

COMPREHENSIVE BICYCLE PLAN FOR THE TOWN OF AHOSKIE, NC



2010

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COMPREHENSIVE BICYCLE PLAN

FOR

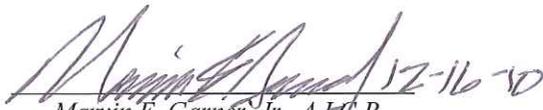
TOWN OF AHOSKIE, NC



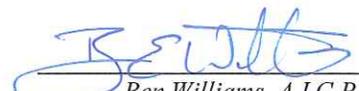
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Division of
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TOWN OF AHOSKIE, NC



COMPREHENSIVE BICYCLE PLAN

**Approved by the NCDOT Division of Bicycle & Pedestrian Transportation
November 11, 2010**

**Recommended for Approval by Ahoskie Planning Board
November 17, 2010**

**Approved & Adopted by the Ahoskie Town Council
December 14, 2010**



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TABLE OF CONTENTS

Outline:

Table of Contents

List of Tables, Figures & Maps

Acknowledgements

Bibliography / References

EXECUTIVE SUMMARY i

SECTION 1 – INTRODUCTION

1.0 BICYCLE PLANNING INITIATIVE 1-1

1.1 PUBLIC INVOLVEMENT 1-1

1.2 VISION STATEMENT 1-2

1.3 OVERALL GOALS & OBJECTIVES 1-3

1.4 PURPOSE OF PLAN 1-4

1.5 PLANNING PROCESS 1-7

1.6 BENEFITS OF BICYCLING 1-9

SECTION 2 – CURRENT CONDITIONS

2.0 TOWN OF AHOSKIE OVERVIEW 2-1

2.1 CURRENT USAGE / USER DEMOGRAPHICS 2-1

2.2 INVENTORY & ASSESSMENT OF EXISTING BICYCLE FACILITIES 2-19

2.3 BIKE COMPATIBILITY OF LOCAL TRANSPORTATION SYSTEM 2-20

SECTION 3 – EXISTING PLANS, PROGRAMS & POLICIES

3.0 RELEVANT PLANS 3-1

3.1 RELEVANT PROGRAMS & INITIATIVES 3-4

3.2 RELEVANT POLICIES & INSTITUTIONAL FRAMEWORK 3-10

3.3 RELEVANT BICYCLE STATUTES & ORDINANCES 3-14

SECTION 4 – STRATEGIC BICYCLE PLAN

4.0 SYSTEM OVERVIEW 4-2

4.1 CORRIDOR IDENTIFICATION 4-2

4.2 OPPORTUNITIES / POTENTIAL PROJECTS 4-5

SECTION 5 – BICYCLE FACILITY STANDARDS & GUIDELINES

5.0 GENERAL BICYCLE PLANNING & DESIGN GUIDELINES 5-1

5.1 ROADWAY IMPROVEMENTS 5-1

5.2 ON-ROAD FACILITIES 5-6

5.3 OFF-ROAD FACILITIES 5-11

5.4 BICYCLE SIGNAGE 5-19

5.5 BICYCLE PARKING FACILITIES 5-20

5.6 INTERSECTION TREATMENTS 5-22

5.7 INNOVATIVE DESIGN TREATMENTS 5-25

5.8 STREETScape IMPROVEMENTS (GENERAL) 5-27

5.9 ROAD DIET TREATMENTS 5-28



SECTION 6 – RECOMMENDATIONS FOR ANCILLARY FACILITIES, PROGRAMS & POLICIES

6.0	ANCILLARY FACILITIES	6-1
6.1	PROGRAMS	6-5
6.2	POLICIES	6-9

SECTION 7 – PROJECT RECOMMENDATIONS

7.0	CONSTRUCTION PROJECTS	7-1
7.1	PRIORITIZED PROJECTS	7-9

SECTION 8 – IMPLEMENTATION

8.0	IMPLEMENTATION STRATEGY	8-1
8.1	INITIATING ACTIONS	8-1
8.2	PERFORMANCE MEASURES	8-4

APPENDIX A – PUBLIC INVOLVEMENT STRATEGY

A.0	STRATEGY OVERVIEW	A-1
A.1	STEERING COMMITTEE	A-1
A.2	PUBLIC SURVEY	A-20
A.3	PUBLIC OPEN HOUSES	A-27

APPENDIX B – IDENTIFIED BICYCLE PROJECT OPPORTUNITIES B-1

APPENDIX C – EXISTING ROADWAY CONDITIONS / INVENTORY INFORMATION C-1

APPENDIX D – PROJECT PRIORITIZATION METHOD

D.1	PRIORITIZATION FACTORS	D-1
D.2	PROCESS	D-2

APPENDIX E – FUNDING SOURCES

E.1	LOCAL SOURCES	E-1
E.2	STATE & FEDERAL SOURCES	E-3
E.3	PRIVATE SOURCES	E-9
E.4	SPECIAL FUNDING SOURCES	E-11

APPENDIX F – COST ESTIMATES

F.0	ON-ROAD BICYCLE FACILITIES	F-1
F.1	OFF-ROAD BICYCLE FACILITIES	F-3
F.2	INTERSECTION CROSSINGS	F-4
F.3	BICYCLE PARKING FACILITIES	F-4
F.4	STREETSCAPE IMPROVEMENTS	F-5
F.5	ROAD DIET TREATMENTS	F-5

APPENDIX G – GLOSSARY OF TERMS G-1

APPENDIX H – MAPS H-1



LIST OF TABLES, FIGURES & MAPS

TABLES

TABLE 3.0	HERTFORD COUNTY CAMA LAND USE PLAN POLICIES SUPPORTING BICYCLE FACILITIES	3-2
TABLE 3.1	TOWN OF AHOSKIE LOCAL ORDINANCES RELATED TO BICYCLING	3-15
TABLE 5.1	SUMMARY OF TYPES OF BICYCLE FACILITIES	5-15
TABLE 6.0	IMPLEMENTATION TABLE	6-12
TABLE 7.0	PRELIMINARY CONSTRUCTION PROJECT RECOMMENDATIONS	7-3
TABLE 7.1	PRIORITIZED PROJECTS	7-10
TABLE 7.2	SHORT-TERM PROJECTS	7-13
TABLE 7.3	MID-TERM PROJECTS	7-15
TABLE 7.4	LONG-TERM PROJECTS	7-16
TABLE B.1	IDENTIFIED BICYCLE PROJECT OPPORTUNITIES	B-3
TABLE C.1	EXISTING ROADWAY CONDITIONS	C-2

FIGURES

FIGURE 2.0	AGE DEMOGRAPHICS, 2000	2-2
FIGURE 2.1	POPULATION BY RACE, 2000	2-3
FIGURE 2.2	EDUCATIONAL ATTAINMENT FOR RESIDENTS 25+ YEARS	2-3
FIGURE 2.3	SECTORS OF EMPLOYMENT, 2000	2-4
FIGURE 2.4	EMPLOYMENT INDUSTRY POPULATION	2-4
FIGURE 2.5	INCOME TABLE, 1999	2-5
FIGURE 2.6	METHODS OF TRANSPORTATION FOR WORK COMMUTE	2-6
FIGURE 2.7	TOTAL NUMBER OF BICYCLISTS INVOLVED IN CRASHES BY YEAR	2-10
FIGURE 2.8	CRASHES DEPENDING UPON ROAD FEATURE – 1997-2006	2-10
FIGURE 2.9	ROADWAY CONFIGURATION, 1997-2006	2-11
FIGURE 2.10	CRASH TYPES INVOLVING A BICYCLE AND MOTOR VEHICLE	2-12
FIGURE 2.11	BICYCLIST INJURIES FROM CRASHES, 1997-2006	2-12
FIGURE 2.12	FAULT FOR CRASH, 1997-2006	2-13
FIGURE 2.13	DAY OF WEEK CRASH, 1997-2006	2-13
FIGURE 2.14	AGE OF BICYCLIST IN CRASH, 1997-2006	2-15

MAPS

MAP 1.1	AHOSKIE STUDY AREA	1-5
MAP 2.1	BICYCLE – MOTOR VEHICLE CRASH SITES	2-17
MAP 2.2	EXISTING TRANSPORTATION INFRASTRUCTURE	2-23
MAP 3.1	NCDOT TRANSPORTATION IMPROVEMENT PROJECTS	3-5
MAP 4.1	DESTINATIONS & POINTS OF INTEREST	4-3
MAP 4.2	POTENTIAL OPPORTUNITIES & CORRIDORS	4-11
MAP 7.1	FINAL PRELIMINARY PROJECT RECOMMENDATIONS	7-7
MAP 7.2	PRIORITIZED PROJECT SCHEDULE	7-17



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EXECUTIVE SUMMARY

The Town of Ahoskie Comprehensive Bicycle Plan is the first plan of its kind for the Town and was funded in part by a grant from the North Carolina Department of Transportation, Bicycle and Pedestrian Transportation Division. The development of a Comprehensive Bicycle Plan will support the Town's ongoing efforts to maintain development, while making it more convenient and safer for people who bicycle. The Town of Ahoskie desires to improve transportation throughout the Town in order to link residential neighborhoods to parks & recreation facilities, schools, health care facilities and shopping/retail areas.

The Town of Ahoskie submitted a North Carolina Department of Transportation (NCDOT) Application for Bicycle and Pedestrian Planning Grant Funds for the 2009 grant year. The Town was awarded \$24,000 of NCDOT Planning Funds to develop a Comprehensive Bicycle Plan. Accompanied by a local match, the Town of Ahoskie hired Rivers & Associates, Inc. to assist with the development of a Comprehensive Bicycle Plan. The Town will use the Bicycle Plan as a guide for developing a bike-friendly community and will assist when making budget decisions and applying for grant funds from regional, state, federal, and private funding sources.

The local government, the County of Hertford, the Ahoskie Chamber of Commerce and many other organizations throughout the Town and County support improving Ahoskie's bicycle transportation to provide a multi-modal transportation system.

The County's Land Use Plan and the Hertford County Comprehensive Recreation Plan all support the vision of developing a comprehensive bicycle transportation planning document that will provide direction in achieving safe transportation and connectivity in Ahoskie.

Ahoskie's vision is to ***develop a bike-friendly environment throughout Town that increases bicycling opportunities for all ages and abilities.*** Identified goals and objectives to achieve this vision are discussed in further in **Section 1.**

The current conditions of the Town of Ahoskie have been inventoried and evaluated as part of the development of the Comprehensive Bicycle Plan. **Section 2** includes an overview of the Town, current usage/user demographics, an inventory and assessment of existing bicycle facilities and bike compatibility of the local transportation system. The information obtained regarding Ahoskie's current conditions provides the framework for planning bicycle facilities, programs, and policies based on the community's wants and needs.

OVERALL GOALS FOR AHOSKIE:

GOAL: EDUCATION & AWARENESS

To educate the community on the wide-range of benefits of a bike-friendly community, as well as to increase bicyclists', pedestrians', and motorists' awareness of traffic laws and safety measures.

GOAL: CONNECTIVITY

To develop a well-designed continuous bicycle network that will provide residents and visitors with convenient and pleasant access to popular destinations and points of interest.

GOAL: BIKE-FRIENDLY POLICIES

To pursue bicycle-friendly policies and maintenance procedures to continuously improve bicycling in Ahoskie.

GOAL: ENCOURAGE OPPORTUNITIES

To encourage and seek opportunities throughout the community to develop and improve bicycle facilities.



In addition to analyzing existing conditions, existing plans, programs, and policies at the Local, Regional, and State level were reviewed. Plans and policies determine the type of development that is encouraged and allowed in a community while programs offer methods to promote, encourage, and educate the public on bicycling. Therefore, these tools (plans, policies, and programs) are a key component to ensure an environment that is supportive of bicycling. Existing plans, programs, and policies are highlighted in **Section 3**.

During plan development, several potential projects were identified that would improve the existing bicycling network. These potential bicycle facilities projects have been broken down into three categories: On-Road Projects and Preferred Treatments, Off-Road Projects & Preferred Treatments, and Ancillary Facilities. **Section 4** describes the Strategic Bicycle Plan, which includes many potential project opportunities that were based upon:

- Steering Committee Meetings
- Public survey & Open House #1 comments
- Bicycle-motor vehicle crash data
- Planned, proposed projects mentioned in existing plans
- Field Inventory and Assessment
- Ability to provide connectivity & improve safety.

Section 5 will provide guidance to the Town of Ahoskie on design standards and guidelines for new bicycle facilities. These standards and guidelines are a critical component of this Plan and for all facility construction and development. The design standards and guidelines mentioned in this section are derived from North Carolina Department of Transportation (NCDOT) *Bicycle Facilities Planning and Design Guidelines*, the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for the Development of Bicycle Facilities*, and the Federal Highway Association (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, Part 9- Traffic Controls for Bicycle Facilities.

Section 6 outlines recommendations for ancillary facilities, programs, and policies to make the Town of Ahoskie a bicycle-friendly community. These recommendations address the Education, Encouragement, and Enforcement categories of a bicycle-friendly community. The implementation of various programs not only encourages bicycling, but also provides education, enforcement, and maintenance opportunities to ensure Ahoskie has a comprehensive bicycle network where its users feel comfortable to bike in the community.

Existing Plans, Programs, & Policies considered in developing Section 3:

- Hertford County CAMA Land Use Plan (1997)
- Parks and Recreation Master Plan for Ahoskie, North Carolina (2007)
- Hertford County Comprehensive Recreation Plan (2009)
- Bicycling and Walking in North Carolina: A Long-Range Transportation Plan
- 2009-2015 State Transportation Improvement Program (TIP)
- State Programs and Initiatives
- NC DOT Transportation Improvement Program (TIP)
- Town of Ahoskie Code of Ordinances

Recommended Programs for Ahoskie include:

- Spot Improvement Program
- Infrastructure Maintenance Program
- Education Programs
- Safe Routes to School Program
- Enforcement Programs
- Encouragement Programs & Initiatives



Section 7 contains the Recommended Projects. The initial list of potential project locations was developed based on input from the Steering Committee meetings, Town staff, Public Open House #1 and the public survey, and the results of the roadway inventory. All resurfacing, repaving and improvement projects should be evaluated to determine whether it is possible to provide the bicycle facility recommended in this Plan as part of those projects. Bicycle considerations should be included as part of all, Local and NCDOT, scheduled road maintenance and improvement processes.

A wide range of construction projects were identified and recommended to make the Town more bicycle-friendly, such as on-road projects (bike lanes, paved shoulders, Sharrows) to off-road projects (multi-use trails). Twenty-eight (28) construction projects are recommended including four (4) bike lanes, two (2) paved shoulders, one (1) sharrow, six (6) multi-use trails, two (2) intersection improvements, four (4) "Share the Road" signage improvements, and eight (8) designated signed shared roadway "Bicycle Route" projects. A comprehensive description of all construction projects are found in Table 7.0.

Projects were rated on key characteristics. A project cost analysis was compared to the list of projects organized by project rating. Projects which were estimated to be low cost and also received high ratings were placed in the short-term project category. Short-term opportunities are those that may be completed or implemented in a period of zero to five years (0-5 yrs.). Mid-term projects included those projects with low costs and low ratings as well as projects with high costs and high ratings. Mid-term opportunities are those that may be completed or implemented in a period of six to ten years (6-10 yrs). Projects with high costs and low ratings were placed in the long-term project category. Long-term opportunities are those that may be completed or implemented in a timeframe beyond ten years. However, mid and long term project should be expedited if financing becomes available or a critical need has occurred.

The following table outlines all recommended projects listed in order of priority.



Table ES.0 Recommended Projects by Priority Rank

Priority Rank	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs	Implementation Phase
1	1	NCDOT & Town	Sharrow	Main St.	Martin Luther King Jr. Dr.	Talmage St.	5,100	\$4,000	Short-Term
2	21	Town	Multi-Use Trail	Ahoskie Recreation Complex	Recreation Center on Main St.	Academy St.	6,620	\$880,500	Mid-Term
3	12	Town	Signed Bike Route	Pembroke St.	Camlin St.	Main St.	2,500	\$1,000	Short-Term
4	28	NCDOT	Share the Road Signage	Ahoskie-Cofield Rd.	Malibu St.	ETJ limits	6,500	\$3,000	Short-Term
5	16	NCDOT	Share the Road Signage	Memorial Dr. (US 13)	Town Limits	Academy St.	12,000	\$4,500	Short-Term
6	19	NCDOT & Town	Multi-Use Trail	Beafield Primary & Hertford Co. High	Hertford County High Rd	Pembroke St.	4,630	\$616,000	Mid-Term
7	13	Town	Signed Bike Route	Camlin St.	Ahoskie Recreation Complex	Academy Street	2,100	\$1,000	Short-Term
8	17	NCDOT	Share the Road Signage	Academy St.	Memorial Dr.	Hertford Co. High School Rd.	5,870	\$2,500	Short-Term
9	5	NCDOT	Bike Lane	Martin Luther King Jr. Rd.	First St.	Malibu St.	5,680	\$37,000	Short-Term
10	20	NCDOT & Town	Multi-Use Trail	Ahoskie Elementary School	Talmage Ave.	Main St.	2,210	\$294,000	Mid-Term
11	6	NCDOT & Town	Signed Bike Route	Holloman St.	Martin Luther King Jr. Dr.	Catherine St.	6,300	\$2,500	Short-Term

Note: "Share the Road" Signage is recommended at approx. 500-foot (or 0.25 mi) intervals. "Signed Bike Route" Signage is recommended at every turn along the route and at signalized intersections. "Sharrows" are recommended at approx. 250-foot intervals.



Table ES.0 Recommended Projects by Priority Rank, Continued

Priority Rank	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs	Implementation Phase
12	15	NCDOT	Paved Shoulder	W. First Street / NC 561	ETJ Limits	Hertford County High School Rd.	4,600	\$256,000	Mid-Term
13	14	NCDOT	Paved Shoulder / Restripe Road	Academy St.	Ahoskie Creek Bridge	Memoria I Dr.	2,100	\$11,000	Long-Term
14	3	Town	Bike Lane	First St.	Martin Luther King Jr. Dr.	Carolina Ave.	2,800	\$18,000	Short-Term
15	25	NCDOT & Town	Inter-section Improvement	Academy St. & Baker St.	N/A	N/A	0	\$18,000	Short-Term
16	22	Town	Multi-Use Trail	Dr. George Mitchell Park	Academy St.	Academy St.	6,040	\$803,500	Long-Term
17	10	Town	Signed Bike Route	Jessie St. and Meyers St.	Catherine Creek Rd.	Ruritan St.	1,000	\$500	Short-Term
18	7	Town	Signed Bike Route	Catherine St.	First St.	Holloman St.	3,540	\$1,500	Short-Term
19	2	Town	Bike Lane	Church Street	Martin Luther King Jr. Dr.	Carolina Ave.	2,530	\$17,000	Short-Term
20	9	Town	Signed Bike Route	E. Sunset Street	Martin Luther King Jr. Dr.	Catherine Creek Rd.	1,940	\$1,000	Short-Term
21	23	Town & Rail Road	Multi-Use Trail	Abandoned Rail Road	Catherine Street	Ruritan St.	3,900	\$413,500	Long-Term



Table ES.0 Recommended Projects by Priority Rank, Continued									
Priority Rank	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs	Implementation Phase
22	8	NCDOT	Signed Bike Route	Martin Luther King Jr. Drive	Sunset St.	Church St.	2,060	\$1,000	Short-Term
23	18	NCDOT	Share the Road signage	Catherine Creek Rd	Memorial Dr.	Main St.	1,750	\$500	Short-Term
24	27	NCDOT	Inter-section Improvement	MKL & Catherine Creek Rd	N/A	N/A	0	\$20,000	Short-Term
25	4	NCDOT	Bike Lane	Catherine Creek Rd.	Main St.	Martin Luther King Jr. Dr.	2,320	\$15,000	Short-Term
26	24	Town & Rail Road & private	Multi-Use Trail	Rail Road Crossing	Snipes St.	Baker St.	900	\$120,000	Long-Term
27	11	Town	Signed Bike Route	Ruritan St.	Proposed Multi-Use Trail End	Jessie St.	870	\$500	Long-Term
28	27	NCDOT	Paved Shoulder	NC 42	Morris Rd.	Ahoskie Creek Bridge	4,500	\$250,000	Long-Term

Section 8 describes how the recommendations for improving Ahoskie’s bicycling conditions will be implemented. This section outlines priorities for projects, programs, and policies as well as potential partners and funding sources. Implementation of this Plan will be a collaborative effort between a variety of Town departments and external agencies. The Town’s various departments should be aware of the Plan recommendations and seek to implement them as part of their regular work. The NCDOT Division of Bicycle and Pedestrian Transportation may provide technical expertise on issues related to bicycling and financial assistance to ensure that implementation of the Plan moves forward. Progress on improving the Plan should be monitored on no less than an annual basis. Almost every transportation project offers an opportunity to implement a piece of this Plan.



SECTION 1 – INTRODUCTION

1.0 BICYCLE PLAN INITIATIVE

Section Outline:

- 1.0 Bicycle Plan Initiative
- 1.1 Public Involvement
- 1.2 Vision Statement
- 1.3 Overall Goals & Objectives
- 1.4 Purpose of Plan
- 1.5 Planning Process
- 1.6 Benefits of Bicycling

The Town of Ahoskie Comprehensive Bicycle Plan is the first plan of its kind for the Town and was funded in part by a grant from the North Carolina Department of Transportation, Bicycle and Pedestrian Transportation Division. The development of a Comprehensive Bicycle Plan will support the Town’s ongoing efforts to maintain development, while making it more convenient and safer for people who bicycle. The Town of Ahoskie desires to improve transportation throughout the Town in order to link residential neighborhoods to parks & recreation facilities, schools, health care facilities and shopping/retail areas.

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The local government, the County of Hertford, the Ahoskie Chamber of Commerce and many other organizations throughout the Town and County support improving Ahoskie’s bicycle transportation to provide a multi-modal transportation system.

The County’s Land Use Plan and the Hertford County Comprehensive Recreation Plan all support the vision of developing a comprehensive bicycle transportation planning document that will provide direction in achieving safe transportation and connectivity in Ahoskie.

1.1 PUBLIC INVOLVEMENT

Public input played an important role in the development of Ahoskie’s Comprehensive Bicycle Plan. The public involvement strategy involved several components including four Steering Committee meetings, two Public Open Houses, and public hearings at the Town’s Planning Board and Town Council. Media outreach was utilized with press releases, public notices, and invitations to all meetings and open houses to announce the project.



A 13 – Member Steering Committee, comprised of Ahoskie citizens, Town staff and the consultant team met four times throughout the planning process to discuss goals and objectives, priorities, existing conditions, identify potential bicycle corridors and destinations, identify recommendations for projects and programs, and to identify project prioritization. The Steering Committee members are listed in the acknowledgements page of this Plan. See Appendix A for further information regarding Steering Committee meetings.

In addition to the Steering Committee, public input was solicited through an online-survey available through the Town’s website and hard copies of the survey available at Town Hall. Ahoskie citizens were notified of the survey through local media outlets, “business card” announcements distributed by the Steering Committee Members, the town’s website and notices placed in utility bills.

Two Public Open Houses were held during development of the Comprehensive Bicycle Plan. The first Public Open House was held on March 16, 2010 at Town Hall. During the first Public Open House, participants were provided the opportunity to express needs and concerns and to identify additional potential corridors. The second Public Open House was held on June 29, 2010 at Town Hall. During the second Public Open House, participants were presented the draft Comprehensive Bicycle Plan and were provided the opportunity to ask questions and provide any further input. Additional information regarding these Public Open Houses can be found in Appendix A.

1.2 VISION STATEMENT

During the first Steering Committee Meeting, members discussed their vision for the Bicycle Plan. That discussion formulated the final vision for the plan:

Ahoskie’s vision is to **develop a bike-friendly environment throughout Town that increases bicycling opportunities for all ages and abilities.**



1.3 OVERALL GOALS & OBJECTIVES

The overall goals were generated by the Steering Committee at the January 26, 2010 meeting. The following goals and objectives were developed for the Town of Ahoskie Comprehensive Bicycle Plan based on input from the Steering Committee.

GOAL: EDUCATION & AWARENESS

To educate the community on the wide-range of benefits of a bike-friendly community, as well as to increase bicyclists', pedestrians', and motorists' awareness of traffic laws and safety measures.

Objectives:

- Improve the safety of bicyclists and pedestrians.
- Educate bicyclists, pedestrians, motorists, law enforcement, and others regarding traffic laws and safety measures.
- Develop educational outreach programs for people of all ages and abilities.
- Improve existing programs, such as bicycle registration and helmet donation.

GOAL: CONNECTIVITY

To develop a well-designed bicycle network that will provide residents and visitors with convenient access to destinations and points of interest.

Objectives:

- Create safe and accessible access points to popular destinations and points of interest through designed bicycle routes.
- Identify routes to destinations, such as parks, schools, shopping centers, libraries and health care facilities.
- Create or improve safe access to schools.
- Increase connectivity of neighborhoods.

GOAL: BIKE-FRIENDLY POLICIES

To pursue bicycle-friendly policies and maintenance procedures to continuously improve bicycling in Ahoskie.

Objectives:

- Develop ordinances to require bicycle facilities in new and redevelopment projects.



GOAL: ENCOURAGE OPPORTUNITIES

To encourage and seek opportunities throughout the community to develop and improve bicycle facilities.

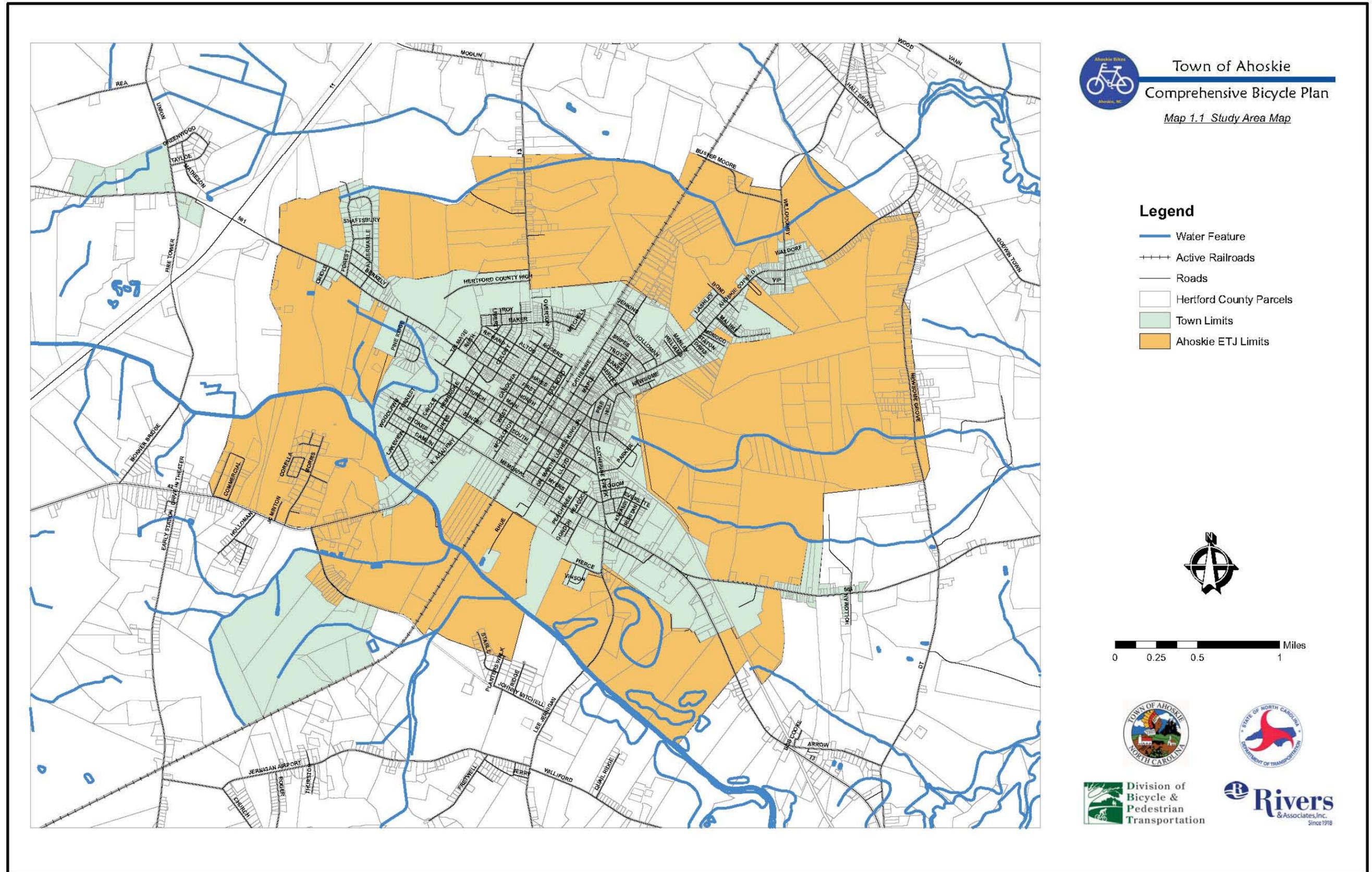
Objectives:

- Increase the quality of life for residents of Ahoskie.
- Encourage the use of bicycling as a legitimate mode of transportation.
- Encourage public officials to develop bicycle routes.
- Coordinate Town, County, and private-sector efforts to improve bicycling facilities and routes.
- Increase bicycle use and trips.
- Use the Bicycle Plan as a marketing tool for the Town.

1.4 PURPOSE OF PLAN

The Comprehensive Bicycle Plan provides a comprehensive, affordable approach to bicycle planning that maximizes Ahoskie’s existing infrastructure, identifies new opportunities, and creates an opportunity for a more bicycle-friendly community through planning, design, and regulations, in addition to addressing bicycle safety and encouragement.

The Plan Study area includes Ahoskie’s town limits and extra-territorial jurisdiction. Map 1.1 illustrates the project study area.



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1.5 PLANNING PROCESS

The process used for plan development involved four phases: 1) Data Collection, Research and Inventory; 2) Preliminary Recommendation Development; 3) Development and Review of Draft Bicycle Plan; and 4) Final Plan Development and Approval.

PHASE I – DATA COLLECTION, RESEARCH AND INVENTORY

This phase involved data collection, research, and inventory of existing infrastructure and data. Phase 1 contained the following tasks or steps:

- Developed a Public Involvement Strategy;
- Surveyed Ahoskie citizens by way of an on-line survey available on the Town's website and hardcopies of the survey were also available at Town Hall;
- Analyzed survey results;
- Compiled existing data (relevant plans and ordinances, U.S. Census, and crash data);
- Conducted interviews with stakeholders to discuss issues, plans and goals as they related to stakeholder groups and to identify existing plans for infrastructure improvement;
- Analyzed demographics, social and physical threats in the Town;
- Conducted an on-site assessment of current conditions and constraints;
- Summarized existing ordinances, programs, and initiatives;
- Held two Steering Committee meetings.

PHASE 2 – PRELIMINARY RECOMMENDATION DEVELOPMENT

Based upon Phase 1, preliminary recommendations were developed.

Phase 2 contained the following tasks or steps:

- Held the first Public Open House to provide public with Plan status and direction as well as to identify additional potential corridors, receive public needs and concerns.
- Developed preliminary recommendations for bicycle projects, programs, and policies;
- Conducted an inventory for the roadways where bike facilities are recommended;
- Developed preliminary cost options for recommended improvements;
- Met with NCDOT representatives to discuss preliminary recommendations.
- Held a third Steering Committee meeting to present preliminary improvements recommendations and to discuss project prioritization.



PHASE 3 – DEVELOPMENT AND REVIEW OF DRAFT BICYCLE PLAN

Based upon Phase 1 and Phase 2, a draft plan was developed. Phase 3 contained the following tasks or steps:

- Developed a draft Comprehensive Bicycle Plan based upon the findings of the previous tasks according to the NCDOT’s expanded template;
- Held a fourth Steering Committee meeting to present the draft Comprehensive Bicycle Plan for committee feedback and to discuss implementation;
- Held a second Public Open House to present the draft Comprehensive Bicycle Plan containing priorities and funding sources;
- Submitted a draft Comprehensive Bicycle Plan to the Town and NCDOT for review.

PHASE 4 – FINAL PLAN DEVELOPMENT AND APPROVAL

Based upon comments from the NCDOT and Ahoskie Planning Board review, the Plan was revised and resubmitted to the NCDOT for approval and to the Town Council for review and approval. Phase 4 contained the following tasks or steps:

- Developed a revised draft Comprehensive Bicycle Plan based upon the feedback from the NCDOT and Ahoskie Planning Board;
- Resubmitted revised plan to the Town for resubmission to the NCDOT for review and approval;
- Final plan with NCDOT and Planning Board revisions submitted to Town for Planning Board and Town Council’s Review;
- Developed a revised final Comprehensive Bicycle Plan based upon feedback from the Town’s Planning Board and the Town Council;
- Submitted final plan to Town for approval and adoption by the Town Council.



1.6 BENEFITS OF BICYCLING

Bicycling provides a variety of complementary benefits essential for a healthy, livable, and economically thriving community. These benefits include health, transportation, environmental and economic, all of which contribute to a high quality of life.

HEALTH BENEFITS

Having a bicycle-friendly community will increase physical activity and promote better health among all citizens of Ahoskie. Some of the health benefits associated with bicycling includes reduced risk of heart disease, stroke, and other chronic life-threatening illnesses. 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.ⁱ Bicycling as a form of exercise can help bikers regulate their blood pressure. Regular exercise boosts high-density lipoprotein (HDL), or "good," cholesterol while decreasing low-density lipoprotein (LDL), or "bad," cholesterol.ⁱⁱ Bicycling can help to improve your mood, combat chronic diseases, manage your weight, strengthen your heart and lungs, promote better sleep and can be fun.

TRANSPORTATION BENEFITS

There are areas of Ahoskie that are conducive to bicycle travel because the roads are wide and there is relatively low motorist traffic. However, there are areas throughout Town that experience high traffic volume and the roadways are not bicycle-friendly. The development of a bicycle-friendly community may alleviate roadway congestion and reduce associated driver frustration. Many of the community's goods, services, and recreational facilities are located within cycling distance of residential areas. 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.ⁱⁱⁱ Implementation of the bicycle plan will assist in installing bicycle infrastructure to provide linkages to the town's destination points as well as increase bicycling trips.

ENVIRONMENTAL BENEFITS

Bicycling is an easy way to reduce energy needs and pollution emissions. A short, four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air we breathe.^{iv} If traffic volumes continue to grow, then the overall air quality will deteriorate with more motor vehicles polluting the air. Providing a safe, alternative method of transportation



will increase the number of bicycles on the road; therefore reducing the number of motor vehicles leading to a decrease in emissions.

ECONOMIC BENEFITS

Bicycling is an affordable mode of transportation. Implementation of the plan will create a sense of connectivity in Ahoskie that will increase opportunities for further economic development within the Town. Bicycling facilities will make bicyclists feel safer in the community. In 2007, the American Automobile Association (AAA) determined that the average cost per mile to operate a motor vehicle is 62.1 cents (based on traveling 10,000 miles in a year).^v Bicycling costs less than driving; therefore, people will save money on fuel costs and have more money to spend on other things. Providing bicycling facilities in Ahoskie may increase visits to local businesses and recreation facilities. Other economic benefits of bicycling include reduced health care costs and reduced dependency on auto ownership.

ⁱ Pedestrian and Bicycle Information Center, www.bicyclinginfo.org

ⁱⁱ Mayo Clinic, <http://www.mayoclinic.com/print/exercise/HQ01676/METHOD=print>

ⁱⁱⁱ Pedestrian and Bicycle Information Center, www.bicyclinginfo.org

^{iv} World Watch Institute, www.worldwatch.org

^v American Automobile Association, "Your Driving Costs" (2007 Edition) <http://www.aaanewsroom.net>



SECTION 2 – CURRENT CONDITIONS

2.0 TOWN OF AHOSKIE OVERVIEW

Section Outline:

- 2.0 Town of Ahoskie Overview
- 2.1 Current Usage / User Demographics
- 2.2 Inventory & Assessment of Existing Bicycle Facilities
- 2.3 Bike Compatibility of Local Transportation System

The current conditions of the Town of Ahoskie have been inventoried and evaluated as part of the development of the Comprehensive Bicycle Plan. This section includes an overview of the Town, current usage/user demographics, an inventory & assessment of existing bicycle facilities and the bike compatibility of the local transportation system. The information obtained about the Town's current conditions provides the framework for planning bicycle facilities and programs based on the community's wants and needs.

The Town of Ahoskie was originally known by the Indian name of "Ahotskey" and was later spelled "Ahoskie" after many English spellings of the unwritten Wyanoke Indian articulation. Today, Ahoskie is home to 4,523 people (2000 census). The Town of Ahoskie is one of six incorporated municipalities within Hertford County. Hertford County is located in the northeastern portion of North Carolina and is ranked as an economically distressed Tier I community. The location and topography of Hertford County have shaped the development of the County's municipalities and economy. Hertford County's business industry includes a privately run federal prison, Chowan University, a Nucor steel mill, several Perdue poultry processing facilities, an aluminum extrusion facility and a lumber processing facility in Ahoskie. Ahoskie serves as the retail and medical center for the area. The rural community annually embraces its culture and diversity with a Heritage Festival in the Fall.

2.1 CURRENT USAGE / USER DEMOGRAPHICS

In planning a bicycle network, the demographic makeup of the community is important to know in determining the preferences and travel behaviors of the Town's residents. Information regarding the current usage and user demographics was obtained from the US Census Bureau, the NCDOT Bicycle and Pedestrian Division, and from a public bicycling survey. Analysis of the data received is described in this sub-section.

DEMOGRAPHIC ANALYSIS

A demographic analysis was completed based on data obtained from the US Census Bureau. As of the year 2000, the total population for the Town of Ahoskie was 4,523, of which 1,947 were males and 2,576 were females with a median age of 38.5 years. In the same census year, the estimated North Carolina population was 8,046,500 and the US population



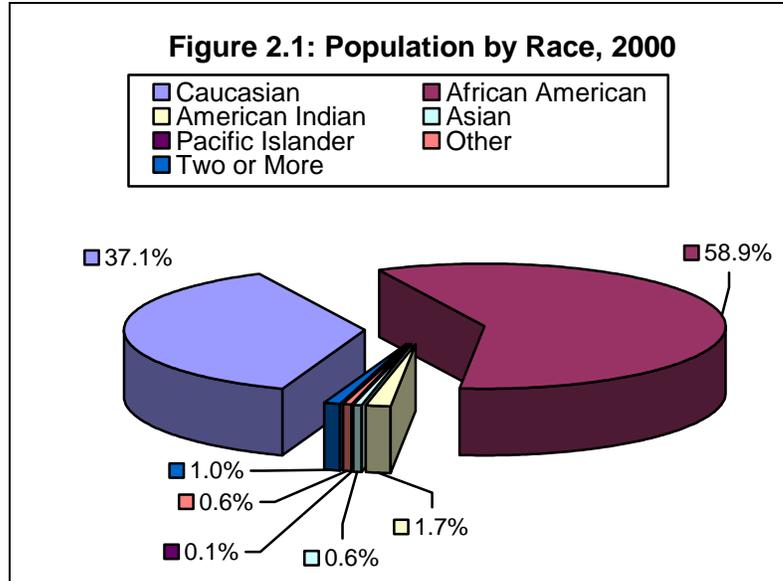
was 281,424,602. The median age was 35.3 years for both North Carolina and the United States.

In the year 2000, the town’s population was distributed with 74.3% over the age of 18 of which 20% were 65 years of age or older. In 2000, the population 65 years of age or older in North Carolina was 12% and in the US was 12.4%. In comparison, Ahoskie’s population is older than the state and national averages. Figure 2.0 reflects the age demographics for the Town of Ahoskie in the year 2000.

Figure 2.0 Age Demographics in Ahoskie, 2000		
<i>Age Groups</i>	<i>Number of People</i>	<i>Percent of Population</i>
under 5 years	276	6.10%
5 to 9 years	349	7.72%
10 to 14 years	342	7.56%
15 to 19 years	325	7.19%
20 to 24 years	253	5.59%
25 to 34 years	503	11.12%
35 to 44 years	642	14.19%
45 to 54 years	502	11.10%
55 to 59 years	216	4.78%
60 to 64 years	210	4.64%
65 to 74 years	455	10.06%
75 to 84 years	311	6.88%
85 years and over	139	3.07%
TOTALS	4,523	100%

Source: U.S. Census Data

The racial breakdown of the population of the Town of Ahoskie in 2000 was as follows: 58.9% African American, 37.1% Caucasian, 1.7% American Indian, 0.6% Asian, 0.1% Pacific Islander, and 0.6% from other races and 1.0% from two or more races. The racial breakdown of North Carolina’s population in 2000 included 22.1% African American and 73.1% Caucasian. The racial breakdown of the US population in 2007 included 12.3% African American and 75.1% Caucasian, which indicates that the Town of Ahoskie has a greater minority population than the state and national average. Figure 2.1 reflects the racial breakdown of the population of the Town of Ahoskie.



Source: U.S. Census Data

Education

The educational attainment for residents 25 years and over in 2000 was as follows: 18% with less than 9th grade, 19.5% with some high school, 25.7% were high school graduates (includes equivalency), 18.8% with some college, no degree, 6.1% with an associate degree, 7.2% with a bachelor’s degree, and 4.8% with a graduate or professional degree. Therefore, 62.5% of the 2000 population earned an education of high school graduate or higher. Figure 2.2 reflects the educational attainment for Ahoskie’s residents 25 years and over in the year 2000.

The educational attainment of Ahoskie’s population is less than the state and national levels. In 2000, 28.4% of North Carolina’s population 25 years and over were high school graduates (including equivalency) and 78.1% of the state’s population attained high school graduation or higher. The US population included 28.6% high school graduates (including equivalency) and 80.4% attained high school graduation or higher.

Figure 2.2: Educational Attainment for Residents 25 Years and Over in 2000	
<i>Educational Attainment</i>	<i>Percentage of Population</i>
Less than High School	18%
Some High School	19.5%
High School Graduate (inc. equivalency)	25.7%
Some College, No Degree	18.8%
Associate Degree	6.1%
Bachelor’s Degree	7.2%
Graduate or Professional Degree	4.8%

Source: U.S. Census Data

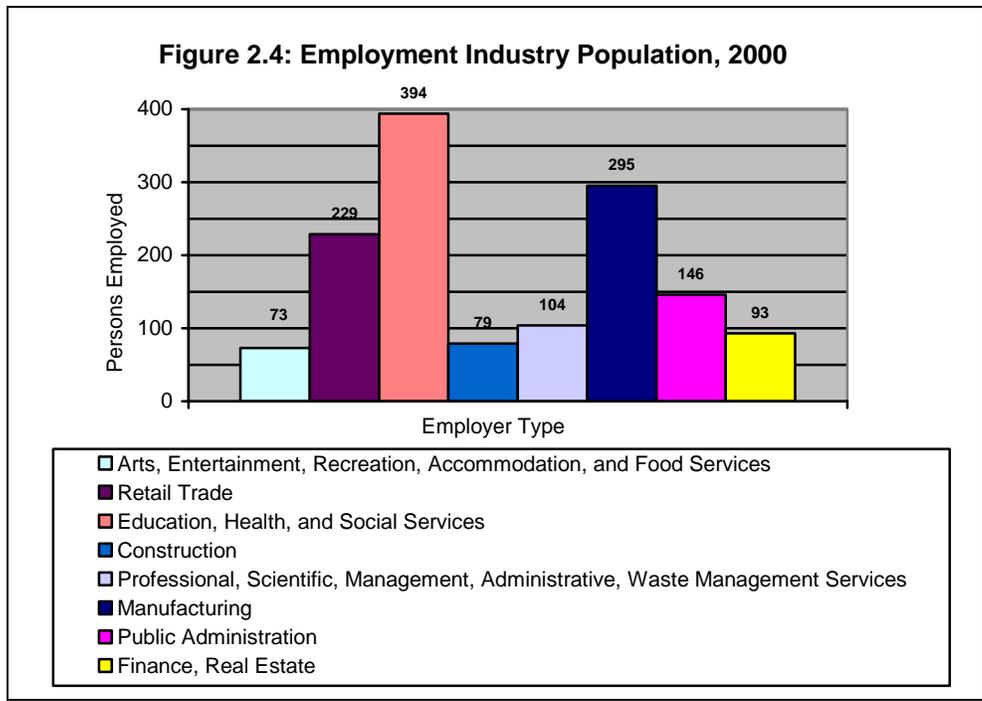
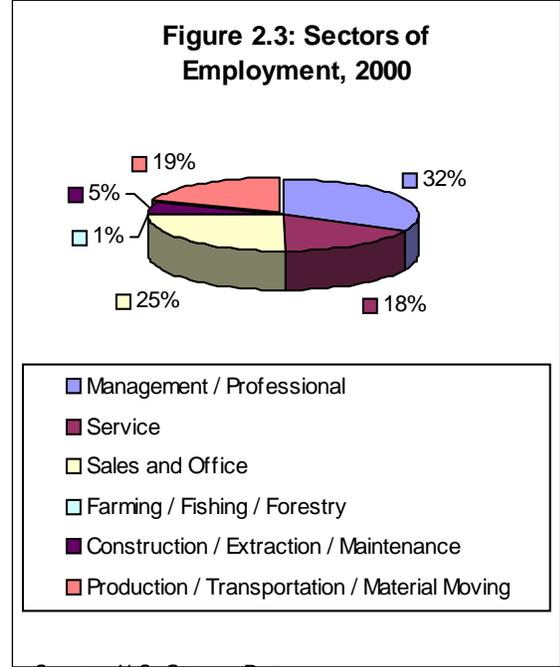


Employment

Ahoskie’s labor force (population 16 years and over) in 2000 was 3,559 people or 52.7% of the employed and working population. The civilian labor force includes 1,876 people of which 227 people are unemployed and 914 are employed females 16 years and over. The mean travel time to work was 22.9 minutes.

Employment can be further broken down into sectors of employment, based on the 1,876 employed civilian population 16 years and over. Figure 2.3 illustrates Ahoskie’s sectors of employment.

The employment industry for the population of Ahoskie is focused around Education, Health and Social Services and Manufacturing. The majority of employment opportunities are in Education, Health and Social Services. In Ahoskie, 24% of the employed population works in one of these three sectors. Figure 2.4 illustrates Ahoskie’s employment industry by population.



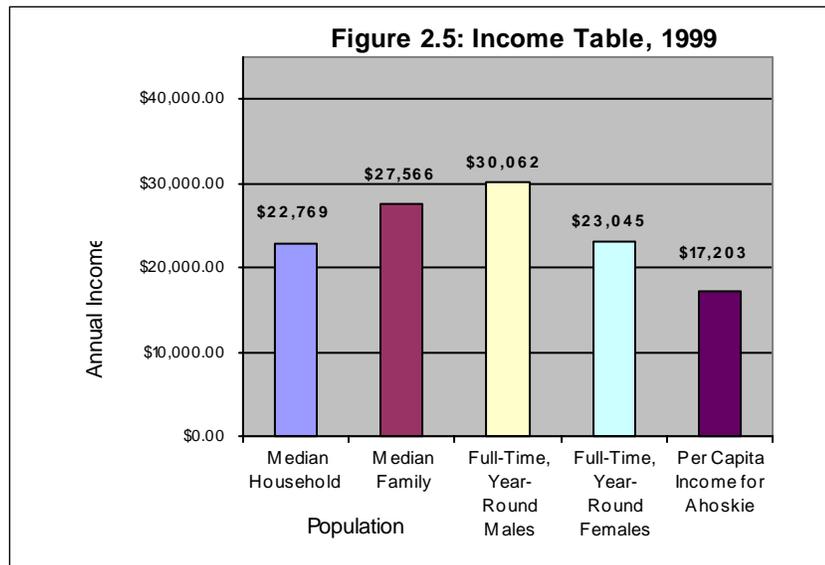


Income

According to the 2000 Census, in the year 1999 Ahoskie’s median household income was \$22,769 and the median family income was \$27,566. Ahoskie’s incomes are significantly less than the state and national averages. In 1999, North Carolina’s median household income was \$39,184 and the median family income was \$46,335. During the same year, the US median household income was \$41,994 and the median family income was \$50,046.

