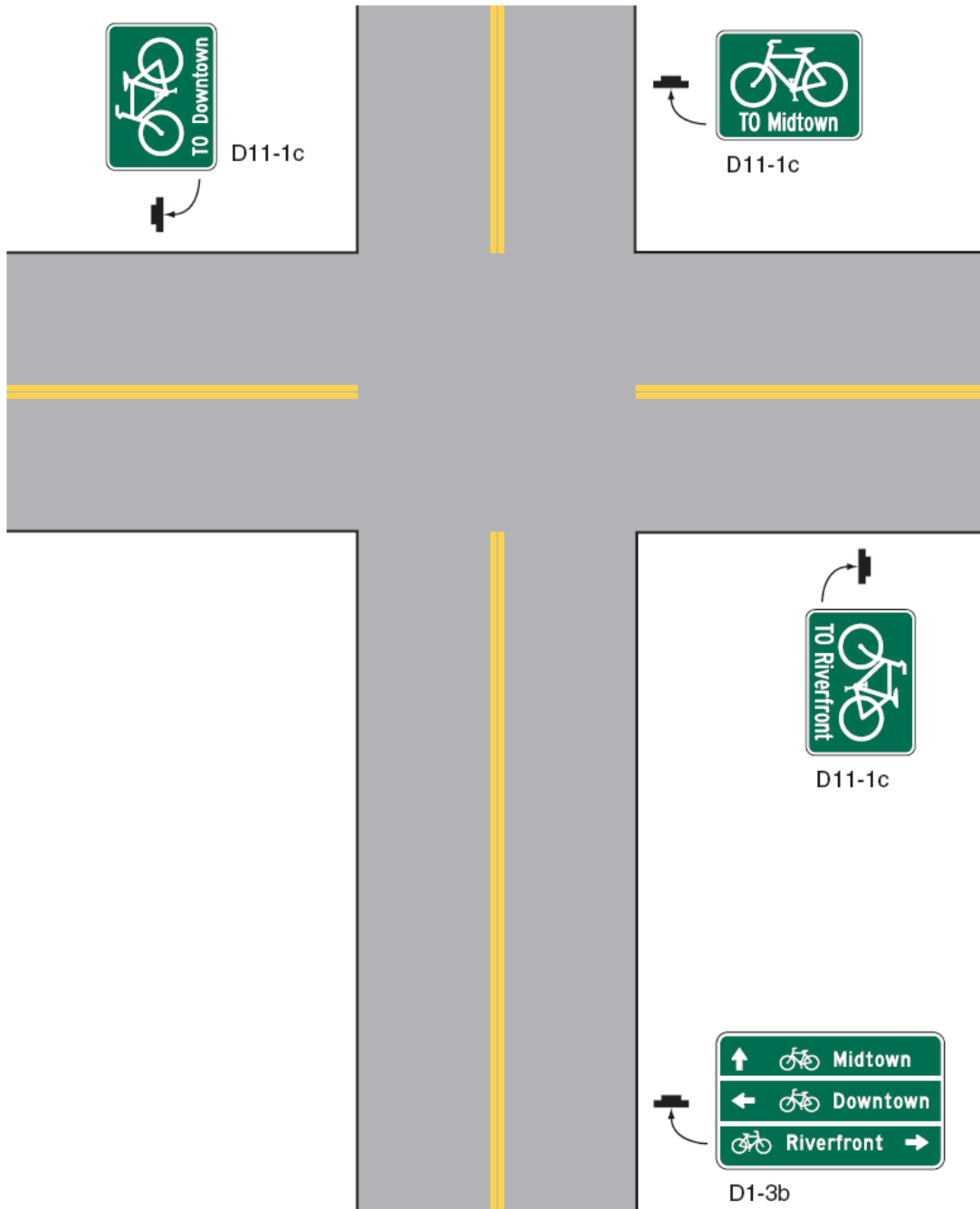