Ahoskie’s full-time, year-round workers earned the following median incomes: males \$30,062, females \$23,045. The per capita income for Ahoskie in 1999 was \$17,203. The Town’s per capita income was less than to the state and national amounts. In 1999, the per capita income in North Carolina was \$20,307 and in the US was \$21,587. In 1999, 21.7% of Ahoskie’s families were below the poverty line, including 30% of those with related children under age 18 years and 41.5% with related children under 5 years. The population below the poverty line of the state and nation is significantly less that of Ahoskie with 14.3% in North Carolina and 13.0% in the United States.

From the given data, there were approximately 1,850 households listed in the town with a median annual household income of \$22,769. Figure 2.5 illustrates incomes for the employed population of Ahoskie.



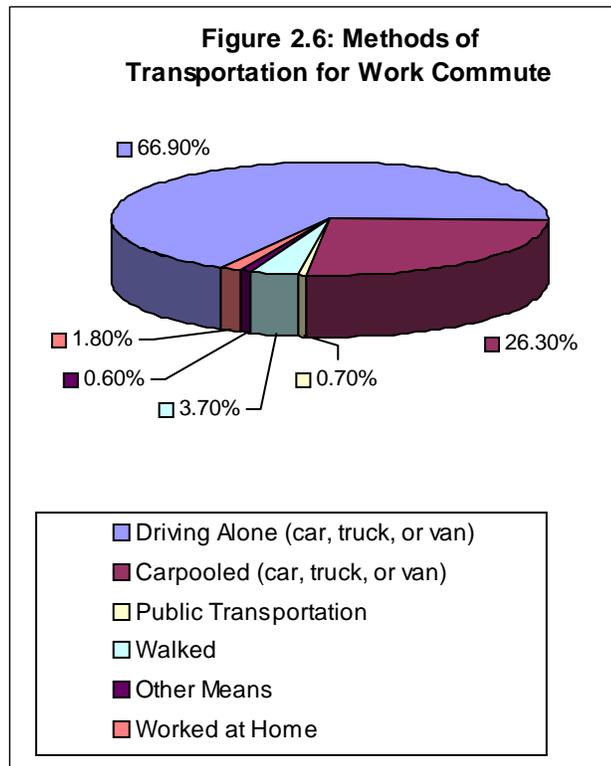
Source: U.S. Census Data



Vehicles

Approximately eighty percent (80%) of Ahoskie’s households have at least one motor vehicle. Of the occupied housing units (total 1,842), 18.5% have no vehicle, 38.8% have one vehicle, 31.3% have two vehicles, and 11.4% have three or more vehicles. Ahoskie’s population does not rely on mass public transportation.

Figure 2.6 illustrates the methods of transportation for working residents (16 years and over) of Ahoskie. The majority of employed residents drive alone to work in their own vehicle.



Source: U.S. Census Data



PUBLIC SURVEY SUMMARY

The bicycle survey was conducted as one part of the public participation effort for the Bicycle Plan. Respondents could choose from either an online version or hard copy of the survey. The online version was accessible through the Town's website (www.ahoskie-nc.org) and hard copies were available at the Ahoskie Town Hall.

The survey was advertised in a notice enclosed in the monthly utility bills distributed by the Town. The local newspaper published an article about the Project and public survey. Additionally, members of the Steering Committee and Town staff received informative marketing cards to distribute to the public as a reminder to visit the Town's website and take the public survey.

The survey period began on November 12, 2009 and continued to accept responses until March 23, 2010 (nearly a 4-month period) during which time 97 responses were received for tabulation by the consultant. **For a copy of the survey questions and complete results, please see Appendix A.**

Of those 97 respondents, 72% were female, and the majority of respondents were between the ages of 40 and 54 (43.8%).

The survey found that 19.9% of respondents had ridden a bicycle in the last week. Preferences to biking on weekends, when the weather conditions are warm and dry were the most common responses selected.

While physical exercise was the top reason to ride a bike, having a 73.1% response rate, the survey found that 48.4% of respondents ride their bicycles as a means of recreation. The survey also found that 24.7% of respondents ride their bikes for a family event, 14.0% of respondents ride their bikes to visit a neighbor/family/friend, and 4.3% of respondents ride their bikes to run errands and commute to work.

Top bicycling destinations include biking in the neighborhood, to a park, downtown, into town, and to work or a store along Highway 13. Therefore, recommendations should be geared towards improving cycling to recreation destinations, neighborhoods, and downtown.

About half of the survey respondents (77.1%) don't wear helmets when they ride their bike. Of those respondents that do not wear helmets, 63.1% indicated it is because they do not own one. This information reveals that a program is needed in Ahoskie to encourage the benefits of wearing a helmet.



Nearly 100% of respondents indicated that they would like to bike more often. Given the opportunity to select more than one answer, the survey found that respondents would bike more if:

1. There were better places to ride (81.3%);
2. They felt safer amongst traffic (73.8%);
3. There were more clearly marked trails (70.0%);
4. There were designated bike lanes on busy streets (55.0%);
5. There were better roadway conditions & wider roads to ride on (46.3%).

Survey respondents were asked questions about their perceptions of bicycling and bicycling facilities in the community.

Respondents were given the opportunity to fill-in answers in response to a question regarding roads needing improvements for bicycling. In general, US Hwy 13 received an overwhelming response because US Hwy 13 is a major thoroughfare through Ahoskie. The following were the most commonly suggested by survey respondents for roadway improvements:

1. US Hwy 13 (in general) / Memorial Drive
2. Academy Street
3. First Street / NC 561
4. Neighborhood Streets
5. (4-way TIE) Major Streets (in general); Dr. Martin Luther King, Jr. Drive; Main Street; Roadways into Downtown Ahoskie
6. (3-way TIE) Catherine Creek Road; Church Street; Hayes Street

Respondents suggested facilities or types of places that bicycle routes should connect. The following are the top ranked places identified for potential connectivity:

1. Parks & Recreation Areas
2. Schools
3. Shopping Centers / Businesses
4. Hospital / Health Care Centers
5. Downtown Ahoskie
6. Viquet
7. Libraries
8. Neighborhoods
9. Public Service Offices (Town Hall, Police Department)

The following responses were perceived to be the top major barriers to bicycle transportation in Ahoskie:

1. Lack of bicycle facilities
2. Narrow Roads / Lack of space to ride on roadway
3. Unsafe / Cyclist insecurity / Dangerous situations
4. (TIE) Motorists Behavior and Traffic
5. Lack of motivation
6. (TIE) Roadway Conditions / Don't own a bike



100% of respondents support change in bicycle facilities and policies to make Ahoskie a more bicycle-friendly community.

Only 1.4% of respondents rated the bicycle conditions in Ahoskie to be “good.” The majority of respondents provided a lesser rating, 33.8% rated the conditions as “fair” and 64.9% rated conditions as “poor.”

Less than half of all survey respondents (32.9%) live within the Town limits of Ahoskie. Of the 67.1% of respondents that do not live within Town limits, the following areas were the most commonly indicated area of residence:

1. Residential area near Ahoskie Limits
2. Aulander
3. (3-way tie) Murfreesboro, Colerain, St. John



LOCAL BICYCLE CRASH DATA

The Town of Ahoskie’s bicycle crash data was analyzed using the NCDOT’s web-based bicycle crash database. This data was created by the UNC Highway Safety Research Center from all reported bicycle-motor vehicle crashes within Ahoskie from 1997 to 2007.¹ The data was analyzed to determine trends and to identify the high-risk areas of Ahoskie. This information does not include instances involving only bicycles, like a fall, where medical attention may have been sought.

During the eleven-year period, the Town of Ahoskie experienced twelve (12) reported bicycle-motor vehicle crashes. Figure 2.7 shows the distribution of crashes from 1997 to 2007.

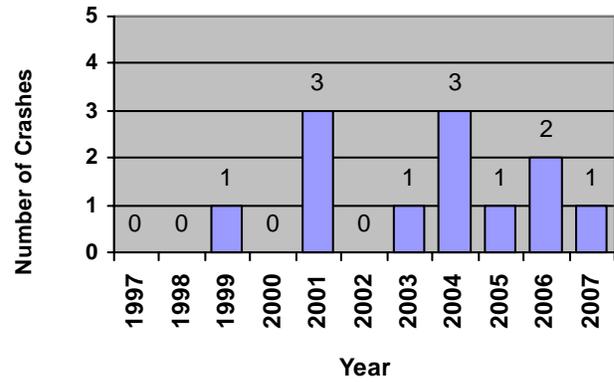
Characteristics of the crash data were reviewed to determine location, injuries and results of the crashes.

Figure 2.8 illustrates road characteristics of each crash. Eight (8) of the twelve (12) bicycle-motor vehicle crashes occurred at locations that had “no special features.” Two (2) of the (12) bicycle-motor vehicle crashes occurred at four-way intersection locations. Improving roadway conditions and intersections will aid in reducing crashes within these areas.

One hundred percent (100%) of the reported bicycle-motor vehicle crashes occurred on a local city street. This indicates the need for additional safety measures such as bicycle visibility, enforcement, additional signage, marked routes, driveway improvements.

Figure 2.9 shows the distribution of crashes according to road configurations. The majority of bicycle-motor vehicle crashes (10) occurred on two-lane roads within the Town of Ahoskie. The Town’s three-lane roads also experienced two (2) crashes. The number of crashes on multiple-lane roads indicates a possible need for reduction of vehicle speeds, bike lane or shoulder installation, road narrowing,

Figure 2.7: Total Number of Bicyclists Involved in Crashes by Year



Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

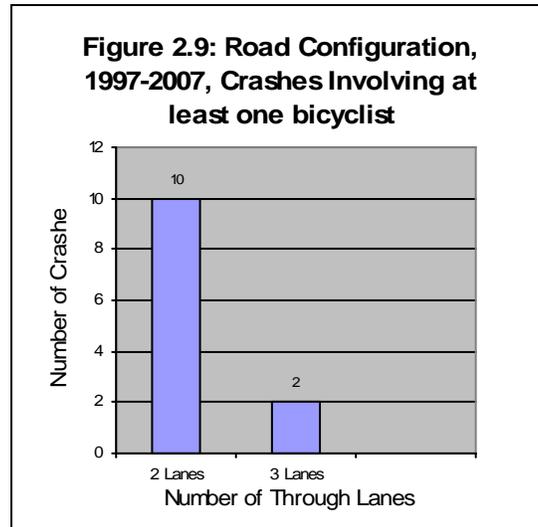
Figure 2.8: Crashes Depending Upon Road Feature - 1997-2007



Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data



intersection improvements, off-road trails/paths, improvement of surface quality, enforcement/compliance of traffic laws, access management and lighting.



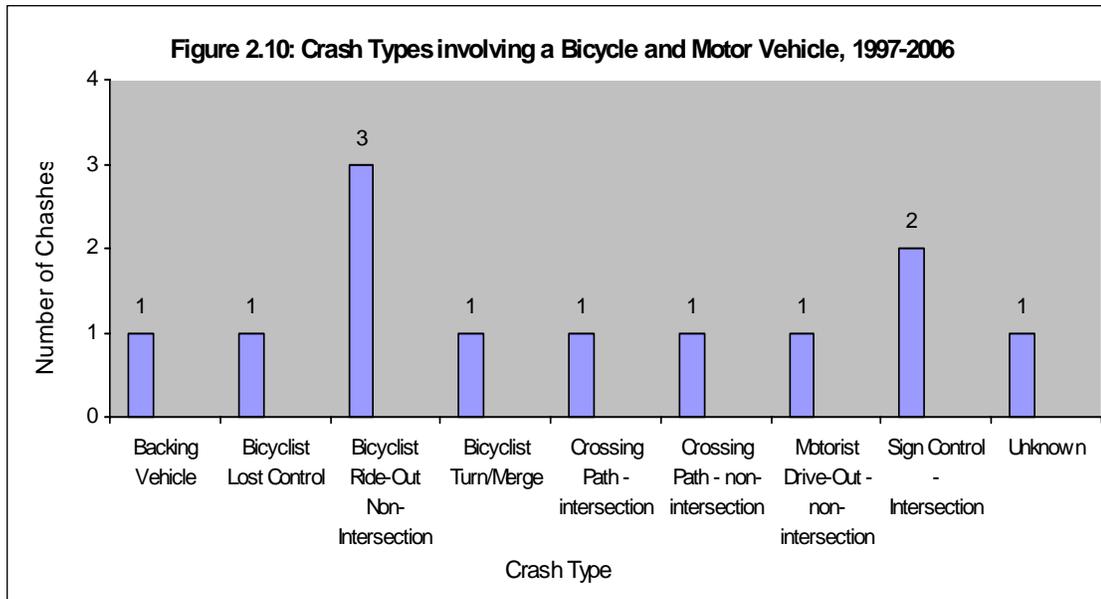
Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

*RECOMMENDATION:
Install high-visibility
warning signs to
alert drivers to the
presence of
bicyclists.*

The bicyclists' compliance with the rules of the roadway is indicated by the direction the bicyclist is traveling. According to the data, four (4) crashes occurred when bicyclists were facing traffic and two (2) crashes occurred when cyclist were following traffic. The bicyclists direction is unknown for four (4) other crashes in Ahoskie and information for two (2) is not available. Outreach is needed to educate bicyclists to obey traffic laws.



Figure 2.10 indicates the types of bicycle-motor vehicle crashes that occurred in Ahoskie. The crash data indicates a need for increased safety education for bicyclists and motorists alike.

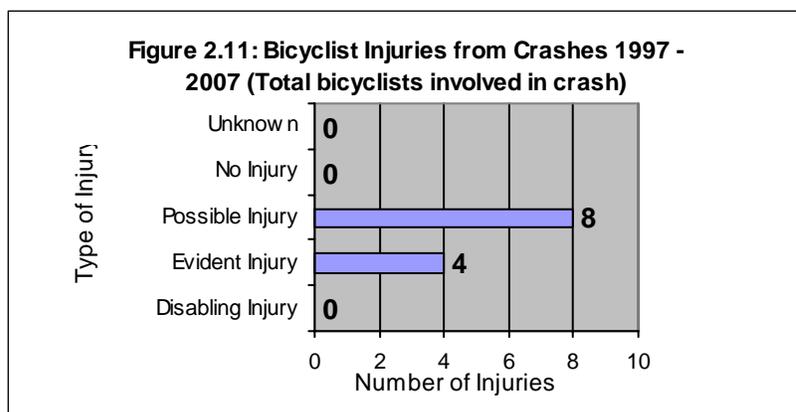


Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

The likelihood of bicycle injury increases with higher speed limits. According to a report (BIKESAFE) by the NC Highway Safety Research Center, "...faster speeds increase the likelihood of bicyclists being struck and seriously injured. At higher speeds, motorists are less likely to stop in time to avoid a crash." The report indicated a driver traveling at 31 miles per hour needs approximately 200 feet to stop, which usually exceeds the available sign and distance; whereas, a driver traveling at 19 miles per hour is able to stop completely within 100 feet. Only one bicycle-motor vehicle crash occurred at 10 mph, while seven (7) crashes occurred at 25 mph and four (4) crashes occurred at 35 mph. Therefore, the Town should consider traffic-calming measures and/or speed reductions on streets with bicycle facilities.

RECOMMENDATION:
Install traffic-calming measures and/or speed reductions on streets with bicycle facilities

The degree of injuries obtained in bicycle crashes is illustrated in the Figure 2.11.

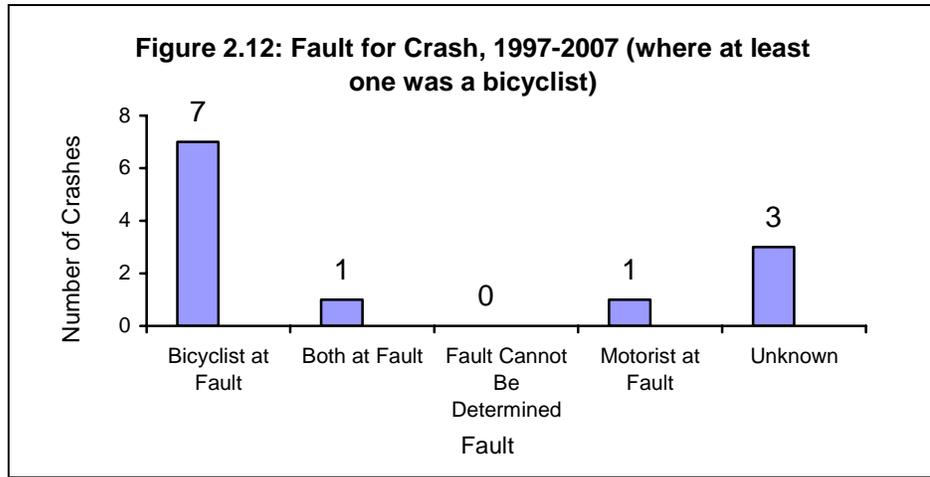


Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data



Figure 2.12 indicates the need for motorist and bicyclist education regarding safety. The data shows that there is an increased need for bicycling education.

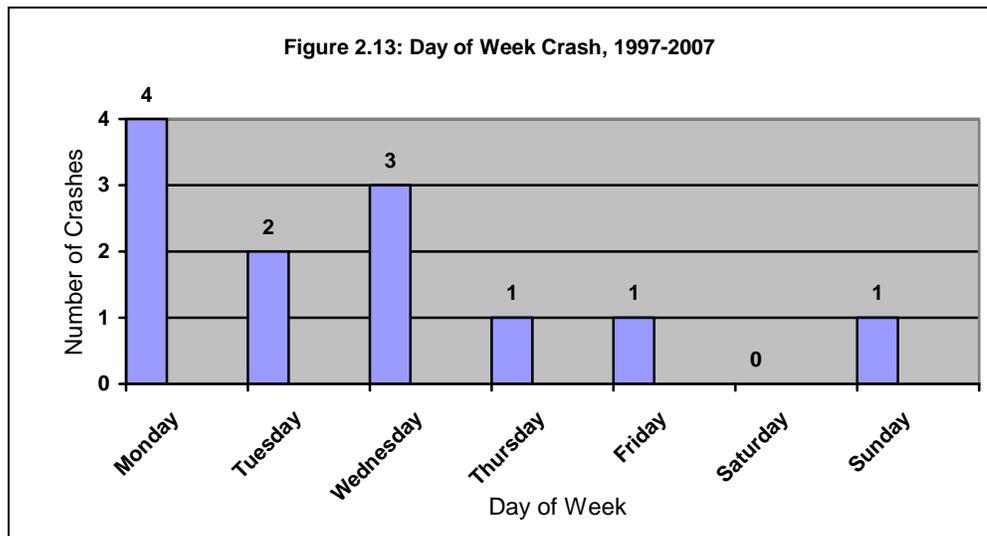
RECOMMENDATION:
Install street level lighting to improve visibility of bicyclists and improve overall security along roadways.



Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

Figure 2.13 illustrates the day of the week when the bicycle-motor vehicle crashes occurred. Crashes occurred throughout the week with four (4) crashes on Monday, two (2) crashes on Tuesday and three (3) crashes on Wednesday. One (1) crash occurred on each a Sunday, a Thursday and a Friday.

RECOMMENDATION:
Education programs to inform riders that lights or reflectors are required on bicycles.



Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

The time of day when the bicycle-motor vehicle crashes took place indicate rider preferences throughout the day. Five (5) of the crashes



occurred between 2:00 p.m. and 5:59 p.m. This timeframe suggests that people may be riding bicycles when schools let out for the day and when persons are also commuting from work. Three (3) of the crashes occurred between 6:00 p.m. and 9:59 p.m. during times of the day when bicycle visibility is diminishing. Two (2) crashes occurred between 10:00 p.m. and 1:59 a.m. One (1) crash occurred between 2:00 a.m. and 5:59 a.m. and one (1) crash occurred between 6:00 a.m. and 9:59 a.m. Therefore, the Town should consider installing high-visibility warning signs to alert drivers to the presence of bicyclists, providing additional street and pedestrian-level lighting to improve bicyclist visibility at night, and offering education programs to inform riders that lights are required on bicycles after dark as well as suggesting reflective outer garments.

Crash data also indicates a higher degree of bicycle-motor vehicle interaction during the daytime (not graphed). Seven (7) of Ahoskie's bicycle-motor vehicle crashes occurred during the daylight and one occurred at dusk. Two (2) crashes occurred during darkness on a lighted roadway and two (2) crashes occurred during darkness on an unlighted roadway.

The months of moderate – warm weather saw the majority of bicycle-motor vehicle crashes with 11 of 12 crashes occurring from April through September. The weather conditions reported in Ahoskie's bicycle-motor vehicle crash data indicate that the weather does not impact crash occurrence. Nine (9) bicycle-motor vehicle crashes occurred on a clear day and three (3) crashes occurred on a cloudy day. These numbers indicate that there is a higher level of bicycle activity during the months with warm weather.

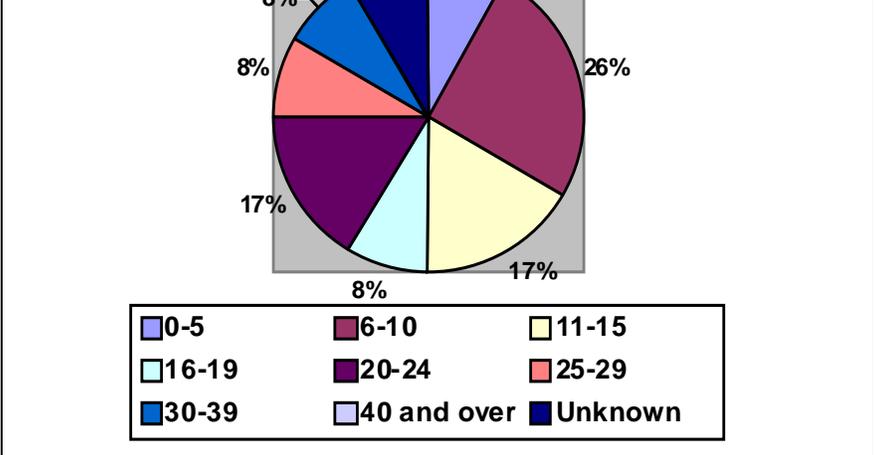
According to crash data, the majority of bicyclists in bicycle-motor vehicle crashes were males (9) compared to nine (3) females.

Of the nine reported bicycle-motor vehicle crashes, the race of the bicyclists included 11 blacks and one (1) Hispanic.

Figure 2.14 shows that bicycle-motor vehicle accidents primarily involved young people in Ahoskie and reflects the need for bicycling education in schools.



Figure 2.14: Age of Bicyclist in Crash, 1997 - 2007



Source: NC DOT Division of Bicycle and Pedestrian Transportation, Bicycle Crash Data

Analysis of Ahoskie’s crash data indicates a need for additional bicycle safety education, traffic and bicycle enforcement, bicycle-friendly development standards, and improved bicyclist visibility along roadways and intersections. The Town had twelve (12) bicycle-motor vehicle crashes from 1997 – 2007.

Map 2.1 illustrates the documented bicycle and motorist crash sites.



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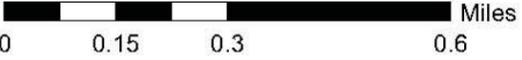
Town of Ahoskie
Comprehensive Bicycle Plan

Map 2.1 Bicycle-Motor Vehicle Crash Sites



Legend

- Bike Crash Location
- High School
- Municipal
- Hospital
- Parks
- Water Feature
- Active Railroads
- Hertford County Parcels
- Downtown Area
- Elementary School



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2.2 INVENTORY & ASSESSMENT OF EXISTING BICYCLE FACILITIES

As part of the planning process, it was important to inventory and assess the existing bicycle facilities and roadways in Ahoskie. During the Steering Committee meetings and Public Open House, bike routes and destinations were identified by the residents. In addition to current routes and destinations, residents provided comments concerning barriers to bicycle transportation and potential opportunities for future development of bicycle facilities. This part of the public participation process provided significant information on the current conditions of Ahoskie's bicycle network and bicycling preferences throughout the community.

Currently, there are no designated bicycle routes in Ahoskie. The consultant conducted a preliminary inventory of the existing conditions of the roadways on January 12, 2010. Currently, there are no existing bike lanes, multi-use paths, paved shoulders (of 4-foot width) or bicycling signage in Ahoskie. After bicycling project opportunities were identified, the consultant conducted a detailed inventory of the existing roadways suggested for bicycling improvements to include street widths, presence and width of curbs and gutters, speed limits, condition of surface, and identification of constraints. Consideration of this data allows recommendations to be made as part of the Town of Ahoskie Comprehensive Bicycle Plan.

The following are the most common observations that were recorded during the preliminary assessment of the existing conditions in Ahoskie:

- No bike lanes
- No multi-use trails
- Narrow to no shoulders
- Lack of signage
- Eroded shoulders and turn aprons
- Dips along the roadways
- On-street parking (unmarked/unsigned)
- On-street parking (marked/signed)
- Hazardous drainage grates
- High-traffic intersections
- Narrow roadways

BIKE RACKS

Bicycle parking racks are located throughout Town in areas such as the Ahoskie Recreation Center, the Ahoskie Gymnasium, George Mitchell Park, the Hospital, and Viquet. According to Town Staff, some key areas for potential addition of bike racks include all schools, shopping centers and business districts.



2.3 BIKE COMPATIBILITY OF LOCAL TRANSPORTATION SYSTEM

In order to have a local transportation system that is bike compatible, the needs of the community need to be in the forefront of everyone's mind. To ensure Ahoskie's transportation system is compatible with these user groups, the following information must be identified:

- Roadways
- Intersections
- Bridges
- Transition Areas
- Deficiencies/Barriers
- Hazards

An inventory of the roadways identified during the public participation process and Steering Committee meetings was conducted for suggested bike routes on March 18, 2010. During this inventory process, data was gathered on the existing transportation system to assist with project recommendations and to determine existing conditions of these transportation components. **For a detailed inventory of select roadways, refer to Appendix C.**

ROADS

The Town's primary thoroughfares influence transportation in Ahoskie: US Highway 13 and NC Highway 42. These roads affect the development of bicycle facilities because many of the Town's destination points are located on or near these corridors and at some point, a bicycle route will need to cross thoroughfares. Careful planning will be needed to improve the safety of bicycling on US Highway 13. Ahoskie's downtown area was originally constructed in a grid pattern, which allows opportunities for various connector or alternative routes. In general, Ahoskie has low posted speed limits; however, some areas may benefit from traffic calming devices.

INTERSECTIONS

It is important to design intersections to increase awareness of bicyclists and improve connectivity between destinations to achieve safe crossing of roadways. The intersections could be improved with advance warning signage indicating bicycle crossing and pedestrian crosswalks, as well as providing refuge islands to facilitate crossing of roadways.

BRIDGES

Existing bridges in Ahoskie cross Ahoskie Creek and the railroad tracks. The bridges have little usable shoulders for bicycles. Therefore, bicyclists



must use part of the roadway travel lane to cross the bridges. Improving visibility and safety of bicyclists and pedestrians on the bridges should be a priority. Advance warning signs should be installed to alert drivers and bicyclists to use caution when approaching and crossing bridges. When the bridges require replacement, bicycle and pedestrian facilities should be implemented to accommodate all transportation needs.

TRANSITION AREAS

Ahoskie has several transition areas that are impacted by the development of bicycle facilities. Gateway areas should provide a distinct transition point for bicyclists and motorists as they enter the Town's limits. Gateways can be improved through use of signage, landscaping, and streetscape enhancements. Currently, Ahoskie utilizes a landscaped sign welcoming people to town. However, most of Ahoskie's gateways occur at areas where speed limits are high and then reduced. Throughout Ahoskie, roadway transition areas occur where the road is wide and then narrows, such as in the downtown district, bridge crossings and intersections; these transition areas reduce the separation between bicyclists and motor vehicles.



*GATEWAY SIGNAGE IN AHOSKIE,
NC
COURTESY OF RIVERS & ASSOCIATES,
INC.*

DEFICIENCIES / BARRIERS

Barriers to bicycling were identified by Town staff, the consultant and the public. Some of the barriers are geographical or caused by the natural environment, while others are man-made hazards or safety hazards. In order to develop a safe bicycle network in Ahoskie, some of these barriers will need to be removed or redesigned to improve safety and connectivity.

Natural Environment

The Town has low-lying areas along streams and creeks that are subject or prone to flooding. The topography of Ahoskie is relatively flat; therefore, the safety hazards are low with respect to grade and incline. The natural environment of Ahoskie may provide constraints for development of off-road bicycle facilities that may be resolved through the construction of elevated boardwalks and bridges.

Man-Made Hazards

The omission of bicycle facilities during the development of the Town's roads and thoroughfares is a man-made barrier to bicycling.

Many of the roads within Ahoskie lack paved shoulders resulting in inadequate separation between motor vehicles and bicyclists. This is a man-made barrier to bicyclists particularly on roads with higher speed and greater volumes of traffic. Barriers to bicycling may be reduced through traffic calming devices, reduction of speed limits, widening of curbs and shoulders, and installation of bicycle signage.



SAFETY HAZARDS

A number of potential safety hazards were identified as barriers to bicycling in Ahoskie. Safety hazards include the condition of the roads, drainage grates, major intersections, and a lack of signage. Barriers caused by safety hazards can be minimized by improvements to the existing Town roadways.

The condition of the roadways is a potential barrier to bicyclists. Safety hazards include settled or cracked pavement, eroded shoulders, eroded turning aprons, and swales along the roadway. Such barriers were identified during the preliminary inventory assessment. Removal of these barriers should be incorporated through a spot improvement program or routine maintenance procedures.

Another safety hazard involves drainage grates in the roadway. Potentially hazardous drainage grates were observed during the preliminary inventory assessment. Grate styles and condition may cause bicycles to catch their wheels in the grooves, or gaps, of the grates. Unsafe drainage grates should be replaced with grates that are consistent with NCDOT's standard grate design. Multiple re-surfacing of streets has left many grates depressed several inches below the pavement surface. Uneven pavements surrounding grates should be corrected.

A lack of signage is a possible safety hazard to bicyclists. Signage could be used to indicate, "Narrow Road" or "Share the Road" to educate motorists and bicyclists of potentially hazardous situations.

Major intersections can potentially be an unsafe area for bicyclists sharing the road with motorists. Many of the intersections within Ahoskie need improvement. Currently, there are no special provisions for bicyclists at the intersections. Many of the Town's intersections have no crosswalks, curbs nor gutters. Intersections may be improved through the addition of striped crosswalks, bike detectors and signage, which could increase the awareness of bicyclists in the roadway.

Map 2.2 illustrates the existing transportation infrastructure within the study area.

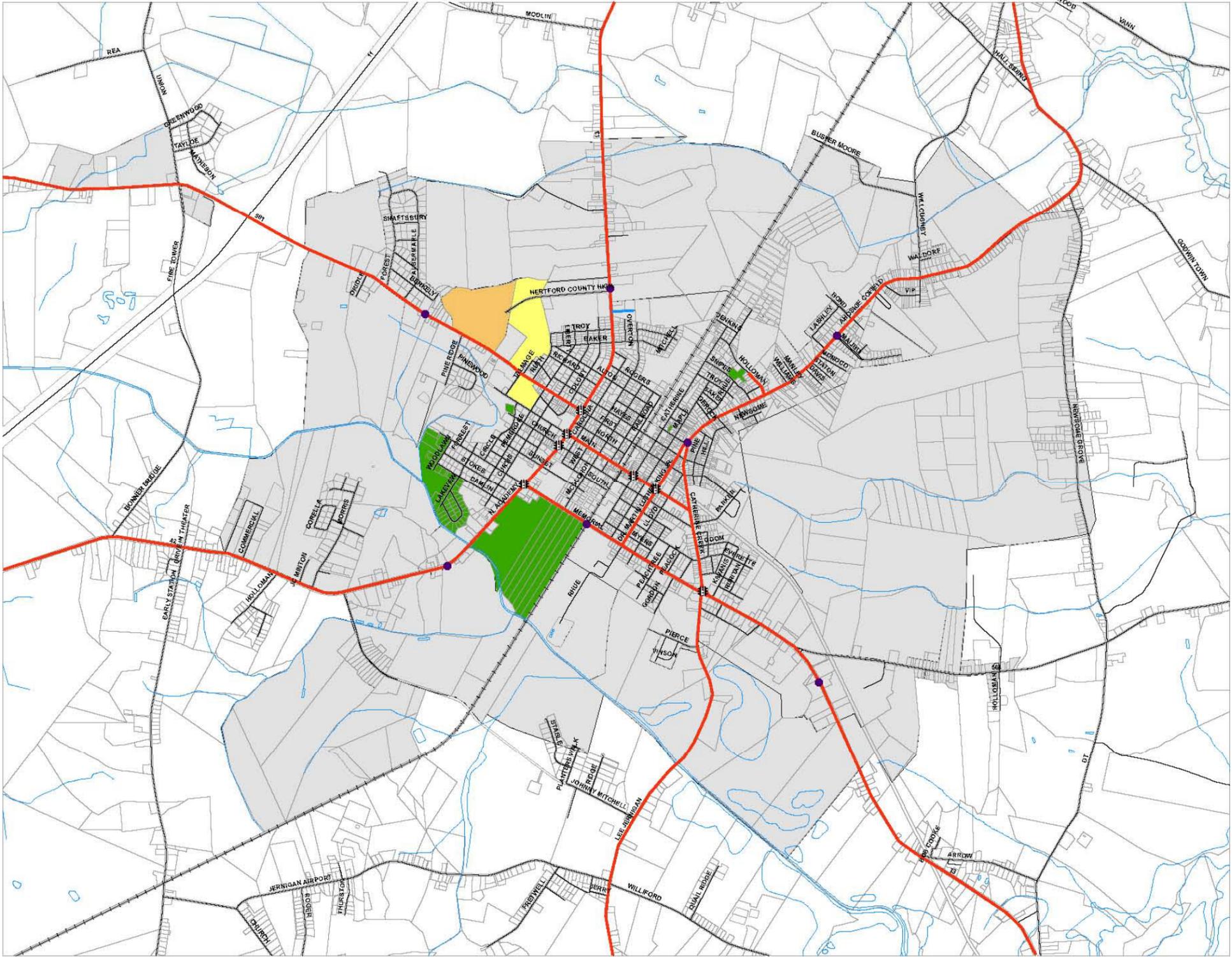
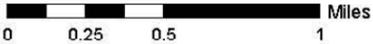


Town of Ahoosie
Comprehensive Bicycle Plan

Map 2.2 Existing Transportation Infrastructure

Legend

- Signalized Intersections
- Transition Areas
- Private Road
- NCDOT Roads
- Water Feature
- Active Railroads
- Local or Private Streets
- Hertford County Parcels
- Parks
- Elementary School
- High Schools
- Ahoosie ETJ Limits



¹ NCDOT, Division of Bicycle and Pedestrian Transportation – Bicycle Crash Data. November 2009, http://www.pedbikeinfo.org/pbcat/bike_main.htm



SECTION 3 – EXISTING PLANS, PROGRAMS, & POLICIES

Section Outline:

- 3.0 Relevant Plans
- 3.1 Relevant Programs & Initiatives
- 3.2 Relevant Policies & Institutional Framework
- 3.3 Relevant Bicycle Statutes & Ordinances

In addition to analyzing existing conditions, reviewing existing plans, programs, and policies at the Local, Regional, and State level is also important. Plans and policies determine the type of development that is encouraged and allowed in a community while programs offer methods to promote, encourage, and educate the public on bicycling. Therefore, these tools (plans, policies, and programs) are a key component to ensure an environment that is supportive of bicycling.

The following plans, programs, and policies were reviewed in preparation of the Ahoskie Comprehensive Bicycle Plan:

- Hertford County CAMA Land Use Plan (1997)
- Parks and Recreation Master Plan for Ahoskie, North Carolina (2007)
- Hertford County Comprehensive Recreation Plan (2009)
- Bicycling and Walking in North Carolina: A Long-Range Transportation Plan
- 2009-2015 State Transportation Improvement Program (TIP)
- State Programs and Initiatives
- NC DOT Transportation Improvement Program (TIP)
- Town of Ahoskie Code of Ordinances

3.0 RELEVANT PLANS

LOCAL PLANS

Hertford County CAMA Land Use Plan (1997)

The Town of Ahoskie is included in the Hertford County CAMA Land Use Plan, which serves as a guide to the local government in making short-term and long-term land use decisions. Hertford County has two types of roadways: primary roads and secondary roads. The county lacks an interstate highway, however; it contains three US Highways (13, 158, 258) and seven North Carolina Highways (35, 41, 42, 45, 305, 461, 561). The primary roadways crossing Ahoskie are often overburdened. A bypass around Ahoskie is proposed, which will help to reduce pass-through vehicles; however, it may not alleviate traffic congestion in town.



The following policies are identified in the Hertford County Land Use Plan.

Table 3.0: Hertford County CAMA Land Use Plan Policies Supporting Bicycle Facilities	
Management Topic	Hertford Co. Land Use and Development Policies
3. ECONOMIC AND COMMUNITY DEVELOPMENT c. Urban Growth Patterns Desired	Policy: The County will continue to encourage urban development within existing urban centers.
3. ECONOMIC AND COMMUNITY DEVELOPMENT e. Redevelopment of Developed Areas	Policy: The policy will be to seek out grant opportunities to provide funds for neighborhood improvements and total community revitalization and to allow redevelopment in areas not subject to special hazards, in accordance with local and sub-division regulations.
3. ECONOMIC AND COMMUNITY DEVELOPMENT i. Tourism	Policy: The policy shall be to take a more active role in promoting tourism.

Source: Hertford County CAMA Land Use Plan (1997)

Park and Recreation Master Plan for Ahoskie, North Carolina (2007)

In 2007, The Town of Ahoskie and the Department of Recreation and Leisure Studies at East Carolina University developed a site-specific Park and Recreation Master Plan. The proposed plan site is comprised of approximately 74 acres, including 35 acres of FEMA (Federal Emergency Management Agency) buyout property. During Plan development, a community needs assessment was conducted which included public meetings, random telephone surveys and a school survey. The findings of the community needs assessment included the need for more recreation facilities and increased lighting of existing fields/recreation areas for play. Walking and biking trails were identified as the top recreation opportunity desired by public meeting participants having the majority of responses.

Ahoskie’s Park and Recreation Master Plan proposed development in multiple phases. The second phase of park development includes a half-mile trail to be used for walking and biking. The Plan identified several potential programs using the proposed recreation facilities. Based upon the community needs assessment, ***a biking program was recommended for Ahoskie’s adults and seniors*** in the Park and Recreation Master Plan for Ahoskie.



REGIONAL PLANS

Hertford County Comprehensive Recreation Plan (2009)

In January 2009, Hertford County completed a Comprehensive Recreation Plan, which was the first of its kind for the County. Hertford County's Plan is beneficial to the development of Ahoskie's Comprehensive Bicycle Plan for several reasons. The County's Plan contains an inventory of existing parks located in Ahoskie, provides recommendations for the identification, and plans for trails and open space. In 2008, Hertford County citizens responded to a public recreation survey and the majority of respondents indicated that they live in or around Ahoskie. According to the survey results, bicycling was among the most popular activities that occur out-of-doors. Additional trail corridors for multi-modal transportation were identified as the greatest facility need. Therefore, the Town of Ahoskie should consider a partnership opportunity with Hertford County to identify and preserve trail areas.

STATE PLANS

The State of North Carolina has many planning documents that support bicycling. A few of those planning documents are listed below. Currently, there are no planned bicycle improvements in the Ahoskie planning area.

- **Bicycling and Walking in North Carolina: A Long-Range Transportation Plan.** This Plan identifies five goals and corresponding focus areas, which represent strategies for achieving each goal, relating to facilities, safety education and enforcement, institutionalization, research, and needs assessment, and encouragement. The overall intent of the plan is to reduce the number of pedestrian and bicycle crashes, injuries and fatalities.
- **2009-2015 State Transportation Improvement Program (TIP).** This program funds transportation projects including new construction, maintenance and safety of existing infrastructure. Each transportation project within the State is described and its status is listed.



3.1 RELEVANT PROGRAMS & INITIATIVES

STATE PROGRAMS AND INITIATIVES

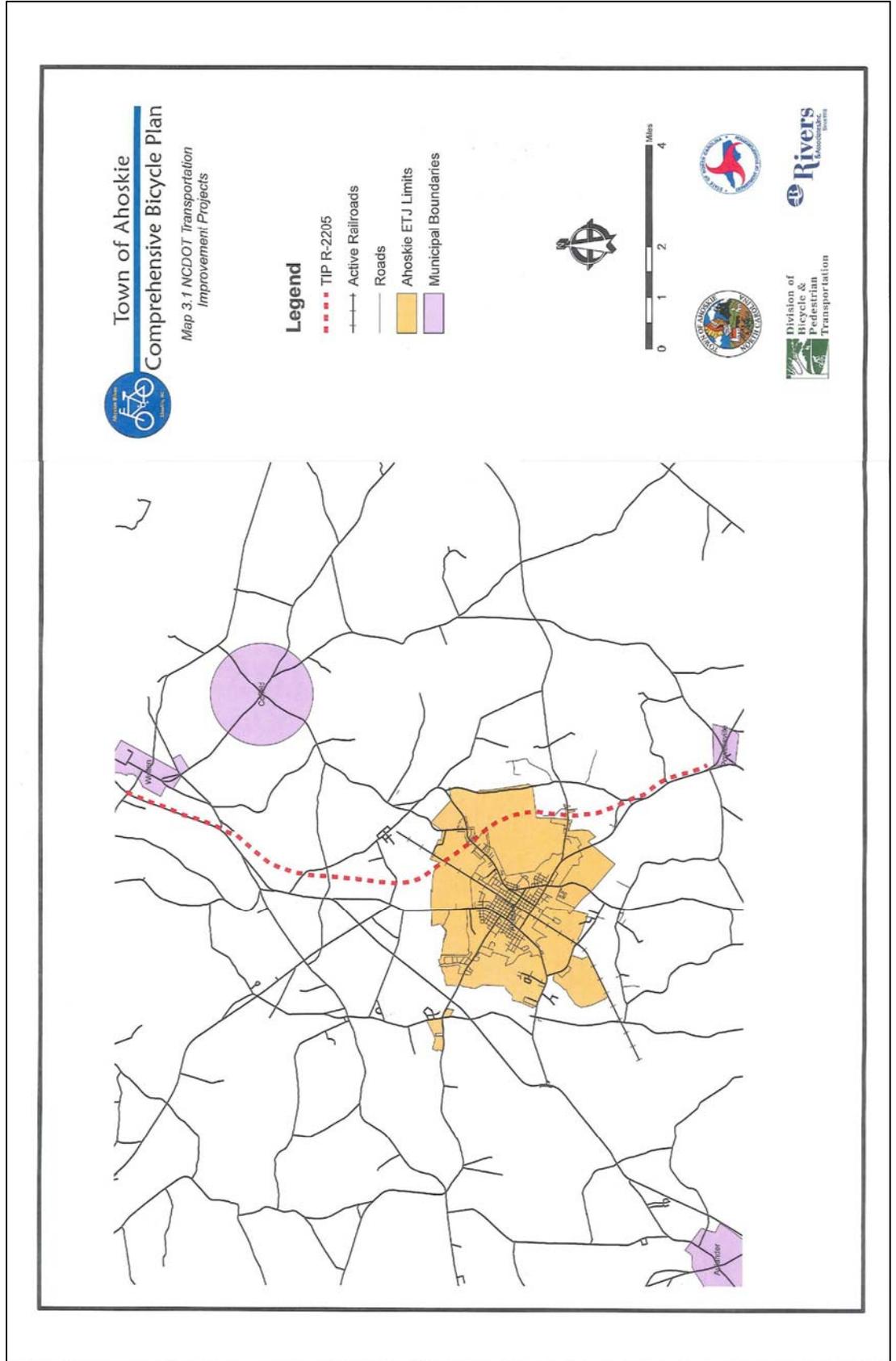
The State of North Carolina has many programs and initiatives that support bicycling throughout the State. These programs are listed below.

- Bicycle and Pedestrian Planning Grant Initiative
- Bicycle Helmet Initiatives
- Safe Routes to Schools
- Share the Road Initiative
- Bikes on Public Transportation

NC DOT Transportation Improvement Program (TIP)

As part of the transportation improvement of, the following TIP Projects have been identified as they relate to the Town of Ahoskie. These projects could incorporate bicycle safety components.ⁱ Map 3.1 (on pg. 3-5) shows these projects.

- *Ahoskie Bypass (R-2205)* – US 13 from NC 42 at Powellsville in Bertie County to SR 1457 in Hertford County. US 13 will be redirected to bypass Ahoskie and include multiple lanes of travel. Completion of the bypass may reduce the thru traffic in Ahoskie.





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Peanut Belt Rural Transportation Planning Organization

The Peanut Belt Rural Transportation Planning Organization (RPO) currently does not have any projects identified within the Comprehensive Bicycle Plan project area. However, the RPO supports the town's desire to develop a bicycle-friendly community.

LOCAL PROGRAMS AND INITIATIVES

Law Enforcement

RECOMMENDATION:
Develop educational material, such as a brochure, to distribute to cyclists

According to the Ahoskie Chief of Police, bicycling safety education is an important component to the development of Ahoskie's Comprehensive Bicycle Plan. Ahoskie has a limited number of current bicycle programs that help promote awareness in the community. The existing programs conducted or sponsored in partnership by the Police Department are bicycle rodeos that were previously held at Ahoskie Elementary School, Bearfield Elementary School, Hertford County High School and the Public Housing Authority. Bicycle helmet use in the community is infrequent. Police observe helmet use in children during parent/child bike rides, when bicycling safety and awareness are being demonstrated. During the bicycle rodeo events, the Police Department has given away helmets made available from a grant awarded by Walmart to purchase safety equipment. While most bikes are equipped with the standard reflector, Ahoskie's police officers rarely observe the use of lights on bikes when it is dark outside. **A goal for the Police Department is to improve its educational outreach of bicycle safety and to provide programs on a more consistent basis.** The Police Department would like to develop educational material, such as a brochure, to distribute to bicyclists to make them more aware of the rules of the roadway and to encourage compliance with the law.

RECOMMENDATION:
Visibility of bicyclists and pedestrians would be increased if lower level lighting was provided

Another observation and concern by police officers is bicyclists' behavior in the roadway. Currently, bicyclists are seen riding against traffic, riding down the middle of the road, and erratically crossing driveways in the business districts to get from one place to another. The Police Department desires to increase encouragement of bicyclists to obey traffic rules. Streets within Ahoskie that were identified as higher hazard areas to ride were Memorial Drive (US 13), Dr. Martin Luther King Jr. Drive, Main Street, Academy Street, and Catherine Creek Road. Bicycling is considered hazardous in these areas due to motor vehicle traffic along thoroughfares to commercial establishments and decreased visibility of bicyclists in the roadway. The Police Department encourages its officers to record a list of street lights that are out. Frequently, a master list of street light outage is sent to Town Hall, which is then submitted to Dominion Power for service requests. Some streets within Ahoskie are considered more dangerous to bicyclists because the existing lighting is



not located at the pedestrian level. Visibility of bicyclists and pedestrians would be increased if lower level lighting was provided. The Police Department indicated that Ahoskie’s citizens would benefit from bicycling signage and connectivity to schools and businesses.

The Police Department currently facilitates a successful abandoned bicycles program. The Town has an abandoned property ordinance that allows bicycles to be removed from public property after a designated time period has elapsed. The Police Department verifies that the specific time has passed and confiscates the bicycle. Annually, the Ahoskie donates the abandoned bicycles to the Jackie Phillips’ Bike Ministry in Gates County, North Carolina. Recently, five children in Ahoskie received repaired bikes from this program.

In North Carolina, a bicycle is considered a vehicle. The Ahoskie Police Department encourages the rules of the roadway with bicyclists with verbal notification. Citations have been issued if a bicyclist is involved in violation of another law, such as driving while intoxicated. **Ahoskie’s Police Department should continue its efforts to promote bicycling safety and encouraging obedience to vehicle laws.**

The Police Department has an established bicycle registration program, yet only a few residents have utilized it. In general, bicycle registration programs have been effective in returning lost or stolen bikes to their owners by matching serial numbers. Serial numbers are a set of characters that uniquely identify an object and can be used for traceability and warranty purposes. Registered bicycles have greater chances of being returned to their owners than bikes that are not registered. When bikes are registered in Ahoskie, the owner submits the serial number and identifying features, in addition to the owners contact information. The Police Department engraves a stamp on the registered owner’s bicycle near the serial number to provide additional identification. **The Police Department should consider marketing its bicycle registration program during community outreach events and bicycle rodeos.**

The Police Department’s website currently includes a link promoting Community Safety Series (www.be-safe.org), which is a website that promotes safety tips for improving the quality of life in communities. Bicycling safety lessons are provided as a part of this series. For more news and information, visit Ahoskie Police Department’s website <http://www.ahoskiepd.com/main.asp> .





Public Works Department

Ahoskie's Public Works Department is responsible for the major utilities and infrastructure of the Town, including the Town's streets and sidewalks. According to Public Works Director, there are street improvement projects proposed by NCDOT along Academy Street and Main Street within the next 10 years, which would include road resurfacing and improvements. When this occurs, the Town desires to brick-patterned stamp crosswalks and install sidewalks where needed within the project areas.

The Public Works Department has the responsibility of installing bicycle racks in the Town's public areas, but currently, most of them are in the recreation areas. Bicycle-friendly drainage grates are not required by the Town when replaced or installed. Standards can be adopted to require new and replacement grates to be bicycle-friendly.

A study was performed in 2008 listing existing street conditions. The Town's street maintenance usually occurs during the summer months and on a complaint basis. The Town has a reporting system established for residents to notify the Town of potential hazards or repair needs.

The Public Works Department desires that proposed bicycle projects be maintenance friendly so as not to create an undue hardship upon existing Town resources.

Recreation Department

Ahoskie's Recreation Department manages the Town's public parks and recreation facilities and provides programming for citizens of all ages. A goal of the Recreation Department would be to provide safe bicycling routes to connect neighborhoods and schools to recreation facilities. Although the department does not offer bicycling programs, the Town's public facilities are a destination of bikers. Many of the department's program users are youth who often depend on motor vehicle transportation to attend practices, games, and after-school activities. The Recreation Department would like to see routes developed that would provide "across town" connections within Ahoskie. Some of the identified hazardous areas for bicycling include Main Street, Academy Street, Martin Luther King Drive and the railroad tracks.

The Recreation Department has observed that many school-aged children ride their bikes more often on Saturdays to attend basketball games at the Town of Ahoskie Gymnasium. The gym is open year-round and serves as a practice and game facility to youth and adult program sports and open play. A bike rack is located at the gym, but, often times, bikes are left unattended and not secured by the rack.



The Recreation Department has observed more people riding bikes around Town since development began at the Ahoskie Creek Recreation Complex. In addition to other parks around town, the Complex will serve as Ahoskie’s major recreation area having opportunities for people of all ages and abilities. A multi-use trail for walking and biking is included in future phases of development of the Complex. From the Recreation Department’s perspective, as the Complex is developed, bicycling will likely continue to increase as long as people feel safe.

3.2 RELEVANT POLICIES & INSTITUTIONAL FRAMEWORK

FEDERAL & STATE POLICIES

There are several State and Federal policies for the development of pedestrian facilities. Through updating their guidelines, NCDOT has shown they are committed to improving bicycling and pedestrian conditions and recognizes these facilities are “critical elements of the local, state and federal transportation system”.ⁱⁱ These guidelines provide communities with information regarding NCDOT funding for replacement of existing sidewalks as a part of street widening projects.

Complete Streets and the “Safe and Complete Streets Act of 2009”

Complete Streets is a policy requiring that new roads be built to accommodate all users, including bicyclists, pedestrians, and transit riders, of all ages and abilities. The policy is intended to improve safety, reduce congestion and air pollution and create a stronger sense of community. Complete Streets elements in projects include ADA-compliant curb cuts, sidewalk improvements, new bicycle lanes, roadside improvements for public transportation, landscape features, and other elements that improve transportation for all users. The “Safe and Complete Streets Act of 2009” is a bill that has been introduced in the House and Senate that would ensure that future transportation investments made by state Departments of Transportation and Metropolitan Planning Organizations create appropriate and safe transportation facilities for all those using the road, including all ages and abilities. The Act builds on existing successful state and local policies to define effective complete streets policies and apply them to federally funded transportation projects. Additionally, the Act authorizes needed research and dissemination of complete streets best practices.ⁱⁱⁱ

In July of 2009, the North Carolina Department of Transportation (NC DOT) adopted a Complete Streets Policy. This policy represents an increased commitment to providing bicycle and pedestrian facilities with new NCDOT construction projects, including road repavings, widenings, and bridge replacements. While NCDOT had previously adopted several



policies to support the provision of bicycle and pedestrian facilities, the new policy goes further in its recommendations to routinely provide for all users of the roads - bicyclists and pedestrians, public transportation users, and drivers of all abilities and ages. The new Complete Streets Policy:

- Provides that "all transportation facilities within a growth area of a town or city funded by or through NCDOT, and planned, designed, or constructed on state maintained facilities, must adhere to this policy";
- Asserts the Department's role as a partner to local communities in transportation projects;
- Addresses the need for context-sensitivity;
- Sets exceptions (where specific travelers are prohibited and where there is a lack of current or future need) and a clear process for granting them (approval by the Chief Deputy Secretary); and
- Establishes a stakeholders group, including transportation professionals and interest groups, tasked to create comprehensive planning and design guidelines in support of the policy.^{iv}

A member of the NCDOT Board of Transportation, Nina Szlosberg, introduced the policy, and Tom Norman, Manager of the Bicycle and Pedestrian Division guided the policy through a staff development process. The National Complete Streets Coalition has applauded NCDOT for this important step. The policy is available at: <https://apps.dot.state.nc.us/pio/releases/details.aspx?r=2777>.

Bicycle and Pedestrian Planning Grant Initiative

NCDOT's Division of Bicycle & Pedestrian Transportation (DBPT) along with the Transportation Planning Branch launched the Bicycle and Pedestrian Planning Grant Initiative in 2004. This matching-grant program, the first of its kind in the nation, enables municipalities across the state to develop comprehensive bicycle and pedestrian transportation plans. Nearly \$2.3 million has been awarded through this program to 91 municipalities, which together account for a total of 32% of the state's population. These comprehensive plans promote livability/sustainability by helping communities to create bicycle and pedestrian friendly environments that encourage safe walking and bicycling. In early May of this year, DBPT has recently selected and approved the 2010 cycle of planning grant recipients.

Earlier this year, the division contacted prior recipients of the planning grants to obtain information on facilities that they had constructed following completion of their plans. A survey was distributed electronically to the 64 communities awarded grant funds from 2004 to 2007 resulting in responses from 41 communities.



Survey results indicate the following: 63 percent allocated local funds for bicycle/pedestrian facilities, 54 percent created a bicycle/pedestrian committee, 51 percent developed an education, encouragement or enforcement program, 54 percent developed bicycle/pedestrian-friendly policies, 46 percent updated design/engineering standards, and 49 percent have programmed or constructed multi-use paths. Among the pedestrian plans (27 responses of 45 adopted plans), 89 percent have programmed or constructed sidewalk.

Among the bicycle plans (14 responses of 19 adopted plans), the following types of facilities were programmed or constructed: bicycle lane (57 percent), paved shoulder (14 percent), wide outside lane (36 percent), bicycle route (21 percent), and bicycle parking (50 percent).^v

Bicycling and Pedestrian Policy

A United States Department of Transportation (US DOT) policy statement regarding the integration of bicycle and walking into transportation infrastructure recommends that, “bicycling and walking facilities will be incorporated into all transportation projects” unless exceptional circumstances exist.^{vi}

FHWA Memorandum on Mainstreaming Bicycle and Pedestrian Projects

In October 2008, the Federal Highway Administration (FHWA) updated the *Policy for Mainstreaming Nonmotorized Transportation (FHWA Guidance – Bicycling and Pedestrian Provision of Federal Transportation Legislation)* and can be found at:

<http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm>

NCDOT Bicycle Policy

The NCDOT Bicycle Policy offers guidelines to provide bicycle accommodations on state highways and specifies standards for planning, design, construction, maintenance, and operations relevant to bicycle facilities.^{vii}

NCDOT Pedestrian Policy Guidelines

In 2000, the North Carolina Department of Transportation (NCDOT) updated the *1993 Pedestrian Policy Guidelines*. The NCDOT pedestrian policy guidelines can be found at:

http://www.ncdot.org/transit/bicycle/laws/laws_pedpolicy.html

NCDOT Administrative Greenway Guidelines

The NCDOT’s administrative guidelines were established to consider greenways and greenway crossings during the highway planning process.



The Administrative Greenway Guidelines preserves identified corridors for future greenways from highway construction. The NCDOT will incorporate locally adopted plans for greenways into the ongoing planning process within the Statewide Planning and project plans. Localities work in conjunction with the State, place a priority for their greenway construction activities, and justify the transportation nature of each greenway segment.^{viii}

NCDOT Traditional Neighborhood Development Street Design Guidelines

The NCDOT's Traditional Neighborhood Development (TND) Street Design Guidelines are available for proposed developments. These guidelines delineate permit locations and encourage developers to design roadways according to TND guidelines rather than conventional subdivision standards. These guidelines promote the use of multi-mode/shared street that allows for pedestrians and bicyclists and encourages mixed use development. The link to this guideline can be found at:

<http://www.ncdot.org/doh/preconstruct/alturn/value/manuals/tnd.pdf>

NCDOT Resolution for Bicycling and Walking

On September 8, 2000, the N.C. Board of Transportation adopted a *Resolution for Bicycling and Walking* to make bicycling and walking a critical part in the state's long-range transportation system. Additional information can be found at:

http://www.ncdot.org/transit/bicycle/laws/laws_resolution.html

LOCAL POLICIES

According to Town Manager Tony Hammond, there are not many policies or ordinances regarding bicycle safety or facilities. Currently, the Town Code of Ordinances prohibits bicycles on sidewalks and riding on the handlebars of bicycles. Town Code briefly addresses bicycle trails in Planned Unit Developments requiring open space for potential uses including bicycle trails and states that trails should be safe and designed to provide connectivity. There are no policies or ordinances related to bicycle facility signage or standards. **For more detail, please refer to Table 3.1 Town of Ahoskie Local Ordinances Related to Bicycling located at the end of Section 3.**

The Town acknowledges the need for policies and ordinances to ensure bicycle or multi-use trail facilities when new development occurs. While these types of recreational facilities can be recommended during the planning and permit approval phases, the Town should consider an ordinance to require such facilities. The Town would like increased trail or route connectivity and it is recommended that installation of facilities



during development will provide greater opportunities for more facilities. The Town should consider a fee-in-lieu of dedication as an installation option.

3.3 RELEVANT BICYCLE STATUTES & ORDINANCES

There are a few existing policies related to bicycle(s) at the local, as well as at the state and federal level.

STATE STATUTES & LAWS

State of North Carolina laws impact bicycling in Ahoskie. State laws regulate a range of safety and operational issues. State of North Carolina Laws cover the following areas pertaining to bicycling:

- Helmets (required for all bicyclists 16 years of age and younger)
- Bicycle lighting
- Requirements for riding on the right-side of the road
- Impaired driving
- Reckless operation
- Compliance with signs and signals
- One-way streets
- Yielding right-of-way to pedestrians
- Passing another vehicle
- Being passed by another vehicle
- Crashes^x

State statutes and laws may be viewed online at the following websites:

http://ncdot.org/transit/bicycle/laws/laws_bikeways.html and
<http://www.ncdot.org/transit/bicycle/laws/resources/BikePedLawsGuidebook-Full.pdf>.

LOCAL ORDINANCES

The Town of Ahoskie Code of Ordinances includes provisions related to bicycles. Currently, the Town's ordinances do not address facility standards or requirements for bicycle facilities, such as bike lanes, wide outside lanes, or greenways. The Town should consider implementing these requirements to make it safer for bicyclists to access destination points safely. The Town's Code does acknowledge that bicycles are a legal street vehicle and prohibits riding bicycles on sidewalks. The Town's planned unit development code addresses bicycling facilities in such developments. Sections of The Town of Ahoskie's Code of Ordinances that influence bicycling are outlined in Table 3.1.



Table 3.1: Town of Ahoskie Local Ordinances Related to Bicycling

Section and Title	Ordinance Text
§ 38-1 DEFINITIONS.	<i>Vehicle</i> means every device in or upon which any person or property may be transported; provided that for the purposes of this chapter, a bicycle or a ridden animal shall also be deemed a vehicle.
§ 38-6 PERSONS PROPELLING PUSHCARTS, RIDING BICYCLES OR ANIMALS TO OBEY TRAFFIC REGULATIONS.	Every person propelling any pushcart or riding a bicycle or animal upon a roadway, and every person driving any animal-drawn vehicle, shall be subject to the provisions of this chapter which, by their very nature, can have no application.
§ 38-81 CLINGING TO MOTOR VEHICLES.	No person riding upon any bicycle, motorcycle, coaster, sled, roller skates or any toy vehicle shall attach the same or himself to any public conveyance or moving vehicle upon any roadway.
§ 38-82 RIDING ON HANDLEBARS.	The operator of a motorcycle or bicycle, when upon a street, shall not carry any person upon the handlebars, frame or tank of his vehicle, nor shall any person so ride upon any such vehicle.
§ 38-83 RIDING WITHOUT HANDS ON HANDLEBARS.	No person shall ride a bicycle or motorcycle on any street without having his hands on the handlebars.
§ 38-84 RIDING BICYCLES ON SIDEWALKS.	It shall be unlawful for any person to ride a bicycle on any sidewalk in the town.
§ 66-7 CARTS, BICYCLES, ETC. BLOCKING SIDEWALKS AND DRIVEWAYS.	No person shall stop or park any pushcart or pull cart, bicycle or other vehicle used for hauling any articles of merchandise for charge or hire upon any sidewalk, between the curb of any street and private property line or in any driveway leading from the street to a private driveway or private property, in front of any business establishment in the town.
§ 312.1(D) PUD PLANNED UNIT DEVELOPMENT OVERLAY DISTRICT. DEVELOPMENT REQUIREMENTS.	D. <i>Amount of Open Space.</i> The required amount of open space or outdoor recreational area shall be at least 20 percent of the gross area. Such open space should include school access routes, bicycle trails, natural or landscaped buffer areas, and the like whenever practical or appropriate.
§ 312.1(G)(2) PUD PLANNED UNIT DEVELOPMENT OVERLAY DISTRICT. DEVELOPMENT REQUIREMENTS.	G. <i>Circulation. (2) Internal.</i> Roads, pedestrian and bicycle trails shall be an integrated system to provide efficient and safe circulation to all uses. Developments should be designed to minimize the length of roadway.

Source: Town of Ahoskie Code of Ordinances



ⁱ North Carolina Department of Transportation, www.ncdot.org/doh/preconstruct/tpb/SHC/studies/US70/Projects/#carteret retrieved November 25, 2008

ⁱⁱ North Carolina Department of Transportation, *The Department of Transportation Pedestrian Policy Guidelines*, Effective October 1, 2000.

ⁱⁱⁱ Complete the Streets, www.completestreets.org

^{iv} North Carolina Department of Transportation, Complete Streets Policy, http://www.bytrain.org/fra/general/ncdot_streets_policy.pdf

^v North Carolina Department of Transportation, Division of Bicycle and Pedestrian Transportation, Planning Grant Initiative, <http://www.ncdot.gov/bikeped/planning/default.html>

^{vi} US Department of Transportation, Federal Highway Administration, <http://www.fhwa.dot.gov/environment/bikeped/design.htm>

^{vii} North Carolina Department of Transportation, *Bicycle Policy*, http://www.ncdot.org/transit/bicycle/laws/laws_bikepolicy2.html

^{viii} North Carolina Department of Transportation, *Greenways Administrative Process*, http://www.ncdot.org/transit/bicycle/laws/laws_greenway_admin.html

^{ix} North Carolina General Statutes, Chapter 20: Motor Vehicles, <http://www.ncleg.net/gascripts/statutes/StatutesTOC.pl?Chapter=0020>



SECTION 4 – STRATEGIC BICYCLE PLAN

Section Outline:

- 4.0 System Overview
- 4.1 Corridor Identification
- 4.2 Opportunities / Potential Projects

In order to develop a strategic bicycle plan to make Ahoskie a bicycle-friendly community, the “5 E’s” must be addressed. These “5 E’s” are Engineering, Education, Encouragement, Enforcement, and Evaluation and Planning.

According to a 1994 report by the Federal Highway Administration¹, there are three types of bicycle users: Advanced or experienced, Basic or less confident, and Children. Advanced users are generally riding for convenience and speed and want a direct route to destinations with a minimum delay or disruption. They are comfortable with high traffic volumes as long as there is significant operating room for themselves and motorists to eliminate their need to slow down. Basic or less confident users may ride their bicycles for basic transportation purposes (i.e., go to the store, visit friends, etc.) but prefer indirect route to avoid heavy traffic such as residential streets, multi-use trails, and designated bike lanes or wide shoulder lanes. Children, whether riding by themselves or with adults, require access to key destinations in their community (schools, fast food restaurants, parks, convenient stores, etc.). These users typically travel residential streets with low speed limits, linked with multi-use trails and sometimes streets with well-defined pavement markings.

Therefore, developing bicycle facilities for Ahoskie requires consideration of the following:

- Skill level of users
- Motor vehicle parking
- Barriers
- Crash Reduction
- Direct and convenient alignment to serve origins and destinations
- Access to and from bicycle facilities
- Aesthetics along facility
- Safety
- Continuity – avoiding abrupt facility discontinuity and stops
- Grade – avoiding steep grades, if possible
- Adequate lighting and sight lines
- Convenient bicycle parking at destinations
- Adequate maintenance commitment
- Pavement surface quality
- Truck and bus traffic
- Traffic volumes and speed
- Transition areas
- Intersection conditions
- Costs
- Policies



This section identifies the overall transportation system, desired corridors of bicycle travel, special focus areas, and potential projects.

4.0 SYSTEM OVERVIEW

The overall transportation system in Ahoskie is automobile dependent. As a result, intersections and thoroughfares were designed to accommodate automobile travel only. The Town's more recent commercial growth has evolved around the US Highway 13 (Martin Luther King Dr.) and Academy Street corridors through Ahoskie that includes shopping centers with grocery stores, restaurants, and retail establishments. While Ahoskie's "urban sprawl" is limited to date, the pattern of commercial development along the existing thoroughfares is intimidating for bicyclists due to many commercial driveways, intersections that are unsafe to cross, limited access and lack of provisions to accommodate bicycle travel. Currently, special signage used to identify bicyclists in the roadway, such as "Share the Road", is non-existent.

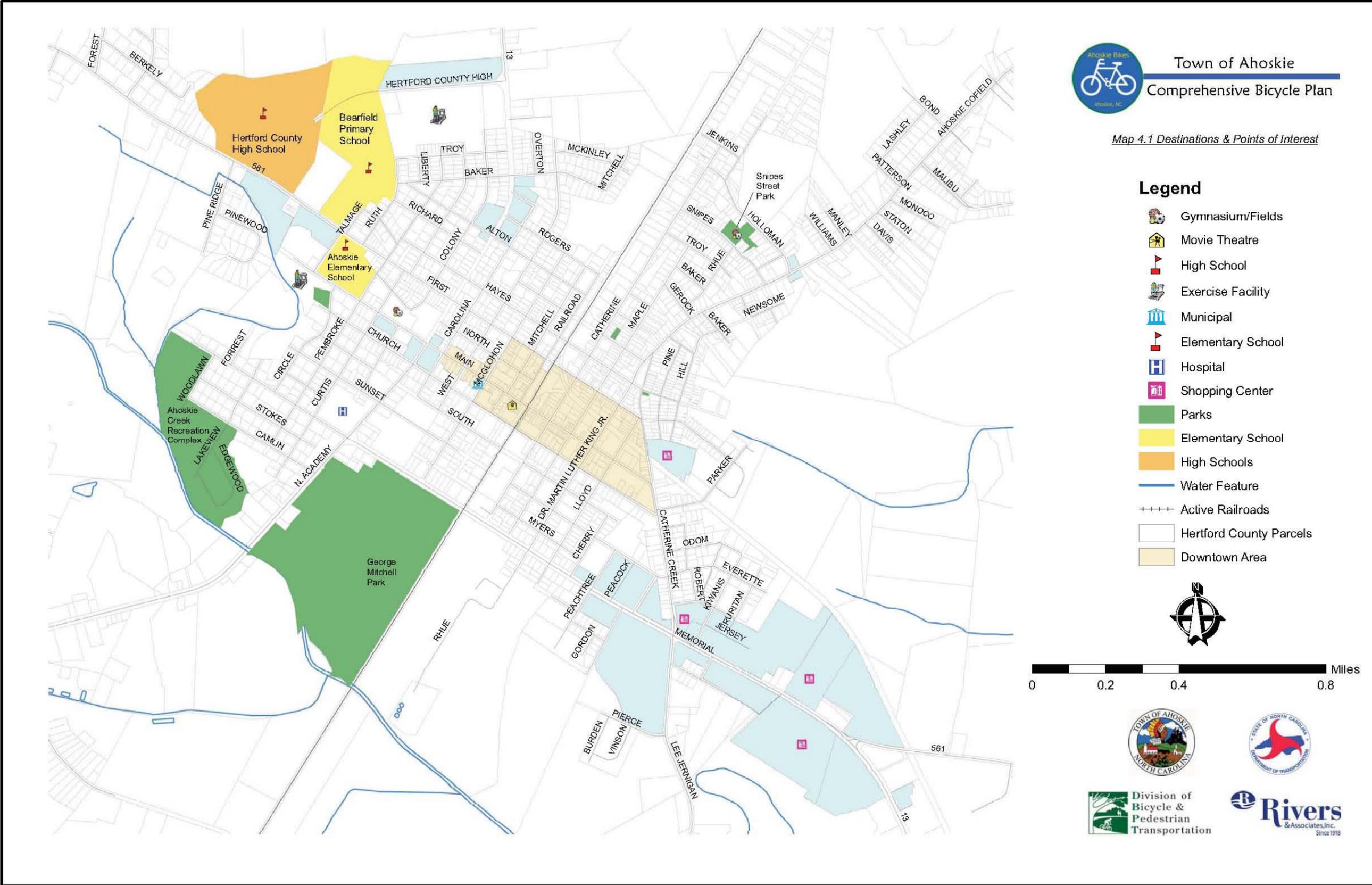
The most bicycle and pedestrian accessible areas of Ahoskie are its residential areas due to low traffic speeds, short blocks and nearby parks and recreation facilities.

An inventory and assessment of existing bicycle facilities is discussed in Section 2 and Appendix C of the Plan.

4.1 CORRIDOR IDENTIFICATION

The identification of bicycling corridors, origins, and destination points provides an idea on available access to desired routes and bicycling facilities. The assessment of the conditions of existing bicycling corridors and desired routes will assist in developing recommendations for bicycle facility treatments and facilities. This subsection will discuss the analysis of the existing conditions for the following in Ahoskie: destinations, origins, and desired corridors of bicycle travel.

Map 4.1 illustrates all identified destinations and points of interest throughout the Town of Ahoskie project area.



Town of Ahoskie
Comprehensive Bicycle Plan

Map 4.1 Destinations & Points of Interest

Legend

- Gymnasium/Fields
- Movie Theatre
- High School
- Exercise Facility
- Municipal
- Elementary School
- Hospital
- Shopping Center
- Parks
- Elementary School
- High Schools
- Water Feature
- Active Railroads
- Hertford County Parcels
- Downtown Area



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4.2 OPPORTUNITIES / POTENTIAL PROJECTS

Potential projects to improve the existing bicycling network in Ahoskie were developed from public input activities, Steering Committee meetings, and community evaluation. Twenty-six (26) preliminary recommendations or potential projects have been identified. **Refer to Appendix B for a complete description of all preliminary recommendations.**

During plan development, several potential projects were identified that would improve the existing bicycling network. These potential bicycle facilities projects have been broken down into three categories: On-Road Projects & Preferred Treatments, Off-Road Projects & Preferred Treatments, and Ancillary Facilities. Some projects may require further review and approval by the NCDOT Division 1 Office located in Edenton, NC.

The potential projects were based upon:

- Steering Committee Meetings
- Public survey & Open House #1 comments
- Bicycle-motor vehicle crash data
- Planned, proposed projects mentioned in existing plans
- Field Inventory and Assessment
- Ability to provide connectivity & improve safety

During the January 26, 2010 Steering Committee meeting, members participated in an exercise to identify opportunities related to the development of a Comprehensive Bicycle Plan. Members identified a list of general opportunities related to connectivity, education and awareness, increasing visibility, and providing additional bicycle elements and facilities. Refer to the Steering Committee Meeting Minutes located in Appendix A and the table in Appendix B for a complete list of identified opportunities.

Other opportunities that have been offered by citizens and Town staff include the use of abandoned railroad rights-of-way/corridors and conversion of existing sidewalks to multi-use lanes to create off-road bicycle facilities. The Town should also consider its utility easements as opportunities for bicycling corridors. Low-volume streets have been identified as potential bicycle corridors. Opportunities to provide connector routes to schools, regional bicycle routes, parks, residential areas, and other bicycling destinations were recommended during plan development.



ON-ROAD PROJECTS & PREFERRED TREATMENTS

On-road projects and preferred treatments include bike lanes, shared roadways, wide outside lanes and paved shoulders according to specifications and standards outlined by NCDOT.

Sunset Route

The route along Sunset Street was identified as an alternative, parallel route to Memorial Drive (U.S. 13). The Sunset Route would provide a better option to access the Youth Zone recreation facility and commercial establishments located along Memorial Drive.

Catherine Creek Route

Catherine Creek Road is one of Ahoskie's primary thoroughfares providing access from Memorial Drive to the commercial areas, downtown and residential areas. While there are some alternate routes to Catherine Creek Road, this road is well traveled by motor vehicles and bicyclists.

Jessie-Meyers Route

Meyers Road and Jessie Street provide access to a residential area and serve as alternative routes to Memorial Drive to provide access to Shopping Centers and other commercial establishments. At the termination of Jessie Street, an access path to the shopping center would need to be created across an open, grass area.

East First Street Route

The East First Street Route was identified as an opportunity to provide a route for residents in the area to access other routes to reach various destinations. There is a high-density residential area at the end of East First Street and many of its residents ride bikes across town to recreation and commercial facilities.

Ruritan Route

A route along Ruritan Road is a proposed opportunity to provide a connection from the proposed Rail-to-Trail Route to the commercial shopping areas along Memorial Drive. Currently, the north-end of Ruritan Road terminates at a dead-end and the abandoned railroad line is visible through a small, wooded area.

Dr. Martin Luther King Jr. (MLK) Route

A route along Dr. Martin Luther King Jr. Road was identified as an opportunity to provide connection from one side of town to another. The MLK Route may be divided into a few different potential projects. The MLK Route is one of Ahoskie's primary thoroughfares across town and experiences a high volume of motor vehicle traffic.



Holloman Route

Holloman Avenue is located between the MLK Route and the Catherine Route. The Fairgrounds are located along Holloman Avenue and this route would serve those visiting events at the fairgrounds. Vehicular parking is limited in this area; therefore, the provision of bicycle facilities would help to reduce vehicular congestion during events.

Catherine Route

A route along Catherine Street is identified as an opportunity to provide an alternative route to the MLK Route. The Catherine Route would provide connection from residential areas to Ahoskie's downtown.

Main Street Route

The Main Street Route was identified as an opportunity to provide access to downtown, recreation facilities, schools, and public service buildings (Town Hall, Police, Fire). With a relatively low posted speed limit (20 mph through downtown) Main Street includes on-street perpendicular parking in many areas and signaled intersections.

Church Street Route

The Church Street Route provides connection to the Public Library, commercial areas and residential areas. Although the Church Street Route is a parallel route to the Main Street Route there are differences in the flow of motor vehicle traffic along each route. There is no on-street parking along the Church Street Route and there are fewer signaled intersections (compared to the Main Street Route).

West First Street Route

The West First Street Route is located along First Street (NC 561) and provides connection from a rural residential community near Town Limits to Hertford County High School, Ahoskie Elementary School, and the Ahoskie Recreation Center. This route includes a transition area that experiences a high volume of motor vehicle traffic and includes posted speed limits of 45 mph, 35 mph which is reduced to 25 mph in the school zones during school hours.

Pembroke Route

Pembroke Avenue was identified as an opportunity to provide connection to the Ahoskie Recreation Complex, Ahoskie Elementary School, and residential areas. The Pembroke Route is an alternate route to travel along Academy Street (NC 42).

Camlin Route

The Camlin Route was identified to provide a safe on-road connection between the Ahoskie Recreation Complex and the George Mitchell Park on Academy Street.



OFF-ROAD PROJECTS & PREFERRED TREATMENTS

Off-road projects and preferred treatments include multi-use trails and rail-to-trail projects. The multi-use trails are typically 10 feet wide and are located along easements and other open tracts of land. The following off-road projects have been recommended and are described below. For a complete description of the off-road projects, see Appendix B.

Snipes Street Connection

The Snipes Street Connection was identified as an opportunity to provide a safe crossing of the rail road tracks and to provide an alternative route to the west side of Ahoskie without having to travel into the downtown area. Based on observation, pedestrians cross the rail road tracks at the street-end of Snipes Street. Safe crossing of the rail road tracks is a major concern in developing this route. Additionally, the rail bed is elevated above street-level in this location.

Hertford County Schools Route

The Hertford County Schools Route is located along Hertford County School Road and provides access to Hertford County High School, Bearfield Elementary School, offices and the Viquet recreation facility. This route is located between West First Street and Academy Street. A portion of the proposed Hertford County Schools Route is located at the street-end of Pembroke and extends to the office facilities.

Ahoskie Creek Route

The Ahoskie Creek Route is a multi-use, off-road opportunity identified in conjunction with the Ahoskie Creek Recreation Complex Master Plan. A Route is proposed along the banks of Ahoskie Creek and has varying elevations in the topography. The Ahoskie Creek Route is proposed to extend from the Ahoskie Recreation Center on Main Street to the George Mitchell Park on Academy Street.

Rails-to-Trails Route

Ahoskie has the potential opportunity to convert an abandoned rail road line into a multi-use trail. The Rails-to-Trails route extends from Catherine Street to the shopping center along Memorial Drive (U.S. 13). While this trail opportunity would be beneficial to distance bikers, there are safety concerns associated with this route due to the location. This route would need to be well-lit and include call-boxes to the police and other measures to ensure safety of the trail users.



ANCILLARY FACILITIES

Ancillary facilities are support amenities located at destination points and at intermediate points throughout the bicycling network. These facilities directly contribute to the overall success of the bikeways as they provide a convenience to cyclists. Ancillary facilities include bike parking racks, route signage/markings, pedestrian crossings, water fountains, rest areas, benches and information boards (for maps, etc.).

Bicycle racks are needed at destination locations in Ahoskie. A lack of secure bicycle parking may keep people from biking for transportation. Unattended bikes may result in theft, even when left for short time periods. Adequate capacity bicycle parking racks should be provided at all major destinations identified in the comprehensive bicycle plan including parks, schools, libraries, recreation centers, public buildings, and shopping centers.

Rest areas should be included along bicycle routes that involve longer distances or isolation from public facilities. For example, the recommended routes along the park boundary should include benches for people to rest and enjoy the scenery of the Ahoskie Creek. Rest areas encourage bicycling for people of all ages and abilities as it allows them adequate opportunity to stop biking and recover from travel so that they may continue for longer distances.

Map 4.2 shows these potential opportunities.



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¹ Selecting Roadway Design Treatments to Accommodate Bicycles (Publication No. FHWA-RD-92-073), Federal Highway Administration, January 1994



SECTION 5 – BICYCLE FACILITY STANDARDS AND GUIDELINES

Section Outline:

- 5.0 General Bicycle Planning & Design Guidelines
- 5.1 Roadway Improvements
- 5.2 On-Road Facilities
- 5.3 Off-Road Facilities
- 5.4 Bicycle Signage
- 5.5 Bicycle Parking Facilities
- 5.6 Intersection Treatments
- 5.7 Innovative Design Treatments
- 5.8 Streetscape Improvements (General)
- 5.9 Road Diet Treatments

This section will provide guidance to the Town of Ahoskie on design standards and guidelines for new bicycle facilities. These standards and guidelines are a critical component of this bicycle plan and for all facility construction and development.

5.0 GENERAL BICYCLE PLANNING & DESIGN GUIDELINES

The design standards and guidelines mentioned in this section are derived from North Carolina Department of Transportation (NCDOT) *Bicycle Facilities Planning and Design Guidelines*, the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for the Development of Bicycle Facilities*, and the Federal Highway Association (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, Part 9- Traffic Controls for Bicycle Facilities.

In addition to NCDOT, AASHTO and MUTCD, the following documents also serve as bicycle facilities guides:

- *Bicycle Parking Guidelines*, A Set of Recommendations from the Association of Pedestrian & Bicycle Professionals (APBP) (available at: www.apbp.org)
- *Bikesafe: Bicycle Countermeasure Selection System* (available at: www.bicyclinginfo.org/bikesafe/)
- *Designing Sidewalks and Trails for Access, Part I and II* (available at: <http://www.fhwa.dot.gov/environment/sidewalks/index.htm> and <http://www.fhwa.dot.gov/environment/sidewalk2/>)

5.1 ROADWAY IMPROVEMENTS

All roadways that allow bicyclists should be designed and constructed for safe use by cyclist; therefore, bicycle-safe design practices should be implemented to avoid costly retrofit improvements in the future. Roadway improvements include safe drainage grates, railroad crossings, bridges, smooth and level pavement surfaces, and traffic signals responsive to bicycles.

DRAINAGE GRATES

Drainage grates and utility covers can be a serious safety hazard for bicyclists. Unsafe grates, as well as a raised or depressed utility covers, can cause a crash by diverting or catching a bicyclist's front wheel.



According to the above mentioned guides, parallel bar drainage grates are the most hazardous because they can trap a bike’s front wheel causing loss of steering control and the bar spacing can allow narrow wheels to drop into the grates, resulting in not just property damage but possible injury to the bicyclist.

Unsafe drainage grate covers should be replaced with either “Type E, F, or G standard grate covers”ⁱ as shown in the image to the right. Due to their high risk of property and personal injury, parallel grate covers should be replaced immediately.

Due to bicyclists’ being more sensitive to a roadway surface and projections along it, roadway-resurfacing projects should not leave appurtenances projecting above the pavement surface. Repeated resurfacing a roadway without adjusting drainage grates or utility covers can result in these features being below the road surface, a hazardous tripping condition to bicycle traffic. Therefore, when a roadway is being resurfaced, all manholes, inlets, lampholes, and water valve boxes should be either raised or lowered to be level with the new roadway surface.

RAILROAD CROSSINGS

Railroad crossings can pose a problem for bicyclists at at-grade railroad crossings. Uneven or rough crossings can cause property and possible personal injury for bicyclists. Regular maintenance and replacement of railroad crossings should be done to avoid any potential problems.

In locations where railroad tracks cross a roadway at less than 45 degrees, the front wheel may be diverted by the rail or trapped in the flangeway, resulting in a loss of steering control. In addition, regardless of the angle, if the transition surface between the roadway and the tracks is rough, wheel damage and physical injury is possible.

Railroad tracks that cross roadways and/or bikeways at-grade should do so “as close to a right angle as possible.”ⁱⁱ If not feasible, design and construction consideration should be given as follows:

- Widening the approach of roadway, bike lane, or shoulder to allow cyclist to cross at approximately 90 degrees without veering into traffic. The minimum widening should be 6-feet; however, 8-feet is desirable, depending on the amount of available right-of-way.
- On low-speed, lightly travelled railroad tracks, commercially available flangeway fillers can be applied to eliminate the gap next to the rail (see image to the right).

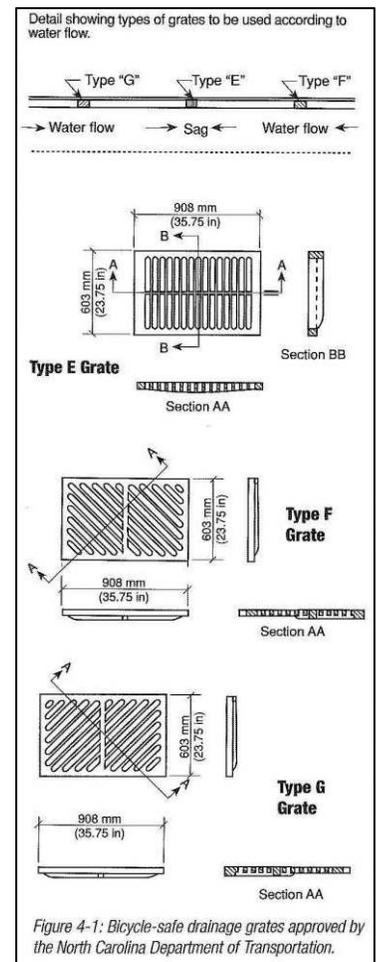
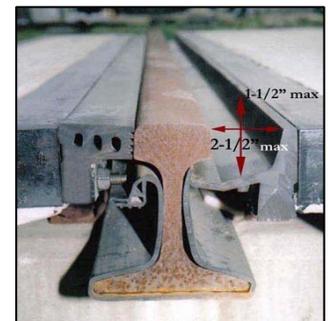


Figure 4-1: Bicycle-safe drainage grates approved by the North Carolina Department of Transportation.

Courtesy of: NCDOT Bicycle Facilities Planning & Design Guidelines



ADA Flangeway Filler



BRIDGES

According to North Carolina's Bicycle Facilities Planning and Design Guidelines, improving a bridge to accommodate bicycle traffic involves analyzing four major areas of concern:

- **Static Obstructions**

Bicycle-safe bridge railings need to be used on bridges designed for bicycle traffic and on bridges where bicycle protection is warranted. Bicycle rails on bridges should conform to the latest *AASHTO Standards and Specifications for Highway Bridges Guidelines*. The minimum height of the rail should be 54-inches from the top of riding surface to top of rail.

Guardrails on bridge approaches should also be designed for bicycles. A roadside barrier should be placed as far from the travel way as conditions permit. The minimum offset from the traffic lane or paved shoulder edge is 4-feet. However, when the slope on the exterior side of the guardrail is excessive or the hazard is severe, or the outside lanes are narrow, a bicycle-safe railing should be installed on top of the guardrail to provide additional protection, increasing the total height to 54-inches.

- **Surface Conditions**

The bridge surface should have smooth expansion joints and the deck should be clear of potential hazards for bicyclists. The bridge should use bicycle-safe drainage grates and drains. Due to potential steering problems, drawbridges and swing bridges with steel decking should not be designated as bicycle routes without determining the deck's effect on bicycle handling.

A bridge's surface should be clear of debris that could cause problems for bicyclists, forcing them to maneuver into traffic lanes or closer to the bridge edge.

- **Bridge Deck Width**

To accommodate bicycles on bridges 4-foot shoulders should be applied in shoulder sections and 4-foot bike lanes or 14-foot wide outside lanes should be applied in curb and gutter sections. Determining the best option is dependent on traffic speed and volume.

- **Bridge Approaches.**

Either paved shoulders or wide outside lanes should be continued for at least 100-feet on either side of a bridge in order to ensure a safe transition for bicycles. Additional bridge approach treatments can be found in the *North Carolina Bicycle Facilities Planning and Design Guidelines*.



BOARDWALKS

If a boardwalk is used as a portion of the multi-use segment (for instance, in an environmentally sensitive area), it should be designed to be bicycle and pedestrian friendly. The width of the boardwalk should be a minimum of 10-feet wide or 12-feet wide for bi-directional. If the boardwalk height exceeds 30-inches, railings are required. If required, the railings should be bicycle-safe and a minimum of 54-inches in height, to provide protection along the boardwalk.

The boardwalk surface should be clear of debris and have a smooth and level riding surface. When a boardwalk has to cross a large open area, thus becoming a bridge, *AASHTO Standard Specifications for Highway Bridges* should be reviewed to ensure appropriate load bearing capacity.



A 10-foot boardwalk in Warren County, NC / Rivers

PAVEMENT QUALITY

The pavement quality of a roadway can cause an unpleasant bicycling experience. Pavement irregularities, potholes, and depressions from heavy traffic may not be as noticeable or a concern to motorists, but bicycles with their narrow wheels and lack of suspension cannot handle these hazard spots. Therefore, whenever practical pavement surfaces on all roadways, especially those with bike facilities should be free of these hazards.

The paving over gutter pans to achieve the minimum requirements for a bicycle facility (i.e., bike lane) is not generally supported. However, if other treatment options are limited then this treatment may occur as long as continuous and consistent maintenance is conducted to prevent the potential break-up of the asphalt applied over the top of the gutter pan.

ON-STREET VEHICLE PARKING

In some instances, the removal, narrowing or reconfiguration of on-street parking will have to be conducted in order to accommodate and/or improve safety for bike lanes or shared lane markings along a particular roadway. Generally, when on-street parking is removed, in whole or in part, the safety of motorists, pedestrians, and bicyclists is improved. However, there are alternatives to complete removal of on-street parking.



Bike lane combined with on-street parking in Arlington, VA / Rivers

To reduce potential conflicts and public and private outcry, careful research is needed prior to making a proposal to change on-street parking in a community. A community needs to compile and analyze the following information before proceeding with on-street parking changes for a particular section of roadway:

- Types of land uses along section of roadway in question



- Availability of both on- and off-street parking
- Whether both or one side of roadway will be modified
- Supporting regulations
- Alternatives (narrowing existing parallel parking spaces, back-in/head out diagonal parking verses head-in/back out diagonal parking, parking garage or lot, shared parking spaces, etc.)

Parallel Parking

The use of parallel parking is the standard amongst communities along narrow roadways. A typical parking space is 8 to 10-feet wide and 22-feet long. However, spaces can be narrowed to 7-feet on local streets to allow the necessary room for bike facilities. In some instances, parallel parking may be applied to one side of roadway to accommodate the existing land uses in order to free up roadway space for bike facilities.

Parallel parking advantages include: 1) provides a buffer between travel lanes and sidewalks and 2) requires less pavement width than diagonal parking. However, some motorists tend to have difficulty maneuvering into the space, it is an inefficient use of street space since it accommodates fewer parking spaces than diagonal, and can pose a safety hazard for bicyclists riding along roadway and for the pedestrian exiting the vehicle.

Diagonal Parking

Diagonal parking has been an alternative to parallel parking in communities to gain additional spaces in areas of high parking demand. However, diagonal parking spaces typically require a length of 17.5 feet and a width of 8.5 feet of space on a road and can cause conflicts with safe bicycle travel, such as poor visibility of on-coming bicyclists.

There are two types of diagonal parking: pull-in/back-out and back-in/head-out. Both types have the same dimensions of 17.5 feet in length and 8.5 feet in width. Their advantages and disadvantages are discussed below. Diagonal parking, when possible, should be placed on one-way road, preferably on the left side to avoid conflict with bicycles. However, if diagonal parking is planned for a two-way road with existing or planned bike lanes or other on-road bike facilities, the following suggestions should be taken into consideration to decrease potential conflicts:

- Parking spaces should be long enough to accommodate large vehicles
- A 8-inch stripe should be placed between parking area and bike lane to increase a visible separation
- Possible enforcement of vehicles encroaching on bike lane



- A possible median to reduce the ability of motorists to pull into a diagonal parking space in the opposite direction it is designed for
- Appropriate warning and informational signs to inform motorists of bicycle presence

Pull-In/Back-Out Diagonal Parking

The more traditional diagonal parking method, this type requires the motorist to drive head-first into the parking space. Advantages of pull-in diagonal parking are: 1) provides a buffer between travel lanes and sidewalks, 2) is a traffic calming measures (reduces traffic speed, 3) makes it easier to park a vehicle, and 4) accommodates more vehicles along a section of roadway than parallel parking.

The disadvantages of this type of on-street parking are: 1) preferred on one-way roads, 2) preferred on roadways with lower posted speeds and traffic volumes, 3) obstructs sidewalks, 4) decreases visibility when backing out of space, and 5) not compatible with bike routes.

Back-In/Head-Out Diagonal Parking

An alternative diagonal parking method is back-in or head-out diagonal parking. This type requires the motorist to back into the parking space. The use of back-in diagonal parking provides better visibility when the driver is leaving a parking space, thus improving safety for the motorists, pedestrians exiting vehicles, and bicyclists traveling along the roadway as compared to standard diagonal parking.

Back-in parking advantages include: 1) better loading and unloading of materials into back of vehicle, 2) improves visibility when pulling out of space (actually safer than pull-in parking), 3) provides buffers between streets and sidewalks, 4) is a traffic calming measure (reduces traffic speeds), 5) accommodates more vehicles along a roadway, and 6) can be used along bike routes.

Disadvantages to this type of parking are: 1) preferred on one-way roads, 2) preferred with medians on two-way streets, 3) preferred on roads with lower traffic and post speed limits, and 4) additional educational signage is necessary.

5.2 ON-ROAD BICYCLE FACILITIES

On-road bicycle facilities are treatments applied to the existing roadway system, which offers a variety of opportunities for bicycle travel and provides many connections to key destinations needed to support a successful bicycle network. Experienced riders who travel at a speed of



Back-In Diagonal Parking Informational Sign in Olympia, WA
 Courtesy of www.pedbikeimages.org
 / Dan Burden



15-30 mph and are comfortable riding with vehicular traffic typically utilize these types of facilities. Selecting the appropriate facility for a given roadway is important and depends on numerous factors such as, traffic volumes, travel speeds, outside lane width, total pavement width, and percentage of heavy vehicle traffic. The following are various types of on-road applications for bicycle facilities. Table 5.1 summarizes on-road bicycle facilities.



*Bike lane
Courtesy of:
www.pedbikeimages.org / Dan
Burden*

BIKE LANES

Bike lanes are incorporated into a roadway that has available space where delineation is desirable for bicyclists and motorists, in order to provide a designated space for each and provide more predictable movements by each. Bike lanes can increase a bicyclist's confidence in safety by knowing motorists will not pass them too closely and motorists know they do not have to swerve out of their lane to pass a bicyclist.

Two-lane and four-lane divided roadways are the best environment for bike lanes. Bike lanes along roadways with numerous commercial driveways should be avoided. Bike lanes are meant to be one-way facilities, which carry bike traffic in the same direction as adjacent motor vehicle traffic. Therefore, two-way bike lanes on one side of the roadway are not recommended. On one-way streets, bike lanes should be placed on the right side of the street in the direction of travel.

According to AASHTO, there are four different width standards for bike lanes depending on the type of roadway it will be installed on. For roadways with no curb and gutter, the minimum width is 4 feet. On streets with curb and gutter, NCDOT supports 4-foot bike lanes measured from the edge of the gutter pan. It is typical of bicyclists to ride approximately 32-40 inches from a curb face; therefore, it is important that the pavement surface is smooth and free of obstructions. If a roadway has a wider gutter pan with storm drains or utility covers within them, additional space should be given for the bike lane to avoid bicyclists from swerving.

Where on-street parking is permitted and the parking stall is marked, the distance between the curb face and outer marking of the bike lane must be 13 to 15-feet to allow a 5-foot minimum width for a bike lane and 8 to 10-feet for the parking stall.

If on-street parking is permitted but the parking stall or area is not marked, the shared area should be a minimum of 11 feet without a curb face and 12 feet adjacent to a curb face. If the parking area has a high turnover rate, an additional 1-2 feet is preferred. To avoid obstacles, poor visibility, and hazards bike lanes should never be placed between parking area and curb line.



On rural roadways without curb and gutter and infrequent parking, bike lanes should be located within the limits of the paved shoulder at the outsider edge. These bike lanes should have a minimum width of 4 feet, where the area beyond the paved shoulder can provide additional maneuvering room. If heavy truck traffic is present or the speed limit is over 50 mph, a width of 5 feet or more should be provided.