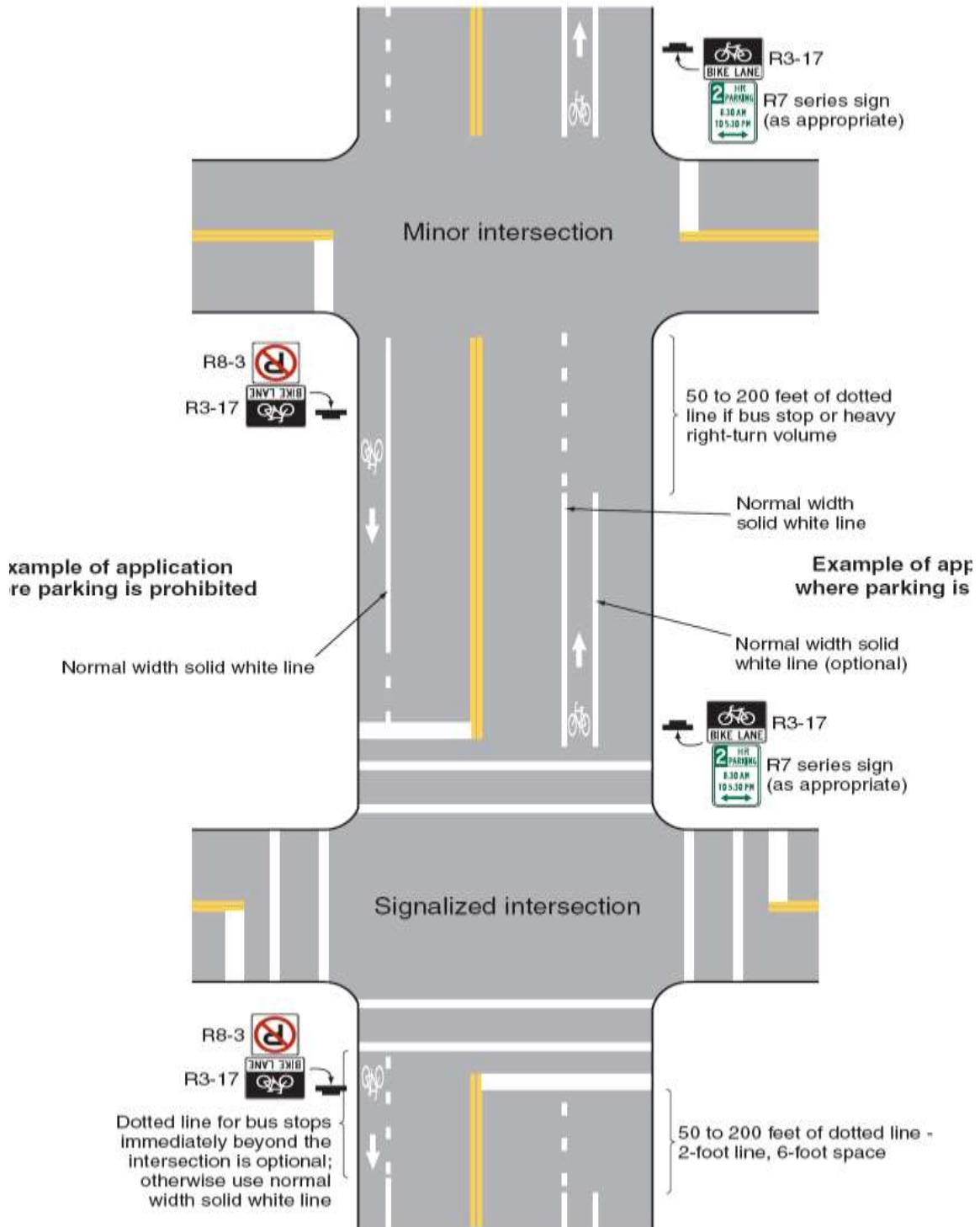