Bike lanes should be marked with a 6-inch solid white line, and an additional 4-inch solid white line can be placed between the parking area and the bike lane for more clarification. As mentioned previously, improper drainage grates can pose a hazard for bicyclists; therefore, immediate replacement or retrofitting is necessary to provide a safe riding area for bicyclists.

WIDE OUTSIDE LANES

The desirable width of a travel lane is 12 feet, but on roadways with bicycle traffic, widening the outside lane can benefit both bicyclists and motorists. A wide outside lane refers to a wider outside travel lane shared by bicyclists and motorists. Wide outside lanes have no stripes to delineate a separate lane for bicyclists.

The minimum width for an outside lane is 14 feet of usable and clear (from obstructions) riding area. Generally, an extra 1-foot is added for flush or depressed obstructions, such as a joint or soft shoulder. An additional 2 feet should be added to accommodate raised obstructions like curb and gutter. On existing roadways where extending the pavement to widen the outside lane is not feasible, the lane striping can be shifted to narrow the inside lane(s) while widening the outside lane. If this is done, the inside lane(s) should not be narrower than 11-feet; however, the volume of truck traffic should be taken into account and if truck volumes are greater than 5% of the total traffic volume narrow lanes of 11-feet should not be used.ⁱⁱⁱ

Due to no defining markings, wide outside lanes require bicyclists and motorists to be more aware of and attentive to each other. This on-road treatment was not recommended in this Plan.

WIDE PAVED SHOULDERS

Wide paved shoulders are often used in rural areas or on roads with relatively few driveways and intersections. Smoothly paved shoulders are a preferred bicycle facility by cyclists and motorists. Paved shoulders can also provide an emergency pull-off area for vehicles, eliminate rutting and drop-off adjacent to travel lane edge, provide adequate cross slope for drainage, reduce maintenance, and provide lateral support for roadway base and surface course.



D11-1



M1-8



M7-6

Examples of Bike Route Signs
Courtesy of: MUTCD



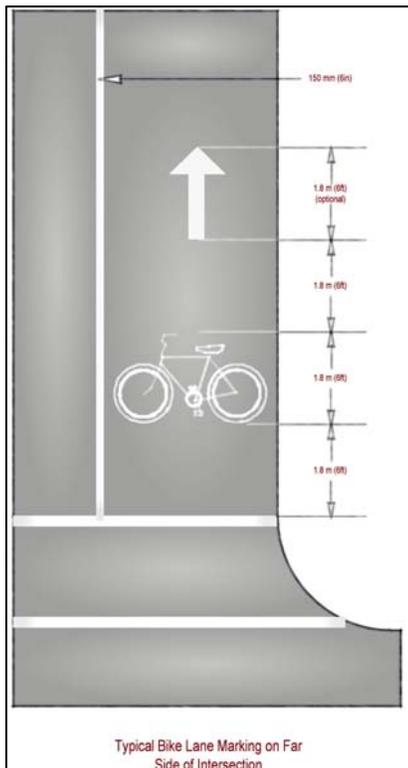
For a paved shoulder to accommodate bicyclist, the paved shoulder must be a minimum of 4-feet wide and be a smooth and level surface. Additional width is desirable if the speed limit exceeds 35 mph, if the vehicular traffic percentage for truck, bus and recreation vehicles is high, or if static obstructions exist at the right side.

A minimum 2-foot clearance should be provided from the edge of pavement to the top of the foreslope of a ditch; however, if the slope is greater than 2:1, the clearance should be 3-feet. If a guardrail is provided adjacent to the paved shoulder, a 4-foot clearance is preferred. All road signs and other vertical obstructions should be offset a minimum of 6-feet from pavement edge.

UNSIGNED SHARED ROADWAY (NO BIKEWAY DESIGNATION OR TREATMENT)

The majority of bicyclists travel on streets without bikeway designation or signage. This trend will probably continue to happen since portions of a community's existing roadway system has low traffic volumes and additional treatments are not necessary (i.e., minor residential streets). In addition, some roadways in a community may be unsafe or would be unsuitable for bicycle travel; therefore, it would be inappropriate to encourage bicycle traffic by designating them as bicycle routes with signage or on-street treatments.

SIGNED SHARED ROADWAYS (DESIGNATED BIKE ROUTES)



A signed shared roadway is a designated bike route with appropriate signage. Signed shared roadways serve either to provide continuity to other bicycle facilities or designate preferred routes through high-demand corridors.

By designating a roadway as a bike route, a community is stating there are advantages to using these routes compared to alternative routes (i.e., wider travel lanes, smoother road surface, avoidance of high vehicular traffic, ease of use by bicyclists, low speed limits, etc.).

A signed shared roadway should be maintained in a manner consistent with the needs of bicyclists and have appropriate signage along the designated route. The placement and spacing of signs should be based on Part 9 of the MUTCD (Traffic Controls for Bicycle Facilities). For signed bike routes to be functional and successful, supplemental signs should be placed beneath the main sign when located along routes leading to high demand destinations (Downtown, Schools, Parks, etc.). All directional changes should be signed with appropriate arrow signs and signage should not end at a barrier, instead information directing a bicyclist around the barrier is preferred.



Just as placement of signs is important, care should be given to avoid installing too many signs.^{iv} The overuse of signs can result in loss of effectiveness to bicyclists and motorists; therefore, a community should be conservative on the use of regulatory and warning signs along bike routes.

SHARROWS

Recommended by the North Carolina Committee on Uniform Traffic Control Devices (NCUTCD) in January 2007 (yet not supported currently by MUTCD until their anticipated 2010 update), the use of shared lane markings (bike-with-chevron) to identify where on a roadway bicyclists should ride has provided another option for improving awareness of bicycles on shared roadways.

The benefits of using the 'bike-with chevron', sharrow, or shared lane marking are:

- Assists bicyclists on identifying the appropriate and legal line of travel;
- Encourages motorists to pass bicyclists safely and with adequate clearance;
- Reduces the likelihood of a cyclist getting hit by a parked car door;
- Alerts motorists of the lateral location bicyclists may occupy; and
- Reduces wrong-way bicycling.

On roadways with on-street parking, the shared lane marking must be placed a minimum of 11-feet from curb face, or from pavement edge when there is no curb. Roadways with no on-street parking, the marking must be placed 4-feet from curb face or edge of pavement. This marking should not be used on shoulders or in designated bicycle lanes, and on roadways with speed limits above 35 mph. When used along a roadway, the shared lane marking should be placed immediately after an intersection and spaced at intervals no greater than 250-feet. Further guidance will be provided in the anticipated 2010 update of the MUTCD and AASHTO Guide.

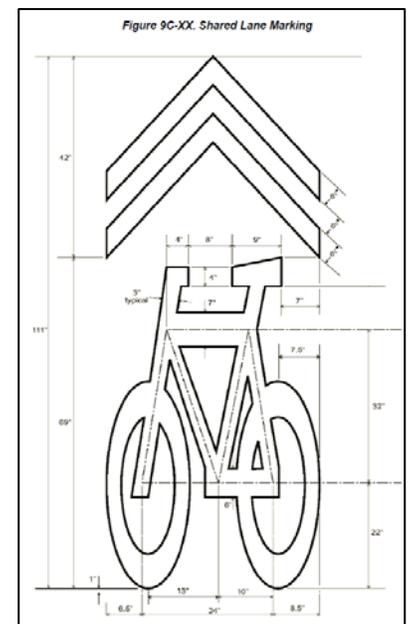
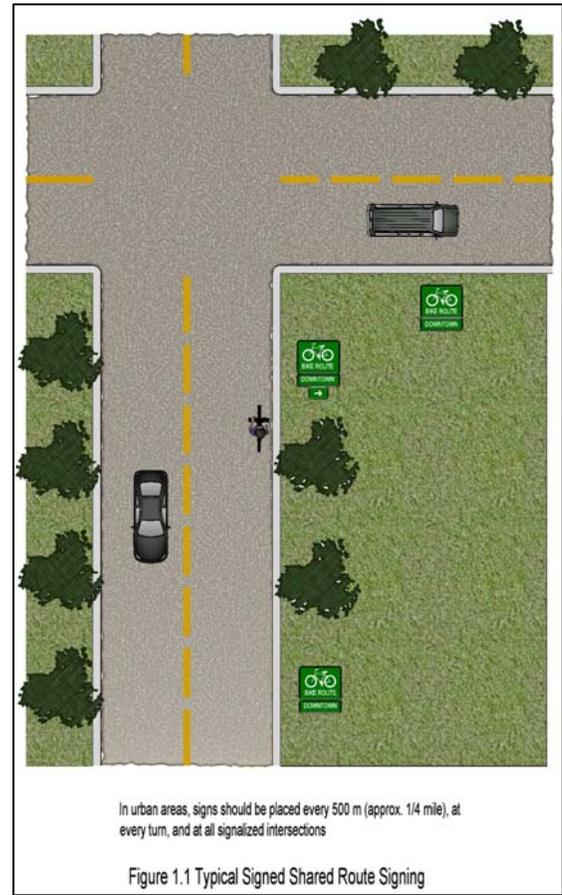


Illustration of Shared Lane Marking
Courtesy of: NCUTCD



5.3 OFF-ROAD FACILITIES

Off-road facilities provide an alternative for those less experienced bicyclists, children, and a variety of other non-motorized users, such as pedestrians, skaters, and joggers, with a safe and potentially scenic travel route. These types of facilities appeal to families with children of varying skills and abilities and have been successful in reintroducing the public and communities to bicycling as a form of recreation and transportation. Long stretches of continuous roadway right-of-way, utility easements, railroad easements, shorelines, and parks are excellent locations for these facilities.

Depending on facility location, additional safety measures may be needed due to their potentially secluded nature or terrain. Table 5.1 summarizes off-road facilities.

SIDE PATHS / BICYCLE PATHS

Side Paths or Bicycle Paths are trails alongside a roadway and should not be mistaken for sidewalks or multi-use trails. Unlike sidewalks, side paths are a non-motorized extension of the road intended for the exclusive or preferential use of bicycles. A designating feature of side paths compared to multi-use trails is that they do not have their own right-of-way; instead, they share the roadway right-of-way. However, this closeness to the roadway and their intended purpose results in diligence with planning and design of these facilities to reduce conflicts with driveways, side streets, and turning traffic. Side paths should only be used where there are few or no conflicts, to connect other bicycle system components, when there is a demand for various users, and not at the expense of on-road bicycle facilities.

Per AASHTO, side paths should be designed as a two-way facility with a minimum width of ten (10) feet (prefer 12 feet for high bicycle use areas or for probable shared use by pedestrians or joggers) to allow for the necessary operating and maneuvering of multiple bicycles with a minimum 5 feet (prefer 6 feet) of acceptable separation between it and the roadway to demonstrate its use is for bicycles not motor vehicles. If a five (5) feet buffer is not available due to space constraints, a suitable barrier must be provided, such as vegetation and/or a 54-inch high fence or railing. The path should also have a two (2) foot graded buffer along both sides of the pavement to allow clearance between it and any obstructions.

In some instances and upon further study, engineering, and additional signage, side paths may be narrower due to limited space, such as passing between buildings or utility poles that cannot be moved or across bridges that cannot be modified. These narrow segments of a path may



be acceptable or necessary for a short distance, but should be handled on a case-by-case basis and should not be given a blank approval by a community.

Side paths should be adequately signed and all intersections or road crosses should be handled according to AASHTO and MUTCD standards.

MULTI-USE TRAILS

Multi-use trails and greenways are developed to serve bicyclists, runners, walkers, and wheelchairs. Multi-use trails are installed in many locations, such as a connection through residential neighborhoods, along rivers, on abandoned railroad beds, in parks to provide additional recreation, and along utility rights-of-way or within their own right-of-way. Pavement for multi-use trails can range from various conventional pavements to pervious pavements to compacted screenings. AASHTO and FHWA recommend multi-use trails meet the following^v:

- A minimum width of ten (10) feet and encourages twelve (12) feet or more where heavy user traffic is anticipated for bi-directional trails
- A minimum width of six (6) feet for single direction trails
- A two (2) foot graded area adjacent to both sides of the trail with a maximum 1:6 slope
- Cleared of vertical obstructions, such as tree limbs lower than eight (8) feet to allow for safe under-passage
- On sloped landscapes, have grades that do not exceed 5% with a graduated scale up to 11% or more for short distances
- A cross slope of less than 2%
- Ninety (90) degree angles should be avoided for safety reasons
- A separation of at least five (5) feet from roadways or a forty-two (42) inch high physical barrier
- Additional horizontal clearance width is needed for curved trails, trails with steep slopes, and trails with high posted speeds to ensure user safety



An asphalt multi-use trail in Greenville, NC / Rivers & Associates, Inc.

Accessibility should be a top consideration for developing these trails; therefore, as many barriers as possible need to be removed.

Informational signs at trail access points indicating steep grades, excessive cross slopes, uneven surfaces, and narrow widths will help users determine if the trail is appropriate for their use. Trails should be built within the land contour and be designed with environmental sensitivity.



A multi-use trail with access from a street in Williamston, NC / Rivers & Associates, Inc.



When adjacent to canals, ditches or slopes steeper than 1:3, a separation of five (5) feet from the edge of the path pavement to the top of slope is desirable. The vertical clearance should be a minimum of 8 feet; it may be greater (10 feet) if needed to provide for maintenance and access of emergency vehicles.

The trail design needs to take into consideration user experience, serious bicyclist speeds and environmental conditions; however, the design minimum speed should be 20 mph.

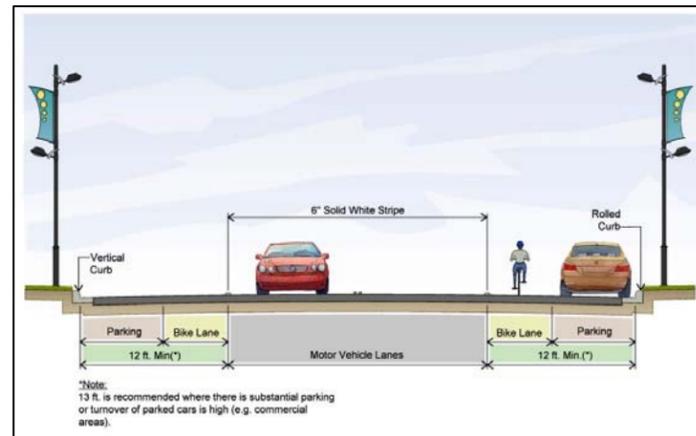
For further guidance on multi-use trails, see North Carolina Division of Bicycle and Pedestrian Transportation website at the following:
http://www.ncdot.org/transit/bicycle/projects/project_types/Multi_Use_Pathways2.pdf



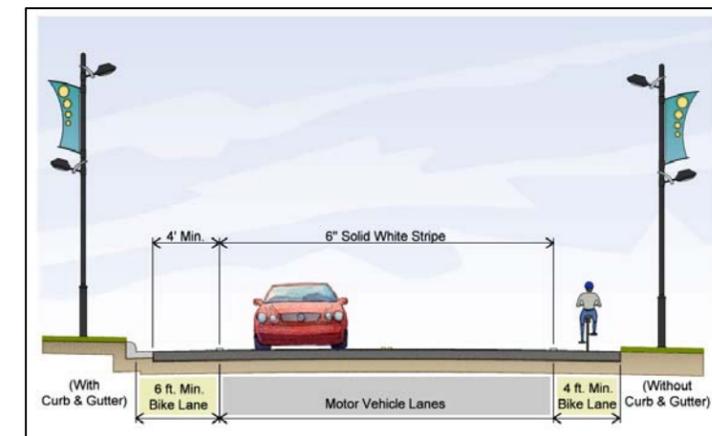
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TABLE 5.1: SUMMARY OF TYPES OF BICYCLE FACILITIES
 ~ SOURCE: WWW.BICYCLEINFO.ORG AND NCDOT BICYCLE FACILITIES PLANNING & DESIGN GUIDELINES

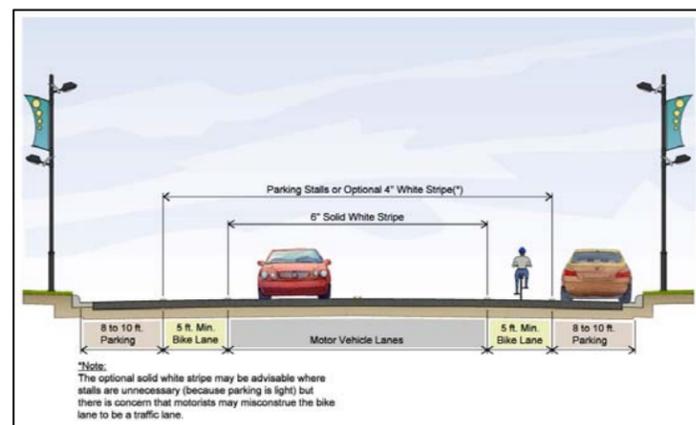
FACILITY TYPE	APPLICATION	TREATMENT	PURPOSE	IMAGE EXAMPLE	CROSS-SECTION EXAMPLE
Bike Lane	Applied to the right side of roadways (one-way only), to carry cyclists in the same direction of motorists. Located between on-street parking and the travel lane (if parking is allowed).	<ul style="list-style-type: none"> 4-foot minimum width of bike lane on roadways with no curb and gutter When curb and gutter is present, the minimum 4-foot width is measured from edge of gutter pan. Where on-street parking is allowed and the parking stall is marked, the distance between curb face and outer marking of the bike lane must be 13 to 15-feet to allow a 5-foot minimum width for a bike lane and 8 to 10-feet for a parking stall. 11-foot total width for shared bike lane and parking area, no curb face. 12-foot shared bike lane and parking with curb face. 6-inch solid white line stripe separating bike lane from vehicle lane – can increase to 8-inches where needed. 4-inch optional solid white line stripe separating bike lane and parking spaces. 	Provides on-road designation for a portion of the roadway to bicycle traffic by striping, signing, and pavement marking, which creates more predictable movement by cyclists and motorists.	<p>Bike Lane application in Chapel Hill, NC Courtesy of: www.pedbikeimages.org / Libby Thomas</p>	See cross-sections below



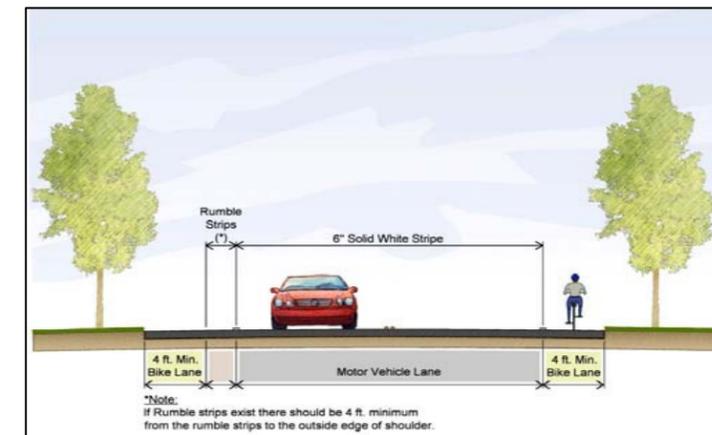
Bike Lane with On-Street Parking Permitted Without Parking Stripe



Bike Lane Where On-Street Parking is Prohibited



Bike Lane with On-Street Parking Permitted & Delineated



Bike Lane in Outlying Areas where Parking is Prohibited



TABLE 5.1 : SUMMARY OF TYPES OF BICYCLE FACILITIES, CONTINUE
 ~ SOURCE: WWW.BICYCLEINFO.ORG AND NCDOT BICYCLE FACILITIES PLANNING & DESIGN GUIDELINES

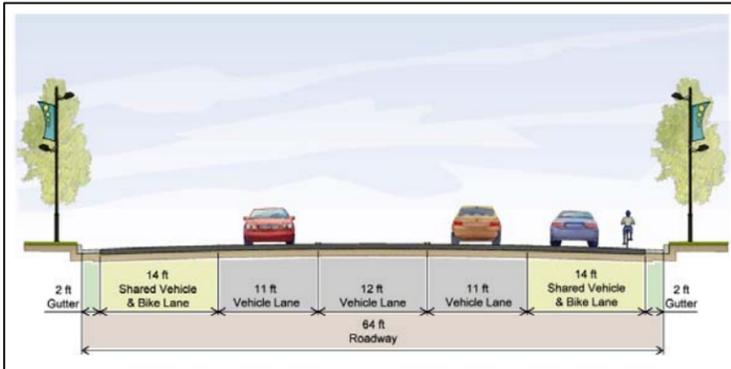
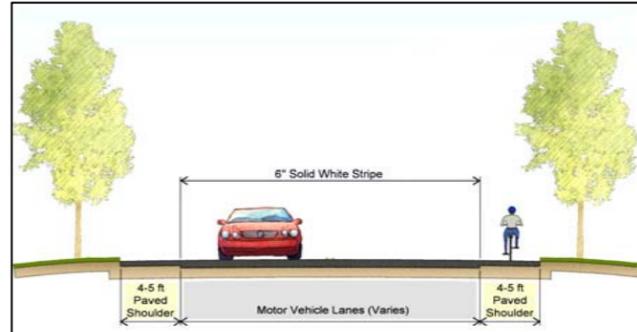
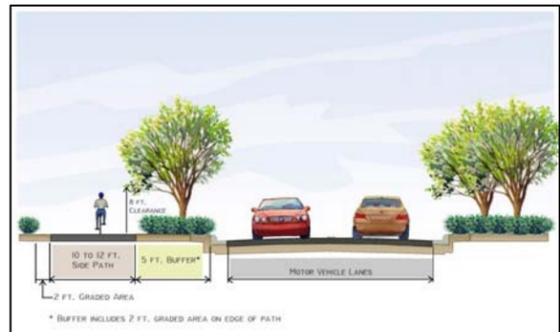
FACILITY TYPE	APPLICATION	TREATMENT	PURPOSE	IMAGE EXAMPLE	CROSS-SECTION EXAMPLE(S)
Wide Outside Lane (WOL)	Most appropriate on high-speed rural highways or high volume arterials when there is insufficient room for a bike lane. Used on streets where designating bike facilities is not advisable but due to directness of route or lack of alternative, road is used by bicyclists.	<ul style="list-style-type: none"> • 14-foot minimum width for WOL measured from edge line or joint of gutter pan to lane line. • 15-feet to 16-foot minimum is preferred where extra space is needed for maneuvering or to keep clear of on-street parking or other obstacles. • Not signed as a bike route. • Does not have separation striping. 	Provide additional space for bicyclists while maintaining vehicular capacity of right lane when a bicycle is present.	 <p>Wide Outside Lane in Chapel Hill, NC Courtesy of www.pedbikeimages.org / Libby Thomas</p>	 <p>Wide Outside Lane on a Typical 5-Lane Roadway with Curb & Gutter.</p>
Wide Paved Shoulder	On roads with no curb and gutter. Usually on high speed, rural arterials that serve a high number of experienced bicyclists when wide curb lines are not practical. Shoulder must be continued through intersections and should not be used as a right-turn lane.	<ul style="list-style-type: none"> • 4-foot wide shoulder surface that is paved and maintained equal to surface standard of roadway. • No rumble strips or gutter pan within this 4-foot area. • 5-foot minimum width recommended from face of guardrail, curb or other barrier. • Widths should be increased if there is a high level of bicycle usage, vehicle speeds are above 50 mph, or there is a higher percentage of truck or bus traffic. 	Provide better accommodations for both bicyclists and motorists in rural and developing areas.	 <p>Paved Shoulder in the United States Courtesy of www.pedbikeimages.org / Dan Burden</p>	 <p>Paved Shoulder on 2-way Roadway with Separation</p>
Side Path	Works best along corridors with limited driveway / intersection crossings and where there are more desirable destinations along one side of roadway, or where a bike lane is not provided due to limited roadway space.	<ul style="list-style-type: none"> • 10-foot minimum width (prefer 12-feet) with a 3 to 5-foot (prefer 6-foot) of vegetated buffer between path and travel lanes. 	Provide a safe multi-use path along a limited access roadway to popular destinations.	 <p>Side Path application in Morehead City, NC Courtesy of Rivers & Associates, Inc.</p>	 <p>Side Path along one side of a two-lane roadway</p>

TABLE 5.1 : SUMMARY OF TYPES OF BICYCLE FACILITIES, CONTINUE
~ SOURCE: WWW.BICYCLEINFO.ORG AND NCDOT BICYCLE FACILITIES PLANNING & DESIGN GUIDELINES

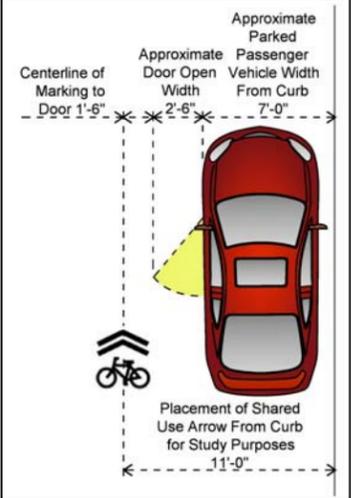
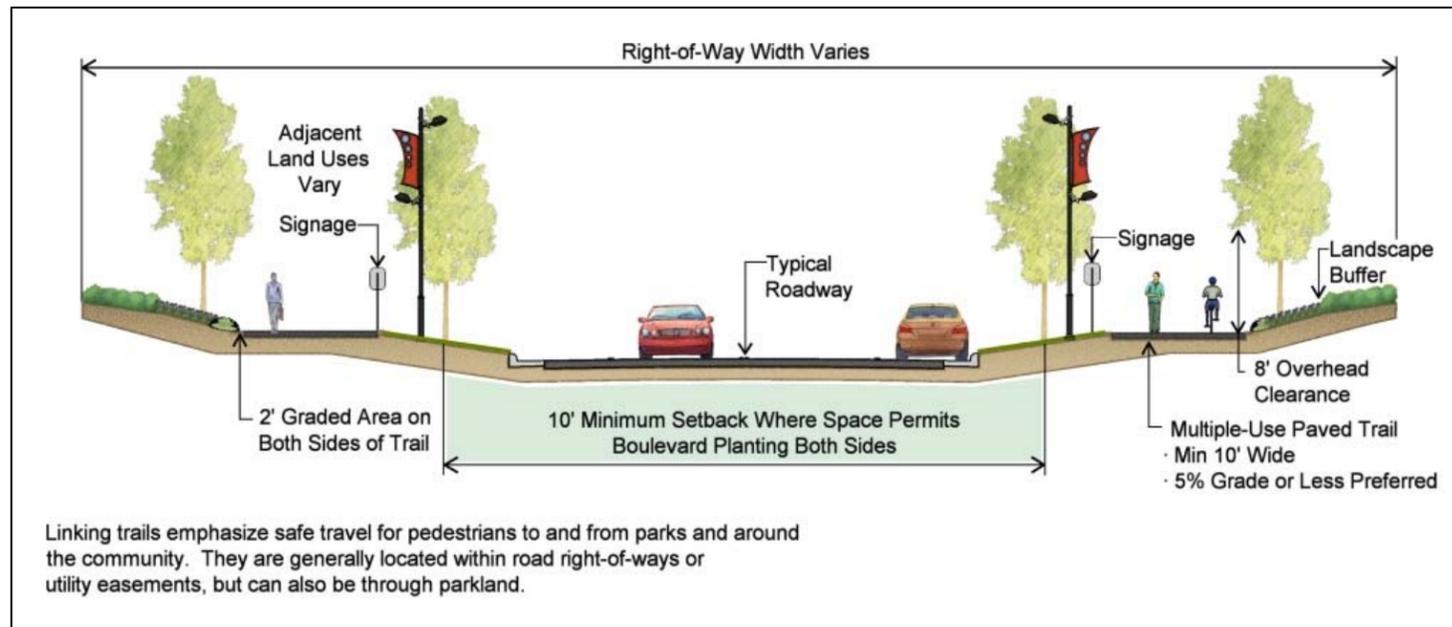
FACILITY TYPE	APPLICATION	TREATMENT	PURPOSE	IMAGE EXAMPLE	CROSS-SECTION EXAMPLE
Un-Signed Shared Roadway	On local streets in residential areas with low speed and volume, used when local streets are needed to be a part of the designated route system to provide connectivity and linkage throughout the community.	<ul style="list-style-type: none"> • Typical roadway width of 12 feet with or without shoulders. 	Provide access to the many origins and destinations dispersed throughout the community. Allow bicycle access to all street and roadways, regardless of whether or not designed bicycle facilities are provided.	 <p>Un-Signed Shared Roadway in Beaufort, NC <i>Courtesy of Rivers & Associates, Inc.</i></p>	N/A
Signed Shared Roadway	Signed shared roadways are those roadways signed as preferred bike routes. A signed shared roadway should not terminate at a dead-end street or a barrier (i.e., major intersection, narrow transition areas, waterways, etc.).	<ul style="list-style-type: none"> • Route provides through and direct travel. • Connects discontinuous segments of shared use trails or bike lanes. • Street parking is prohibited or limited to provide more street width. • Smooth roadway surface free of debris. • Wider curb lanes are provided compared to parallel roads. • Shoulders are at least 4-feet wide • Signage tend to include route distance, direction, and destination information 	Provides continuity between bike lanes, trails or other bike facilities; marking a common route for cyclists through a high traffic corridor; directing cyclists to low volume roads or those with a paved shoulder; and directing cyclists to destinations.	 <p>Signed Shared Roadway in Beaufort, NC <i>Courtesy of Rivers & Associates, Inc.</i></p>	N/A
Sharrows	On-road application of a “bike-with-chevron” marking on shared roadways. The chevron can be applied to two or four lane roadways. This marking should not be used on wide shoulders or designated bike lanes, on roadways with a speed limit above 35 mph. When used, the marking should be placed immediately after an intersection.	<ul style="list-style-type: none"> • Paint the “sharrow” or “shared lane marking” on the right-hand lane (outer lane). • 10-foot minimum width for lane is necessary for placement of “sharrow” marking. • Placement of the center of “sharrow” marking should be approximately 1.5 feet from outside lane marking line if on-street parking is prohibited. • Center of “sharrow” marking should be placed 11-feet (minimum) from curb face, or from the pavement edge if on-street parking is allowed. • Spacing of markings at intervals no greater than 250 feet. • When there is no on-street parking, then “sharrow” marking should be placed 4-feet from curb face or edge of pavement. • More specific guidance for the dimensions and application of sharrows will be available in the anticipated 2010 MUTCD and AASHTO Guide updates. 	Provides visual notice of the presence of bicycles on the roadway, an indication of where the preferred bicycle position in the lane, encourages safe passing of bicyclists by motorists, reduces the likelihood of a bicyclist getting hit with a car door, and reduce the possibility of bicyclists riding in the wrong direction.	 <p>Sharrow along a street with back-in/head out diagonal parking in Seattle, WA <i>Courtesy of www.pedbikeimages.org / Carl Sundstrom</i></p>	 <p>Approximate Parked Passenger Vehicle Width From Curb: 7'-0"</p> <p>Approximate Door Open Width: 2'-6"</p> <p>Centerline of Marking to Door: 1'-6"</p> <p>Placement of Shared Use Arrow From Curb for Study Purposes: 11'-0"</p>

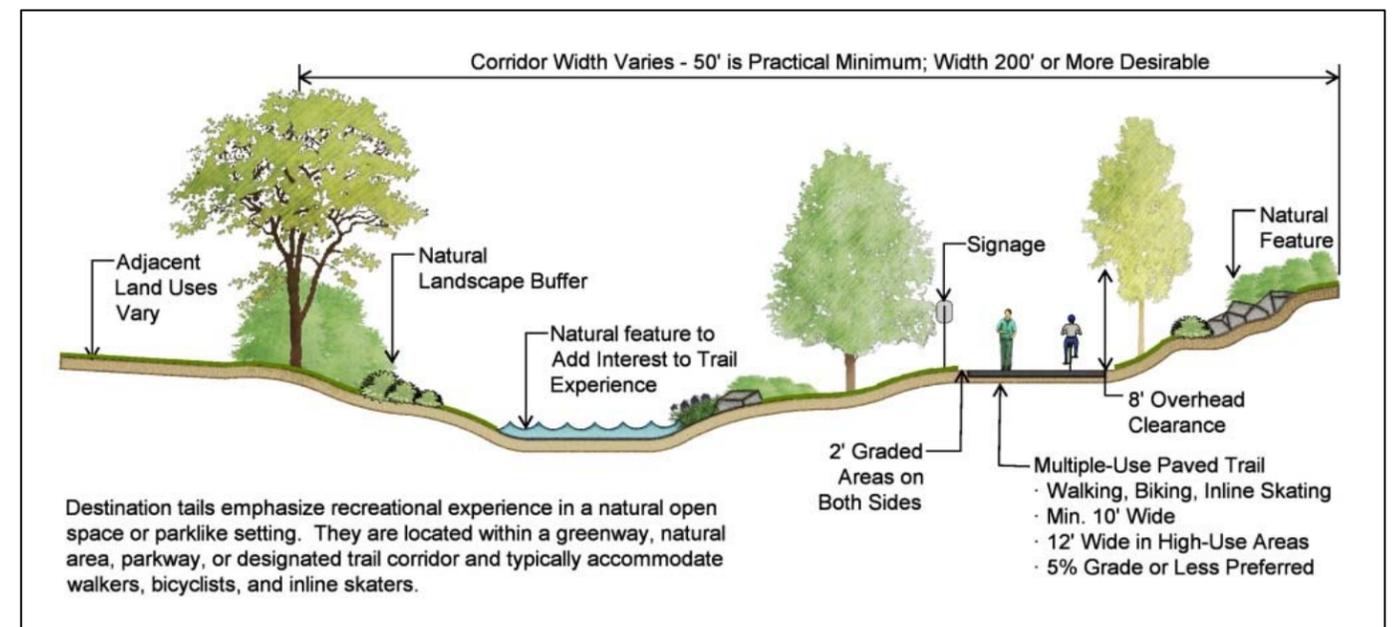


TABLE 5.1: SUMMARY OF TYPES OF BICYCLE FACILITIES, CONTINUE
 ~ SOURCE: WWW.BICYCLEINFO.ORG

FACILITY TYPE	APPLICATION	TREATMENT	PURPOSE	IMAGE EXAMPLE	CROSS-SECTION EXAMPLE
Multi-Use Trail / Path	Off-road application along former railroad corridors, easements, canals to supplement a bicycle network of on-road bicycle facilities. Intersection treatment of off- and on-road applications have to be done with great care.	<ul style="list-style-type: none"> • 10-foot minimum width for two-way path/trail on a separate right-of-way. • 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 trail edge. • 12-feet is recommended for trails with high use by bicyclists, joggers, skaters, and pedestrians, and where grades are steep - Refer to AASHTO for additional information on grade and slope of trail. • 2-feet of graded area should be maintained adjacent to both sides of trail. • 3-feet of lateral clearance between trail edge and trees, poles or other obstacles. • 8-feet of vertical clearance. • Appropriate signage, marking, and lighting will be needed. • Use of bollards at entrances to prevent motor vehicles use on trail 	Provides alternative transportation links for pedestrians and bicyclists between destinations, habitat corridors, economic development attractors, and outdoor fitness centers.	 <p>Multi-Use Trail application in Williamston, NC Courtesy of Rivers & Associates, Inc.</p>	See cross-sections below.



Linking Trail



Destination Trail



5.4 BICYCLE SIGNAGE

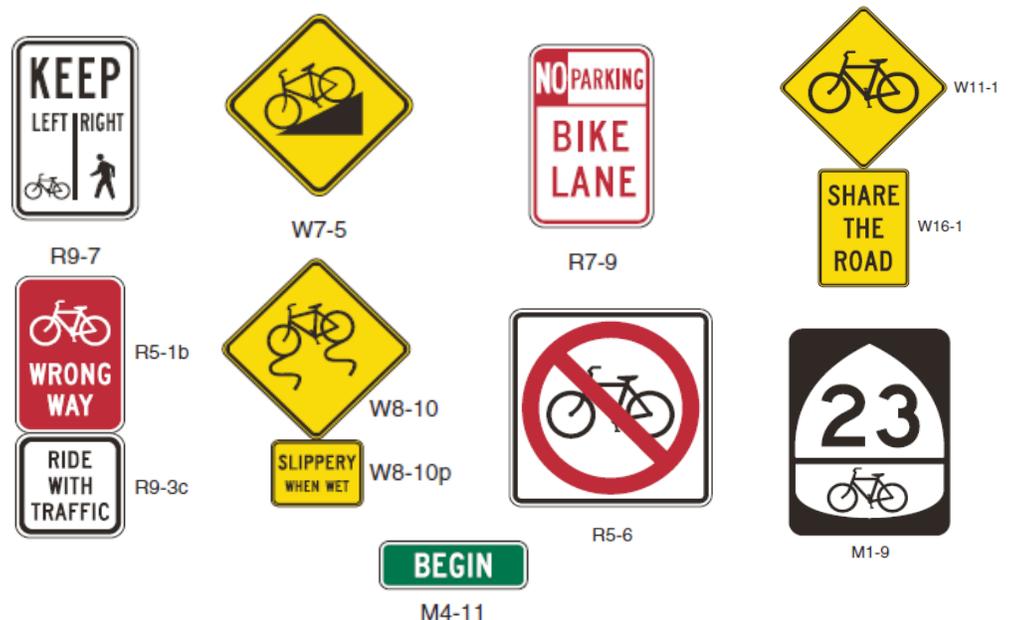
The use of bicycle signage is an important and basic treatment for improving a community's bicycle network. The installation of informational, regulatory, and warning signs must comply with the Federal Highway Administration *Manual for Uniform Traffic Control Devices (MUTCD), Part 9 (Traffic Controls for Bicycle Facilities)*. However, overuse of signs not only provides visual clutter to motorists, they can foster noncompliance and disregard that could lead to crashes.

Regulatory and warning signs provide helpful information to motorists and bicyclists unfamiliar with an area, notify motorists of the presence of bicyclists, and give bicyclists the ability use a roadway safely. The use of regulatory and warning signs within school zones can be extremely useful for bicyclist and pedestrian safety, in addition to slowing traffic speeds. There are several different regulatory and warning signs to assist in warning or prohibiting actions by motorists and bicyclists, and they all must comply with MUTCD^{vi}.

The installation of signage on shared roadways is beneficial to bicyclists and motorists by raising awareness of the potential presence of bicyclists on a road, and by informing or identifying a designated route for bicyclists. The most common bicycle sign seen on roadways is the "Share the Road" sign; however, as mentioned earlier the overuse of this sign can reduce the effectiveness. Additional information on "Share the Road" initiative can be found at:

http://ncdot.org/transit/bicycle/safety/programs_initiatives/share.html

All available signs assist with ensuring traffic flows safely and efficiently whether you are driving or riding a bicycle.



Examples of Regulatory, Warning, and Informational Bicycle Signs
Courtesy of: MUTCD, Part 9



5.5 BICYCLE PARKING FACILITIES

The selection and placement of appropriate bicycle racks are an important component to a comprehensive bicycle plan. The lack of parking facilities for bicycles tends to keep people from using their bikes for basic transportation, due to the risk of theft or possible damage. Therefore, the following guidelines should be considered when selecting and placing bicycle parking facilities in Ahoskie to promote bicycling and discourage the use of trees, railings, sign posts, and other appurtenances.

When deciding on the type of bicycle parking device to use, the following components should be considered:

1. Level of Security Needed.

The level of bicycle security is dependent upon the type of parking needed, short-term or long-term. Short-term parking is generally located in the front of a store or destination, which does not need so much security as long-term parking (i.e., employee parking). The use of racks can be used for short-term parking; whereas, bicycle lockers, locked enclosures, or locked rooms within buildings would provide better security for long-term parking needs. All parking facilities should be permanently anchored to prevent moving by bicycle users or vandals.

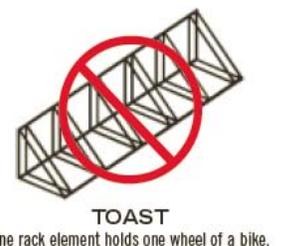
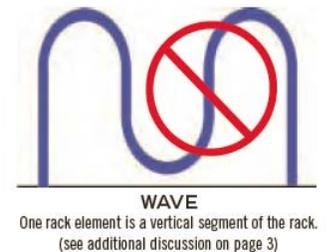
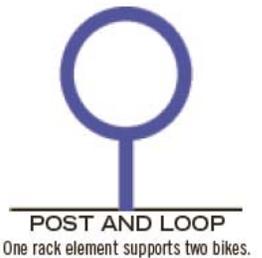
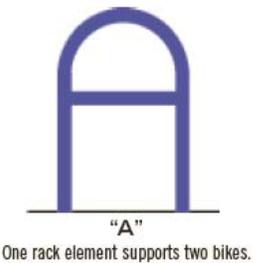
2. The Type of Rack or Device and How it Works.

A rack should support a bicycle upright by its frame in two places, prevent the bicycle wheel from tipping over, enable the frame and either one or two wheels to be locked to the rack, support all types of bicycles, and allow front-in and back-in parking. Racks that do not support the bicycle frame should not be used, since rims can easily become bent if a rack only supports one wheel. Examples of racks not recommended are Comb, Toast, School-Yard, and other wheel-bending racks.

3. Number of Spaces Needed.

Assessing the appropriate number of bicycle parking spaces for different destinations can be done by rough estimates of current users and potential users. Generally, allow roughly 2' by 6' for each bicycle space to allow accessibility. It is recommended that a few racks or parking units be available at first and when demand increases, expand.

The placement of the bicycle parking can be as important or more important to the potential user. For instance, a rack placed in the wrong location will not be used. Therefore, the following elements should be used to determine the best possible location:



Courtesy of: APBP Bicycle Parking Guidelines



D4-3

Image of Bicycle Parking Sign
Courtesy of: MUTCD

1. Long-Term and Short-Term Parking Needs.

As mentioned previously, long-term and short-term parking needs differ in the type of parking facility needed, in addition to, location of those facilities. Short-term parking is needed at popular destinations such as retail stores, libraries, parks, banks, post offices, and other places where there is a high turnover rate of users during the day. Short-term parking should be conveniently located, near building entrances. If a bicyclist has to walk out of their way to use the facility, they will find somewhere closer to park. The best location for a rack is immediately adjacent (within 50' of main entrance) to the building entrance it serves. If more than one building will be served by the facility or a building has more than one main entrance, the parking facility should be distributed to serve all buildings or main entrances. The rack should not impede the pedestrian flow into and out of that entrance.

Long-term parking is needed at schools, employment centers, and other places where daily user turnover rates are low. Unlike short-term parking, convenience is slightly less important than security for long-term parking.

2. Relationship to Automobile Parking and Traffic Lanes.

If a bicycle facility is placed near a parking lot or traffic lanes, a protection barrier is needed to mitigate potential damage to the bicycle and rack.

3. Relationship to Pedestrian Space.

Bicycle parking facilities should not impede into the pedestrian space. It is very easy for pedestrians to become distracted and walk into a rack or parked bicycle potentially resulting in personal injury. Therefore, parking facilities should have a minimum clearance of 48" from a parked bicycle to the edge of the pedestrian path. If this distance is not available, the parking facility should be very noticeable and free of projections.

4. Visibility and Protection.

A parking facility should be placed in a location that is highly visible to the surrounding buildings and pedestrian areas, such locations will mitigate possible vandalism, theft, and reduce fears of bike users. All parking facilities should have a bicycle parking guide sign (D4-3) to inform potential users of the parking areas. The placement of parking facilities under roof overhangs (not under the drip line) or other elements will shelter bikes from the weather.

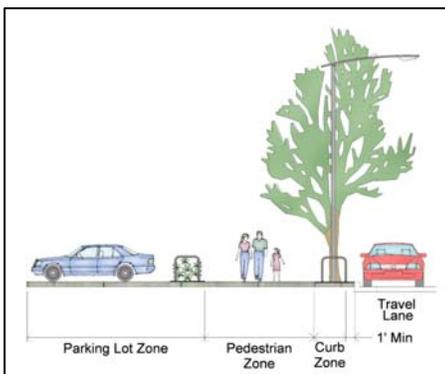


Illustration of Bike Rack Placement



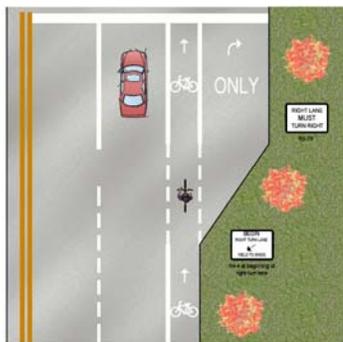
5.6 INTERSECTION TREATMENTS

Designing a smooth transition at intersections for bicyclists and motorists can be difficult, especially handling right-turn lanes. However, there are many different methods to improve intersection conditions for bicyclists and motorists at various intersections. To provide a safe environment for easy turning movements for both bicycles and motor vehicles, on-road applications should be made to ensure: 1) Motorists make right turns as close to the right-hand curb as possible, 2) Bicyclists going straight should be to the left of right turning traffic, and 3) Bicyclists turning left should turn from left lane or as close to the centerline or the left side lane as possible.

INTERSECTIONS WITH RIGHT-TURN LANES

Intersections with bicycle lanes tend to confuse both cyclists and motorists when it comes to turning movements. Bike lanes are designed to keep bicyclists to the right side of the roadway; however, without additional signage or markings bicyclists and motorists have a hard time determining how to conduct right-hand turns.

The best option to clarify how bicyclists and motorists should handle a right-turn lane is shown in the illustration to the right for streets that do not have on-street parking. For those roadways with on-street parking, the best option for marking appropriate travel paths for bicyclists and motorists is shown in the illustration below.



A. Right-turn-only Lane (optional dotted lines)



B. Parking Lane into right-turn-only lane



C. Right-turn-only Lane (no dotted lines)



A. Optional right/straight and right-turn-only Lane

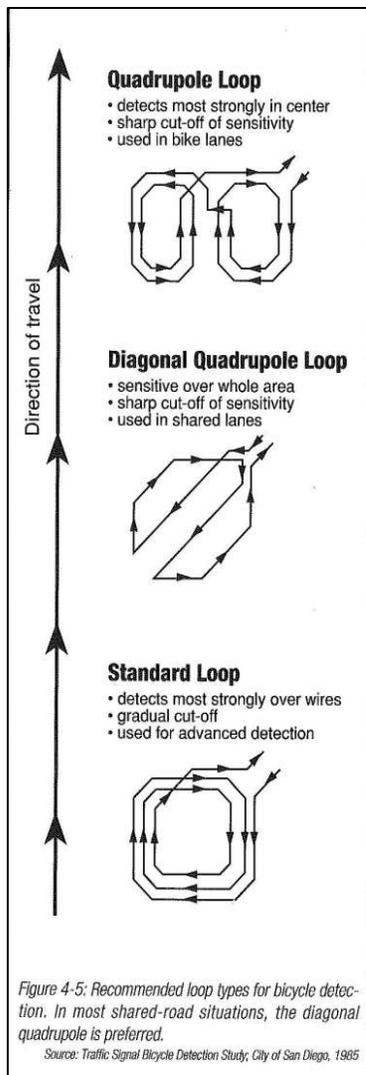


SIGNALIZED INTERSECTIONS

Detection of bicyclists at traffic-actuated signals is crucial for bicyclists' safety and encourages proper crossings of the intersection. Improving an existing signalized intersection with bicycle-activated detector loops (see illustration to the left) can make them friendlier to bicyclists. The purpose of these loops is to allow the bicyclist to trigger change in the traffic signal, since the majority of vehicular detector loops are too large or do not carry the small area a bicycle would occupy in a travel lane.

The loop should be located in the bicyclist's expected path, including left-turn lanes and shoulders. It is also helpful to provide a pavement marking to identify the location where a bicyclist has to be to activate the signal.

However, in some situations, the use of pedestrian or bicyclist-activated buttons may be an acceptable alternative to the use of detectors provided a bicyclist does not have to demount or make unsafe leaning movements to use them.



Courtesy of: NCDOT Bicycle Facilities Planning & Design Guidelines



PATH-ROADWAY INTERSECTIONS

The intersection of a path or trail and a roadway should be at a logical and visible location. Motorists should be warned ahead of time of the approaching trail crossing and the potential trail users should be alerted of the upcoming intersection. Maintaining visibility between trail users and motorists is extremely important for the safety of trail users.