FIGURE 10
EXAMPLE OF PAVEMENT MARKINGS FOR BICYCLE LANES
ON A TWO WAY STREET



BICYCLE PARKING

Providing good quality bicycle parking that is going to be used is not quite as easy as leaving a rack out by the back fence and expecting cyclists to find and use it. Bicycle parking needs to be accessible, easy to use, convenient, and plentiful. Such parking is critical to commercial site design. A number of bicycle parking criteria needs to be met, and parking should be well lit (without being in the way of pedestrians or motor vehicles).



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Location

Racks need to be sited and installed appropriately for them to be well used. Racks that are too close to the wall, or which don't have enough room between them, will end up sitting empty while nearby railings, trees and light poles continue to be used by bicyclists. Racks need to be clearly visible and accessible, yet shouldn't interfere with pedestrians or other street furniture. Regulations of bike rack location should be adopted prior to requiring their development as a part of site design so that 1) they can be required, and 2) they will be installed so that they will not interfere with building entrances, crosswalks, pedestrianways, transit boarding or loading patterns, fire hydrants, etc.

Type of Rack

Most current publications on bicycle parking recommend the following:

- Support the frame of the bicycle and not just one wheel
- Allow the frame and one wheel to be locked to the rack when both wheels are left on The bike
- Allow the frame and both wheels to be locked to the rack if the front wheel is removed
- Allow the use of either a cable or U-shaped lock
- Be securely anchored
- Be usable by bikes with no kickstand
- Be usable by bikes with water bottle cages
- Be usable by a wide variety of sizes and types of bicycle

Again, regulations should be adopted that specify certain performance standards and that describe acceptable and unacceptable racks based on the type of criteria above.

Short-Term Bicycle Parking

Short-term bicycle parking is usually defined as being two hours or less, such as might be necessary outside a store, or for visitors to an office building, park, or Government service center. Short-term parking facilities should be located near the main entrance to the building. They should be well distributed, with several racks spread out along the block rather than a group of racks located together mid-block. They must be visible to the cyclist, and in areas of high pedestrian activity to discourage would-be thieves.



Long-Term Parking



The bicyclist requiring long term parking usually leaves the bike all day, or overnight, or for an even longer duration. The level of security and protection from the elements for long-term parking needs to be greater than that of short-term, but the location of the parking facility does not need to be as convenient. Long-term parking options include lockers, individual lockers for one or two bicycles; racks in an enclosed, lockable room; racks in an area that is monitored by security cameras or guards (within 100 feet); and

racks or lockers in an area always visible to employees.

Other Parking Considerations

Covered Parking: Wherever possible, bicycle parking should be covered to protect the bike from rain, snow and other elements. Covered parking areas should have at least six or seven feet of clearance, but not so high as to allow rain and snow to easily blow under the roof.

Bicycle Parking Signs: Informing the bicyclist of parking facilities is a must if you desire the facilities to be used. The MUTCD specifies a bicycle parking guide sign, which is shown in this document on page 81 (sign D4-3).

Amount of Parking: An increasing number of communities are adopting bicycle parking ordinances that specify a minimum level of bicycle parking for different building types and land uses. While these usually relate to new developments, the level of provision required can be used as a guide to retrofit communities also.

EDUCATION

Bicyclists and motorists, children and adults, and the community as a whole can benefit from educational tools and messages that teach them the rights and responsibilities of the various modes of travels. This is particularly true when it comes to bicycles and the “rules of the road”. Examples of common bicycle-related problems that can be addressed in part through education:

- Bicyclists riding at night without lights or required reflectors and not wearing visible clothing.
- Bicyclists riding in the wrong direction, against the flow of traffic.
- Bicyclists riding through stop signs and red lights.
- Bicyclists making sudden or unpredictable turns or failing to signal.
- Bicyclists not yielding the right-of-way when required.
- Motorists don't safely pass bicyclists.
- Motorists fail to yield to bicyclists when turning.
- Motorists cut bicyclists off or drive too closely.

To have a successful bicycling program, both motorists and bicyclists alike must be able to avail themselves of the education they need to enjoy the benefits of bicycling. When developing an education program, it is important to relate the program to the target audience so that the program is specific, measurable, and related to the problems identified.

Children and Youth

When introducing kids to the fun and freedom of riding a bike, teaching them about bicycles, how to ride them, how to maintain them, and how to ride them safely has to be a part of their bicycling education. Education should highlight the benefits of cycling while giving them the knowledge and tools they need to safely share the road. Children and youth need to know that bicycles are fun and can provide them with hours of entertainment as well as be a mode of transportation that gets them from point A to point B. And with this lesson, they must be taught that bicycles are also legally considered vehicles and are subject to most of the same traffic rules and regulations as motor vehicles. This includes obeying traffic lights and right-of-way rules, and they need to know that it is their responsibility to adhere to these laws as well as other safety guidelines. Since kids learn differently depending on their level of development, their education should be age appropriate.

Adults

Whether motivated by recreation or transportation, more adults are taking up cycling than ever before, yet most adults still rely on their cars for most of their transportation needs. One way to increase adult bicycle use is to teach them more about cycling. Learning more about cycling increases confidence in riding and can be a great aid in learning to

share the road, whether you are pedaling or driving. Adult cyclists should brush up on riding skills and rules if it has been a while since he or she cycled regularly. Local workshops should be made available regularly to assist adult cyclists who have just started riding or are using their bicycles in different situations such as switching from occasional short recreational rides to regularly commuting to work.

Workshops should be set up for the novice adult, the occasional rider, and even for seniors. Workshops could include basic rules of the road, the various styles of bikes and which one will best suit their needs, how to select a helmet, how to carry cargo, and what lights and other accessories they may need. They can also include defensive riding attitudes, the importance of good motorist/cyclist communication, scanning traffic regularly, and how to safely navigate through intersections and complex traffic situations.

Motorists

Just as bicyclists should be educated on the laws governing their rights and obligations of sharing the road, motorists should also be educated in how they should share the road with bicyclists. Cyclists and cycling educators must learn to work with motorists, not against them. Motorists may not have any experience bicycling and may not understand the situations that confront bicyclists in traffic.

When educating motorists, one should always emphasize the benefits of sharing the road, such as safer, more inviting streets with reduced crime, increased property value, a better environment, and an overall enhanced quality of life. Instructors in motorist education should underscore the notion that a bicycle is not a toy but a viable means of transportation - often the only means of transportation for many people. Those educating motorists should stress that they are not trying to force motorists off the roads or take away their rights, but illustrate that cyclists have an equal right to the road. The more motorists know about cycling safety, the safer streets will be for everyone on them. Motorist education could include learning to look for cyclists in traffic, how to safely and considerately pass an individual or group of bicyclists, and to pay special attention to children on bicycles. Motorists should learn about bike lanes and how to operate around them, how to communicate with cyclists, and why bicyclists choose the routes they do. Motorists should learn why people cycle: for health and fitness, transportation, recreational fun, and the environment and should be encouraged to give it a try.

ENFORCEMENT

Law enforcement officers are the only ones who can enforce laws for bicyclists and motorists to improve bicycle safety. They also come in contact with bicyclists and motorists on a daily basis. This puts law enforcement officers in a unique position to assist with and add credibility to community efforts to encourage bicycling and improve bicycle safety. If bicycle facilities have been properly designed and built and effective education programs implemented, then enforcement can help address the small percentage of people who choose to operate outside of the desired and expected norms.

Bicyclists are one of the most vulnerable forms of traffic. If the traffic environment is safe and enjoyable for bicyclists it will work for everyone, including motorists. Enforcement of laws for bicyclists is a critical component of traffic safety, however, many officers do not possess the bicycle safety knowledge or the community assessment skills necessary to do this job effectively. Heightened awareness among law enforcement officers of local bicycle rules and regulations and how to handle violators can lead to better enforcement of laws, modeling of good behaviors, and recognizing and taking advantage of teachable moments with both bicycles and motorists. The ultimate goal is to prevent crashes and enhance traffic safety.

There are a number of impediments to increasing enforcement of bicycle regulations. That there are more pressing crimes to deal with, that there are too few officers who are already overworked, or that a child bicyclist shouldn't be ticketed are three of the most frequent arguments against increased bicycle law enforcement. Knowledge of bicycle law and bicycle safety can lead an officer to thinking about bicycle enforcement in a different light. It is necessary in any successful bicycle program that local governments and the bicycling community develop partnerships with law enforcement.

Many of these issues will require education and engineering action to help teach bicyclists safe practices and ensure that the roadway safely accommodates them, but enforcement also has its place.

EXISTING BICYCLE FACILITIES IN THE PINE BLUFF URBAN AREA

In the mid to late 1970's, the City of Pine Bluff had three designated bike routes covering slightly less than four miles. The lanes were originally parking lanes marked on the pavement with a broken white line, and in 1975 were designated as bikeways by placing the written message "Bike Lane" on the roadway surface. However, on-street parking was not removed from the lanes. Sometime in the early 1980's, a few Bike Route signs were placed on a couple of other streets serving Regional Park. Since that time, the Bike Route signs have disappeared and the Bike Lane markings have faded and no longer exist.

While these attempts to incorporate bikeways into the City's transportation system was brief and a number of years ago, there has simply been very little demand by the public for the establishment of road and off-road bikeways in the PBATS Study Area. At the same time, local governments have made few efforts to promote bicycling as an alternative transportation mode.