The path-roadway intersection approach should be made at a relatively flat grade so bicyclists are not traveling downhill into the oncoming traffic at the intersection. If the intersection is more than 75-feet from curb to curb, it is desirable for a center median refuge area be provided for safe crossing of travel lanes.

Bollards and signage are typically placed at the path-roadway intersection to limit entrance onto the trail to pedestrians and bicyclists.

Use of signage and traffic calming features such as speed tables or crosswalks will aid to alert motoring traffic of the potential existence of crossing pedestrian or bike traffic.

Considerations for carefully planned path-roadway intersections should include the following:

- Crossings should be a safe enough distance from neighboring intersections to not interfere (or be interfered) with traffic flow.
- A roadway with flat topography is desirable to increase motorist visibility of the path crossing.
- Motorists and trail users should be warned, such as with signage (including trail stop signs), changes in pavement texture, flashing beacons, raised crossings, striping, etc.
- A refuge is needed where crossing distance is excessive and in conditions exhibiting high volumes/speeds and where the primary user group crossing the roadway requires additional time, such as schoolchildren and the elderly.
- The crossing should occur as close to perpendicular (90 degrees) to the roadway as possible.
- If possible, it may be desirable to bring the path crossing up to a nearby signalized crossing in situations with high speeds/ADT and design and/or physical constraints.
- Signalized crossings may be necessary on trails with significant usage when intersecting with demanding roadways, but MUTCD warrants must be met for the installation of a signalized crossing.



A striped crosswalk and trail crossing in Williamston, NC / Rivers & Associates, Inc.



A raised speed table and trail crossing in Williamston, NC / Rivers & Associates, Inc.



5.7 INNOVATIVE DESIGN TREATMENTS

There are several situations or transition areas where innovative design treatments may be used to provide accommodations for bicyclists. The following paragraphs briefly describe those transition areas and offer design and construction guidance.



Image of colored bike lane
Courtesy of: Streetprint

COLORED BIKE LANES

The color bike lane treatment involves using colored pavement or paint within the boundaries of a bike lane to help visually elevate the prominence of the bike lane on the road; thus, increasing safety, comfort, and awareness of bicyclists. This treatment is not currently in the MUTCD nor is it expected in the 2010 update; however, a municipality can request state and federal permission to experiment with this treatment.

BICYCLE BOULEVARDS

A bicycle boulevard is a shared roadway that has been optimized for bicycle traffic on low-traffic streets that are too narrow to install a bike lane or have a low level of vehicular traffic making a bike lane unnecessary. Bicycle boulevards are generally adjacent to a nearby arterial road with high or potentially high bicycle traffic, and provide a direct, cross-town route. However, in contrast with other shared roadways, bicycle boulevards discourage cut-through motor vehicle traffic with various traffic calming devices, but typically allow local motor vehicle traffic. They are designed to give priority to bicyclists for through-going traffic rather than vehicular.^{vii}



Image of a bike boulevard
Courtesy of:
www.SRTS.org

Stop signs and traffic signals are limited on bicycle boulevards to make the route more attractive to cyclists.^{viii}

BIKE BOXES

Bike boxes or advanced stop lines are generally used on busy streets to bring bicyclists to the front of traffic at intersections with priority crossing and turning. The box reduces the possibility of right-hook conflict with motorists. A bike box can be filled with color to provide increased visibility or just striped.^{ix}



M4-9a



M4-9c

Detour Signs
Courtesy of: MUTCD,
Chapter 6

This treatment is not currently in the MUTCD nor is it expected in the 2010 update; however, a municipality can request state and federal permission to experiment with this treatment.



BICYCLE ACCOMMODATIONS DURING CONSTRUCTION

Bicycle and pedestrian accommodations should be provided during roadway construction regardless of the project scale. To assist in identifying the appropriate accommodations, AASHTO, MUTCD (Chapter 6) and NCDOT Work Zone Traffic Control Unit have published guidelines and procedures.

Some accommodations for bicyclists during roadway construction projects include:

- Advance Signage to alert bicyclists of approaching restrictions or closures of bicyclist facilities. Signs usually include “Bike Lane Closed Ahead” or “Bikes Seek Alternative Routes.”
- Detour Routes as alternatives to the main bicycle route. Providing a detour route with adequate signage will assist a bicyclist in maneuvering around a construction project.

SCHOOL ZONES

According to the Safe Routes to School Guide, “ideally, the school zone starts at the front door and encompasses the campus and as many blocks as possible that surround the school and have a high concentration of school-generated traffic.”^x Normally, the school zone includes the school campus, the streets along the campus, and two blocks around the campus perimeter. The school zone should be well marked with signage (school crossing signs, speed limit signs, etc.), pavement markings, and other traffic calming devices to alert drivers of the high concentration of children.

The MUTCD, Part 7 sets forth principles and standards for controlling traffic in school zones. The manual provides information on appropriate design, application, and maintenance of traffic control devices (signage, pavement markings, signals) and other controls (crossing guards, student patrols, crossings, etc.) required for the special conditions in school areas. Therefore, Part 7 of the MUTCD should be reviewed and followed when improving school zones.

COMMERCIAL DEVELOPMENT

Commercial establishments generate a high volume of vehicle traffic, which in turn can generate opportunities for pedestrian and

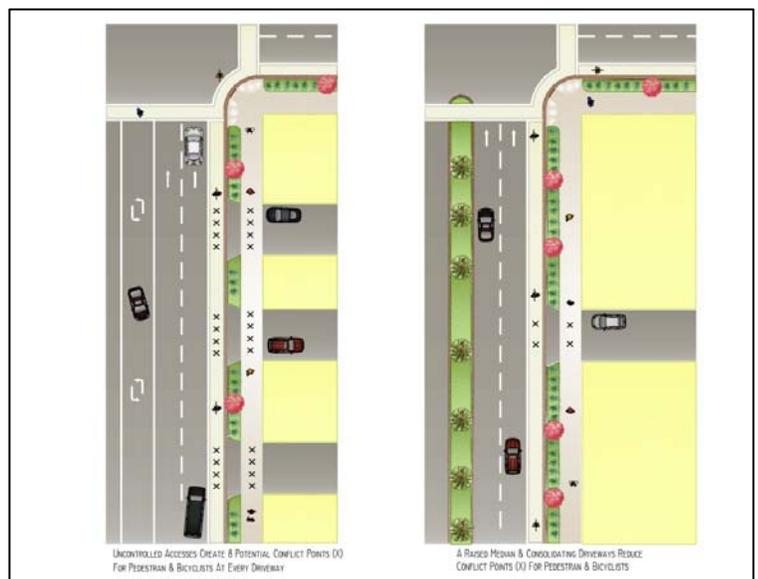


Illustration of uncontrolled and controlled driveway access.



vehicle crashes. Uncontrolled access points from the roadways into the parking area of a commercial building, parking lots, and access from parking lot to the building can all be potential accident areas. It is important that the Town maintain a policy of access management to limit the number of commercial and residential crossings of any sidepath and on roadways with bike lanes.

The driveway ramp design for commercial land uses, the number of vehicle access points, and the distance between existing driveways all have a direct effect on the overall bicycle and pedestrian environment.

Limiting and consolidating vehicle driveways into a commercial site reduces conflict points. The illustration on the previous page shows how access management can be done. This method can also reduce the number of vehicle-vehicle crashes if the driveways are located near traffic control devices.

RESIDENTIAL DEVELOPMENT

Since an overwhelming number of bicycle trips are generated from residential development, applying the above driveway design components will assist in reducing possible conflict points within newer residential areas. In addition, existing or future cul-de-sacs should be connected to the closest local collector street or to other cul-de-sacs in adjoining subdivisions via multi-use paths. This connection will improve connectivity and accessibility to surrounding land uses.

5.8 STREETScape IMPROVEMENTS (GENERAL)

The use of street lighting, landscaping, and pedestrian furniture enhances a street environment and provides increased comfort and safety for bicyclists and pedestrians. These elements also turn the street into a pedestrian designation.

STREET LIGHTING

Good placement and quality of lighting can enhance an environment, as well as provide increased bicyclist and pedestrian comfort and safety. Street lighting also improves the motorist ability to see bicyclists and pedestrians at night. Streetlights and building lights within commercial areas can enhance the ambiance of the area, in addition to increased visibility of bicyclists and pedestrians by motorists within parking lots. All intersections should be provided with street lighting to ensure safety of all users. For further guidance on street design lighting, refer to the *AASHTO Informational Guide for Roadway Lighting*.



Street level lighting in Downtown and along bicycle corridors will improve the atmosphere by providing comfort, security, and safety. The use of uniform lighting levels along all bicycle corridors should be considered in all bicycle facility improvements.

The typical cost of installing street lighting varies by type of fixture used and the utility providers.

STREET TREES AND VEGETATION

The use of landscaping along a street can provide several benefits, such as providing a separation between motorists and pedestrians, reducing the visual width of the roadway and thus producing a traffic calming effect, and providing a more pleasant street environment. Landscaping can include a variety of trees, bushes, and flower beds that can be planted in the buffer area between the sidewalk and roadway or in the street median.

Choosing appropriate plants for the local climate and surrounding area, providing adequate space for growth, and preparing the ground can help ensure they survive with minimal maintenance and do not buckle the sidewalks as they mature. The use of rain gardens and other plant alternatives should also be considered to reduce installation and continuous cost of irrigation. All shrubs should be low-growing and trees should be kept trimmed to at least eight (8) to ten (10) feet to ensure sight distance, vertical clearance, and security^{xi}.

Landscaping costs vary depending upon the size of planting, plant selection, and additional elements (irrigation and maintenance). However, multiple entities, such as neighborhoods, businesses, Town, and Non-Profits can share the costs.



*A roadway narrowing application in Arlington, VA
Courtesy of Rivers & Associates, Inc.*

5.9 ROAD DIET TREATMENTS

A road diet is an effective method of improving bicycle-friendliness, safety, and calm traffic along streets. The street is physically narrowed or the street is given the perception of being narrowed. There are several different methods of physically narrowing the roadway:

- Lane widths can be reduced and excess asphalt striped with a bicycle lane or paved shoulders.
- Travel lanes are removed.
- Sidewalks and landscaped areas are extended or on-street parking is added within the former curb lines.



The physical reduction of street widths is usually done along residential streets; however, if a traffic analysis is conducted and lane reduction is determined to be appropriate then the use can be applied on any street.

A nonphysical method of street narrowing is planting trees along the street, resulting in a sense of spatial enclosure what will promote reduced vehicle speeds. The use of curb extensions, on-street parking, separated walkways with planting strips, and bike lanes also make the street appear narrower.

ⁱ *North Carolina Bicycle Facilities Planning and Design Guidelines*, January 1994, page 17

ⁱⁱ *North Carolina Bicycle Facilities Planning and Design Guidelines*, January 1994, page 18

ⁱⁱⁱ *North Carolina Bicycle Facilities Planning and Design Guidelines*, January 1994, page 27

^{iv} US Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices (MUTCD), Part 2A-6*.

^v Bicycleinfo.org, Pedestrian and Bicycle Information Center, Design Details for Shared Use Paths, <http://www.bicyclinginfo.org/engineering/paths-details.cfm>

^{vi} Federal Highway Administration (FHWA) Bicycle Safety, *Signs and Signals – Add/Modify Signing*, October 2007, <http://safety.fhwa.dot.gov/saferjourney/library/countermeasures/46.htm>

^{vii} Bicycle Transportation Alliance, *Bicycle Boulevards*, March 2009, http://www.bta4bikes.org/at_work/bikeboulevards.php

^{viii} *Safe Routes to School Guide – Engineering*, February 2007, <http://www.saferoutesinfo.org/guide/engineering/index.cfm>

^{ix} San Francisco Bicycle Coalition, *Bike Boxes*, March 2009, http://www.sfbike.org/?bikeplan_design#bikeBoxes

^x *Safe Routes to School Guide – Engineering*, February 2007, page 13, <http://www.saferoutesinfo.org/guide/engineering/index.cfm>

^{xi} Walkinginfo.org - Pedestrian and Bicycle Information Center, *Traffic Calming - Landscaping*, October 2007, <http://www.walkinginfo.org/engineering/calming-landscaping.cfm>



SECTION 6 – RECOMMENDATIONS FOR ANCILLARY FACILITIES, PROGRAMS & POLICIES

Section Outline:

6.0 Ancillary Facilities

6.1 Programs

6.2 Policies

This section outlines recommendations for ancillary facilities, programs, and policies to assist in making the Town of Ahoskie a bicycle-friendly community. These recommendations satisfy Education, Encouragement, and Enforcement categories of a bicycle-friendly community.

The recommendations for programs and policies have been prioritized based on ease with which they can be implemented. The lower cost, already established programs, such as Bicycle Registration and Bicycle Rodeos are prioritized for the short-term, or within five years of the Plan's completion. Mid-term priorities are those that should be addressed within 6 – 10 years and long-term priorities are those that should be addressed beyond ten years from the completion of the Plan. Table 6.0 includes the implementation phases of all recommended programs and policies. Implementation phases of projects are discussed in Section 7.

The implementation of various programs not only encourages bicycling, but also provides education, enforcement, and maintenance opportunities to ensure Ahoskie has a comprehensive bicycle network where its users feel comfortable to bike in the community. The recommended programs for Ahoskie include:

- Spot Improvement Program
- Infrastructure Maintenance Program
- Education Programs
- Safe Routes to School Program
- Enforcement Programs
- Encouragement Programs & Initiatives

6.0 ANCILLARY FACILITIES

Ancillary facilities are those supporting amenities located at specific destinations and intermediate points throughout the bicycle network. They are an important component to encouraging biking in Ahoskie. Ancillary facilities include:

- Mapping & Signage
- Traffic Calming Initiatives
- Transit Interface
- Bicycle Parking Facilities
- Multi-Use Trailheads and Support Facilities
- Bicycle Repair Stations
- Raised Boardwalks



MAPPING & SIGNAGE

The Town should consider developing a Bicycle Network Map that identifies the types of road features, destinations, bicycle facilities, and identified routes. The map should be posted in destination areas and available to the public. A Bicycle Network Map would benefit the citizens of Ahoskie in providing a tool that could be used to promote bicycle routes and education.

The Town should consider signing identified new routes with informative, way-finding signage that can help visitors and residents alike to determine appropriate bicycle routes to various destinations.

TRAFFIC CALMING INITIATIVES

The following traffic calming initiatives will help to make the Town more bikeable:

Reduce Speeds

While many areas of Ahoskie already have relatively low posted speed limits, the thoroughfare roads should be examined to see if any biking areas would benefit from reduced speeds. Calming the arterial streets and the connector streets, such as Academy Street, Memorial Drive, Catherine Road, Martin Luther King Drive, and Main Street may improve bicycling routes by increasing bicycling awareness and security.

If the Town determines the need to lower speed limits, then it should contact NCDOT. The authority to lower speeds is set out in NC General Statute 20-141(f) and states that "*Whenever local authorities within their respective jurisdictions determine upon the basis of an engineering and traffic investigation that a higher maximum speed than those set forth in subsection (b) is reasonable and safe, or that any speed hereinbefore set forth is greater than is reasonable and safe, under the conditions found to exist upon any part of a street within the corporate limits of a municipality and which street is a part of the State highway system (except those highways designated as part of the interstate highway system or other controlled-access highway) said local authorities shall determine and declare a safe and reasonable speed limit. A speed limit set pursuant to this subsection may not exceed 55 miles per hour. Limits set pursuant to this subsection shall become effective when the Department of Transportation has passed a concurring ordinance and signs are erected giving notice of the authorized speed limit.*"



Use Bicycle Friendly Devices

Traffic calming devices are intended to create safer roadway conditions for bicyclists and slow motor vehicle speeds. The following bicycle-friendly devices will aid in calming traffic and provide bicycling facilities:

- Raised crosswalks and curb extensions. Raised crosswalks are flat-topped speed humps placed in intersections or specific pedestrian crossing areas to slow motor vehicle speed and raise awareness of pedestrians in the roadway. Curb extensions may slow motor vehicle speed by creating shape to a roadway. Installation of curb extensions works well when placed on alternating sides of the road to form S-shaped curves.
- Speed cushions with wheel cut-outs, or gaps, for bicyclists. Speed humps and cushions change the level of the road to slow the speed of motor vehicles, yet they can be inconvenient and potentially dangerous for cyclists. Installation of wheel cut-outs, or gaps, in the speed cushions provides a bike-friendly element to the roadway to avoid the full impact of the traffic calming device.
- Bypass lanes for bicyclists at narrow parts of the road. When roadways narrow, motorists tend to slow their speed as they travel. However, when cyclists are traveling along a narrow roadway, motorists drive closer to cyclists in order to pass them. Installation of bypass lanes for bicyclists at narrow parts of the roadway will provide a safer condition for cyclists to travel.

For new or reconstructed streets, *implement guidelines* that call for traffic calming:

- Lane diet: reduce the width of traffic lanes and lower the speed. Since motorists tend to slow their speed on narrow roads, reducing the width of traffic lanes and lowering the speed limit will aid in traffic calming. During planning phases, a roadway should be evaluated to consider the addition of bike lanes as a result of reducing the width of traffic lanes.
- Add or widen medians, which will limit turning locations. The addition of medians along the centerline of the roadways will limit cross traffic to designated intersections, or breaks in the medians.
- Stripe marked bicycle lanes to improve bicycle access. Bike lanes provide an area of exclusive-use for cyclists and when appropriately striped and signed they increase motorist awareness of bicyclists in the roadway.



TRANSIT INTERFACE

Bikes on Buses Program

Ahoskie does not currently have a mass transit vehicle, or bus system, in Town. A “Bike on Bus” program would allow bicyclists to bring their bikes on board buses in order to use them when they disembark at their destination. This program encourages the use of bike racks on the front of buses. If bus transit becomes a transportation mode in Ahoskie, then the Bikes on Buses Program should be incorporated into the transportation planning.



Existing bicycle parking rack at Park in Ahoskie, NC /Rivers & Associates, Inc.

BICYCLE PARKING FACILITIES

Providing appropriate bicycling facilities in Ahoskie will encourage bicycling by increasing bicycling trips and reducing vehicular traffic. Parking racks should be located in popular destinations such as downtown, shopping centers, parks, schools, and public buildings to facilitate the parking needs of cyclists. **See Section 5 for bicycle parking guidelines and standards.**

MULTI-USE TRAILHEADS AND SUPPORT FACILITIES

Entrances into multi-use trails are an excellent location for posting safety and general bicycle education material; in addition to information on the trail route. The trailhead could also include various support facilities such as vehicular parking, restrooms, drinking fountains, picnic pavilions, benches, bicycle racks, trash receptacles, and other types of amenities to ensure the trail is an inviting and pleasurable destination.



Trail information sign in Williamston, NC / Rivers & Associates, Inc.

BICYCLE SERVICE STATIONS

Bicycle service stations are beneficial to the bicycling network because of the variety of services that may be incorporated into the facility. Bicycle service stations may include air pumps for tire repair, tools, parking racks, water fountains, benches and more. While the services may vary, the facility may become a place to meet or be incorporated into existing destinations.



Trailhead parking facility& picnic pavilion in Kitty Hawk, NC / Rivers & Associates, Inc.

RAISED BOARDWALKS

Due to Ahoskie’s topography and water features, there will most likely be a need for elevated boardwalks across environmentally sensitive areas along segments of certain bike facilities. The use of



boardwalks may function as small bridges over an area; therefore, special design and construction may be required to ensure adequate clearance and safety is addressed for bicyclists and pedestrians alike. **Please refer to Section 5 for specific design guidelines.**

6.1 PROGRAMS

The implementation of various programs not only encourages bicycling, but also provides education, enforcement, and maintenance opportunities to ensure Ahoskie has a comprehensive bicycle network where its users feel comfortable to bike in the community. The recommended programs for Beaufort include:

- Spot Improvement Program
- Infrastructure Maintenance Program
- Education Programs
- Safe Routes to School Program
- Enforcement Programs
- Encouragement Programs & Initiatives

SPOT IMPROVEMENT PROGRAM

The Town should consider implementing a “Spot Improvement Program” to identify, report, and correct potential issues on the roadways. The potential issues may include, but are not limited to pothole repair, grate repair/replacement, bridge rails, or cracked pavements. Currently, the Public Works Department responds to notifications and reports of needed improvements. The Town should consider an online notification form which would allow residents to report needed repairs online. This program is recommended as a short-term priority to build on the Town’s existing maintenance reporting method.

INFRASTRUCTURE MAINTENANCE PROGRAM

Infrastructure maintenance of bicycle facilities may include involvement of the community through creative programs such as “Adopt-a-Trail” or donation of bicycle parking racks. Involving the community would increase awareness of the bicycling network in Ahoskie and promote local businesses and vendors. An infrastructure maintenance program is recommended as a short-term priority to maintain existing bicycle facilities. As new bicycle projects are implemented, the program will need to be expanded to maintain additional bicycle facilities.

EDUCATION PROGRAMS

The importance of educational programs must be addressed with the issue of bicycle safety. Bicycle crash data indicates that collisions involve improper actions on the part of bicyclists, motorists, or both. Efforts to



reduce bicycle-motor vehicle crashes need to include educational programs to increase awareness of improper actions and promote correct actions. Safety education programs must include components for bicyclists and motorists. Education programs are a short-term and ongoing priority to provide instruction to bicyclists, pedestrians, and motorists.

Bicycle Rodeo Program

The Town of Ahoskie offers Bicycle Rodeo programs to educate children and parents about safe bicycling skills. The rodeos offer potential partnerships among the Police Department, Parks and Recreation Department, and local bike shops and businesses. The Town should continue those programs including activities such as an obstacle course, hand signal instruction, bike safety prizes (helmets, lights, vests) and bike maintenance courses. This program is recommended as a short-term priority because it is already established in Ahoskie.

Smart Cycling Program

The American League of Bicyclists offers courses to adults and children to teach bicyclist and motorists how to ride safely and share the road. The American League of Bicyclists offers rider education based on curricula set forth in the Smart Cycling Program. Smart Cycling courses are taught throughout the United States by certified instructors.ⁱ The Smart Cycling Program is recommended as a mid-term priority in order to allow the Town time to implement additional bicycle facilities in effort to create a more bike-friendly environment.

SAFE ROUTES TO SCHOOL PROGRAM

The Safe Routes to School (SRTS) program is recommended as a short-term priority because the Town's students would benefit from having a safe way to ride their bikes to school. The Town should encourage a SRTS Program to educate students, teachers, and staff to walk or bicycle to school while creating a safer climate in which to do so. SRTS involves cooperation from parents, students, and the community to "benefit the environment and a community's quality of life by reducing traffic congestion and motor vehicle emissions."ⁱⁱ A successful SRTS program may include potential partnerships with Hertford County Board of Education, Hertford County Planning Department, and Ahoskie's Police Department. SRTS activities may include a bike/walk to school day (www.walktoschool.org), creation of a bike/walking bus (http://www.saferoutesinfo.org/guide/encouragement/walking_school_bus_or_bicycle_train.cfm), or a biking group, led by an adult leader, distribution of fliers to solicit parental involvement, and/or education and encouragement activities. Encouragement activities work hand-in-hand



with educational opportunities because they create excitement and interest in the program. Participants are rewarded by having fun and learning life-long skills regarding bicycle safety and awareness. For information about the state SRTS program, visit the website <http://ncdot.org/transit/bicycle/saferoutes/SafeRoutes.html>.

ENFORCEMENT PROGRAMS

Public Relations & Awareness Program

A public relations & awareness program is recommended as a short-term priority and should be evaluated and expanded as bicycle facilities are implemented throughout Town.

The Town should consider developing pamphlets to educate motorists and bicyclists of the rules of the road. The pamphlets could be distributed by the Town's Police Department during enforcement patrol.

To raise awareness that Ahoskie is a bicycle-friendly community, the Town should consider installing bicycle friendly signs, or "Share the Road" signs at "gateways" into the Town, at major thoroughfares and at locations of high traffic volume. Signage helps to create an understanding that bicyclist and motorists shall share the road.

Police-on-Bikes Program

Currently, the Ahoskie Police Department does not have an active Police-on-Bikes program. The Police Department has expressed interest in redeveloping its once existing program. **The Town should consider implementing the presence of police on bikes to enforce bicycle rules and motorist behavior, encourage bicycling, and lead by example in demonstrating compliance with laws and safety measures.** The Police-on-Bikes program is recommended as a short-term and ongoing priority.

Bicycle Registration Program

A bicycle registration program currently administered by the Ahoskie Police Department is recommended as a short-term priority. Bicycle registration programs have been effective in returning lost or stolen bikes to their owners by matching serial numbers. Serial numbers are a set of characters that uniquely identify an object and can be used for traceability and warranty purposes. Bike serial numbers can be used in national record systems and increase the chances of returning a bicycle to its registered owner. When bikes are registered, the owner submits, to the police department, the serial number and identifying features, such as color and size, in addition to the owner's contact information. An identification stamp will be applied to the bike. **The Police Department**



should consider increasing awareness of this existing program by providing a mobile registration unit at local schools, community and neighborhood events to actively register bicycles instead of requiring the bike to be brought to the Department. The police department may consider a nominal processing fee for bike registration.

Bicycle Helmet Give-Away Program

To enforce bicycling rules and encourage compliance, the Town should consider promotional programs that include donating helmets and/or night-lights to cyclists that lack proper equipment. The Police Department currently conducts helmet give-aways and should consider expanding to provide night-lights and other safety equipment. In its enforcement program, vouchers for helmets may be provided when riders without helmets are noticed. **The bicycle helmet give-away program is recommended as a short-term priority to increase the safety of bicyclists in Town.**

ENCOURAGEMENT PROGRAMS & INITIATIVES

General promotion of bicycling in Ahoskie can be accomplished by enhancing the Town's website (www.ahoskie-nc.org). Currently, Ahoskie's Police Department's website includes a link to Bicycle Safety Tips produced by the Community Safety Series (www.be-safe.org). This program is recommended as a short-term priority and the Town should continue to use its website for general promotion of safe bicycling. Additionally, **the Town should consider posting on its website the benefits of bicycling, rules, bicycle routes, recommendations, and project updates.**

Bicycle Parking Rack Installation Program

The Town of Ahoskie currently has in place a bicycle parking rack installation program where one may donate a rack or other type of ancillary facility. A bicycle parking rack installation program benefits the community by providing bicycle parking at major private and public destinations in Ahoskie. Bicycle parking racks encourage bicycling by providing a secure location for cyclists to store their bikes while visiting a destination. **The Town should increase awareness of the current bicycle parking rack installation program** as a short-term priority due to the current lack of bicycle parking facilities.

Bike to Work

Bicycling in Ahoskie may be encouraged through the community promotion of a "Bike to Work Week" event. The purpose of this type of event is to encourage employees and employers to bicycle to work. A



“Bike to Work Week” event provides the opportunity for partnership between Town staff, local business, elected officials, and community schools. Bicycling to work may be encouraged by offering incentives and/or prizes for employers and employees who bike to work. A “Bike to Work Week” program is recommended as a mid-term priority to promote bicycling, reduce motor vehicle air pollution, congestion and stress for other commuters.

Bicycle and Pedestrian Advisory Committee

As a short-term priority, the Town should consider establishing a standing Bicycle and Pedestrian Advisory Committee to advocate for bicycle and pedestrian-friendly Town policies and actions. The Ahoskie Town Council would appoint Town citizens to serve as committee members and Town staff would facilitate committee meetings. A Bicycle and Pedestrian Advisory Committee would meet regularly to discuss issues, provide recommendations and/or advise town staff regarding bicycle and pedestrian related concerns and actions. Additionally, the committee may consider coordinating an annual event, generating brochures or marketing materials, and/or reviewing development plans for bicycle and pedestrian friendliness.

6.2 POLICIES

Bicycle-friendly policies are an efficient way to improve bicycling in Ahoskie because they require bicycle facilities at the onset of development rather than a retroactive approach. Ahoskie should consider modifying its local ordinances and policies to provide a balanced approach to both on and off-street bicycling and support facilities, including a more detailed guideline for bicycle parking and amenities.

ZONING ORDINANCE & SUBDIVISION REGULATIONS

Currently, the Town can recommend that bicycle facilities be incorporated into new development projects, but there is no Town policy to require such facilities. Ahoskie acknowledges the need for regulations requiring bicycle facilities as development occurs. Ahoskie should consider revising its Zoning Ordinance and Subdivision regulations to set a standard for the Town and require bicycle facilities with certain development requests. Ahoskie should consider an ordinance requiring bike facilities on all arterial and connector roads as development occurs as well as providing connections to neighboring roads and bike facilities.

Local policies and ordinances related to bicycling were discussed in Section 3 of this Plan.



COMPLETE STREETS ORDINANCE

As a short-term priority recommendation, Ahoskie should develop and implement a *Complete Streets Ordinance* to ensure all new and reconstruction of roadways have “complete street” elements (components for all types of transportation) incorporated into the design and construction as appropriate. These elements include:

- ADA-complaint curb cuts
- ADA-compliant sidewalk improvements
- New bicycle lanes
- Pedestrian medians
- Roadside improvements for public transportation, including bus shelters and bus priority traffic signals (as appropriate)
- Traffic calming measures, such as chicanes, curb extensions, and speed humps/tables
- Improved landscaping and streetscape features, such as benches, trees, and street/pedestrian lighting
- Intersection and crosswalk improvements for all non-motorized users
- Other improvements to ensure safety, accessibility, and quality of the roadway

MAINTENANCE

The Town should consider implementing bicycle facilities into the regular maintenance schedule to maintain safety and usability of facilities. Maintenance activities may include repairing bicycle-parking racks, cracks/potholes in pavement, restriping of lanes, and removal of debris from the roadways/shoulders. Including bicycle facilities in the established maintenance schedule will place a priority on and establish a standard for adequate facilities. The Town should consider a partnership with Hertford County to maintain bicycle facilities at county-owned parks in Ahoskie. A maintenance policy is a short-term and ongoing priority to maintain new and existing bicycle facilities.

TOWN FUNDING

The Town should consider allocating resources on an annual basis to establish a bicycle network, maintain existing facilities, and fund programs and on-going activities directed towards encouragement, enforcement, and education. The allocation of Town funding for bicycle facilities will be an ongoing need.



BICYCLE PARKING ORDINANCE

The Town of Ahoskie should consider including bicycle parking in permitted uses or districts to ensure that alternative transportation is adequately served. The bicycle parking ordinance should define the number of expected parking spaces rather than the number of expected racks as racks can be constructed to hold a wide range of spaces for bikes. The downtown and commercial areas of Ahoskie would benefit from this type of ordinance because cyclists would have a place to safely secure their bicycles. The requirement to provide bicycle parking to certain land uses will encourage bicycling and reduce vehicular congestion. The bicycle parking ordinance should also recommend that bicycle parking racks be placed in identifiable locations to promote convenient access. A bicycle parking ordinance is recommended as a short-term priority.

NEW BRIDGE PROJECTS

As a mid-term priority, the Town should consider a policy requiring bicycle accommodations on all new bridge projects. Currently, there are no identified bridge replacement projects. However, when projects are planned, bicycle facilities should be implemented to provide safe crossings to bicyclists, pedestrians and motor vehicles.

STREET IMPROVEMENTS ORDINANCE

The Town should consider an ordinance requiring bikeway construction on all streets that would provide for continuation and enhancement of existing bikeways, provide access to current or future school sites, or that would conform to the adopted bicycle plan. A Streets Improvements Ordinance is recommended as a short-term priority to enhance connections and expansions to the Town's proposed Bike Routes.

COMMERCIAL DEVELOPMENT

It is important that the Town maintain a policy of access management to limit the number of commercial and residential crossings of any sidepath and on roadways with bike lanes. Uncontrolled access points from the roadways into the parking area of a commercial building, parking lots, and access from parking lot to the building can all be potential accident areas. Limiting and consolidating vehicle driveways into a commercial site reduces conflict points.

BIKEWAYS AND BIKE FACILITIES ORDINANCE

The Town should consider adopting an ordinance that would define the various types of bikeways and bicycle facilities and set forth a set of



criteria for development of such facilities. All criteria should be consistent with minimum approved measures set forth by the NCDOT. The Town should consider developing an inventory of bike routes and facilities as they are developed or installed. A Bikeways and Bike Facilities Ordinance is recommended as a short-term priority to establish criteria for the design and implementation of future bicycle facilities.

Table 6.0: Implementation Table

<i>Program Name</i>	<i>Implementation Phase</i>
Spot Improvement Program	Short-Term
Infrastructure Maintenance Program	Short-Term
Education Programs	Short-Term
Bicycle Rodeo Program	Short-Term
Smart Cycling Program	Mid-Term
Safe Routes to School Program (SRTS)	Short-Term
Public Relations & Awareness Program	Short-Term
Bicycle Registration Program	Short-Term
Police-on-Bikes Program	Short-Term
Bicycle Helmet Give-Away Program	Short-Term
Bicycle Abatement Program	Short-Term
Bicycle Parking Installation Program	Short-Term
Bike to Work Program	Mid-Term
Bicycle and Pedestrian Advisory Committee	Short-Term
<i>Policy Name</i>	<i>Implementation Phase</i>
Zoning Ordinance & Subdivision Regulations	Short-Term
Complete Streets Ordinance	Short-Term
Maintenance Policy	Short-Term
Town Funding Policy	Short-Term, Ongoing
Abandoned Bicycles Policy and Ordinance	Short-Term
Bicycle Parking Ordinance	Short-Term
New Bridge Projects Policy	Mid-Term
Streets Improvements Ordinance	Short-Term
Commercial Development Policy	Short-Term
Bikeways and Bike Facilities Ordinance	Short-Term

ⁱ League of American Bicyclists, <http://www.bikeleague.org/index.php>

ⁱⁱ Safe Routes to School Guide, <http://www.saferoutesinfo.org/guide/introduction/index.cfm>



SECTION 7 – PROJECT RECOMMENDATIONS

7.0 CONSTRUCTION PROJECTS

Section Outline:

7.0 Construction Projects

7.1 Prioritized Projects

The initial list of potential project locations was developed based on input from the Steering Committee meetings, Town staff, Public Open House #1, the public survey, and the results of the roadway inventory. Bicycle considerations should be included as part of all new road/street construction and maintenance improvement processes.

Note: The provision of bike facilities on NCDOT roads will require further study, particularly the application of sharrows where guidance will not be available until the update of MUTCD and AASHTO Guide for the Development of Bicycle Facilities is adopted (anticipated in 2010).

A wide range of projects have been identified to make the Town more bicycle-friendly. Physical improvements from on-road projects such as adding bike lanes to off-road projects such as multi-use trails are recommended. Twenty-eight (28) construction projects are recommended including four (4) bike lanes, three (3) paved shoulders, one (1) sharrow, six (6) multi-use trails, two (2) intersection improvements, four (4) "Share the Road" signage improvements, and eight (8) designated signed shared roadway "Bicycle Route." A comprehensive description of all construction projects are found in Table 7.0.

Table 7.0 is the recommended listing of bicycle improvement construction projects. Refer to Map 7.1 for locations of the projects. The following definitions apply to the terms as utilized in Table 7.0:

- *Map Reference #* - Corresponds to the project identification number used in maps
- *Road Class* - Identified ownership of road(s) in project
- *Type of Project* - Identifies project type (bike lane, shared roadway, multi-use trail, paved shoulder, hazard/spot improvement, intersection improvement)
- *Project / Improvement Name* - Identified project name
- *At/On* - Identifies location of project (street, intersection, etc)
- *From* - Identifies starting point of construction project
- *To* - Identifies ending point of construction project



- *Approx. Length (ft)* – Identifies approximate length of project in feet.
- *Details / Purpose* – Identifies the need for the project.
- *Constraints* – Any pitfalls to implementation of project.
- *Preferred Treatment* – Identifies recommended project improvement(s).
- *Estimated Cost Range* – Magnitude of estimated cost calculated using various sources.
 - *Minimal* : Cost estimate for project is \$10,000 or less based on existing conditions, proposed treatment, any further study that is needed, and level of engineering, and project components (permits, acquisition, coordination, etc.).
 - *Low* : Cost estimate for project range from \$10,001 - \$99,999 based on existing conditions, proposed treatment, any further study that is needed, and level of engineering, and project components (permits, acquisition, coordination, etc.).
 - *Moderate* : Cost estimate for project range from \$100,000 - \$299,999 based on existing conditions, proposed treatment, any further study that is needed, and level of engineering, and project components (permits, acquisition, coordination, etc.).
 - *High* : Cost estimate for project range is \$300,000 or higher based on existing conditions, proposed treatment, any further study that is needed, and level of engineering, and project components (permits, acquisition, coordination, etc.).
- *Preliminary Opinion of Probable Costs* – These costs are rough estimates and should not be considered final. Surveying, engineering design, environmental considerations, rights-of-way considerations and coordination among interested parties need to be completed to determine costs to be utilized for specific project budgeting. **General cost estimates and methods for calculating cost opinions are described in Appendix F.**
- *Implementation Phase* – Phasing schedule category based upon their preliminary estimated cost, priority ranking, and constructability.



Table 7.0: Preliminary Construction Project Recommendations

Map Ref. #	Road Class.	Type of Project	Project / Improvement Name	At / On	From	To	Approx. Length (ft)	Details / Purpose	Constraints	Preferred Treatments	Estimated Cost Range	Preliminary Opinions of Probable Costs*
1	NCDOT & Town	Sharrow	Main Street Route	Main Street	Martin Luther King Jr. Dr.	Talmage Street	5,100	Provide signed route to direct bicycle travel across town in providing connection to downtown, Town Hall, businesses, recreation facilities, residential areas	Curbs & gutters, on-street parallel parking, rail road crossing, Academy Street, mixture of pavement widths due to bump outs, signalized intersections	Install shared roadway bike route signage and "sharrows" per NCDOT guidelines.	Minimal	\$4,000
2	Town	Bike Lane	Church Street Route	Church Street	Martin Luther King Jr. Dr.	Carolina Ave.	2,530	Provide bike lanes to direct bicycle traffic across town in providing connection to Town Hall, businesses, Public Library, residential areas	Curbs & gutters, rail road crossing, Academy Street intersection	Install bike lanes per NCDOT guidelines.	Low	\$17,000
3	Town	Bike Lane	First Street Route	First St.	Martin Luther King Jr. Dr.	Carolina Ave.	2,800	Provide bike lanes to direct bicycle traffic across town with access to downtown and other destinations.	Curbs & gutters, rail road crossing, Academy Street intersection	Install bike lanes per NCDOT guidelines	Low	\$18,000
4	NCDOT	Bike Lane	Catherine Creek Road Route	Catherine Creek Rd.	Main St.	Martin Luther King Jr. Dr.	2,320	Provide bike lanes to direct bicycle traffic in residential area to adjoining routes.	Curbs & gutters, angle of intersection at MLK Dr. and Catherine Creek Rd.	Install bike lanes per NCDOT guidelines.	Low	\$15,000
5	NCDOT	Bike Lane	Martin Luther King Jr. Route	Martin Luther King Jr. Rd.	First St.	Malibu St.	5,680	Provide bike lanes along proposed signed route to parks, residential areas, downtown, commercial/industrial destinations	Curbs & gutters, on-street parking would have to be prohibited on MLK, removal of existing center turn lane.	Remove existing center-turn lane and, per NCDOT guidelines, restripe roadway with bike lanes along MLK. Install traffic calming devices to slow traffic and increase awareness of bicyclists along this thoroughfare.	Low	\$37,000
6	NCDOT & Town	Signed Bike Route	Holloman Route	Holloman St.	Martin Luther King Jr. Dr.	Catherine St.	6,300	Provide route to destinations (fairgrounds, park, Shaw Education center)	Intermittent parallel parking, curb & gutters	Install shared roadway Bike Route signage per NCDOT guidelines directing to area destinations.	Minimal	\$2,500
7	Town	Signed Bike Route	Catherine Street Route	Catherine St.	First St.	Holloman St.	3,540	Provide a route serving as alternative to MLK that runs parallel to the existing railroad serving residential areas, community businesses, industrial areas, and recreation facilities	Curbs & gutters, on-street parallel parking, speed bumps near the church	Install Bike Route signage per NCDOT guidelines.	Minimal	\$1,500
8	NCDOT	Signed Bike Route	Martin Luther King Jr. Route	Martin Luther King Jr. Drive	Sunset St.	Church St.	2,060	Provide route connecting to Sunset Route (Sunset is an alt. to Memorial Dr.)	Curbs & gutters, on-street parallel parking, All-Way Stop Intersection at Church St. and MLK, Signal Intersection at MKL and Main St.	Install shared Bike Route signage per NCDOT guidelines.	Minimal	\$1,000
9	Town	Signed Bike Route	Sunset Street Route	E. Sunset Street	Martin Luther King Jr. Dr.	Catherine Creek Rd.	1,940	Provides a route to the Y-Zone and serves as an alternative route to Memorial Dr. (US 13) serving residential and commercial/retail destinations	Curbs & gutters. Parking is currently prohibited along this section of Sunset.	Install Bike Route signage per NCDOT guidelines.	Minimal	\$1,000
10	Town	Signed Bike Route	Jessie-Meyers Route	Jessie St. and Meyers St.	Catherine Creek Rd.	Ruritan St.	1,000	Provides a bike route connection to commercial shopping centers, residential areas, and proposed Rail-to-Trail Route.	Curbs & gutters.	Install Bike Route signage per NCDOT guidelines. Opportunity to develop access to shopping center at street end of Jessie St. where currently being used by pedestrians.	Minimal	\$500

* These costs are rough estimates and should not be considered final. General cost estimates and methods for calculating cost opinions are described in Appendix F.



Table 7.0: Preliminary Construction Project Recommendations

Map Ref. #	Road Class.	Type of Project	Project / Improvement Name	At / On	From	To	Approx. Length (ft)	Details / Purpose	Constraints	Preferred Treatments	Estimated Cost Range	Preliminary Opinions of Probable Costs*
11	Town	Signed Bike Route	Ruritan Route	Ruritan St.	Proposed Multi-Use Trail End	Jessie St.	870	Provide bicycle facility associated with proposed Rail-to-Trail (#23), opportunity for trailhead and directional information	Project should be implemented with Rail-to-Trail Project (Map Ref. #23)	Install Bike Route signage on Ruritan St. per NCDOT guidelines at the completion of the Rail-to-Trail project. Install trailhead at street-end to provide info to users.	Minimal	\$500
12	Town	Signed Bike Route	Pembroke Route	Pembroke Street	Camlin St.	Main St.	2,500	Provide signed bike route to parks, residential areas, and hospital	Curbs & gutters, some residential on-street parking exists (undesignated)	Install Bike Route signage on Pembroke St. per NCDOT guidelines.	Minimal	\$1,000
13	Town	Signed Bike Route	Park-to-Park Route	Camlin Street	Ahoskie Recreation Complex	Academy Street	2,100	Provides connection between recreation facilities, parks, residential areas, and hospital.	Curbs & gutters, intersection at Academy St. is an area of high traffic	Install Bike Route signage on Camlin per NCDOT guidelines. Install crosswalk across Academy St. and appropriate signage to increase awareness of route crossing.	Minimal	\$1,000
14	NCDOT	Paved Shoulder	Academy St. / NC 42	Academy Street	Ahoskie Creek Bridge	Memorial Drive	2,100	Provide additional roadway for cyclists at the gateway to Ahoskie. Provide connection to proposed bike routes and existing parks, hospital, businesses	High traffic, limited roadway shoulder, bridge crossing Ahoskie Creek, gateway into Ahoskie, swales	Restripe roadway and reduce vehicle travel lane width to provide additional roadway shoulder for cyclists. Provide bicycle and pedestrian facilities to bridge crossing Ahoskie Creek when it is replaced in the future. Install signage to increase awareness of bicyclists in roadway.	Low	\$11,000
15	NCDOT	Paved Shoulder	W. First Street Route	W. First Street / NC 561	ETJ Limits	Hertford County High School Rd.	4,600	Provide additional roadway for bicycling along rural roadway that provides connection to proposed routes serving residential communities, recreation facilities.	Identification/Acquiring right-of-way to install a paved shoulder where currently no paved shoulder exists. Already piped on both sides which may facilitate installation of paved shoulders.	Add paved shoulder per NCDOT guidelines with appropriate signage.	Moderate	\$256,000
16	NCDOT	Share the Road Signage	Memorial Drive (US 13)	Memorial Drive (US 13)	Town Limits	Academy St.	12,000	Provide signage to increase awareness of bicyclist in the roadway and to "Share the Road"	High traffic area, 5-lanes wide, curbs & gutters, commercial driveways, bridge over rail road, mixture of pavement widths as road narrows to 2-lanes	Install "Share the Road" signs per NCDOT guidelines along Memorial Drive (US 13). Further study needed when Ahoskie Bypass (NCDOT TIP R-2205) is completed.	Minimal	\$4,500
17	NCDOT	Share the Road Signage	Academy Street	Academy Street	Memorial Dr.	Hertford County High School Rd.	5,870	Provide signage to increase awareness of bicyclist in the roadway and to "Share the Road"	High traffic area with curbs & gutters, limited travel lane widths, center-turn lane, signalized intersections with turn lanes.	Install "Share the Road" signs per NCDOT guidelines along Academy St (NC 42). Further study needed when Ahoskie Bypass (NCDOT TIP R-2205) is completed.	Minimal	\$2,500
18	NCDOT	Share the Road signage	Catherine Creek Route	Catherine Creek Road	Memorial Dr.	Main St.	1,750	Install signage to increase awareness of bicyclists in roadway and provide connection to proposed bike routes	Curbs & gutters with three lanes south of Main St. and two lanes north of Main St., on-street parallel parking, high traffic	Install shared roadway signage per NCDOT guidelines. Bike lanes area an option if on-street parking is eliminated and prohibited.	Minimal	\$500
19	NCDOT & Town	Multi-Use Trail	Hertford County Schools Route	Bearfield Primary School, Hertford County High School, cemetery boundary	Hertford County High Road & First St.	Pembroke St. – end (open area behind hospital/Viquet property)	4,630	Develop a safe route for alternative transportation between schools, health and recreation facilities. Develop crossing at First St. to connect to Ahoskie Elementary School.	Further study needed to review and acquiring off-road property to construct trail, crossing of First Street, grade of property in front of High School	Develop a multi-use trail on/adjacent to school and cemetery properties, Install trail crossing at First St. and Talmage St. for trail connection.	High	\$616,000
20	NCDOT & Town	Multi-Use Trail	Ahoskie Elementary School Route	Ahoskie Elementary School	First St. & Talmage Ave.	Main St.	2,210	Develop a safe route for alternative transportation between residential area, schools and recreation facilities. Develop crossing at First St. to connect to Hertford County Schools route.	Further study needed to develop agreement with school to construct trail.	Develop a multi-use trail on/adjacent to school property, Install trail crossing at First St. for trail connection between schools and residential area.	Moderate	\$294,000

* These costs are rough estimates and should not be considered final. General cost estimates and methods for calculating cost opinions are described in Appendix F.



Table 7.0: Preliminary Construction Project Recommendations

Map Ref. #	Road Class.	Type of Project	Project / Improvement Name	At / On	From	To	Approx. Length (ft)	Details / Purpose	Constraints	Preferred Treatments	Estimated Cost Range	Preliminary Opinions of Probable Costs*
21	Town	Multi-Use Trail	Ahoskie Recreation Complex Route	Ahoskie Recreation Complex	Recreation Center on Main St.	Academy St.	6,620	Provides a scenic off-road route connecting residential areas, schools, and connection between parks. Route serves to support route plans for Ahoskie Recreation Complex.	Further study needed to review area for environmental considerations, flood zones, grade/elevations, creek embankments, safe crossing of Academy Street	Develop a multi-use trail along the banks of Ahoskie Creek. Include lighting, security measures, support facilities (benches, etc). Further study is needed to evaluate the proposed trail and permitting requirements.	High	\$880,500
22	Town	Multi-Use Trail	Ahoskie Creek Route	Dr. George William Mitchell Park	Academy St.	Academy St.	6,040	Provides a scenic off-road route and multi-use recreation facility.	Further study needed to review area for environmental considerations, wetlands, flood zones, grade/elevations, creek embankments, safe crossing of Academy Street.	Develop a multi-use trail along the banks of Ahoskie Creek and through the Park. Include lighting, security measures, support facilities (benches, etc). Further study is needed to evaluate the proposed trail and permitting requirements.	High	\$803,500
23	Town & Rail Road	Multi-Use Trail	Rail-to-Trail Route	Abandoned Rail Road	Catherine Street	Ruritan St.	3,900	Develop a multi-use trail along abandoned railroad which will provide an off-road recreational facility and route connecting downtown Ahoskie to commercial shopping center where cross flow by motor vehicles is limited.	Further study needed. Area is somewhat isolated therefore security measures will need to be installed to ensure police protection.	Develop a multi-use trail with access points, lighting, support facilities, and security measures along abandoned railroad with an improved connection to shopping center on Memorial Drive.	High	\$413,500
24	Town & Rail Road & private	Multi-Use Trail	Snipes St Connection	Rail Road Crossing	Snipes St.	Baker St.	900	Develop a safe crossing of the railroad and trail connection to Baker St. where it is currently being used by pedestrians. Provide rail road crossing as alt. to going downtown to cross.	Further study needed to review and acquire property, develop agreement with Rail Road, elevation of rail road may be an issue for accessibility	Develop a safe and an "official" crossing of the railroad where currently pedestrians and bikers are crossing without safety measures.	Moderate	\$120,000
25	NCDOT & Town	Intersection Improvement	Academy Street Route & Baker Street Route	Academy Street & Baker Street	N/A	N/A	0	Improve visibility and safety of bikers & pedestrians crossing Academy St.	No signal, Curve in roadway limits visibility, 2-way traffic with center turn lane, vehicles reached travel speed at this section of roadway	Provide refuge island while maintaining a center turn lane.	Minimal to Low	\$18,000
26	NCDOT	Intersection Improvement	Martin Luther King Jr. Route	MKL & Catherine Creek Road	N/A	N/A	0	Hazard reduction (bicycle/motor-vehicle crash site)	Angle of Intersection occurs by way of Catherine Creek Rd. and MLK merging together. Curbs & gutters, high traffic area.	Traffic calming devices to reduce the speed of motor vehicles turning from MLK onto Catherine Creek Rd.	Low	\$20,000
27	NCDOT	Paved Shoulder	NC 42 Route	NC 42 / Academy Street	Morris Rd.	Ahoskie Creek Bridge	4,500	Provide bike route into Ahoskie near its parks, hospital	High traffic area into Ahoskie. Driveways along NC 42.	Provide paved shoulder from residential areas for bicycle access into Ahoskie.	Moderate	\$247,500
28	NCDOT	Share the Road Signage	Ahoskie-Cofield Route	Ahoskie-Cofield Road	Malibu St.	ETJ limits		Install "Share the Road" signage per NCDOT guidelines	Narrow, rural road with limited options for improvement.	Install signage to increase the awareness of bicyclists in the roadway	Minimal	\$1,000

* These costs are rough estimates and should not be considered final. General cost estimates and methods for calculating cost opinions are described in Appendix F.



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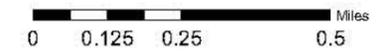
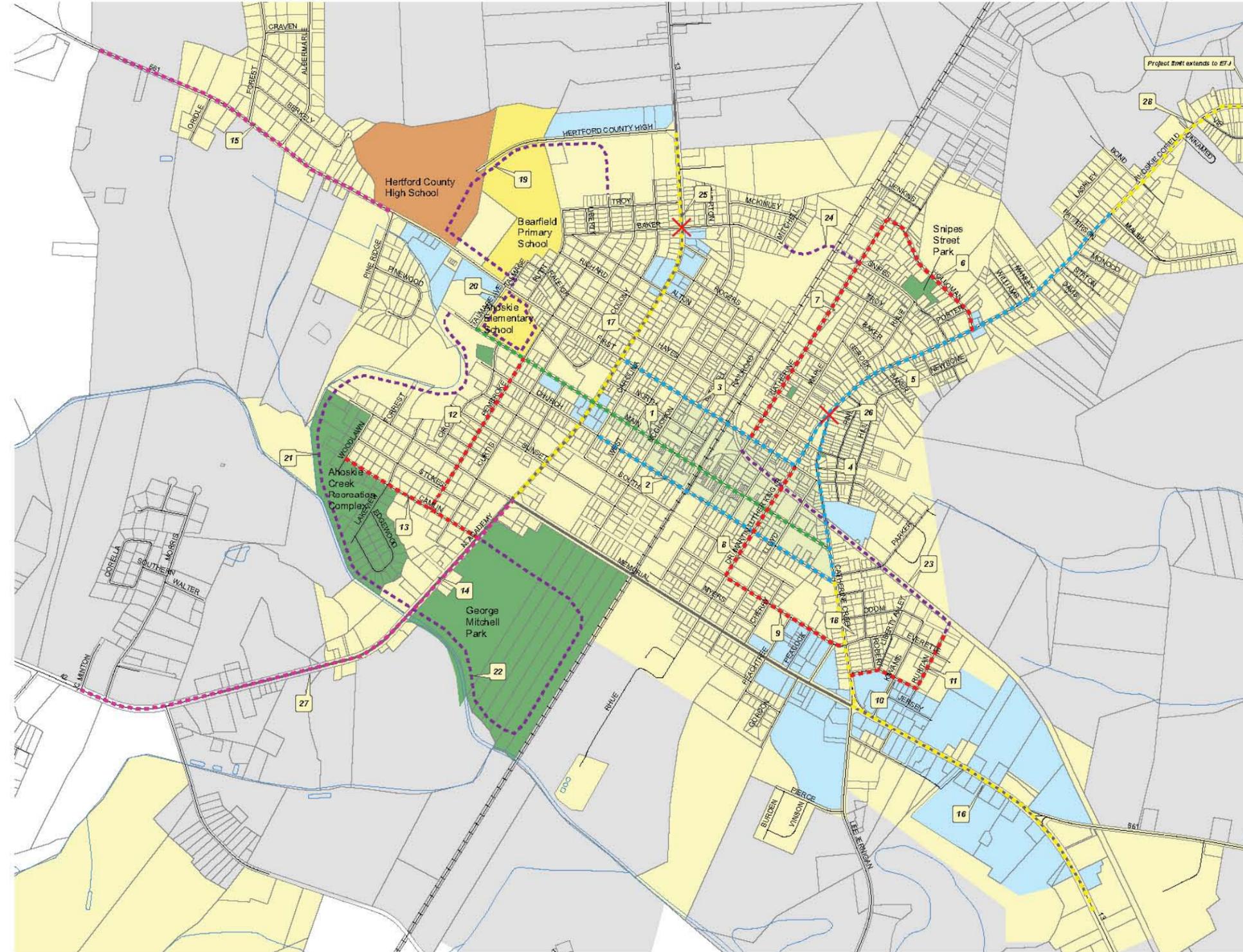


Town of Ahoskie Comprehensive Bicycle Plan

Map 7.1 Final Preliminary Project Recommendations

Legend

- Intersection Improvement
- Signed Routes
- Sharrows
- Share The Road Signage
- Bike Lanes
- Paved Shoulder
- Multi-Use Trail
- Main Thoroughfares
- Water Feature
- Active Railroads
- Roads
- Downtown Area
- Commercial Parcel
- Parks
- Elementary School
- High Schools
- MunicipalBoundaries_polys
- Ahoskie ETJ Limits
- Map Reference #



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7.1 PRIORITIZED PROJECTS

Project development and prioritization was a multi-step process which included the identification of locations for potential projects, determining the appropriate treatments for projects, and prioritizing those projects. Following project development, projects were then prioritized based on the following factors:

- Public Input: information from Steering Committee, comments from participants in Public Open Houses and public survey.
- Project Characteristics: During the third Steering Committee Meeting, members were asked to select priority criteria based on factors that include safety, connectivity to schools and other major destinations, diversity in construction and the scenic environment. These results were used to identify top priorities. The following characteristics were identified as important characteristics to making a project a priority:
 1. Parks & Recreation Facilities
 2. Schools
 3. Libraries
 4. Shopping/Retail
 5. Hospital / Health Care providers
 6. Neighborhoods
 7. Public Service Offices
 8. Downtown
- Constructability and Cost: Including site preparation, engineering services, easement purchases, preliminary design, and ease of construction. General cost estimates are described in Appendix E.

Project prioritization involved a process which included all of the above factors. Appendix D contains details concerning the methodology of project prioritization. Projects were rated on key characteristics and received one point for having any of the project characteristics listed above. A project cost analysis was compared to the list of projects organized by project rating. Projects which were estimated to be low cost and also received high ratings were placed in the short-term project category. Projects with high costs and low ratings were placed in the long-term project category. Mid-term projects included those projects with low costs and low ratings as well as projects with high costs and high ratings.

All construction projects are listed by priority ranking in Table 7.1.



Table 7.1 Prioritized Projects

Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
1	Main Street Route	1	NCDOT & Town	Sharrow	Main Street	Martin Luther King Jr. Dr.	Talmage Street	5,100	\$4,000
2	Ahoskie Recreation Complex Route	21	Town	Multi-Use Trail	Ahoskie Recreation Complex	Recreation Center on Main St.	Academy St.	6,620	\$880,500
3	Pembroke Route	12	Town	Signed Bike Route	Pembroke Street	Camlin St.	Main St.	2,500	\$1,000
4	Memorial Drive (US 13)	16	NCDOT	Share the Road Signage	Memorial Drive (US 13)	Town Limits	Academy St.	12,000	\$4,500
5	Hertford County Schools Route	19	NCDOT & Town	Multi-Use Trail	Beafield Primary & Hertford Co. High	Hertford County High Road	Pembroke	4,630	\$616,000
6	Park-to-Park Route	13	Town	Signed Bike Route	Camlin Street	Ahoskie Recreation Complex	Academy Street	2,100	\$1,000
7	Academy Street	17	NCDOT	Share the Road Signage	Academy Street	Memorial Dr.	Hertford County High School Rd.	5,870	\$2,500
8	Martin Luther King Jr. Route	5	NCDOT	Bike Lane	Martin Luther King Jr. Rd.	First St.	Malibu St.	5,680	\$37,000
9	Ahoskie Elementary School Route	20	NCDOT & Town	Multi-Use Trail	Ahoskie Elementary School	Talmage Ave.	Main St.	2,210	\$294,000
10	Holloman Route	6	NCDOT & Town	Signed Bike Route	Holloman St.	Martin Luther King Jr. Dr.	Catherine St.	6,300	\$2,500



Table 7.1 Prioritized Projects, Continued

Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
11	W. First Street Route	15	NCDOT	Paved Shoulder	W. First Street / NC 561	ETJ Limits	H.C. High School Rd.	4,600	\$256,000
12	Academy St. / NC 42	14	NCDOT	Paved Shoulder	Academy Street	Ahoskie Creek Bridge	Memorial Dr.	2,100	\$11,000
13	First Street Route	3	Town	Bike Lane	First St.	Martin Luther King Jr. Dr.	Carolina Ave.	2,800	\$18,000
14	Academy Street Route & Baker Street Route	25	NCDOT & Town	Intersection Improvement	Academy Street & Baker Street	N/A	N/A	0	\$18,000
15	Ahoskie Creek Route	22	Town	Multi-Use Trail	Futrell Memorial Park	Academy St.	Academy St.	6,040	\$803,500
16	Jessie-Meyers Route	10	Town	Signed Bike Route	Jessie St. and Meyers St.	Catherine Creek Rd.	Ruritan St.	1,000	\$500
17	Catherine Street Route	7	Town	Signed Bike Route	Catherine St.	First St.	Holloman St.	3,540	\$1,500
18	Church Street Route	2	Town	Bike Lane	Church Street	Martin Luther King Jr. Dr.	Carolina Ave.	2,530	\$17,000
19	Sunset Street Route	9	Town	Signed Bike Route	E. Sunset Street	Martin Luther King Jr. Dr.	Catherine Creek Rd.	1,940	\$1,000



Table 7.1 Prioritized Projects, Continued

Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
20	Rail-to-Trail Route	23	Town & Rail Road	Multi-Use Trail	Abandoned Rail Road	Catherine Street	Ruritan St.	3,900	\$413,500
21	Martin Luther King Jr. Route	8	NCDOT	Signed Bike Route	Martin Luther King Jr. Drive	Sunset St.	Church St.	2,060	\$1,000
22	Catherine Creek Route	18	NCDOT	Share the Road signage	Catherine Creek Road	Memorial Dr.	Main St.	1,750	\$500
23	Martin Luther King Jr. Route	26	NCDOT	Intersection Improvement	MKL & Catherine Creek Road	N/A	N/A	0	\$20,000
24	Catherine Creek Road Route	4	NCDOT	Bike Lane	Catherine Creek Rd.	Main St.	Martin Luther King Jr. Dr.	2,320	\$15,000
25	Snipes St Connection	24	Town & Rail Road & private	Multi-Use Trail	Rail Road Crossing	Snipes St.	Baker St.	900	\$120,000
26	Ruritan Route	11	Town	Signed Bike Route	Ruritan St.	Proposed Multi-Use Trail End	Jessie St.	870	\$500
27	NC 42 Route	27	NCDOT	Paved Shoulder	NC 42	Morris Rd.	Ahoskie Creek Bridge	4,500	\$250,000



Short-term opportunities are those that may be completed or implemented in a timeframe of zero to five years (0-5 yrs.). The following projects should be considered in the short-term of implementation of the Bicycle Plan (Table 7.2).

Table 7.2 Short-Term Improvement Projects									
Priority Rank	Project/Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
1	Main Street Route	1	NCDO T & Town	Sharrow	Main Street	Martin Luther King Jr. Dr.	Talmage Street	5,100	\$4,000
3	Pembroke Route	12	Town	Signed Bike Route	Pembroke Street	Camlin St.	Main St.	2,500	\$1,000
4	Ahoskie-Cofield Route	28	NCDO T	Share the Road Signage	Ahoskie-Cofield Rd.	Malibu St.	ETJ limits		\$1,000
5	Memorial Drive (US 13)	16	NCDO T	Share the Road Signage	Memorial Drive (US 13)	Town Limits	Academy St.	12,000	\$4,500
7	Park-to-Park Route	13	Town	Signed Bike Route	Camlin Street	Ahoskie Recreation Complex	Academy Street	2,100	\$1,000
8	Academy Street	17	NCDO T	Share the Road Signage	Academy Street	Memorial Dr.	Hertford County High School Rd.	5,870	\$2,500
9	Martin Luther King Jr. Route	5	NCDO T	Bike Lane	Martin Luther King Jr. Rd.	First St.	Malibu St.	5,680	\$37,000
11	Holloman Route	6	NCDO T & Town	Signed Bike Route	Holloman St.	Martin Luther King Jr. Dr.	Catherine St.	6,300	\$2,500
14	First Street Route	3	Town	Bike Lane	First St.	Martin Luther King Jr. Dr.	Carolina Ave.	2,800	\$18,000
15	Academy Street Route & Baker Street Route	25	NCDO T & Town	Intersection Improvement	Academy Street & Baker Street	N/A	N/A	0	\$18,000
17	Jessie-Meyers Route	10	Town	Signed Bike Route	Jessie St. and Meyers St.	Catherine Creek Rd.	Ruritan St.	1,000	\$500
18	Catherine Street Route	7	Town	Signed Bike Route	Catherine St.	First St.	Holloman St.	3,540	\$1,500



Table 7.2 Short-Term Improvement Projects, Continued

Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
19	Church Street Route	2	Town	Bike Lane	Church Street	Martin Luther King Jr. Dr.	Carolina Ave.	2,530	\$17,000
22	Martin Luther King Jr. Route	8	NCDOT	Signed Bike Route	Martin Luther King Jr. Drive	Sunset St.	Church St.	2,060	\$1,000
23	Catherine Creek Route	18	NCDOT	Share the Road signage	Catherine Creek Road	Memorial Dr.	Main St.	1,750	\$500
24	Martin Luther King Jr. Route	27	NCDOT	Intersection Improvement	MKL & Catherine Creek Road	N/A	N/A	0	\$20,000
25	Catherine Creek Road Route	4	NCDOT	Bike Lane	Catherine Creek Rd.	Main St.	Martin Luther King Jr. Dr.	2,320	\$15,000
27	Ruritan Route	11	Town	Signed Bike Route	Ruritan St.	Proposed Multi-Use Trail End	Jessie St.	870	\$500



Mid-term opportunities are those that may be completed or implemented in a timeframe of six to ten years (6-10 years). The following opportunities should be considered in the mid-term of implementation of the Bicycle Plan (Table 7.3).

Table 7.3 Mid-Term Improvement Projects									
Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
2	Ahoskie Recreation Complex Route	21	Town	Multi-Use Trail	Ahoskie Recreation Complex	Recreation Center on Main St.	Academy St.	6,620	\$880,500
6	Hertford County Schools Route	19	NCDOT & Town	Multi-Use Trail	Beafield Primary & Hertford Co. High	Hertford County High Road	Pembroke	4,630	\$616,000
10	Ahoskie Elementary School Route	20	NCDOT & Town	Multi-Use Trail	Ahoskie Elementary School	Talmage Ave.	Main St.	2,210	\$294,000
12	W. First Street Route	15	NCDOT	Paved Shoulder	W. First Street / NC 561	ETJ Limits	Hertford County High School Rd.	4,600	\$256,000



Long-term opportunities are those that may be completed or implemented in a timeframe beyond ten years. The following opportunities should be considered in the long-term of implementation of the Bicycle Plan (Table 7.4).

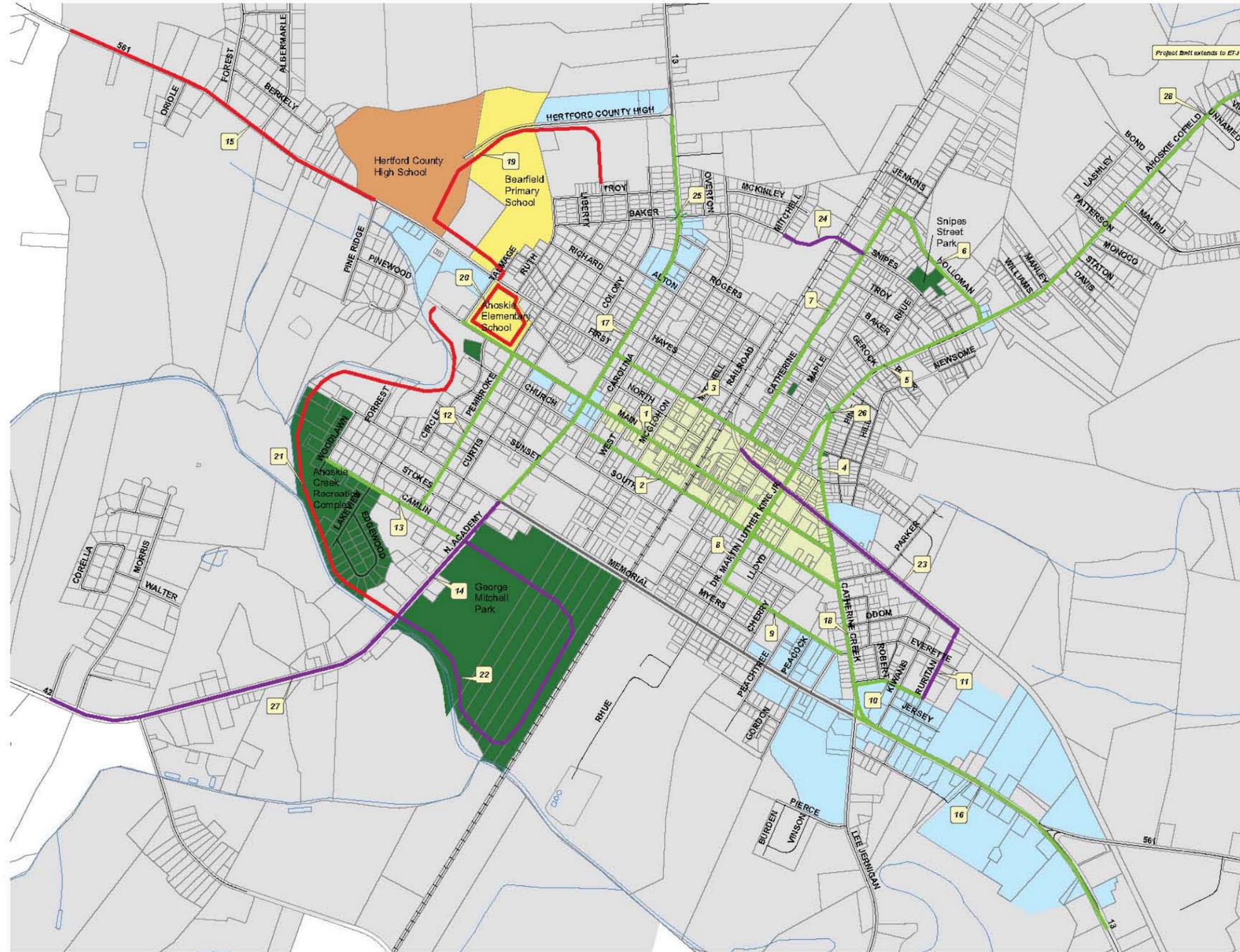
Table 7.4 Long-Term Improvement Projects									
Priority Rank	Project / Improvement Name	Map Ref. #	Road Class.	Type of Project	At / On	From	To	Approx. Length (ft)	Preliminary Opinion of Probable Costs
13	Academy St. / NC 42	14	NCDOT	Paved Shoulder	Academy Street	ETJ Limits	Memorial Drive	2,100	\$11,000
16	Ahoskie Creek Route	22	Town	Multi-Use Trail	Futrell Memorial Park	Academy St.	Academy St.	6,040	\$803,500
21	Rail-to-Trail Route	23	Town & Rail Road	Multi-Use Trail	Abandoned Rail Road	Catherine Street	Ruritan St.	3,900	\$413,500
26	Snipes St Connection	24	Town & Rail Road & private	Multi-Use Trail	Rail Road Crossing	Snipes St.	Baker St.	900	\$120,000
27	Ruritan Route	11	Town	Signed Bike Route	Ruritan St.	Proposed Multi-Use Trail End	Jessie St.	870	\$500
28	NC 42 Route	27	NCDOT	Paved Shoulder	NC 42	Morris Rd.	Ahoskie Creek Bridge	4,500	\$250,000

Map 7.2 Illustrates the prioritized project schedule.



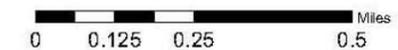
Town of Ahoskie Comprehensive Bicycle Plan

Map 7.2 Prioritized Project Schedule



Legend

- Long Term Improvement Projects
- Mid-Term Improvement Projects
- Short Term Improvement Projects
- + Short Term Intersection Projects
- Main Thoroughfares
- Water Feature
- + + + + Active Railroads
- Roads
- Downtown Area
- Commercial Parcel
- Parks
- Elementary School
- High Schools
- Ahoskie ETJ Limits
- # Map Reference #





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SECTION 8 – IMPLEMENTATION PLAN

8.0 IMPLEMENTATION STRATEGY

Section Outline:

- 8.0 Bicycle Plan Initiative
- 8.1 Initiating Actions
- 8.2 Performance Measures

This chapter describes how the recommendations for improving Ahoskie’s bicycling conditions will be implemented. Priorities are outlined for projects, plans, and policies as well as potential partners and funding sources. Implementation of this Plan will require a collaborative effort between a variety of Town departments and agencies. The Town’s staff should be aware of the Plan recommendations and seek to implement them as part of other regular work efforts. The NCDOT Division of Bicycle and Pedestrian Transportation may provide technical expertise on issues related to bicycling and ensure that implementation of the Plan moves forward. Progress on improving the Plan should be monitored on no less than an annual basis. Almost every project involving street or transportation improvements offers an opportunity to implement a component of this Plan. Implementation priorities of recommended programs and policies are listed in Table 6.0 Implementation Table, located on page 6-13 of this Plan.

8.1 INITIATING ACTIONS

The following initiating actions will ensure implementation of the Comprehensive Bicycle Plan and help the Town to meet the goals and objectives of it.

Action: Establish a standing Bicycle and Pedestrian Advisory Committee.
A Bicycle and Pedestrian Advisory Committee is recommended as a short-term priority and is described in Section 6.

- Establish an on-going committee to monitor progress of plan implementation. Section 7 includes a comprehensive list of all preliminary construction projects, Table 7.0 Preliminary Construction Projects on pages 7-3 through 7-7. Projects are listed according to priority rank in Table 7.1 Prioritized Projects on pages 7-10 through 7-12. Projects recommended by implementation phase are listed on page 7-13 Table 7.2 Short-Term Projects; pages 7-14 through 7-15 Table 7.3 Mid-Term Projects, and page 7-15 Table 7.4 Long-Term Projects.
- Review development plans to identify opportunities for bicycle and pedestrian facilities.

Action: Provide bicycle facilities as part of all transportation and roadway projects.

- Accommodate bicycling as part of all new roadway projects.
- Provide bicycle facilities as a part of all bridge projects (including bridge ramps and approaches). A New Bridge



Projects policy is recommended as a mid-term priority in Section 6, page 6-12.

- Incorporate requirements for bike facilities into the Town’s policies and ordinances. A Bikeways and Bike Facilities ordinance is recommended as a short-term priority, discussed in Section 6, page 6-12.
- Actively seek opportunities to provide bicycle lanes, shared roadway markings, and signage as part of repaving projects. Repaving projects may allow for restriping or marking of roadways to provide bike facilities. Repaving projects may allow for the addition of paved shoulder width. A Complete Streets ordinance is recommended as a short-term priority, discussed in Section 6, page 6-10.
- Repair potholes, surface hazards, sight distance obstructions and other maintenance problems on a regular basis. A maintenance policy is recommended as a short-term priority in Section 6, page 6-11. This action would be supported through the implementation of a Spot Improvement Program discussed in Section 6, page 6-5; a Spot Improvement Program could be developed online through the Town’s website.

Action: Establish a bicycle facility grant match reserve fund. The Town should consider development of a bicycle facility grant match reserve fund to make it possible for the Town to have matching funds available to take advantage of state and federal grant programs. *For more information about Funding Sources, please refer to Appendix E.*

Action: Dedicate funding for high-priority bicycle project planning and implementation. The Town should take advantage of existing funding provided through the general fund and other private and public sources and dedicate this funding to critical bicycle projects. Some of the most significant bicycle facilities needed in Ahoskie such as multi-use trails will not be implemented through routine roadway repaving and reconstruction projects. These types of projects will require independent funding to ensure completion. The Town may be able to secure funding assistance through federal and state grants and through special appropriations. See Table 7.1 Prioritized Projects for a comprehensive list of projects listed by priority rank. Examples of these projects include:

- Ahoskie Recreation Complex Route
- Hertford County Schools Route
- Ahoskie Elementary School Route
- Ahoskie Creek Route
- Rail to Trail Route
- Snipes Street Connection Route

OVERALL GOALS FOR AHOSKIE:

GOAL: EDUCATION & AWARENESS
To educate the community on the wide-range of benefits of a bike-friendly community, as well as to increase bicyclists’, pedestrians’, and motorists’ awareness of traffic laws and safety measures.

GOAL: CONNECTIVITY
To develop a well-designed continuous bicycle network that will provide residents and visitors with convenient and pleasant access to popular destinations and points of interest.

GOAL: BIKE-FRIENDLY POLICIES
To pursue bicycle-friendly policies and maintenance procedures to continuously improve bicycling in Ahoskie.

GOAL: ENCOURAGE OPPORTUNITIES
To encourage and seek opportunities throughout the community to develop and improve bicycle facilities.



Action: All Town departments should consult the Comprehensive Bicycle Plan when implementing projects and conducting plan reviews.

- Ahoskie's development review process should be modified to include requirements for on and off- site bicycle connections, facilities, and amenities.
- Establish a Bicycle and Pedestrian Committee to review development plans.

Action: Develop a Bicycle Education Program and Enforce Traffic Laws.

See Section 6 for recommended programs, such as Safe Routes to School, Police-on-Bikes and other encouragement programs.

- Develop a bicycle education program as part of the Town's overall communication and education programs.
- Provide resources and manpower to enforce laws relative to bicycle safety.
- Use the Town's website, newsletter, and local newspaper as information and educational tools.

Action: Plan and Construct Bicycle Amenities.

- The Town should establish requirements for the addition, design, location, and number of racks for land uses. See Section 5 for design guidance and Section 6 for recommended policies, such as a bicycle parking facilities ordinance and bikeways and bike facilities ordinance.
- Provide racks in public areas and along activity corridors. See Section 2, page 2-18, for recommended bike rack locations.
- Develop and provide information facilities and maps of bike routes and destinations. See Section 6 for discussion related to Mapping & Signage ancillary facilities.

Action: Reduce Speed Limits and Use Bicycle-Friendly Devices

The Town should consider traffic calming measures and/or speed reductions on roads with bicycle facilities. See Sections 5 and 6 for guidance and discussion about road diets, traffic calming devices, and lowering speed limits.

Action: Update the Comprehensive Bicycle Plan every 5 – 10 years. Plan updates will be needed to address the changing needs and priorities of the Town. The plan should be annually reviewed to be kept up to date. Public input is essential for future plan updates and reviews.

Action: Evaluate new bicycle facility treatments. New bicycle treatments should be evaluated to determine their effectiveness. The results of the evaluations will be used to refine, adjust, and guide future use of these treatments. Bicycle usage, motorist response, safety, and maintenance needs should be addressed during evaluation of new bicycle facilities. This includes the evaluation of the following facilities:

- Shared lane markings or sharrows and bicycle lane markings.



- Signage.
- Roadway crossing improvements / treatments.

Action: Establish partnerships based on their potential interest or involvement in a project. Many local agencies, businesses, organizations and governments provide partnership opportunities to assist the Town in meeting the goals of the Bicycle Plan. Partnerships may be utilized to develop bicycle education, enforcement, and encouragement programs. The Town should consider establishing or strengthening partnerships with the following to achieve the completion of the Plan's projects and recommendations:

- North Carolina Division of Transportation (NCDOT)
- Hertford County Board of Education
- Local developers
- Local bicycle clubs / advocacy organizations
- Local businesses
- Neighboring municipalities
- Community volunteer groups
- Elected officials
- Local health organizations
- Peanut Belt RPO
- Area tourism organizations

8.2 PERFORMANCE MEASURES

Performance measures should be monitored to determine the amount of progress being made toward achieving the vision of the Plan. The performance measures should be reviewed and updated every few years to ensure that the Town continues to use the best available resources to assess Plan implementation.

Ahoskie's vision is to develop a bike-friendly environment throughout Town that increases bicycling opportunities for all ages and abilities.

EVALUATION / MONITORING PROCESS

The Town should provide an ongoing evaluation of bicycle transportation to determine whether the goals and objectives of the plan are being met, or if the goals and objectives need to be modified to reflect changing circumstances or attitudes. Performance monitoring should be conducted biannually with concern towards the goals of the plan: education & awareness, connectivity, bike-friendly policies, and encourage opportunities. Performance monitoring should be led by the Town's Planning Division with support of a Bicycling Advisory Committee, or similar advocacy group.

Performance measures are used to monitor progress towards the vision of the Plan. Ahoskie can measure success through a number of ways: the miles of on-street bicycle routes created; new linear feet of multi-modal accommodation; changes in the number of people using bicycle programs (such as registration); and/or the creation or adoption of multi-modal policies that improve the quality of travel experience.



APPENDICES



APPENDIX A – PUBLIC INVOLVEMENT STRATEGY

A.0 STRATEGY OVERVIEW

Appendix Outline:

- A.0 Strategy Overview
- A.1 Steering Committee
- A.2 Public Survey
- A.3 Public Open Houses

The public involvement strategy for the Comprehensive Bicycle Plan included extensive public participation, including a Steering Committee comprised of local stakeholders, an online survey, and two public open houses. The first Steering Committee meeting was held on January 26, 2010 to provide information on the NCDOT's role and support of the project, to introduce the consultant team, and to review the scope and schedule for the project. During the meeting, members completed a visioning exercise to derive at the vision and/or goals for Ahoskie's Bicycle Plan. Members suggested approximately twenty-five (25) comments regarding their vision and/or goals for Ahoskie.

A draft vision for the plan was developed from the visioning exercise, which is *"to develop a bike-friendly environment throughout Town that increases bicycling opportunities for all ages and abilities."*

A.1 STEERING COMMITTEE

A 13-member Steering Committee was created with stakeholders representing a variety of groups in Ahoskie. Four Steering Committee meetings were held throughout the project development: January 26, 2010, February 16, 2010, April 27, 2010, and June 15, 2010. The first Steering Committee meeting was held on January 26, 2010 from 6:00-7:30 p.m. at Town Hall. During the meeting, the vision statement and goals of the Plan were reviewed and the Committee agreed to the vision statement, goals, and objectives. Members participated in a mapping exercise to determine destinations, generators and attractors in Beaufort. The information provided was used to determine future routes. Members also participated in an S.W.O.T. Analysis to identify the Strengths, Weaknesses, Opportunities, and Threats facing cyclists in Ahoskie. This exercise provided information about the existing bicycling conditions in Ahoskie.

The second Steering Committee meeting was held on February 16, 2010 from 6:00-7:00 p.m. at Town Hall. The inventory of existing bicycle conditions was presented to the Committee in addition to existing policies, plans and programs related to bicycling. Following discussion, members participated in an informal design charrette to review maps of Ahoskie and identify bicycling corridors, areas needing improvements, bicycle parking rack locations, and new facilities. The information provided by the Committee was assessed and opportunities were developed for consideration. Table A.1 is a comprehensive list of all identified bicycle project opportunities.



The third Steering Committee meeting was held on April 27, 2010 from 6:00 – 7:00 p.m. at Town Hall. A summary of public involvement was presented to the Committee, which included comments from the first Public Open House and survey results. The results of the field analysis and preliminary program and policy recommendations were reviewed. Committee members received a list of preliminary project recommendations that were developed based on input from the Committee, the public, bicycle-vehicle crash data, existing and proposed plans, field inventory and analysis, and the ability to provide connectivity. Following the presentation, members participated in a priority criteria exercise to rank destinations and other factors. The information provided by the Committee was used to prioritize project recommendations regardless of cost.

The fourth and final Steering Committee meeting was held on June 15, 2010 from 6:00 -7:30 p.m. at Town Hall. The draft Comprehensive Bicycle Plan was presented to the Committee for review and comment. Committee members received a copy of the draft plan prior to the meeting and arrived prepared to discuss it. The prioritized projects were reviewed and the implementation phases were discussed. The Committee accepted the draft with approval.



Steering Committee Meeting #2



MEETING AGENDA

DATE: Tuesday, January 26, 2010 at 6:00 p.m.

LOCATION: Ahoskie Town Hall
201 W. Main Street, Ahoskie, NC

SUBJECT: Town of Ahoskie Comprehensive Bicycle Plan
Steering Committee Meeting #1



At this meeting, there will be discussion of project scope and purpose, project schedule, role of steering committee and public in planning process, in addition to identifying overall goals, objectives and vision of project. The cycling basics of a bicycle-friendly environment will be presented and the project team will participate in a discussion identifying existing strengths, weaknesses, opportunities, and threats facing cyclists in Ahoskie.

This meeting will begin promptly at 6:00 p.m. and will conclude by 7:30 p.m.

AGENDA:

- I. **Welcome & Introductions** – Tony Hammond, Town of Ahoskie
- II. **Project Overview & Role of Steering Committee** – Kelly Lasky, Rivers & Associates, Inc.
- III. **Visioning** – All
- IV. **Bicycle Basics** – Kelly Lasky, Rivers & Associates, Inc.
- V. **Identify Bicycle Destinations / Attractions / Generators** - All
- VI. **Identify Strengths, Weaknesses, Opportunities, & Threats facing Cyclists in Ahoskie** - All
- VII. **Next Steps** – Ben Williams, Rivers & Associates, Inc.
- VIII. **Conclusion / Questions** - All

Thank you for your time and assistance in making Ahoskie a bike-friendly community.





**TOWN OF AHOSKIE
NORTH CAROLINA**

201 W. Main Street
PO Box 767
Ahoskie, NC 27910

**Ahoskie Comprehensive Bicycle Plan
Steering Committee Meeting #1
January 26, 2010
Minutes**

Welcome & Overview

At 6:00 p.m. the Ahoskie Town Manager, Tony Hammond, welcomed the members of the Bicycle Steering Committee to their first meeting and gave a brief overview of the project including the selection process which led to hiring Rivers & Associates as the consultant for the plan. The town manager then introduced the project team from Rivers & Associates, which was comprised of Ms. Kelly Lasky and Mr. Ben Williams. Ms. Helen Chaney from NCDOT was present to serve as the grant administrator during the bicycle project for Ahoskie. After the brief welcome the committee introduced themselves and why they were interested in becoming a part of the Comprehensive Bicycle Plan project in Ahoskie.

Project Overview & Role of Steering Committee

After the introductions, Ms. Lasky provided the group an overview to include the project scope and purpose, project schedule, and role of steering committee member.

Under the project scope, Ms. Lasky explained that the plan would be developed under the guideline developed by an NCDOT template that included the following five steps Engineering, Education, Encouragement, Enforcement & Evaluation.

Second under project overview was the schedule/time table. Ms. Lasky informed the committee that there were four steering committee meetings scheduled and that all of them were to take place from 6:00 – 7:30 P.M. in the Town Hall Council Chambers and that the next meeting was to take place on February 16th. Ms. Lasky then provided information on the open houses that are to take place in March and May 2010 and that specific times were not presently available.

The final component was the role of the Steering Committee Member. Mr. Williams emphasized that each member was to represent the entire community of Ahoskie and not just one group or idea. Other focus areas included providing information, priorities, feedback and opinions on the plans and ideas brought forth in discussion and design phases of the bicycle plan.

Visioning

After the project overview Ms. Lasky and Mr. Williams led the Steering Committee Members through a ten (10) minute visioning exercise in which each member was to share their goals for Ahoskie's bicycle plan. The list of those visioning items included:

Provide and Improve Connectivity for people of all ages; Bicycling as an option to exercise; Safe and Designated Paths; Enhancement of the Quality of Life; Provide the option of multi-modal transportation; Signage/Markers; A Bicycle-Friendly Town; Safer Routes to Schools; Program Enhancement; Historic Tours.





Ms. Lasky then explained that from this list that Rivers & Associates would group similar ideas and prepare them for discussion at the next Steering Committee Meeting in February.

Bicycle Basics

After the visioning exercise, Ms. Lasky gave a PowerPoint presentation and an overview of what she described as bicycle basics. These basics included laws that apply to bicycles and bicycling and rules of the road. Another basic included the different types of bicycle facilities to include multi-purpose trails, wider street pavement and designated bicycle lanes on major thoroughfares. Following the types of facilities, Ms. Lasky then discussed design considerations such as community demographics, local traffic volumes and speed, local street configuration, type of bicycle system needed, and existing conditions and constraints. The final bicycle basic were the benefits of bicycling, which included lower risk of heart disease, stroke, diabetes and general overall exercise.

Identify Bicycle Destinations/Attractions/Generators

Following the discussion on bicycle basics, Ms. Lasky proceeded to ask the steering committee members to participate in an exercise to identify bicycle destinations, attractions and generators in Ahoskie. As part of the exercise members, where asked to place colored dots on a display map of the Town. Members were also asked to identify bike routes they or others have taken to get around Ahoskie. Ms. Lasky went on to explain that the destinations and routes identified tonight will be placed on maps that will be used to determine future routes at the next steering committee meeting.

S.W.O.T. Analysis

At the conclusion of cycling destinations, members were asked to participate in another exercise of identifying strengths, weaknesses, threats and opportunities facing cyclists in Ahoskie. The committee supplied various opinions of these four categories with some pertaining to more than one category. This discussion went on for twenty minutes and provided a good overview on which areas the plan can build upon and which will have obstacles that will need to be overcome in order for the plan to be successful. Results on these exercise is as follows:

<i>Strengths:</i>	<i>Weaknesses:</i>	<i>Threats:</i>	<i>Opportunities:</i>
<ul style="list-style-type: none"> • Flat terrain • Low speed limits areas • Low traffic areas • Favorable climate • Attractive Land-Uses • Community support for bicycling • Multi-Use Downtown Area • Recreation Cycling • Transportation Cycling 	<ul style="list-style-type: none"> • Lack of Facilities • Traffic Patterns • Lack of Educational Opportunities • Road Conditions • Low Public Involvement • Demographics • Socioeconomics • Separation of destinations to neighborhoods 	<ul style="list-style-type: none"> • Uneducated motorists and cyclists • Unsafe Feeling • Isolated areas • Big Trucks • Memorial Dr. • Academy St. • Uneven Surfaces • Lack of Connectivity • Hazardous Drainage Grates • Uneven Roadway Gutters • Loss of "area" for facilities • Railroad 	<ul style="list-style-type: none"> • Provide facilities, programs, policies • Helmet give-aways • Bicycle donations • Funding alternatives • New Park • Local events • Education • Police-on-bikes • Safe Routes to Schools • Rails-to-Trails (conversion of abandoned RR) • Multi-use trails





Steering Committee's Next Steps

As to what the steering committee could be doing to stay active until the February meeting, Mr. Williams asked them to take a ride around Ahoskie on their bike and rate the existing system and be prepared to provide feedback at the next meeting. Ms. Lasky and Mr. Williams also asked that each member take an online survey located on the town's website www.ahoskie-nc.org and encourage others to do the same. Ms. Lasky then passed out bicycle business cards and asked that each member hand them out to a person or group that they knew that cycled in town and would become active in the project.

Looking towards the next meeting, Mr. Williams provided a cursory review of the topics to be discussed in February. Those items included a presentation of existing conditions, constraints, policies and programs that are currently in place in Ahoskie. Ms. Lasky also reminded the members that there would be an informal design exercise identifying potential bicycle corridors, improvements and infrastructure.

Conclusion

At the conclusion of the meeting, Rivers & Associates took questions regarding future funding and plans. Ms. Chaney spoke to the future funding that in order to receive funding from NCDOT for implementation that we first had to have a plan however, that did not preclude private investment or local funding sources.

The town manager thanked everyone for their attendance and involvement and reminded them about the February 16th meeting at 6:00 PM and that several days prior each steering committee member would be receiving a project schedule and an agenda.

Ms. Lasky and Mr. Williams thanked everyone for their participation.

The Steering Committee then recessed at 7:30 PM.

Minutes prepared by:

Kelly Lasky, Planner, Rivers & Associates, Inc

Reviewed by:

Tony Hammond, Town Manager, Ahoskie





M E E T I N G A G E N D A

DATE: Tuesday, February 16, 2010 at 6:00 p.m.
LOCATION: Town Hall Council Chambers
201 W. Main Street, Ahoskie, NC
SUBJECT: Town of Ahoskie Comprehensive Bicycle Plan
Steering Committee #2



This meeting will present and discuss findings from previous meeting, existing conditions and constraints, and existing policies and programs. This meeting will also have an informal design charrette to identify potential bicycle corridors and improvements. Plans for Public Open House #1 will also be finalized.

This meeting will begin promptly at 6:00 p.m. and will conclude by 7:30 p.m.

AGENDA:

- I. **Welcome** – Tony Hammond, Town of Ahoskie
- II. **Recap of Meeting #1** – Ben Williams, Rivers & Associates, Inc.
- III. **Existing Conditions & Constraints** – Kelly Lasky, Rivers & Associates, Inc.
- IV. **Existing Policies & Programs** - Kelly Lasky, Rivers & Associates, Inc.
- V. **Informal Design Charrette** – All
- VI. **Next Steps** – Ben Williams, Rivers & Associates, Inc.
- VII. **Conclusion / Questions** – All

Thank you for your time and assistance in making Ahoskie a bike-friendly community.





**TOWN OF AHOSKIE
NORTH CAROLINA**

201 W. Main Street
PO Box 767
Ahoskie, NC 27910

**Ahoskie Comprehensive Bicycle Plan
Steering Committee Meeting #2
February 16, 2010
Minutes**

Welcome & Overview

At 6:05 p.m. the Ahoskie Town Manager, Tony Hammond, welcomed the members of the Bicycle Steering Committee to the second meeting.

Recap of Steering Committee Meeting #1

After the welcome, Mr. Williams provided the group a recap from the January meeting which included a review of *Bicycle Basics*, a *Mapping Exercise* identifying bicycle destinations, attractions and generators in Ahoskie, and a *SWOT Analysis* (Strengths Weaknesses Opportunities Threats) listing items that bicyclist may encounter while cycling in Ahoskie.

Existing Bicycle Inventory

After the recap, Ms. Lasky gave a PowerPoint presentation and an overview of the Existing Bicycle Inventory in Ahoskie. The following items were presented as part of the inventory:

1. **Bicycle Racks** – Locations of existing racks can be found at the elementary schools, parks, hospital, recreation center, the gymnasium.
2. **Destination Points** – Several areas around Ahoskie were given as potential points of destination such as the downtown, community parks, schools, shopping centers, hospital, Viquest.

Another part of the existing inventory focused on the actual road conditions using still photos of current situations across town which included sections with hazardous drainage grates, eroded shoulders, unmarked intersections and paved shoulders. Ms. Lasky discussed that these items contribute to cyclist safety when riding through town and should be monitored on a regular basis to aid in preventing accidents or fatalities.

In conclusion of the existing inventory Ms. Lasky provided statistical data regarding the number of bicycle/vehicle reported crashes in Ahoskie from 1997 to 2007 as per the NCDOT's bicycle crash database. Ms. Lasky stated that over the eleven year period that twelve bicycle/vehicle crashes have occurred. Seven (7) of those crashes occurred at posted 25 mile per hour (mph) speed areas while four (4) occurred in posted 35 mph areas. The bicyclist was at fault for seven (7) of the 12 crashes. Months of warm weather saw the majority of crashes with 11 of 12 occurring from April to September. Four (4) of the 12 crashes occurred when bicyclists were facing traffic, or riding illegally on the roadway.





Existing Policies, Plans & Programs

After review of the inventory, Ms. Lasky gave a brief overview of the existing policies, plans and programs that the Town had in place. She also mentioned areas that may need refinement and new policies all together. Ms. Lasky stated that the current zoning ordinance does address some bicycle safety issues. Ms. Lasky went on to say that in the future that the Town may consider expanding some of their existing programs associated with bicycle safety such as having more bicycle rodeos, helmet donations, abandoned bicycles and Police on Bikes. All members of the committee were in agreement.

Informal Design Charrette

Following the discussion on existing conditions, policies, and programs Mr. Ben Williams and Ms. Lasky led the group in a design activity. Two groups were formed and placed at different tables and were then asked to review the existing map of Ahoskie and identify potential corridors, areas that need infrastructure improvement and locations for bicycle racks and new facilities. Once completed with the exercise the groups spokesperson presented their concept of ideas for the community. While both groups had similarities, the two had some different concepts of how develop a new bicycle system in Ahoskie. The following items were identified as improvements that would serve the future bicycle community in Ahoskie.

1. **Rails to Trails.** The Town of Ahoskie has an area of abandoned railroad line that would provide opportunities for conversion to off-road bicycle or multi-use trails. The abandoned railroad line crossing Catherine Creek Road extending eastwardly to the backside of the shopping centers was identified as a potential opportunity. This potential trail would improve access to commercial destinations.
2. **Bicycle Parking Facilities.** Bicycle parking facilities should be provided at the following locations:
 - All major commercial areas
 - Schools
 - Government Buildings (town, county, state)
 - Parks and Public Open Spaces
 - Near all public restrooms
3. **Routes.** Roadways and connections were identified to provide bicycling facilities and opportunities for improvement. The steering committee members chose alternate routes to the main thoroughfares throughout town to provide connectivity to destinations and points of interest.
4. **Intersections.** Opportunities to improve intersections by providing increase bicycle visibility through signage, markings, etc. The following identified areas may benefit from the installation some sort of improvements:
 - Academy St. and Memorial Drive. Currently, this is a lighted intersection and is located along the primary routes through town.
 - Catherine Creek Road and Memorial Drive. Currently, this is a lighted intersection located along the commercial district. This is one of Ahoskie's largest intersections with multiple turn lanes, no sidewalks, no crosswalks, and is a high-traffic area.
 - All intersections that had vehicle-bicycle crashes sites.