Bicycle planning set forth in previous Long Range Transportation Plans consists of a bicycle transportation network that resembles the major street network. The network was designed to be relatively direct so that it would be more attractive to those riders using the network for non-recreational trips and so that it would provide for as much continuous movement as possible. Since bike riders must comply to the same traffic regulations as does a motorist, bikeways containing continuous disruptions such as stop signs at every block and street jogs discourage use of the system. Therefore, major roads rather than local streets were recommended as primary bike routes under these bicycle plans. The bike route system proposed could be implemented by properly signing the routes, and in cases where the existing pavement is wide enough for both automobile and bicycle lanes, installing designated bike lane pavement markings.

These plans also offered several recommendations:

- When constructing or reconstructing arterial streets, the inclusion of bikeways along the route should be considered.
- Local entities should be encouraged to modify their subdivision regulations to provide for bicycle circulation network that will connect various types of land uses.
- Encourage major activity centers that generate a large number of trips to install bicycle parking areas and bicycle racks.
- Encourage local entities to implement a bicycle registration fee program and allocate fees collected to bikeway improvements.
- Encourage local entities to implement a bicycle safety and road use training and education program designed to teach elementary school children how to abide by the rules governing safe bicycle riding.

To date, no sign or pavement markings have been placed along the recommended routes, nor have any of the recommendations been implemented by local governments or other entities.

GOALS, OBJECTIVES, AND STRATEGIES

- VISION -

“Encourage and promote the availability and choice of bicycles as a transportation mode in order to improve the health and safety of our citizens, the sustainability of our environment, and the economy of our region.”

The establishment of well-connected bicycling networks is an important component for Pine Bluff as a livable community, and safe and convenient bicycling facilities should be incorporated into transportation projects. Increased commitment to and investment in bicycle facilities can help provide for cleaner, healthier air; less congested roadways; and more livable, safe, cost-efficient communities. To this end, the following goals have been developed along with corresponding objectives and strategies that will assist in realizing our Vision.

GOAL 1

PROMOTE BICYCLING AS A SUSTAINABLE TRANSPORTATION ALTERNATIVE TO DRIVING

Objectives

- Incorporate sustainability goals and initiatives into the transportation planning process and transportation plan.
- Utilize the SEARPC Web site to educate the public on the environmental and health benefits of bicycling.
- Encourage bicycling as a year-round mode of transportation.

Strategies

- Work with local governments, businesses, and industries to provide bicycle parking.
- Work with local employers to provide incentives for bicycle commuting such as reduced health care cost, flexible work schedules, and shower facilities.

GOAL 2

IMPROVE THE MOBILITY OF BICYCLISTS

Objectives

- Ensure bicycle accommodations are designed into all roadway projects.
- Provide bicycle accommodations on all arterial and collector roads, except where bicycles are prohibited.

- Assist communities in adopting policies and development standards that require bikeway connections/reserve greenbelts for bikeways within and between subdivisions.
- Increase the supply of public bicycle parking.
- Enhance multimodal connections.
- Coordinate with active living and healthy communities groups to encourage employers to provide bicycle parking facilities and incentives for bicycle commuting.

General Strategies

- Work with AHTD and local governments to include bicycle facilities in project design.
- Become involved in the planning and design of roadway projects earlier in the process.
- Work with local governments to create roadway design and operations policies and standards for local projects.
- Encourage local governments to utilize technologies that detect bicyclists at intersections.
- Develop a program of providing bicycle accommodations on roads not part of a project.
- Promote regional connections in local projects.
- Educate local employers and businesses on how to provide good bicycle parking facilities.
- Explore non-traditional sources for funding facilities.
- Create new access points and linkages between the street system and the trail system.
- Encourage planning that considers linkages among all modes.

GOAL 3

INCREASE THE SAFETY OF ALL BICYCLISTS IN THE REGION

Objectives

- Create a program to educate motorists and bicyclists of the rules of the road.
- Work with the police departments to enforce bicycle-related laws.
- Monitor bicycle crash locations.
- Incorporate traffic calming practices into our roadway design.

General Strategies

- Promote bicycle and pedestrian safety within the driver education process.
- Centralize state and local regulations on the SEARPC and other websites.
- Encourage the police departments to participate on the PBATS Technical Committee.
- Provide opportunities for police officers to become better trained on bicycle regulations.
- Encourage bicycle advocates to document unsafe behaviors.
- Create a process for bicycle advocates to report on trouble spots.
- Utilize bicycle-safe drainage grates and railroad crossings.
- Provide for maintenance of bikeways to keep them clear of debris.