Next Steps

Looking towards the next meeting Ms. Lasky reminded everyone of the open house on March 16th at Town Hall to begin at 6:00 PM and run until 7:30 PM. She also reminded the group that the public survey would be closing on March 20th so make sure that they encourage friends, family, and the public to take the survey by the 20th.

Conclusion

At the conclusion of the meeting, Mr. Ben Williams thanked everyone for their hard work and reminded them about the public open house on March 16th, 2010 at 6:00 PM.

The Steering Committee then recessed at 7:00 PM.

Minutes prepared by:

Kelly Lasky, Planner, Rivers & Associates, Inc

Reviewed by:

Tony Hammond, Town Manager, Town of Ahoskie





MEETING AGENDA

DATE: Tuesday, April 27, 2010 at 6:00 p.m.
LOCATION: Town Hall Council Chambers
201 W. Main Street, Ahoskie, NC
SUBJECT: Town of Ahoskie Comprehensive Bicycle Plan
Steering Committee #3



At this meeting, a summary of public involvement results (survey and 1st Open House), field analysis, and preliminary recommendations for projects, programs, and policies will be presented for discussion. In addition, Steering Committee members will be identifying criteria to assist in prioritizing the list of preliminary project recommendations; therefore, your attendance is important.

This meeting will begin promptly at 6:00 p.m. and will conclude by 7:30 p.m.

AGENDA:

- I. **Welcome** – Tony Hammond, Town of Ahoskie
- II. **Public Involvement Results & Field Analysis** – Kelly Lasky, Rivers & Associates, Inc.
- III. **Preliminary Recommendations** – Kelly Lasky, Rivers & Associates, Inc.
- IV. **Priority Criteria Exercise** - All, Rivers & Associates, Inc.
- V. **Next Steps** – Ben Williams, Rivers & Associates, Inc.
- VI. **Conclusion / Questions** – All

Thank you for your time and assistance in making Ahoskie a bike-friendly community.





PRIORITY CRITERIA



WHICH ITEM IS AN IMPORTANT CRITERIA FOR
PRIORITIZING
AHOSKIE'S PRELIMINARY/POTENTIAL PROJECTS?

CONNECTIVITY TO...



PARKS & RECREATION FACILITIES	
SCHOOLS	
SHOPPING / RETAIL AREAS	
HOSPITAL / HEALTH CARE CENTERS	
DOWNTOWN	
LIBRARIES	
NEIGHBORHOODS	
PUBLIC SERVICE OFFICES	

OTHER FACTORS:



MAJOR THOROUGHFARES	
SECONDARY ROADWAYS	
IMPROVE SAFETY	
LATENT DEMAND/EXISTING USE	
NUMBER OF PUBLIC COMMENTS	
OFF-ROAD FACILITIES	



TOWN OF AHOSKIE COMPREHENSIVE BICYCLE PLAN



AHOSKIE BICYCLE PLAN
Steering Committee Meeting #3
 April 27, 2010 @ 6:00 p.m. - 7:30 p.m.
 Ahoskie Town Hall Council Chambers
 201 W. Main Street, Ahoskie, NC



	MR, MRS, MS, DR.	NAME	REPRESENTATION
1		Kelly Lasky	Rivers
2		Jon Williams	Rivers
3		Helen Chaney	NC DOT
4		Tina Peckhard	Town of Ahoskie
5		Jimmy Asbell	Ahoskie Police
6		Jonathan Unger	ViQuest RCH
7		Kirk Rogers	TOA
8		Mayor Linda Blackburn	TOA
9		Clayton Howard	TOA
10		Arita Thompson	Kayperson
11		JAMIE JOHNSON	ace
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PLEASE PRINT LEGIBLY, THANK YOU



**TOWN OF AHOSKIE
NORTH CAROLINA**

201 W. Main Street
PO Box 767
Ahoskie, NC 27910

**Ahoskie Comprehensive Bicycle Plan
Steering Committee Meeting #3
April 27, 2010
Minutes**

Welcome & Overview

At 6:05 p.m. the Ahoskie Town Manager, Tony Hammond, welcomed the members of the Bicycle Steering Committee to the third meeting.

Recap of Public Involvement Results & Field Analysis

After the welcome, Ms. Lasky provided the group a recap from the February Open House which included the results of the public input. Ms. Lasky stated that the key issues identified by the public were similar to those that the committee had been discussing since January. Those items included: *Public Education and Outreach Connectivity and Routes to Schools, Downtown, Library, Parks, Multi-Use Trails and Rails-to-Trails, Safe Crossing of Academy St., Dangerous Intersections, Bicycle Policies, Traffic, Motorist Behavior, More Bicycle Facilities, Events: bicycle rodeos.* After hearing the list the committee members agreed that in fact these were similar or exactly what they observed in developing the plan so far and were happy with the results.

After review of the public involvement results Ms. Lasky also shared the results of the online survey. Overall, Rivers & Associates and the Town were pleased with the number of surveys submitted as well as their responses. Ms. Lasky went on to inform the group that the results were presented according to rank and that the open-ended questions were tabulated.

In addition to the list of survey statistics, Ms. Lasky also shared the results of specific questions to each person who responded such as: **What roads would citizens would most like improved for Bicycling; what perceptions to be the major barriers to bicycle transportation in Ahoskie; and a list of the facilities or types of places that bicycle routes should connect.**

Preliminary Recommendations

The next presentation given was a list of preliminary recommendations for the Bicycle Plan. These items included development of policies for – Bicycle Parking, Complete Streets Ordinance, Town Funding, Development of a Streets Improvements Program, and a Bike Facilities Ordinance. Ms. Lasky also mentioned that several programs were recommended such as a Safe Routes to School program, Spot Safety Improvements, an infrastructure maintenance program, Education Initiatives and enforcement strategies.

These strategies were based on various items such as Steering Committee meetings, the public surveys, and bicycle crash data proposed development projects, the field inventory and improved connectivity and safety for cyclist. Overall, 27 projects are recommended that were brought out through the process.





Once again the committee supported the list of proposed policies and programs to be included as part of the overall plan.

PRIORITY CRITERIA EXERCISE

Mr. Williams facilitated the next agenda item which had each committee member place dots next to projects and rank them in priority that they thought should be accomplished for the plan. Those included connectivity and then other factors. After about ranking each project, which took about 10 minutes, Ms. Lasky stated that Rivers & Associates would calculate the results and submit them for review at the June 15th meeting as well as have proposed timelines and associated cost of the ranked projects.

Next Steps

Looking towards the next meeting Ms. Lasky reminded everyone of the next Steering Committee Meeting on June 15th at 6:00 PM to review the draft Bike Plan and discuss the results of the prioritized projects and their implementation phases.

Conclusion

At the conclusion of the meeting, Mr. Ben Williams thanked everyone for their hard work and reminded them about the second open house on June 29th at Town Hall to begin at 6:00 PM and run until 7:30 PM.

The Steering Committee then recessed at 6:40 PM.

Minutes prepared by:

Kelly Lasky, Planner, Rivers & Associates, Inc.

Reviewed by:

Tony Hammond, Town Manager, Town of Ahoskie





MEETING AGENDA

DATE: Tuesday, June 15, 2010 at 6:00 p.m.
LOCATION: Town Hall Council Chambers
201 W. Main Street, Ahoskie, NC
SUBJECT: Town of Ahoskie Comprehensive Bicycle Plan
Steering Committee #4



At this meeting, the Team will present the draft Comprehensive Bicycle Plan and receive comments from members that will be applied to the development of the Final Plan.

This meeting will begin promptly at 6:00 p.m. and will conclude by 7:30 p.m.

AGENDA:

- I. **Welcome** – Tony Hammond, Town of Ahoskie
- II. **Draft Plan Review** – Kelly Lasky, Rivers & Associates, Inc.
- III. **Next Steps** – Kelly Lasky, Rivers & Associates, Inc.
- IV. **Conclusion / Questions** – All

Thank you for your time and assistance in making Ahoskie a bike-friendly community.





AHOSKIE BICYCLE PLAN
 Steering Committee Meeting #4
 June 15, 2010 @ 6:00 p.m. - 7:30 p.m.
 Ahoskie Town Hall Council Chambers
 201 W. Main Street, Ahoskie, NC



	MR, MRS, MS, DR.	NAME	REPRESENTATION
1		Kelly Laskey	Rivers & Assoc.
2		Jimmy Asbell	Ahoskie Police
3		Jane Johnson	
4		Tina Riekhart	Town of Ahoskie
5		Jonathan Unger	Viquist
6		Tony Hammond	Ahoskie
7		Evelyn Howard	Ahoskie
8		Linda Blackburn	Ahoskie
9			
10			
11			



**TOWN OF AHOSKIE
NORTH CAROLINA**

201 W. Main Street
PO Box 767
Ahoskie, NC 27910

**Ahoskie Comprehensive Bicycle Plan
Steering Committee Meeting #4
June 15, 2010
Minutes**

Welcome & Overview

At 6:10 PM the Ahoskie Town Manager Tony Hammond welcomed the members of the Bicycle Steering Committee to the fourth and final working meeting and offered his appreciation to all those who stayed involved throughout the project and for giving of their time.

Executive Summary/Recap of Sections 1-8

After the welcome, Ms. Lasky provided the group a recap from what has developed into the draft bicycle plan over the past six months. Ms. Lasky started off by reviewing with the group that the bicycle plan was the first of its kind in Ahoskie and was funded by the North Carolina Department of Transportation Bicycle and Pedestrian Division as well as the Town. She also stated that the rationale behind the plan was to improve bicycle travel and safety throughout town and other documents such as the CAMA Land Use Plan, the County's Recreation Master Plan, and the Town's Recreation Plan all support bicycle transportation. She went on to explain that the overall goals of the plan were to: educate and provide awareness on bicycling, to provide connectivity, to implement bike friendly policies and ordinances and; to encourage bicycling opportunities throughout the community. The committee members thought that the goals were right on target and did not add or change any that were presented.

After the brief overview and goals recap, Ms. Lasky went on to discuss Section 2, which included an overview of the town's statistical data and demographics. Also included was a brief discussion on the inventory and assessment of existing bicycling facilities currently in Ahoskie.

Ms. Lasky went on to explain that the review of other planning documents and future development proposals aided in the development of Section 3, which included strategies on future programs and policies. Once again, the group agreed with the recap of Sections 2 & 3 and supported the proposed text.

Section 4 – Strategic Bicycle Plan presentation focused on the projects identified that would improve the existing network. These projects were broken into three categories of Off-Road, On-Road and Ancillary Facilities. Ms. Lasky went on to explain that these potential projects were derived from the Steering Committee meeting discussions as well as comments from the first public open house.

Transitioning into Section 5 Ms. Lasky presented data in the plan that would refer to specific guidelines in the design of specific facilities around town and that these standards and guidelines were derived through the NCDOT Bicycle Facilities and Design Guidelines as well as the Federal Highway Association.





Section 6's discussion outlined the recommendations for ancillary facilities, programs and facilities addressing specific road improvements and educational programs designed to improve bicycle safety.

Most of the discussion developed as part of Section 7 which contained a detailed list of recommended projects for the Town to consider implementing as part of an adopted bicycle plan. At this point Ms. Lasky reviewed each recommendation of which there were twenty-six. Only a couple of items within the list generated any discussion.

The final section presented was Section 8, which were the recommendations for implementation and ranking of projects from easy to implement to more difficult. At this point Ms. Lasky gave several scenarios on how projects may be accomplished in the future. She suggested to the committee members that they stay active and if they really wanted to see the plan becoming a living, breathing plan to stay the course and continue to meet and promote the plan. She said that the plan may be updated from time to time and that it is always a good idea to review it for how it relates to changing conditions. The committee members were very open regarding Ms. Lasky's comments and agreed to stay active in the process, especially in obtaining funding for several of the projects.

Next Steps

Looking towards the next meeting Ms. Lasky reminded everyone that the next meeting was the June 29th Open House at Ahoskie Town Hall and encouraged everyone to attend. The time will be between 6:00 – 7:30 PM.

Conclusion

At the conclusion of the meeting, Tony Hammond thanked everyone for their participation.

The Steering Committee then recessed at 7:00 PM.

Minutes prepared by:

Kelly Lasky, Planner, Rivers & Associates, Inc.

Reviewed by:

Tony Hammond, Town Manager, Town of Ahoskie





A.2 PUBLIC SURVEY

The online survey was developed to gather input from the community. The questionnaire was available online from November 18, 2008 through March 22, 2010 (nearly four months). Hard copies of the survey were available at Town Hall and public buildings. In addition to a story in the local newspaper, Steering Committee members and Town staff notified the public of the survey through Town utility billing and distribution of marketing cards. The Consultant received ninety-seven (97) surveys for analysis. Results of the survey provided the Town, Steering Committee members, and the Consultant with information regarding bicycling preferences, constraints, opportunities, and areas for improvement. Highlights of the survey are discussed in Section 2 of the Plan and complete results of the survey are found below.



AHOSKIE BICYCLE SURVEY



With funding from the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation, the Town of Ahoskie is preparing a Comprehensive Bicycle Plan. The Plan will serve as a guide to improve the conditions and opportunities for bicycling in the community for all ages. The intent of this survey is to obtain general information about you as a cyclist, current bicycling conditions and environment in Ahoskie, and your opinion on needed improvements. Your input will support the work in progress to develop the Ahoskie Comprehensive Bicycle Plan. Thank you for your participation!

1. How often do you ride a bicycle? (check one) Average Response:

1.51 Days/Week 4.33 Days/Month 39.45 Days/Year

2. When was the last time you rode a bicycle? (check one)

19.1% Last Week 13.5% Within the last Month 5.6% Within the last 2 months

10.1% Within the last 4 months 7.9% Within the last 6 months 43.8% Within the last year

3. What is the reason you have not ridden your bicycle more? (Check all that apply)

Distances to destinations are too far	17.7%
Unsafe, due to traffic	65.6%
Unsafe, due to surface conditions	22.9%
Too busy, no time	22.9%
Lack of interest	6.3%
Other	27.1%

4. Why do you ride your bike? (check all that apply)

Shopping trip	3.2%
Commute to work	4.3%
Physical exercise	73.1%
Family Event	24.7%
Recreation	48.4%
Commute to school	0.0%
Run errands	4.3%
Visit neighbor/family/friend	14%
Other	14%



5. When do you usually bike? (check all that apply)

74.2% Daytime 9.7% Nighttime 33.3% Weekdays 66.7% Weekends 17.2% Holidays
23.7% Vacation 65.6% Summer 49.5% Fall 10.8% Winter 62.4% Spring

6. Do you ride your bike regardless of weather? (check one)

2.4% Yes, any conditions
38.6% No, only when it's not raining
59% No, only when it's warm and sunny out

7. How often during the week do you ride your bike (round trip)?

58.8% Infrequently (a couple times a month)
27.5% 1-2 times
7.5% 3-4 times
6.3% 5 or more times

8. When you bike, where do you typically go? (check all that apply)

Library	6.0%
In neighborhood	76.2%
To or in a park	22.6%
School	3.6%
Store along Highway 13	7.1%
Downtown	11.9%
Into Town	10.7%
Town Offices	1.2%
Work	7.1%
All of the above	2.4%
Other	31%

9. When you bike, do you wear a helmet?

22.9% YES 77.1% NO

10. If no, why not?

63.1% Don't own one 15.4% Uncomfortable 10.8% Looks silly 10.8% Unnecessary



11. Would you like to be able to ride your bike more?

97.5% YES 2.5% NO

12. Would you ride a bike more if: *(check all that apply)*

You felt more comfortable on your bike	18.8%
You felt safer amongst traffic	73.8%
Vehicles moved slower	16.3%
There were more clearly marked trails	70.0%
You had better places to ride	81.3%
You felt motorists respected cyclists and better understood cyclists' rights and responsibilities	45.0%
There were better roadway conditions such as smoother pavement, less debris, etc.	46.3%
There were wider roads to ride on	46.3%
There were designated bike lanes on busy street	55.0%
There were more bike route signage	36.3%
There were maps of bike routes	32.5%
There were more bike racks at your destination	30.0%

13. What roads would you most like improved for bicycling?

US Hwy 13 (in general) / Memorial Drive; Academy Street; First Street (NC 561); Neighborhood streets; (4-way Tie); Major Streets (in general), Dr. Martin Luther King Jr. Drive, Main Street, Roadways into downtown Ahoskie; (3-way Tie); Catherine Creek Road, Church Street, Hayes Street.

14. Name the facilities or types of places you think bicycle routes should connect.

Parks & Recreation Areas; Schools; Shopping Centers/Businesses; Hospital & Health Care Centers; Downtown Ahoskie; Viquet; Libraries; Neighborhoods; Public Service Offices (Town Hall, Police Department, etc.)

15. Do you support change in bicycle facilities and policies to make Ahoskie a more bicycle-friendly community?

100% YES 0% NO



16. How do you rate the following ideas for improving bicycling in Ahoskie?

	Very Important			Not Important	
Bike lanes with striping on the pavement	44	21	5	0	0
Wide outside travel lane to provide space for bicycle	47	19	4	0	0
Removal / repair of hazards such as potholes	46	18	3	3	0
Repair or replace high drainage grates	35	18	12	3	0
Streets that are signed as bike routes	33	21	14	2	0
Bike paths that are separate from the street	46	19	8	0	0
Bikeways that go from residential areas to nearby commercial areas	34	24	13	0	0
Bikeways that connect to each other for long distances	37	18	14	3	0
More bicycle parking at destinations	27	22	21	0	0
Bicycle racks available on buses	13	11	18	10	18
Lockers and showers at workplace	10	13	20	10	16
Removal of curbside parking on local streets to provide more space for bikes	15	11	21	12	11
Provide local bicycle facility map	24	13	22	7	4
Educational materials describing safe bicycle riding	23	18	17	5	6
Educating motorists on bicyclists' use of roadways	36	15	12	3	2
Bicycle education in elementary and middle schools	41	14	11	2	3

17. What do you perceive to be the major barriers to bicycle transportation in Ahoskie?

Lack of Bicycle Facilities; Narrow Roads (lack of space to ride on roadway); Unsafe / Cyclist insecurity / Dangerous Situations; Motorists Behavior and Traffic; Lack of Motivation; Roadway Conditions; Don't own a bike.

18. In general, how would you rate the bicycle conditions in Ahoskie?

0% Excellent 1.4% Good 33.8% Fair 64.9% Poor

19. Do you live within the Town limits of Ahoskie?

32.9% YES 67.1% NO

20. If no, where do you live? Please identify:

Residential area near Ahoskie Limits; Aulander; Murfreesboro; Colerain; St. John

21. Are you: 28% Male 72% Female



23. What is your age group?

0% Age 0-5 0% Age 6-12 0% Age 13-18 21.9% Age 19-29
16.4% Age 30-39 43.8% Age 40-54 17.8% Age 55+

23. Please list the number of individuals for each age group in your household.

23 Age 0-5 25 Age 6-12 21 Age 13-18 42 Age 19-29
25 Age 30-39 48 Age 40-54 29 Age 55+

SUBMISSION OF COMPLETED SURVEY

Once you have completed this survey, please return it to Town Hall no later than March 22, 2010 to be tabulated.

If you have any questions about the survey, please call Mr. Tony Hammond, Ahoskie Town Manager, at (252) 332-5146 or Ms. Kelly Lasky, Planner for Rivers & Associates, Inc. at (252) 752-4135

Thank you for your time and assistance in making Ahoskie a bike-friendly community.





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A.3 PUBLIC OPEN HOUSES

Two Public Open Houses were held throughout the course of the Plan development. On March 16, 2010 the first Public Open House was held from 6:00 – 7:30 p.m. at Town Hall to introduce the project to the public and receive comments from the public regarding bicycling opportunities, destinations, and improvements. Information was presented to the public through five (5) stations throughout the facility. Each station provided different information to the public and some requested action from the participations.

Ten (10) members of the community attended the Public Open House. At Station 2, participants were asked to place a sticker on the general area that they live. This activity revealed that the participants live throughout the project area and not just one part of the community. Image boards were set up throughout the room and a slideshow of the project website and images continuously played.

The Project was well received by the community and concerns about bicycling safety, opportunities, challenges and destinations were expressed. Participants were encouraged to stay involved in the project by attending the second Public Open House, discussing the project with others, or contacting the Project Coordinator. The attached comments were provided by the open house participants.



Public Open House #1



The second Public Open House was conducted at Ahoskie Town Hall from 6:00 – 7:30 on June 29, 2010. The draft Comprehensive Bicycle Plan including graphics of proposed recommendations was available for public scrutiny, discussion and comment. Overall, the participants felt that their needs and concerns had been addressed and were eager for the Town to implement the projects.



Public Open House #2



MARCH 16TH, 2010
PUBLIC OPEN HOUSE – PUBLIC COMMENTS RECEIVED:



COMMENT SHEETS:

1. If the decision is made to direct paths to and from residential areas to commercial areas, there are a few things to consider:
 - a. Lighting
 - b. Safety call boxes to alert law enforcement
 - c. Accessibility for law enforcement
2. This is a really neat project.
3. If off-road paths are proposed, then they should be well lit to increase a sense of security.
4. The proposed opportunities look great.
5. I would like to be able to bike more often.
6. There are many people in town who need bikes.
7. The railroad crossings should be examined because there have been bicycle accidents in the past due to poor surface conditions.

PRELIMINARY OPPORTUNITIES MAP COMMENTS:

1. Currently, there is no safe way to cross the Rail Road Tracks shown along the route labeled as the "Williams Circle Connection".



AHOSKIE BIKE PLAN



Public Open House #1
Tuesday, March 16, 2010 from 6:00-7:30pm
Ahoskie Town Hall
201 W. Main Street

PROJECT SUMMARY & STATUS

The Town of Ahoskie was awarded a grant from the North Carolina Department of Transportation accompanied by a local match from the Town to develop a Comprehensive Bicycle Plan. The Project Consultants from Rivers & Associates, Inc. are working closely with the Town, the Bicycle Plan Steering Committee, and Citizens to identify future **bicycle projects, programs, and policies** for Ahoskie. This open house is part of the second phase of the project and it is your opportunity to express needs and concerns to make Ahoskie bikeable.

OPEN HOUSE STRUCTURE

To best use your time at today's open house and provide the project team with the information needed, please visit the following **5 STATIONS** while you are here:

- STATION 1: SIGN-IN:** Sign in, fill out a name tag, and receive project information handout & comment sheet
- STATION 2: OVERALL PROJECT AREA:** Review overall project area map
- STATION 3: PHOTOS OF EXISTING CONDITIONS** Review photos of existing conditions/constraints
- STATION 4: PUBLIC SURVEY:** Complete a survey.
- STATION 5: PRELIMINARY PROPOSED OPPORTUNITIES:** Review identified improvement opportunities and destinations, provide comments, suggestions as to where you would like to see improvements, additional destinations you would like to bike to and places you already ride

WHAT NEXT?

Following this open house the project team will begin drafting recommendations based on comments received from you and the Steering Committee. These draft recommendations will be presented to the Steering Committee in April. You can stay involved in this project by:

- Attending the second public workshop (TBD in June)
- Telling your family, friends and co-workers about this project
- Contacting the Project Coordinator with questions or suggestions

Tony Hammond, Ahoskie Town Manager
(252) 332-5146 x.222

www.ahoskie-nc.org





AHOSKIE BIKE PLAN



Public Open House #1
Tuesday, March 16, 2010 from 6:00 – 7:30 PM
 Ahoskie Town Hall
 201 W. Main Street

The following bicycling opportunities were identified during mapping exercises during the first and second Bicycle Plan Steering Committee Meetings, held on January 26, 2010 and February 16, 2010. **These are potential opportunities and are not final recommendations.**

The following items were identified as improvements that would serve the future bicycle community in Ahoskie.

1. **Rails to Trails.** The Town of Ahoskie has an area of abandoned railroad line that would provide opportunities for conversion to off-road bicycle or multi-use trails. The abandoned railroad line crossing Catherine Creek Road extending eastwardly to the backside of the shopping centers was identified as a potential opportunity. This potential trail would improve access to commercial destinations.
2. **Bicycle Parking Facilities.** Bicycle parking facilities should be provided at the following locations:
 - All major commercial areas
 - Schools
 - Government Buildings (town, county, state)
 - Parks and Public Open Spaces
 - Near all public restrooms
3. **Routes.** Roadways and connections were identified to provide bicycling facilities and opportunities for improvement. The steering committee members chose alternate routes to the main thoroughfares throughout town to provide connectivity to destinations and points of interest. **See the map display at Station 5 for identified opportunities.**
4. **Intersections.** Opportunities to improve intersections by providing increase bicycle visibility through signage, markings, etc. The following identified areas may benefit from the installation some sort of improvements:
 - Academy St. and Memorial Drive. Currently, this is a lighted intersection and is located along the primary routes through town.
 - Catherine Creek Road and Memorial Drive. Currently, this is a lighted intersection located along the commercial district. This is one of Ahoskie's largest intersections with multiple turn lanes, no sidewalks, no crosswalks, and is a high-traffic area.
 - All intersections that had vehicle-bicycle crashes sites.

www.ahoskie-nc.org





*Do you enjoy riding your bicycle? ■ Would you like a more bikeable community?
Do your kids bike with you to the park or school? ■ Do you bike to the store or downtown?
Would you like to incorporate more biking into your daily life?*

***If you answered yes to any of these questions, please join us!
We need your input to help create a***

BIKEABLE AHOSKIE!



WHAT:

**Comprehensive Bicycle Plan
Open House**

WHEN:

**Tuesday, March 16, 2010
6:00 - 7:30 PM**

WHERE:

**Town Hall
201 W. Main St.
Ahoskie, NC**

GOALS FOR THIS OPEN HOUSE ARE:

- PROVIDE YOU WITH PROJECT INFORMATION
- PROVIDE EXISTING BICYCLE ASSESSMENT
- REVIEW PRELIMINARY OPPORTUNITIES
- FIND OUT YOUR NEEDS AND GOALS FOR A MORE BIKEABLE AHOSKIE
- DISCUSS FUTURE PLANS



This plan is being developed by professional consultants and is funded by the Town of Ahoskie & the NCDOT.



RIVERS & ASSOCIATES, INC.
 Engineers/Planners/Surveyors
 107 E. 2nd Street GREENVILLE, NC 27858
 P.O. Box 929 GREENVILLE, NC 27835
 (252) 752-4135 FAX (252) 752-3974

JOB Ahoskie Bike Plan
 SHEET NO. 02/16/10 OF _____
 CALCULATED BY POH#1 DATE _____
 CHECKED BY _____ DATE _____
 SCALE _____

Name	Address	phone/Email
1. Kelly Lasky	107 E. 2nd St Greenville	252 752 4135 / kldsky@gmail.com
2. Ben Williams	" "	" "
3. Jonathan Unger	1204 Mitchell St. North	862-1024
4. Troy Fitzhugh	P.O. Box 767 705 W. MAIN ST. AHOSKIE, NC	332-5012 tef@mail.ahoskiepl.com
5. William C. Askew	P.O. Box 386 Ahoskie NC	332-8410
6. Danielle Bryant	207 Jernigan Airport Rd Ahoskie NC 27910	287-9921
7. Cal Dryant	R-C News Herald - Ahoskie	332-7207 caldryant@rcnews.com
8. MICHAEL R. KELLET	705 W. MAIN ST AHOSKIE, NC 27910	332-5012 / DixieBred24@aol.com
9. Evelyn Howard	P.O. Box 1423 Ahoskie NC 27910	332-5225 evelynhoward@ahoskie.org
10. Justin Farmer	705 W. Main St. Ahoskie N.C. 27910	332-5012
11. Joseph Paulk	705 W. Main St. Ahoskie NC 27910	287-5381
12. Tony Hammond	620 W. Church St Ahoskie	332-5146 tonyhammond@ahoskie.org

PROJECT 204-1 (page three) 205-1 (part 2)



JUNE 29TH, 2010

PUBLIC OPEN HOUSE – PUBLIC COMMENTS RECEIVED:



COMMENT SHEETS:

1. The Plan looks great and we are excited to see the projects get started, good job!
2. Providing improved bicycling conditions will help Ahoskie's residents to get outside and improve their health through exercise.
3. The Plan is well thought out and it appears that there is some type of bicycle connection or facility to shopping areas, restaurants, recreation centers and neighborhoods. The Plan provides something for everyone, from the biker who rides long distances along throughout the county to the person who rides up to the convenience store for a soda. I like that there are a variety of different types of bicycle facilities recommended in the plan because there is currently nothing in Ahoskie related to bicycling, not even a Share the Road sign. There is no connection to Walmart, but I understand that there are not many access points to it. This plan is a great start to providing a safer bicycling community in Ahoskie.
4. The Town should talk with the Hospital and Viquest to possibly host a one-night-a-week bike ride throughout town to encourage bicycling and promote physical fitness.



AHOSKIE BIKE PLAN



Public Open House #2
Tuesday, June 29, 2010 from 6:00-7:30pm
Ahoskie Town Hall
201 W. Main Street

PROJECT SUMMARY & STATUS

The Town of Ahoskie was awarded a grant from the North Carolina Department of Transportation and a local match from the Town to develop a Comprehensive Bicycle Plan. The Project Consultants from Rivers & Associates, Inc. are working closely with the Town, the Bicycle Plan Steering Committee, and Citizens to identify future **bicycle projects, programs, and policies** for Ahoskie. This open house is part of the second phase of the project and it is your opportunity to review the recommended programs, projects, and policies and provide input to finalize the draft Bicycle Plan to make Ahoskie bikeable.

OPEN HOUSE STRUCTURE

To best use your time at today's open house and provide the project team with the information needed, please visit the following **2 STATIONS** while you are here:

- STATION 1: SIGN-IN:** Sign in, fill out a name tag, and receive project information handout & comment sheet
- STATION 2: RECOMMENDED PROJECT MAPS:** Review project recommendations

WHAT NEXT?

Following this open house, the project team will finalize the draft plan according to the NCDOT template and submit it to NCDOT for their review and comments. You can stay involved in this project by:

- Telling your family, friends and co-workers about this project
- Contacting the Project Coordinator with questions or suggestions
Tony Hammond, Ahoskie Town Manager
(252) 332-5146 x.222

www.ahoskie-nc.org





WANT A MORE BIKE-FRIENDLY AHOSKIE?

*IF YOU ANSWERED YES, PLEASE JOIN US!
THE TOWN OF AHOSKIE NEEDS YOUR INPUT!*



WHAT:

**Comprehensive Bicycle Plan
Open House #2**

WHEN:

**Tuesday, June 29, 2010
6:00—7:30 PM**

WHERE:

**Town Hall
201 W. Main St.
Ahoskie, NC**

GOALS FOR THIS OPEN HOUSE ARE:

- PROVIDE YOU WITH PROJECT INFORMATION
- PRESENT DRAFT RECOMMENDATIONS & PRIORITIES FOR THE COMPREHENSIVE BICYCLE PLAN
- ACCEPT COMMENTS, RECOMMENDATIONS, AND QUESTIONS FROM YOU



This plan is being developed by professional consultants and is funded by the Town of Ahoskie & the NCDOT.



AHOSSKIE BICYCLE PLAN
Public Open House # 2
 June 29, 2010 6:00- 7:30 pm
 Ahoskie Town Hall, 201 W. Main St., Ahoskie, NC



	Mr. Mrs. Ms. Dr.	Name	Organization / Company	Mailing Address	Phone	Email
1	Mrs.	Kelly Lasky	Rivers / Consultant	PO Box 929 Greenville, NC 27835	(252) 752-4135	Klasky@ riversandassociates.com
2	Mr	Kirk Rogers	Town of Ahoskie	P.O. Box 207 Ahoskie, NC 27910	(252) 332-5146	KRogers@ahoskie.org
3		Susan Askew	Henderson Co. Public Health Authority		(252) 358-7833	Susan_askew@hcahta.net
4		Janie Foster	Town of Ahoskie	211 S. Welford Rd Ahoskie 27910	232-5196	janef98@gmail.com
5		Tina Palko	Town of Ahoskie			
6		Pat Proctor		311 S. W. Ford Rd Ahoskie	332-5796	patpro@jgmail.com
7		Lebrina Morris		717 Station Avenue	(252) 332-4642	lebrina@live.com
8		Walt Peré		921 W. Stokes St 27910	332-5127	wperce@bygoneroblog.com
9		Evelyn Hummel	Town of Ahoskie	901 W. Main St Ahoskie 27910	332-5146	evelynchward@ahoskie.org
10		Shirley D. Blackburn	Mayor Town of Ahoskie	"	"	Shirley_blackburn@ahoskie.org
11		Tom Hummel	Town Mgr	arethead st.	252-332-5146	TomHummel@ahoskie.com
12						
13						
14						
15						

Please print legibly. Thank you!



APPENDIX B – IDENTIFIED BICYCLE PROJECT OPPORTUNITIES

PROPOSED OPPORTUNITIES

The initial list of potential project locations was developed based on input from the Steering Committee meetings, Town staff, Public Open House #1, the public survey, and the results of the roadway inventory. Bicycle considerations should be included as part of all new road/street construction and maintenance improvement processes.

Note: The provision of bike facilities on NCDOT roads will require further study, particularly the application of sharrows where guidance will not be available until the update of MUTCD and AASHTO Guide for the Development of Bicycle Facilities is adopted (anticipated in 2010).

Table B.0 is the identified listing of preliminary bicycle improvement opportunities. Refer to Section 7 of this plan for Final Project Recommendations. The following definitions apply to the terms as utilized in Table B.0:

- *Project / Improvement Name* – Identified project name
- *From* – Identifies starting point of construction project
- *To* – Identifies ending point of construction project
- *Details / Purpose* – Identifies the need for the project.
- *Constraints* – Any pitfalls to implementation of project.
- *Preferred Treatment* – Identifies recommended project improvement(s).



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Table B.0 Identified Bicycle Project Opportunities

Project / Improvement Name	At / On	From	To	Details / Purpose	Constraints	Preferred Treatments
Ahoskie Bicycle Route	Proposed Ahoskie Bicycle Route	-	-	Increase awareness of bicycling throughout Town in providing Ahoskie with its first signed shared roadway bike route with cross-town connections to direct bicycle traffic to other proposed routes and destinations	Apply the preferred treatment as noted within each individual route described herein.	Install bike route directional signage per NCDOT guidelines with destination arrows to parks, downtown, schools, and other route destinations.
Ahoskie Bicycle Route – Main Street Route	Main Street	Martin Luther King Jr. Drive	Talmage Street	Provide signed route to direct bicycle travel across town in providing connection to downtown, Town Hall, businesses, recreation facilities, residential areas	Curb & gutters, on-street parallel parking, rail road crossing, Academy Street, mixture of pavement widths due to bump outs, signalized intersections	Install shared roadway bike route signage and “sharrows” per NCDOT guidelines. Install bicycle-activated detector loops at traffic signals along Main Street.
Ahoskie Bicycle Route – Church Street Route	Church Street	Pembroke St.	Martin Luther King Dr.	Provide signed route to direct bicycle traffic across town in providing connection to Town Hall, businesses, Public Library, residential areas	Curb & gutters, rail road crossing, Academy Street crossing	Install shared roadway bike route signage and “sharrows” per NCDOT guidelines. Install bicycle-detector loops at traffic signal at Church St. and Academy St. intersection.
Ahoskie Bicycle Route – Catherine Street	Catherine Street	Main St.	Holloman St.	Provide a route serving as alternative to MLK that runs parallel to the existing railroad serving community businesses, industrial areas, and recreation facilities	Curbs & gutters, on-street parallel parking, speed bumps	Install shared roadway signage and “sharrows” per NCDOT guidelines. If on-street parking was eliminated and prohibited, then bike lanes could be installed as an option to a shared roadway.
Ahoskie Bicycle Route - Martin Luther King Jr. Route	Martin Luther King Jr. Road	Main St.	Malibu St.	Develop signed bike route along proposed signed route to parks, residential areas, downtown, commercial/industrial destinations	Curbs & gutters, on-street parking would have to be prohibited on MLK, removal of existing center turn lane. High traffic roadway.	Remove existing center-turn lane and, per NCDOT guidelines, restripe roadway with bike lanes along MLK. Install traffic calming devices to slow traffic and increase awareness of bicyclists along this thoroughfare.
Ahoskie Bicycle Route – Holloman Route	Holloman St.	Martin Luther King Jr. Dr.	Catherine St.	Provide route to destinations (fairgrounds, park, Shaw Education center)	Intermittent parallel parking, curb & gutters	Install shared roadway signage and “Sharrows” per NCDOT guidelines directing to area destinations.
Ahoskie Bicycle Route - Martin Luther King Jr. Route	Martin Luther King Jr. Drive	Sunset St.	Main St.	Provide route connecting to proposed Ahoskie Bicycle Route from Sunset Route serving as an Alt. route to Memorial Dr.	Curbs & gutters, on-street parallel parking, All-Way Stop Intersection at Church St. and MLK, Signal Intersection at MKL and Main St.	Install shared roadway signage and “sharrows” per NCDOT guidelines. Alternative: remove on-street parking and install bike lanes per NCDOT guidelines.
Baker Route	Baker Street	Mitchell St.	Pembroke Ave.	Provide route connecting to the northern section of Ahoskie which would serve schools and commercial destinations	Curbs & gutters, limited visibility crossing Academy Street	Install shared roadway signage and “sharrows” per NCDOT guidelines. Install pedestrian crossing at Academy St. & Baker St. intersection
Academy Street Route	Academy Street	Memorial Drive	Baker St.	Provide signage to increase awareness of bicyclists in the roadway and to “Share the Road”	High traffic area, signaled intersections, curbs & gutters, areas of poor pavement quality	Install “Share the Road” signs per NCDOT guidelines along Academy St. Further study needed when Ahoskie Bypass is completed (Bike lanes may be an option with removal of center turn lane)



Table B.0 Identified Bicycle Project Opportunities, Continued.

Project / Improvement Name	At / On	From	To	Details / Purpose	Constraints	Preferred Treatments
Rail-to-Trail Route	Abandoned Rail Road	Catherine Street	Ruritan St.	Develop a multi-use trail along abandoned railroad which will provide an off-road recreational facility and route connecting downtown Ahoskie to commercial shopping center where cross flow by motor vehicles is limited.	Further study needed. Area is somewhat isolated therefore security measures will need to be installed to ensure police protection.	Develop a multi-use trail with access points, lighting, support facilities, and security measures along abandoned railroad with an improved connection to shopping center on Memorial Drive.
Ahoskie Creek Route	Ahoskie Recreation Complex and Memorial Park	Main Street at the Recreation Center	Memorial Park on Academy Street	Provides a scenic off-road route connecting residential areas, schools, and connection between parks. Route serves to support route plans for Ahoskie Recreation Complex.	Further study needed to review area for environmental considerations, flood zones, grade/elevations, creek embankments, safe crossing of Academy Street	Develop a multi-use trail along the banks of Ahoskie Creek. Include lighting, security measures, support facilities (benches, etc). Further study is needed to evaluate the proposed trail and permitting requirements.
Hertford County Schools Route	Bearfield Elementary School, Hertford County High School, Ahoskie Elementary School	Hertford County High Road	Pembroke	Develop a safe route for alternative transportation between schools and recreation facilities.	Further study needed to review and acquiring off-road property to construct trail, crossing of First Street, grade of property in front of High School	Develop a multi-use trail on/adjacent to school and cemetery properties, Install trail crossing at First St. and Talmage St. for trail connection.
Snipes St Connection	Rail Road Crossing	Snipes St.	Baker St.	Develop a safe crossing of the railroad and trail connection to Baker St.	Further study needed to review and acquire property, develop agreement with Rail Road, elevation of rail road may be an issue for accessibility	Develop an "official" crossing of the railroad where currently pedestrians and bikers are crossing without safety measures.
Park-to-Park Route	Camlin Street	Ahoskie Recreation Complex	Academy Street	Provides connection between recreation facilities.	Curbs & gutters, on-street parking would have to be prohibited to create bike lanes on both sides of road, high-traffic area near gateway into Ahoskie.	Install bike lanes on Camlin per NCDOT guidelines. Install crosswalk across Academy St. and appropriate signage to increase awareness of route crossing.
Pembroke Route	Pembroke Street	Camlin St.	Main St.	Provide bike route from proposed signed route to parks, residential areas, and hospital	Curbs & gutters, on-street parking would have to be prohibited on Pembroke St. to create bike lines on both sides of road.	Install bike lanes on Pembroke St. per NCDOT guidelines. Installation of shared roadway signage or "sharrows" is an option if prohibiting (currently undesignated) parking is unavoidable.
Jessie-Meyers Route	Jessie St. & Meyers St.	Catherine Creek Rd.	Ruritan Rd.	Provides a bike route connection to commercial shopping centers, residential areas, and proposed Rail-to-Trail Route. Alternative route to Memorial Dr.	Curbs & gutters. Obtain easement for access across open space (grassed) to shopping center.	Install bike lanes per NCDOT guidelines and develop access to shopping center at street end of Jessie St. where currently being used by pedestrians.
Sunset Route	Sunset St.	Catherine Creek Road	Martin Luther King, Jr. Drive	Provides a route to the Y-Zone and serves as an alternative route to Memorial Dr. (US 13) serving residential and commercial destinations	Curbs & gutters. Parking is currently prohibited along this section of Sunset.	Install bike lanes per NCDOT guidelines.



Table B.0 Identified Bicycle Project Opportunities, Continued						
Project / Improvement Name	At / On	From	To	Details / Purpose	Constraints	Preferred Treatments
First Street Route	First Street	Hertford County High School Rd.	Pembroke Ave.	Provide continuous route to Ahoskie's schools, bike routes, residential communities, parks	Curbs & gutters, changes in speed limits	Install shared roadway signage per NCDOT guidelines.
Pembroke Route	Pembroke Ave.	First St.	Street end.	Provide route to residential area, schools	Curbs & gutters, dip in roadway, uneven pavement at gutter	Install shared roadway signage per NCDOT guidelines. Bike lanes are an option if on-street parking is prohibited.
Ahoskie-Cofield Route	Martin Luther King Jr. Drive and Ahoskie-Cofield Road	Malibu Street	ETJ Limits	Provide additional roadway for bicycling along rural roadway that provides connection to proposed routes serving residential communities, recreation facilities.	Identification/Acquiring right-of-way to install a paved shoulder where currently no paved shoulder exists. Existing drainage, driveway relocation.	Add paved shoulder per NCDOT guidelines with appropriate signage.
W. First Street Route	W. First Street / NC 561	ETJ Limits	Hertford County High School Rd.	Provide additional roadway for bicycling along rural roadway that provides connection to proposed routes serving residential communities, recreation facilities.	Identification/Acquiring right-of-way to install a paved shoulder where currently no paved shoulder exists. Already piped on both sides which may facilitate installation of paved shoulders.	Add paved shoulder per NCDOT guidelines with appropriate signage.
Catherine Creek Route	Catherine Creek Road	Memorial Dr.	Martin Luther King Jr. Dr.	Install signage to increase awareness of bicyclists in roadway and provide connection to proposed bike routes	Curbs & gutters with three lanes south of Main St. and two lanes north of Main St., on-street parallel parking, high traffic	Install shared roadway signage per NCDOT guidelines. Bike lanes area an option if on-street parking is eliminated and prohibited.
Academy St. / NC 42	Academy Street	ETJ Limits	Memorial Drive	Install signage to increase awareness of bicyclists in roadway and provide connection to proposed bike routes and existing parks, hospital, businesses	High traffic, limited roadway shoulder, bridge crossing Ahoskie Creek, gateway into Ahoskie, swales	Install shared roadway signage per NCDOT guidelines. Addition of paved shoulder is an option north of the bride.
Memorial Drive (US 13)	Memorial Drive (US 13)	Town Limits	Academy St.	Provide signage to increase awareness of bicyclist in the roadway and to "Share the Road"	High traffic area, 5-lanes wide, curbs & gutters, commercial driveways, bridge over rail road, mixture of pavement widths as road narrows to 2-lanes	Install "Share the Road" signs per NCDOT guidelines along Memorial Drive (US 13). Further study needed when Ahoskie Bypass (NCDOT TIP R-2205) is completed.



Table B.0 Identified Bicycle Project Opportunities, Continued.

Project / Improvement Name	At / On	From	To	Details / Purpose	Constraints	Preferred Treatments
Academy Street Route	Academy Street & Main Street	N/A	N/A	Improve visibility of bikers crossing Academy Street	Signaled intersection with turns in multiple directions, narrow roadway pavement, high traffic	Install bicycle-activated detector loops in pavement to activate traffic signal
Academy Street Route & Baker Street Route	Academy Street & Baker Street	N/A	N/A	Improve visibility and safety of bikers crossing Academy Street	No signal, Curve in roadway limits visibility, 2-way traffic with center turn lane	Provide refuge island while maintaining a center turn lane.
Ahoskie Bicycle Route	Academy St. & Church St.	N/A	N/A	Improve visibility	Signaled intersection with turns in multiple directions, narrow roadway pavement, high traffic	Install bicycle-activated detector loops in pavement to activate traffic signal
Main Street Route	Main Street & Catherine Street	N/A	N/A	Hazard reduction (bicycle/motor-vehicle crash site)	Intersection has traffic signals, curbs & gutters, nearby on-street parallel parking	Install bicycle-activated detector loops in pavement to activate traffic signal
Martin Luther King Jr. Route	MKL & Catherine Creek Road	N/A	N/A	Hazard reduction (bicycle/motor-vehicle crash site)	Angle of Intersection occurs by way of Catherine Creek Rd. and MLK merging together. Curbs & gutters, high traffic area.	Traffic calming devices to reduce the speed of motor vehicles turning from MLK onto Catherine Creek Rd.
Catherine Creek Route	Catherine Creek Rd. & First St.	N/A	N/A	Hazard reduction, improve visibility of bicyclists & pedestrians	High traffic area,	Traffic calming devices to reduce the speed of motor vehicles traveling along Catherine Creek Rd. Improve streetscape to reduce visual ? of Catherine Creek. Consider realignment of Lloyd St. at Catherine Creek Rd.
Main St. Route	Main St. & Martin Luther King Jr	N/A	N/A	Hazard reduction, improve visibility	Signaled intersection with turns in multiple directions, narrow roadway pavement, on-street parallel parking	Install bicycle-activated detector loops in pavement to activate traffic signal



APPENDIX C – EXISTING ROADWAY CONDITIONS/INVENTORY INFORMATION

On March 18, 2010, the consultant conducted an inventory of the roadways identified during the public participation process and Steering Committee meetings. During this inventory process, data was gathered on the existing transportation system to assist with project recommendations and to determine existing conditions of these transportation components. The information collected included street widths, presence and width of curbs and gutters, speed limits, condition of surface, and identification of constraints. Analysis of this data allows recommendations to be made as part of the Town of Ahoskie Comprehensive Bicycle Plan.

Table C.1 contains data gathered during the roadway inventories.