GOAL 4
PROMOTE BIKE-FRIENDLY LAND USE POLICIES

Objectives and General Strategies

- Promote implementation of the Long Range Transportation Plan.
- Encourage communities to approve bike-friendly site plans.
- Educate policy makers on bike-friendly land-use policies.

GOAL 5
MAKE THE PINE BLUFF AREA A BICYCLING DESTINATION

Objectives

- Create a network of on- and off-road bicycle facilities that connect together into a safe, purposeful transportation network.
- Promote the region as a bicycling destination.

General Strategies

- Work with local governments and local bicycling clubs and groups to develop the area's bicycling facilities.
- Work with local governments to obtain enhancement awards.
- Find innovative methods for funding facilities.
- Utilize SEARPC and local government web sites.
- Create regional recreation and commuter bicycling maps.
- Coordinate with local and regional tourism and bicycle advocacy groups and organizations.
- Promote bicycling events in the region.

IMPLEMENTATION

In areas that are already densely developed as is much of Pine Bluff and the urban area in general, implementing a bikeway plan is difficult, particularly when one considers that developed areas contain the destinations of most travel trips. In most cases, these destinations are in the urban built-up area where additional land needed to widen streets for the purposes of installing bike routes are at a premium. In addition, these densely developed areas rarely contain enough available land to provide for separate bike paths, and even if land were available, the costs of land purchase and bike path construction would be prohibitive.

For the above reasons, in the PBATS Urban Area shared roadways and striped bike lanes are the only viable alternatives that would immediately provide relief to bicyclists. Because of existing development and because bike routes must be developed that take the bicyclist to the destination that is desired, the proposed bicycle plan contained herein is based on the previous plans developed by PBATS. These routes are the straight, direct routes favored by the utility/commuter bicyclist that minimize disruptions such as stop signs at every block and street jogs and that take the cyclist to major destinations.

In addition to the proposed bicycle routes, short and long term priorities for signing and striping the routes, promoting bicycling in the Urban Area, education, and enforcement are recommended for implementation by local governments.

SHORT TERM PRIORITIES

The following short-term priorities are the minimum that should be accomplished in order to get a bicycle program within the PBATS Urban Area “up and running”. Ultimately these priorities should be implemented within the first two years of the program. These priorities and their action items can be implemented concurrently or separately.

Recommendation #1: Maintain On-Going Community Input

In order for local governments to implement the bicycle plan, it is necessary to convince them that there is a need for the bicycle program. In these days of belt-tightening and penny pinching, falling revenues, and increased costs, local governments do not subscribe to the theory that “if you build it, they will come”. The community must become more involved and show local governments that a bikeways system is not only a desired but necessary addition to the existing transportation system.

- Locate partners in the community that can benefit from a bikeways system such as the University of Arkansas at Pine Bluff, Southeast Arkansas College, and Jefferson Regional Medical Center.
- Consider the creation of a citizens advisory committee in order to keep on top of what the residents desire in terms of a bicycle program.
- Use the SEARPC and City of Pine Bluff websites to inform the public of bicycling events and meetings.

Recommendation #2: Determine the Extent of Current and Expand on Existing Bicycling Education Programs.

Schools and police departments, to a certain extent, may provide limited bicycling education. If available, these programs should be expanded. If not available, they should be a necessary inclusion in the elementary school curriculum, and programs within the police departments that deal with bicycle riding are a good way to teach children the rules of bicycling and provide an opportunity for the police department to bond with the children. In addition, motorists require education concerning bicycle laws almost as much as bicyclists.

- Provide and promote bicycle safety education and encouragement programs taught in schools and by the police.
- Work for inclusion of motorist-bicyclist safety information in drivers' education and defensive driving courses.
- Work with the State of Arkansas on updates to the drivers' handbook to include questions relating to bicycle issues.

Recommendation #3: Promote Police Officer Training as it Relates to Bicycles.

As stated previously, police officers do not always see the importance of bicycles obeying traffic laws and do not always possess the bicycle safety knowledge or the community assessment skills necessary to do this job effectively.

- Educate and train law enforcement personnel in bicycle enforcement.
- Encourage patrol officers to report road conditions hazardous to bicyclists.
- Search for funding for police officer-bicycle education programs.

Recommendation #4: Obtain Local Government Commitments for Route Signing on Shared Roadways.

For a bicycle route to be known and function as a bicycle route, it must have signs that designate it as such. Bike Route signs and directional signs must be placed along the route so the bicyclist can follow the route and motorists will be more aware of bicycles along the designated street. At the onset of bikeways implementation, most of the routes proposed herein would be shared roadways, where bicyclists and motorists share the road, no on-street markings are present, and signing is used.

- Place Bike Route signs along the designated streets.
- Place advisory or information signs along the route for bicyclists.
- Divide the projects into stages, if necessary, based on most-used routes (this can also be included in the long-term priority section).

Recommendation #5: Create a Bicycle Suitability Map.

Bicyclists need to know what streets are the most suitable for their tasks. Even when streets are not designated as bike routes, some streets are more suitable than others for bicycles because of their width, location, and directness.

- Create a map showing the streets suitable for bicycles. The map should show those designated, proposed for designation, and destinations along the routes.

Recommendation #6: Determine Routes Where Bike Lanes Could Be Installed.

Some of the routes have wide enough pavements where bike lanes could be installed, however, most of these routes allow on-street parking and may not be wide enough to provide for bike lanes and parking lanes. These routes would be signed shared roadways in the beginning. After further study, and based on feed back of bicyclists, striped bike routes could be implemented on those streets with existing pavements wide enough to provide for such.

- Research shared roadways proposed for bike route designation as to existing pavement widths and on-street parking.
- Determine which routes could be striped for bike lanes with and without parking.

Recommendation #7: Develop Short-Term Amendments to Local Zoning and Subdivision Ordinances Relating to the Provision of Bicycle Facilities.

One of the easiest ways to provide for new on-street bicycle facilities is to require wide outside lanes when new local streets are developed. Other interim “fixes” include requiring developers to provide for streets wide enough for shared roadways and on-street parking and for local governments to regulate on-street parking.

- Propose Regulations that will increase the outer lane width of local streets to provide for wide outside lanes.
- Propose Regulations that will govern on-street parking and development of streets allowing on-street parking.

Recommendation #8: Pursue Grants and Other Funding for Plan Implementation

In order to implement the plan, it is necessary to locate and obtain funding for various aspects of the plan.

- Institute a Safe Routes to Schools program and apply for funding to implement it.
- Determine how the Trails Program can fit into the Bicycle Plan and apply for funding.
- Insure that all new AHTD and local projects provide for bicycle facilities.
- Look for innovative grant sources for bicycle education and law enforcement.

LONG-TERM PRIORITIES

The following long-term priorities expand on those priorities recommended for implementation during the short term. Many of the long-term priorities are elements of the bicycle plan that should be considered on-going activities as well.

- Develop improvement projects to focus on weak links in the bicycle system.
- Establish a policy clarifying law enforcement agency's procedures regarding enforcement of laws concerning bicycles, including motorist behavior.
- Coordinate the bicycle safety programs being conducted by various agencies, health care providers, and organizations.
- Train law enforcement staff in the investigation of crashes involving bicyclists.
- Promote bicycling for transportation as well as recreation, particularly for trips to school, work, shopping, and special events.
- Increase awareness of the benefits of bicycling, and the rights and responsibilities of bicyclists and motorists.
- Develop a public information and education campaign to encourage bicycling and improve the behavior of both motorists and bicyclists.
- Establish, maintain, and publicize a webpage with information and links to other agencies/organizations/websites.
- Develop a Guide to Bicycle Resources with information on bike clubs, shops, events, and other useful information,
- Develop a Bike to Work Guide for the Pine Bluff Urban Area, with information for employers and employees on benefits, safety, and available resources.
- Ensure that all jurisdictions support and participate in the bicycle program.
- Ensure that Pine Bluff Transit is included in all bicycle coordination activities.
- Develop and adopt bicycle parking requirements and guidelines.
- Develop and implement an inspection and maintenance program to address signage and pavement marking issues.
- Develop and implement a program to utilize bicycle-safe drainage grates and railroad crossings.
- Increase traffic law enforcement efforts focusing on those violations most likely to lead to bicycle-motor vehicle crashes.
- Increase the availability of and participation in cyclist training courses for college students and adult bicyclists.
- Research the need to carry bicycles on local transit buses and implement if appropriate.
- Form a committee of businesses, organizations, and agencies interested in economic development and bicycle tourism.
- Educate parent groups and adult groups that supervise children, such as PTA's day care centers, and you camp operators.
- Increase the number of special events and programs that encourage bicycling, including bicycle rides and bike giveaways.

BICYCLE MAP