TABLE C.1: EXISTING ROADWAY CONDITIONS

Roadway Road	From	To	Traffic Volumes (2007 AADT) From NCDOT TSG	Speed Limit	# of Lanes	Center Turn Lane	Pavement Width	Ave. Width of lanes	Paved Shoulders (PS), Bike Lane (BL), Wide Outside Lane (WOL), or Curb & Gutter (CG)	On Street Parking (Y or N), Parallel, Perpendicular, Diagonal (width)	Notes
Martin Luther King Blvd	Main St	First St		25 mph	3	Y	39 ft	13 ft	CG	N	Unmarked pavement, center turn lane & CG from RR tracks to First St
	Church St	Main St		25 mph	2	N	34 ft	17 ft	Curb only	Y-striped parallel both sides	Sidewalk on both sides
	Church St	Sunset		25	2	N	34 ft	17 ft	Curb only	Y-unsigned parking	Freshly paved section of road, no sidewalks
Ahoskie Cofield/MLK	Catherine Creek	Malibu		35 mph	3	Y	40 ft	13 ft	None	N	Transition from 3-lane to 2-lane at Malibu St going north, 24' wide 2 lane from Malibu south, some sidewalk mixed along roadway. No shoulder
Holloman St	MLK Blvd	Catherine Rd		25 mph	2	no	28 ft	14 ft	CG	Y-unsigned parallel	No sidewalks, Dips in road, poor pavement condition
Snipes St	Catherine St	Ahoskie Cofield Rd		25 mph	2	no	25 ft	12.5 ft	CG	N	No sidewalks, Dips in road, Narrow Right-of-Way
Catherine Creek Road	MLK Blvd	Main St		35 mph	2	no	31 ft	15.5 ft	CG	Y-parallel	Parking stripes faded, no sidewalk
	Meyers St	Odom St		25 mph	3	Y	36'	12 ft	CG	N	Sidewalk on the east side.
E. First St	MLK Blvd	Parker St		25 mph	2	no	29	14.5 ft	CG	Y-unsigned parallel	Crossing Catherine Creek is dangerous due to limited sight
Catherine St	First St	Richard St		25 mph	2	no	35 ft	17.5 ft	CG	Y-unsigned parallel	Speed bumps between Alton St & Rogers St, narrow Right-of-Way, faded parking stripes both sides
Academy St	Baker St	Alton St		35 mph	3	Y	42 ft	14 ft	CG	N	No sidewalks until Hayes St heading south on both sides, poor pavement condition
	Camlin St	Memorial St		35 mph	2	n	32	16 ft	None	N	Paved shoulder, sidewalk at park, ditches on both sides
Myers-Jessie	Myers St	Jessie St		25 mph	2	no	30 ft	15 ft	CG	N	No pavement markings, no sidewalk, only gutter on south side no curb
Ruritan St	Jessie St	Railroad		25 mph	2	no	30 ft	15 ft	CG	N	No swales, no sidewalks, no pavement markings
Peachtree Rd	Memorial Blvd	South side of Peachtree rd		25 mph	2	no	30 ft	15 ft	CG	Y	No sidewalks, crossing memorial hazardous, North side of Peachtree has CG & striped parallel parking, apartments and senior care facility present south
Sunset Rd	Catherine Creek Rd	MLK Blvd		25 mph	2	no	30 ft	15 ft	CG	N	No sidewalks, Dips at intersection



TABLE C.1: EXISTING ROADWAY CONDITIONS, CONTINUE

Roadway Road	From	To	Traffic Volumes (2007 AADT) From NCDOT TSG	Speed Limit	# of Lanes	Center Turn Lane	Pavement Width	Ave. Width of lanes	Paved Shoulders (PS), Bike Lane (BL), Wide Outside Lane (WOL), or Curb & Gutter (CG)	On Street Parking (Y or N), Parallel, Perpendicular, Diagonal (width)	Notes
Catherine St	Main St	First St		20 mph	2	no	40 ft	20 ft	CG	Y	Striped & unstriped parallel parking both sides
Hertford County Rd	Academy St	Hwy 561		35 mph	2	n	24 ft	12 ft	none	N	No shoulder, ditches on both sides, good pavement markings, speed bumps in road at high school, no sidewalks, windy roads, good site for potential trail.
Forest Dr	Memorial	Creek		25 mph	2	no	20 ft	10 ft	none	N	No pavement markings, no striping, ditches on both sides, no sidewalks
Albemarle	Hwy 561	-		25 mph	2	no	21 ft	10.5 ft	none	N	No pavement marking, ditches on both sides, no sidewalks, residential
Hwy 561/First St	Albemarle	-		45 mph	2	no	27 ft	13.5 ft	none	N	No sidewalk, no shoulder, ditches on both sides, within SRTS
W. First St	Albemarle St	Talmage St		45-35 mph	3	Y	52 ft	17.3 ft	CG	N	Ditches on both sides near intersection of Hertford Co Rd & W. First St. Speed limit reduces to 35 by the school, CG on school side only, unfriendly drainage grate on school side, side walk on cemetery side good for potential path.
Talmage St	First St	Main St		20 mph	2	no	21 ft	10.5 ft	N	Y-Perpendicular on east side	No pavement markings, no swales until the south end of Talmage St, sidewalk in front of school, speed bump on south end by apartments
Main St	Talmage St	Pembroke St		25 mph	2	no	37 ft	18.5 ft	CG	Y- parallel on both sides	Speed bumps, no ditches or sidewalks, narrow right-of-way, SRTS area, 4-way stop at Pembroke St, parking is striped on both sides
	Academy St	Catherine St		25 mph	2	Varies	40'	20'	CG	Y- parallel on both sides	Sidewalk on both sides, striped parking both sides, road conditions poor. Bumpouts at intersections 27' road width
	MLK Blvd	Academy		20 mph	2	no	41 ft	13.5 ft	CG	Y	Striped parallel parking both sides, road 27' wide at corner bumpouts, striped crosswalk across Maple St not Main, Main & Catherine St striped 3-sides, signaled intersection, sidewalks both sides, pavement reduces at light for left turn lane.



TABLE C.1: EXISTING ROADWAY CONDITIONS, CONTINUE

Roadway Road	From	To	Traffic Volumes (2007 AADT) From NCDOT TSG	Speed Limit	# of Lanes	Center Turn Lane	Pavement Width	Ave. Width of lanes	Paved Shoulders (PS), Bike Lane (BL), Wide Outside Lane (WOL), or Curb & Gutter (CG)	On Street Parking (Y or N), Parallel, Perpendicular, Diagonal (width)	Notes
Pembroke Street	Main St	First St		25 mph	2	no	29/30 ft	15 ft	curb only	Y	Sidewalk on west side, no signed parking, but perhaps allowed parallel
	First St	Baker St		25 mph	2	No	30 ft	15 ft	CG	Y	No pavement markings, unsigned parking on street, no sidewalks, no ditches, Dip at Richard St intersection
	Main St	South St		25 mph	2	No	30 ft	15 ft	CG	Y-unsigned parallel parking	Unmarked pavement, no ditches, no sidewalks, Dip at South St intersection
	South St	Camlin St		25 mph	2	No	30 ft	15 ft	CG	Y-unsigned parking	Residential area, no pavement marking, no sidewalks, no ditches, low traffic area.
Baker St	Pembroke St	Colony St		25 mph	2	no	27'	13.5 ft	CG	Y	South side pavement is uneven, no sidewalks, no ditches, narrow right-of-way, Dip at Colony St
Camlin St	Woodlawn St	Academy St		25 mph	2	no	30 ft	15 ft	CG	Y-unsigned parking	No sidewalks, no ditches, dangerous intersection at Academy St.
Church St	Curtis St	Academy		25 mph	2	no	29 ft	14.5 ft	CG	Y	Sidewalk on north side of road, no pavement markings, signal at Academy st.
	Curtis St	MLK Blvd		25 mph	2	no	29 ft	14.5 ft	CG	N	No ditches on either side.



APPENDIX D – PROJECT PRIORITIZATION METHODOLOGY

Appendix Outline:

D.1 Prioritization Factors

D.2 Process

Steering Committee members met on April 27, 2010 to discuss the preliminary project recommendations and identify priority criteria to determine priority projects. To assist Steering Committee members in determining which projects to construct first, an exercise was performed at this meeting to prioritize projects based on preselected priority factors. These preselected priority factors were taken from the determined goals and objectives in Section 1.

D.1 PRIORITIZATION FACTORS

Prioritization and scheduling of recommended projects was based on the following factors:

PROJECT CHARACTERISTICS

At the beginning of the planning process, Steering Committee members were asked to identify their goals for Ahoskie's Bicycle Plan. Those goals were developed into the final goals and objectives of the Plan. These characteristics include the following:

- Provides connectivity and accessibility to schools, parks, Downtown, shopping/retail areas, libraries, neighboring communities, existing bike route, and neighborhoods
- Improve bicycle safety, especially on major thoroughfares and at past vehicle-bicycle crash sites
- Improves an area of existing use or need

PUBLIC COMMENTS/INPUT

Comments received from public involvement methods (Steering Committee, public survey, public open houses, and Town staff interviews) as to what the bicycle needs and concerns are for Ahoskie.

COST AND CONSTRUCTABILITY OF PROJECT

The complexity or ease of constructing the project based on various components and engineering design work needed, as well as the cost of construction.



D.2 PROCESS

At the April 27, 2010 Steering Committee meeting, members were given five numbered dots from one to five (1-5) with one being the most important to five (5) being the least important. The list was tabulated with each factor given a numeric value based on their ranking (1=5 pts, 2=4 pts, 3=3 pts, 4=2 pts, & 5=1 pts).

Each recommended project was rated on the above-mentioned factors. A project received points based on the following steps:

STEP 1 - RATE PROJECTS ON PROJECT CHARACTERISTICS & PUBLIC COMMENTS

Connectivity & Accessibility to Schools: Is a schools located within the project limits?

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Parks & Recreation facilities: Is a park / recreation facility located within the project limits?

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Downtown: Is Downtown located within the project limits?

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Shopping/Retail Areas: Is a shopping/retail area located within the project limits?

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Libraries:

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Public Service Offices: Does project provide a connection to public services offices (Town Hall, Police, Fire)?

Yes = 1 point
No = 0 points

Connectivity & Accessibility to Major: Does the project link to or complete a segment of the existing Bicycling in Ahoskie Bike Route?

Yes, Connect to = 1 point
No, Does not connect to = 0 points

Connectivity & Accessibility to Neighborhoods: Does the project provide connection to neighborhoods.



Yes = 1 point
No = 0 points

Improves Safety: Does the project improve a vehicular-bicycle crash site or provide improved safety/visibility along major thoroughfares?

Yes = 1 point
No = 0 points

Latent Demand/Existing Use: Does the project improve an area of existing use or need?

Yes = 1 point
No = 0 points

Public Comments: Is the Project mentioned repeatedly by the public as a need?

Yes = 1 point
No = 0 points

STEP 2 - RATE PROJECTS ON COSTS

Once projects were rated based on characteristics and public input, projects were given a rough associated cost based on their complexity and ease of construction; such as further study needed to identify potential environmental or constraints, property acquisition, surveying and engineering, permitting, utility relocation, etc.

Minimal Cost

Minimal costs is \$10,000 or less for a project based on existing conditions, proposed treatment, any further study that is needed, level of engineering required, and project components (permits, acquisition, coordination, etc.). Examples of projects include installation of signage and pavement markings, and spot and/or hazard improvements.

Low Cost

Low costs for a project range from \$10,001 - \$99,999 based on existing conditions, proposed treatment, any further study that is needed, level of engineering required, and project components (permits, acquisition, coordination, etc.). Examples of projects include striping, signage, and pavement markings.

Moderate Cost

Moderate cost estimate for projects range from \$100,000 - \$299,999 based on existing conditions, proposed treatment, any further study that is needed, level of engineering required, and project components (permits, acquisition, coordination, etc.). Examples of projects include small multi-use trails outside of environmentally sensitive areas, restriping/striping for bike lanes where milling is required.



High Cost

High cost estimate for projects range is \$300,000 or higher based on existing conditions, proposed treatment, any further study that is needed, level of engineering required, and project components (permits, acquisition, coordination, etc.). Examples of project include long multi-use trail/paths segments through environmentally sensitive areas and paved shoulders or other overlay or new construction treatment projects.

STEP 3 – PLACEMENT OF PROJECTS ON PHASING SCHEDULE

Once each project was ranked and given a cost estimate they were placed into a category (short-term, mid-term, or long-term) based upon their preliminary estimated cost and priority ranking. For instance, projects that had an estimated minimal and low costs and high priority ranking were placed on the short-term (0-5 yrs) implementation schedule. Mid-term (6-10 yrs) projects are those projects with a minimal, low and/or moderate costs and low and high priority ranking. Long-term (10+ yrs) projects were those projects that had high cost and low priority ranking. However, mid- and long-term projects should be expedited if financing becomes available.



APPENDIX E – FUNDING SOURCES

Appendix Outline:

- E.1 Local Sources
- E.2 State & Federal Sources
- E.3 Private Sources
- E.4 Special Funding Sources

To bring Ahoskie’s vision of a bicycle-friendly community to fruition, a combination of funding sources would need to be utilized to implement the identified projects and programs outlined in this Plan. Ahoskie should seek all funding opportunities for project implementation, including State, Federal, and Private monies where available. Special funding programs for specific types of projects such as Safe Routes to School should also be pursued. The use of private foundation contributions should be thoroughly researched and private donations accepted to assist in funding. Even with the vast funding sources available, there usually is a local match requirement. The most reliable funding will be local government; therefore, it is important for the Town of Ahoskie to continue to allocate the necessary funds each year to ensure completion of bicycle infrastructure. An annual budget line item will ensure that bicycle projects identified in this Plan will be completed. This action will also illustrate the Town’s commitment to improve the bicycle environment in the community.

This Appendix has identified funding opportunities for bicycle facilities from local, state, and federal level; as well as from public and private initiatives to aid in the implementation of this Plan. As mentioned earlier, some projects will require a combination of funding sources.

E.1 LOCAL SOURCES

Several types of potential local funding sources are available for the Town of Ahoskie. Local funds should be used for projects not on major state routes and as local match. Local funding sources tend to be flexible and include general revenue expenditures as well as proceeds from bond programs. Some local funding sources are:

ANNUAL IMPROVEMENT PROGRAM

The Town should allocate a specified amount each fiscal year in the Capital Improvement Program (CIP) for street repairs, construction of new bicycle facilities, and intersection improvements.

FEE OR PAYMENT “IN-LIEU OF”

If it is determined that adequate bicycle provisions cannot be provided on a property under development review, Ahoskie could utilize the use of a fee in-lieu of as a funding source to implement on-road bicycle facilities and multi-use trails. Mitigation may be based on impacts on population increase caused by the development, property values, or percentage of development fees.



IMPACT FEES

The use of impact fees to provide funding for greenways and multi-use trails. Impact fees are monetary one-time charges levied by a local government on new development. Unlike required dedications, impact fees can be applied to finance bicycle facilities located outside the boundary of the development. The NC General Assembly has permitted a ‘small but growing number of local governments to impose impact fees.’ These fees can be levied through the subdivision or building permit process to finance bicycle facilities in Ahoskie.

SPECIAL ASSESSMENT BONDS

Ahoskie could use special assessment bonds to install bicycle facilities within an area in need. Special assessment bonds are secured by a lien on a property that benefits by the improvements funded with the special assessment bond proceeds. Debt service payments on these bonds are funded through annual assessments to the property owners in the assessment area.

REVENUE BONDS

Revenue bonds are bonds that are secured by a pledge of the revenues from a certain local government activity. The entity issuing the bond pledges to generate sufficient revenue annually to cover the program’s operating costs, and meet the annual debt service requirements (principal and interest payment). Revenue bonds are not constrained by the debt ceiling of general obligation bonds, but they are generally more expansive than general obligation bonds.

GENERAL OBLIGATION BONDS

A general obligation bond (GOB) is a bond that is legally backed by the full faith and credit of the issuing government. The local government that issues the bond pledges to raise its property taxes, or use any other sources of revenue, to generate sufficient revenues to make the debt service payments on the bond. A GOB pledge is considered more robust than a revenue pledge, and thus is likely to carry a lower interest rate than a revenue bond.

TRANSPORTATION BONDS

Transportation bonds have been instrumental in strategic implementation of local roadways, transit, and non-motorized travel throughout North Carolina. Voters in communities have regularly approved the use of these bonds in order to improve their transportation system. Improvements to



the bicycle system in Ahoskie would be a type of project that could be funded using a transportation bond program.

EXCISE TAX

Excise taxes are taxes on specific goods and services. These taxes require special legislation and the use of the funds generated through the tax are limited to specific uses. Examples include lodging, food, and beverage taxes that generate funds for promotion of tourism, and the gas tax that generates revenues for transportation related activities.

PROPERTY TAX

Property taxes generally support a significant portion of a municipality's activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance greenway or multi-use trail acquisitions. Because of limits imposed on tax rates, use of property taxes to fund greenways could limit the municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden.

SALES TAX

North Carolina authorizes a sale tax at the state and county levels. Local governments that choose to exercise the local option sales tax, use the tax revenues to provide funding for a wide variety of projects and activities. Any increase in the sales tax, even if applying to a single county, must gain approval of the state legislature.

PEANUT BELT RURAL PLANNING ORGANIZATION (PEANUT BELT RPO)

As a member of the Peanut Belt RPO, Ahoskie is able to assist in determining the transportation needs for their community in regards to state and federal road improvements, as well as transportation enhancement projects that are placed on the State Transportation Improvement Program (STIP).

E.2 STATE & FEDERAL SOURCES

The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETELU) law guarantees funding for highways, highway safety, and public transportation. Provisions of the law address specific safety issues, including pedestrian and bicycle safety. Funds for pedestrian projects come from several different sources that are described below; however, allocation of those funds depends on the type of project or program and other criteria.ⁱ



The American Recovery and Reinvestment Act of 2009 (ARRA) included \$8 billion for transportation infrastructure investments. Of that money, more than \$27.5 billion are in funding categories that make funds eligible for projects with complete streets elements, and another \$3.8 billion are available for bicycle and pedestrian infrastructure.ⁱⁱ

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

HSIP allows States to target their most critical safety needs. States are required to develop and implement a safety plan and submit safety reports that describe hazardous locations, progress in implementation of highway safety improvement projects, and the effectiveness of those projects in reducing injuries and fatalities.ⁱⁱⁱ

SAFE ROUTES TO SCHOOLS PROGRAM (SRTS)

The SRTS program is new to North Carolina. It intends to enable and encourage elementary and middle school students to walk safely to school. Funding is available to facilitate planning, development, and implementation of activities and projects that reduce traffic, fuel consumption, air pollution, and improve safety within approximately two (2) miles of elementary and middle schools (K-8 only). The North Carolina Safe Routes to School program provides opportunities for schools to apply for grant funding to develop an action plan, non-infrastructure improvements (education, enforcement, and encouragement), and infrastructure improvements to encourage walking and cycling to school. The maximum amount an applicant can receive to develop an action plan is \$15,000 for one to two schools and \$30,000 for three or five schools. The maximum amount for non-infrastructure grants is \$50,000^{iv}. The funding range for infrastructure projects is \$100,000 to \$300,000 per project.

HIGHWAY DIVISION FUNDS

Highway Division Funds are a component of the SRTS program. Under the SRTS program, each Highway Division in North Carolina will receive \$200,000 in fiscal year 2008 and \$230,000 in fiscal year 2009. These funds will be used for timely, relatively low-cost spot safety improvements within the rights-of-way on state maintained roadways. Requests for these funds must be made directly to the Division offices. The maximum amount per request is \$50,000. The Town of Ahoskie is in the NCDOT Division 1 with headquarters in Edenton.



POWELL BILL FUNDS

Powell Bill funds are collected by the state in the form of a gasoline tax. These funds are distributed based on the number of street miles to be maintained and the Town's population.^v

THE RECREATIONAL TRAILS PROGRAM

This program has thirty percent (30%) of its funds set aside for motorized trail projects, thirty percent (30%) for non-motorized trail uses, and the remainder can be spent on either. These funds can be used to cover the costs of construction, maintenance of equipment, real estate, educational programs, state administration, and assessment of trail conditions. The maximum amount an applicant can receive is \$75,000 and there is a twenty percent (20%) local match requirement.^{vi}

TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

As a part of the state's Transportation Improvement Program (TIP), incidental (those related to a scheduled highway project) pedestrian TIP projects can receive allocations through an array of funding resources including Federal Aid Construction Funds and State Construction Funds/State Highway Trust Fund. Projects programmed into the TIP as independent (those that are not related to a scheduled highway project) pedestrian projects are managed and selected by NCDOT, Division of Bicycle and Pedestrian Transportation (DBPT). The Division has an annual budget of \$6 million. Eighty percent of these funds are from STP-Enhancement funds, while the State Highway Trust provides the remaining 20 percent of the funding.

Each year, the DBPT regularly sets aside a total of \$200,000 of TIP funding for the department to fund projects such as training workshops, pedestrian safety and research projects, and other pedestrian needs statewide. Those interested in learning about training workshops, research and other opportunities should contact the DBPT for information.

A total of \$5.3 million dollars of TIP funding is available for funding various bicycle and pedestrian independent projects, including the construction of multi-use trails, the striping of bicycle lanes, and the construction of paved shoulders, among other facilities. Prospective applicants are encouraged to contact the DBPT regarding funding assistance for bicycle and pedestrian projects. For a detailed description of the TIP project selection process, visit http://www.ncdot.org/transit/bicycle/funding/funding_TIP.html. Another \$500,000 of the division's funding is available for miscellaneous projects.



However, one of the most cost-effective ways of providing pedestrian facilities is to incorporate them as part of larger reconstruction, new construction, and repaving projects as incidental projects. Projects with bicycle and pedestrian accommodations such as bike lanes, widened paved shoulders, sidewalks and bicycle-safe bridge design are frequently included as incidental features of highway projects. In addition, bicycle-safe drainage grates are a standard feature of all highway construction. Most bicycle and pedestrian safety accommodations built by NCDOT are included as part of scheduled highway improvement projects funded with a combination of National Highway System funds and State Highway Trust Funds.

SURFACE TRANSPORTATION PROGRAM (STP)

Funds allocated to the STP can be used to construct bicycle facilities, create maps and brochures, or develop public service announcements (PSAs) promoting safe biking.^{vii}

TRANSPORTATION ENHANCEMENT ACTIVITIES (TEAs)

North Carolina earmarks ten percent (10%) of their annual STP funds for Transportation Enhancement Activities (TEAs). Transportation enhancements are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of transportation systems and must benefit the traveling public and help communities increase transportation choices and access, enhance the built or natural environment, and create a sense of place. Eligible projects in this category include providing bicycle and pedestrian facilities for safe accommodation, either through construction of new facilities or modifications to existing facilities. The facility must comply with American Association of State Highway Transportation Officials (AASHTO), Americans with Disabilities Act (ADA) and NCDOT standards." Funds may be used to add or modify new bike lanes on existing roadways, to add or modify road shoulders for bicycle facilities, installation of bicycle parking racks. Conversion of abandoned railway corridors to multi-use paths can also be funded with these monies.^{viii}

STATEWIDE DISCRETIONARY FUNDS

The Statewide Discretionary Fund consists of \$10 million and is administered by the Secretary of the Department of Transportation. This fund can be used on any project at any location within the State. Primary, urban, secondary, industrial access, and spot safety projects are eligible for this funding. To request funding, an entity must submit a written request to the NCDOT Highway Division office with a clear description of project and project justification.



HAZARD ELIMINATION AND RAILWAY-HIGHWAY CROSSING PROGRAMS

These funds are an additional subset of the State Transportation Improvement Program (STIP) funding, constituting ten percent (10%) of a state's funds. This program is intended to inventory and correct the safety concerns of all travel modes including pedestrian. Publicly-owned bicycle facilities can be funded under this program. Bicycle projects can also be eligible for the Hazard Elimination Program, which is administered through locations that have a documented history of previous crashes. A maximum of \$100,000 is offered per NCDOT Highway Division for hazard elimination projects.^{ix}

LAND AND WATER CONSERVATION FUND (LWCF)

The Land and Water Conservation Fund provide grants for communities to build a variety of park and recreation facilities including trails and greenways. In North Carolina, the federally granted money is allocated through the State Division of Park and Recreation. There is a fifty percent (50%) local match.^x

NORTH CAROLINA'S CLEAN WATER MANAGEMENT TRUST FUND (CWMTF)

CWMTF provides grants to local governments, state agencies, and conservation nonprofits to help finance projects that specifically address water pollution problems. CWMTF funds may be used to establish a network of riparian buffers and greenways for environmental, educational, and recreational benefits. Grants are designed to fund projects that bring parks and recreation, including multi-use trails closer to people's homes.^{xi}

GOVERNOR'S HIGHWAY SAFETY PROGRAM (GHSP)

The Governor's Highway Safety Program is committed to enhancing the safety of the roadways in North Carolina. To achieve this, GHSP funding is provided through an annual program, upon approval of specific project requests to undertake a variety of bicycle safety initiatives. Communities may apply for a GHSP grant to be used as seed money to start a program to enhance highway safety. Funding is provided on a reimbursement basis and evidence of reductions in crashes, injuries, and fatalities is required. Amounts of GHSP monies vary from year to year.^{xii}

NORTH CAROLINA PARKS AND RECREATION TRUST FUND (PARTF) GRANT PROGRAM

The PARTF program provides local governments with dollar-for-dollar matching grants to acquire land and renovate or develop of recreational projects for the public, including multi-use trails. The maximum amount an applicant is eligible for is \$500,000.^{xiii}



NORTH CAROLINA ADOPT-A-TRAIL PROGRAM

North Carolina Adopt-A-Trail Program provides communities with grant monies up to \$5,000 for construction, maintenance, facilities, signage, brochures, and maps.^{xiv}

CONSERVATION TAX CREDIT

The Conservation Tax Credit program allows landowners who donate property for conservation purposes by easements or sale. These landowners are eligible for the North Carolina Conservation Tax Credit. The goal of the program is to provide incentive to protect water supply watersheds, manage stormwater, retain forests and working farms, and to allow for ecological communities through the formation of trails and wildlife corridors.^{xv}

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

This Environmental Protection Agency's (EPA's) program can assist in funding many of the same projects funded by the STP including bicycle facilities, maps, brochures, and public service announcements.^{xvi}

WATERSHED PROTECTION AND FLOOD PREVENTION GRANTS FOR SMALL WATERSHEDS

Watershed Protection and Flood Prevention Grants for Small Watersheds provides funding to state and local agencies or nonprofit organizations to create and maintain watershed improvements of less than 250,000 acres. Financial and technical assistance are available and a fifty percent (50%) local match is required for public recreation projects.^{xvii}

BICYCLE COMMUTER FEDERAL TAX PROVISIONS

Beginning January 1, 2009 a bill became effective that provides new tax benefits to employers with employees who ride their bicycle to work. Like current benefit programs for those who take a commuter vehicle or mass transit, bicycle commute has been recognized by the Internal Revenue Service (IRS) as a qualified tax deduction from expenses. A qualified employee is defined as one who rides their bike from home to work for a substantial period of a given month. Qualified bicycle commuting expenses include the purchase of a bicycle and bicycle improvements, repair, and storage. The IRS recognizes that employers have already been extending fringe benefits to employees who use mass transit or van-pool transportation. Effective January 1, 2009, employers may extend transportation fringe benefits to employees who bicycle. Currently, the benefit is only \$20 per month, but many bicycle advocacy groups are hopeful that effective implementation of the program will lead to an increase in the benefit amount.



E.3 PRIVATE SOURCES

BLUE CROSS BLUE SHIELD FIT TOGETHER GRANTS

The FitCommunity Program is a designation and grant program to recognize and reward municipality and county efforts to promote physical activity, healthy eating and tobacco-free programs, policies, environments and lifestyles. A municipality or county is eligible for grant money once it has received a FitCommunity designation. This program awards up to nine partnerships with up to \$30,000 annually for a two-year period.^{xviii}

ACTIVE LIVING BY DESIGN (ALBD)

Active Living by Design is a program sponsored by the Robert Wood Johnson Foundation. The program seeks to bring together the health care and transportation communities to create an environment that encourages residents to pursue active forms of transportation such as walking and bicycling. Grants are awarded each year to a selected number of communities with a local match requirement. These monies can be used to create plans, change land use policies, institute education policies, and develop pilot projects.^{xix}

THE TRUST FOR PUBLIC LAND

The Trust for Public Land (TPL) is the only national nonprofit working exclusively to protect land to enhance the health and quality of life in American communities. TPL works with landowners, government agencies, and community groups to create urban parks and greenways as well as to conserve land for watershed protection.^{xx}

DEVELOPER CONTRIBUTIONS

Through diligent planning and early project identification, regulations, policies, and procedures could be developed to protect future pedestrian corridors and require contributions from developers when the property is subdivided. To accomplish this goal, it will take a cooperative effort between local planning staff, NCDOT planning staff, and the development community.

DESIGN ARTS PROGRAM, THE NATIONAL ENDOWMENT FOR THE ARTS

The Design Arts Program can provide states, local agencies, individuals, and nonprofit organizations with grants if their project incorporates urban design, planning, historic preservation, architecture, landscape architecture, or other community improvement activities – for example multi-use trail development. Maximum amount per applicant is \$50,000



with a required 50% local match.^{xxi} These monies can be used for bicycle facilities or multi-use trails/paths in the historical district of Ahoskie.

THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation is dedicated to enhancing the health and health care of every American. Grants are prioritized into four goal areas, one of which is the promotion of healthy communities and lifestyles. Projects would include multi-use trails and sidewalks.

SMALL GRANTS

Small grants of \$250-\$2,000 are offered for planning, design, and development of greenways through a partnership between the Conservation Fund's American Greenways Program^{xxii}, Eastman Kodak Corporation, and the National Geographic Society. These grants can be used for off-road multi-use trails.

WAL-MART FOUNDATION

Local community and environmental activities and educational programs for children that are put on by charitable organizations may be funded through the Wal-Mart Foundation.^{xxiii} Organizations must work with the local store manager to discuss application. These funds should be used for bicycle safety education.

BIKES BELONG GRANTS

The Bikes Belong Grant Program strives to put more people on bicycles more often by funding important and influential projects and build momentum for bicycling in communities. Local governments may apply for a Bikes Belong Grant; however, Bikes Belong encourages local governments applying for grants to partner with a local bike advocacy group. Grant funds may be used for bike paths, lanes, and routes including rail-trails. Bikes Belong awards up to \$10,000 in funds for about 20 projects per year. Grant applications are reviewed on a quarterly basis and priority is given to applicants that have not received Bikes Belong funding in the past. Additionally, Bikes Belong will not consider grant requests in which it is listed as the sole funder; however, it will consider being the initial funder^{xxiv}.

LEAGUE OF AMERICAN BICYCLISTS (LAB) BICYCLE-FRIENDLY COMMUNITY PROGRAM

LAB recognizes states, communities and businesses for their efforts to promote bicycling and provide roadmaps to improve. Recognition is awarded based on an application process.^{xxv}



OTHER PRIVATE FUNDING OPPORTUNITIES

Project sponsors can purchase amenities such as benches, trash receptacles, mile markers, entry signage and bollards to assist in funding while enhancing the overall project. Another option is to sell linear feet of a multi-use path at the unit cost for said path. Some sort of recognition should be provided for sponsors possibly through a plaque or certificate.

Volunteers from within the community can aid in the expansion of the pedestrian network by conducting fundraisers or by donating labor to construction, landscaping, and maintenance after the facility is in place. Community volunteers can be drawn from civic groups, scouting groups, and outdoor clubs. Volunteers can adopt trails, bike facilities, or portions of them to keep clean and beautify through the years, saving the Town money over time.

E.4 SPECIAL FUNDING OPPORTUNITIES FOR HIGH PRIORITY PROJECTS

All of the funding opportunities listed above, and others that are not listed that may become available in the future should be applied for when possible. Mid- and long-range projects may be included in later editions of the TIP as enhancement projects. If a roadway improvement project is scheduled for a road that currently has no pedestrian facilities, NCDOT should be approached in an effort to get pedestrian facilities installed incidental to the project. Mapping and signing projects may also be included in the TIP. Safety projects should be funded by the Governor's Highway Safety Program. The Safe Routes to School program funds should be utilized for pedestrian safety and access within two (2) miles of all K-8th grade schools.

Projects scheduled for construction along major and minor thoroughfares throughout the Town may be funded by a bond referendum. Grant programs are the preferred method of payment for large-scale projects, as they do not have to be repaid by the Town or its citizens. A Capital Improvement Program (CIP) should be utilized for planning and funding pedestrian facilities. Private partnerships are another good way to make pedestrian facility improvements since they allow the public to take an extra sense of pride from the facility.



- ⁱ SAFETEALU, <http://www.fhwa.dot.gov/safetealu/factsheets/hsip.htm>
- ⁱⁱ US Department of Transportation, Federal Highway Administration, American Recovery & Reinvestment Act of 2009, <http://www.fhwa.dot.gov/economicrecovery/index.htm>
- ⁱⁱⁱ Highway Safety Improvement Program (HSIP), http://safety.fhwa.dot.gov/state_program/hsip/index.htm & <http://www.fhwa.dot.gov/safetealu/factsheets/hsip.htm>
- ^{iv} North Carolina Safe Routes to School Program, <http://ncdot.org/transit/bicycle/saferoutes/SafeRoutes.html>
- ^v Powell Bill Funds, http://ncdot.org/programs/Powell_Bill/
- ^{vi} Recreational Trails Program, <http://www.fhwa.dot.gov/environment/rectrails/index.htm>
- ^{vii} Surface Transportation Program, <http://www.fhwa.dot.gov/programadmin/113005.cfm>
- ^{viii} Transportation Enhancement Activities, <http://www.ncdot.org/financial/fiscal/Enhancement/ProgramInformation/Background/>
- ^{ix} Hazard Elimination & Railroad-Highway Crossing Programs, <http://safety.fhwa.dot.gov/safetealu/siebyside.htm>
- ^x Land and Water Conservation Fund, <http://www.nps.gov/ncrc/programs/lwcf/>
- ^{xi} North Carolina's Clean Water Management Trust Fund, <http://www.cwmtf.net/>
- ^{xii} Governor's Highway Safety Program, <http://www.ncdot.org/programs/GHSP/>
- ^{xiii} North Carolina Parks and Recreation Trust Fund Grant Program, <http://www.parf.net/>
- ^{xiv} North Carolina Adopt-A-Trail Program, <http://ils.unc.edu/parkproject/trails/grant.html#a>
- ^{xv} Conservation Tax Credit, <http://www.enr.state.nc.us/conservationtaxcredit/>
- ^{xvi} Congestion Mitigation and Air Quality Improvement Program, <http://www.fhwa.dot.gov/environment/cmaqpgs/>
- ^{xvii} Watershed Protection and Flood Prevention Grants for Small Watersheds, http://12.46.245.173/pls/portal30/CATALOG.PROGRAM_TEXT_RPT.SHOW?p_arg_names=prog_nbr&p_arg_values=10.904
- ^{xviii} Blue Cross Blue Shield Fit Together Grants, www.healthwellNC.com
- ^{xix} Active Living by Design, www.activelivingbydesign.org
- ^{xx} The Trust for Public Land, www.tpl.org.
- ^{xxi} Design Arts Program, The National Endowment for the Arts, <http://www.nea.gov/grants/apply/Design.html>
- ^{xxii} Conservation Fund's American Greenways Program, <http://www.conservationfund.org/node/245>
- ^{xxiii} Wal-Mart Foundation, <http://www.walmartfoundation.org/wmstore/goodworks/scripts/index.jsp>
- ^{xxiv} Bike Belong Organization, <http://bikesbelong.org>.
- ^{xxv} League of American Bicyclists, <http://bicyclefriendlycommunity.org>



APPENDIX F – COST ESTIMATES

Appendix Outline:

- F.0 On-Road Bicycle Facilities
- F.1 Off-Road Bicycle Facilities
- F.2 Intersection Crossings
- F.3 Bicycle Parking Facilities
- F.4 Streetscape Improvements

Preliminary opinion of probable costs for recommended pedestrian projects in this Plan are provided in this appendix. These costs are generic estimates based on the Federal Highway Administrationⁱ, Pedestrian and Bicycle Information Center Bikecost Toolⁱⁱ, and similar projects recently implemented.

The listed cost estimates should be used as a planning guide and do not include extra costs such as land acquisition, utility relocation, roadway size, drainage, final materials used, grading, land clearing and demolition, professional engineering and surveying, inspection and legal and administration. These costs are not and should not be considered to be a substitute for professional engineering and surveying regarding actual costs of individual project construction.

In many cases, on-road bicycle facilities can be low costs by restriping a roadway to remove or narrow travel lanes as part of a roadway repaving or reconstruction project. If the Town or NCDOT were undertaking a roadway improvement project as part of its normal maintenance program, it would be advantageous to provide the bicycle facility identified in this Plan during that effort.

F.0 ON-ROAD BICYCLE FACILITIES

The types of on-road improvements include restriping, overlay, full depth, and signed route.

1. **Restriping** includes removing, changing, or adding street striping to an existing roadway to provide space for bicycles. The space may be used exclusively for bicyclists (i.e. bike lane) or shared (i.e. wide outside lane). Roadway paving is typically not required. Travel lanes may be removed, moved or narrowed to provide space for a bicycle lane or wide outside lane.
2. **Overlay** pavement refers to a new layer of bituminous concrete pavement to an existing paved surface. The overlay pavement also may be used to install paved shoulders over an existing grass or gravel shoulder.
3. **Full depth** construction includes either a new road, or complete reconstruction of an existing road. Full depth construction may extend the width or length of an existing road. The cost of



including a bike lane or additional width for bicycles is considered part of the larger full depth construction roadway project.

4. **Signed route** applies directional signs to an existing roadway, identifying a single or series of bicycle routes. A signed route is often located on a street with low traffic volume or route that connects two or more desirable destinations. Route signs and pavement markings may be placed in intervals as needed.

RESTRIPING OR STRIPING

- Lane striping delineated travel lanes, shoulders, and bike lanes cost approximately \$14,000 per mile for a 4-inch white solid line on one side of a lane, or as a trail centerline.
- Restriping a mile of street to include bike lanes or reducing number of traffic lanes to add bike lanes cost approximately \$20,000 - \$48,000 per mile depending upon the number of old lane lines to be removed.

OVERLAY IMPROVEMENT

- Construction of additional lane pavement added during roadway construction or reconstruction cost approximately \$287,000 - \$300,000 per mile.

SIGNED ROUTE

- Regulatory, warning, and informational signs on post cost approximately \$200 per sign and post plus \$100 per each for installation.
- Bicycle Arrow (directional arrow) marking cost approximately \$70 - \$200 per marking. The more expensive tape markings are more durable than the less expensive thermoplastic markings when installed properly.
- Bicycle (symbol) marking cost approximately \$70 - \$200 per marking. The more expensive tape markings are more durable than the less expensive thermoplastic markings when installed properly.
- Sharrow marking cost approximately \$ 75 - \$100 per marking.



F.1 OFF-ROAD BICYCLE FACILITIES

The types of off-road improvement types include multi-use trails consisting of stone, asphalt, or concrete.

1. **Stone trail** is a crushed stone surface, which is a lower cost method of surfacing for trails with low use, in rural areas, in environmentally sensitive areas to minimize run-off, or other reasons as locally specified.
2. **Asphalt trail** is the most common surface for both roadways and trails.
3. **Concrete trail** is preferred application over asphalt for roadway and trail surfaces in several regions of the country due to maintenance and durability.

STONE TRAILS/PATHS

- A 10 foot wide stone trail or path with 6 inches of CABC cost approximately \$12 - \$ 15 per linear foot (2009)

ASPHALT TRAILS/PATHS

- Town of Winterville, NC spent \$11.90 per linear feet for the pavement structure for a 5-foot wide asphalt multi-use trail with 6-inches of CABC (2009); therefore, a 10-foot wide trail with 6-inches of CABC would be \$30.00 per linear foot.
- Warren County, NC spent \$ 14.11 per linear feet for the pavement structure for a 5-foot wide asphalt multi-use trail with 6-inches of CABC (2006); therefore, a 10-foot wide trail with 6-inches of CABC would cost \$28.22 per linear foot.

BOLLARDS

- Bollards cost approximately \$180-\$250 depending on size and type.

TRAIL GATE

- Purchase and installation of a trail gate for placement at entrance into a trail (to prevent access by motorized vehicles except for public safety, security, and maintenance vehicles) cost approximately \$2,000 - \$5,000 depending on size and type.



F.2 INTERSECTION CROSSINGS

Intersection improvement types include color pavement markings, signals, signs, and bicycle detector loops.

COLORED PAVEMENT MARKINGS

- Installation of colored markings (thermoplastic application) to increase bicycle visibility at intersections or to create a bike box cost approximately \$12.00 per square foot.

SIGNALS

- Pedestrian/Bicycle Signal Activation -4 Way activated signal (a 4-corner walk/don't walk signal system with a signal head and activator – with eight of each unit) cost approximately \$15,000 - \$20,000.
- Pedestrian/Bicycle Signal Activation – 2 Way activated signal (a 2-corner walk/don't walk signal system with a signal head and activator) cost approximately \$2,500 - \$5,000. Additional costs may be required if a full signal system is installed.

SIGNS

- NO TURN ON RED Signs cost approximately \$50 - \$200 per each depending if a post is needed plus installation at \$100 per each
- Regulatory, warning, and informational signs on post cost approximately \$200 per sign and post plus \$100 per each for installation.

BICYCLE DETECTOR LOOPS

- Loop detector in the pavement cost approximately \$2,000 - \$2,500 per loop detector.

F.3 BICYCLE PARKING FACILITIES

Bicycle parking facilities include either a bicycle rack or locker.

BICYCLE RACK

- An inverted U rack that holds two bicycles cost approximately \$240 each installed. Unique designs may have a higher cost associated with them.
- A bike rack designed to hold multiple bicycles (coathanger or similar) cost approximately \$440 - \$900 depending on style, length, and quantity order will affect cost.



BICYCLE LOCKER

- A bicycle locker that typically holds two bicycles each cost approximately \$1,300 - \$2,000 per locker installed. Special designs would increase the cost.

F.4 STREETScape IMPROVEMENTS

Streetscape improvement types include street lighting and landscaping.

LIGHTING

- Varies depending upon type of light, location, and utility provider; however, costs usually start at \$3,600 per fixture. If a light pole is needed, additional costs will be added based on style and height of pole.

LANDSCAPING

- Street trees (depending on foliage, type, and size) range from \$350 - \$500 per street tree.
- Shrubs (depending on type) cost approximately \$50 - \$75 per each installed by a contractor.

F.5 ROAD DIET TREATMENTS

Traffic Calming Devices include the following:

SPEED BUMPS

- Standard speed bump is approximately \$500 / each

CURB EXTENSIONS

- Concrete curb extension vary from \$2,000 to \$20,000 / corner, depending upon design and site conditions

RAISED MEDIAN

- Raised median cost approximately \$15,000 - \$30,000 / 100 feet

CROSSING ISLAND/ PEDESTRIAN REFUGE ISLAND

- Crossing island cost approximately \$6,000 - \$9,000 / island
- Raised concrete pedestrian refuge island with landscaping cost approximately \$10,000 - \$30,000 / each

CHICANES

- Landscaped chicanes cost approximately \$10,000 for a set of three on an asphalt street and \$15,000 - \$30,000 on a concrete street



MINI-CIRCLE

- Landscaped traffic mini-circle on an asphalt street cost approximately \$6,000 and can cost approximately \$8,000 - \$12,000 on a create street

ROUNDAABOUT

- Landscaped roundabout for neighborhood intersections range from \$45,000 - \$150,000
- Landscaped roundabout for arterial streets can cost approximately \$250,000

RAISED MEDIAN

- Raised median cost approximately \$15,000 - \$30,000 per 100 feet

ⁱ Federal Highway Administration (FHWA) Pedestrian Safety, *Safer Journey Library*, October 2007, <http://safety.fhwa.dot.gov/saferjourney/library/matrix.htm>

ⁱⁱ Pedestrian and Bicycle Information Center, Active Communities/Transportation Research Group, *Bikecost Tool: Benefit-Cost Analysis of Bicycle Facilities*, March 2009, <http://www.bicyclinginfo.org/bikecost/>



APPENDIX G – GLOSSARY OF TERMS

The following terms are used throughout this Plan. The material in this glossary is largely taken from the “Guide for the Development of Bicycle Facilities 1999” by the American Association of State Highway and Transportation Officials and “A Guide to North Carolina Bicycle and Pedestrian Laws” by the NCDOT Division of Bicycle & Pedestrian Transportation.

BICYCLE: Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. The term “bicycle” also includes three- and four-wheeled human-powered vehicles, but not tricycles for children.

BICYCLE FACILITIES: A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically designated for bicycle use.

BICYCLE LANE (BIKE LANE): A portion of a roadway, which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

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

BICYCLE ROUTE (BIKE ROUTE): A system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers, with or without specific bicycle route numbers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways.

BIKEWAY: A generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

HIGHWAY: A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

RIGHT-OF-WAY: A general term denoting land, property or interest therein, usually in a strip, acquired for or devoted to transportation purposes.



RIGHT OF WAY: The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian.

ROADWAY: The portion of the highway, including shoulders, intended for vehicular use.

SHARED ROADWAY: A roadway, which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.

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

SIDEWALK: The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians.

STREET: A highway, as defined above. The terms "highway" and "street" and their cognates are synonymous.



APPENDIX H – MAPS

All maps contained within the Ahoskie Comprehensive Bicycle Plan are found in Appendix H.



Town of Ahoskie Comprehensive Bicycle Plan

Map 2.1 Bicycle-Motor Vehicle Crash Sites



Legend

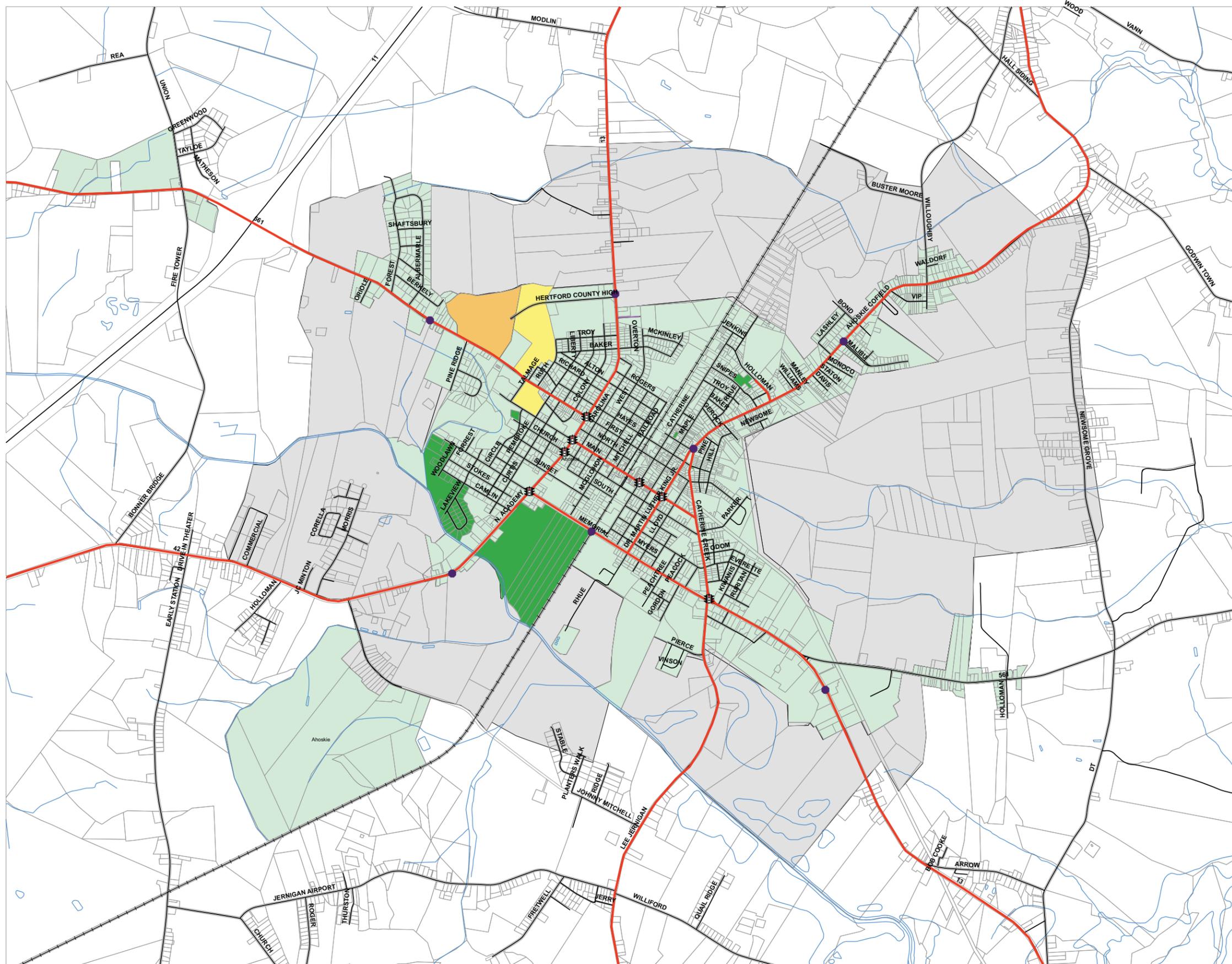
- Bike Crash Location
- High School
- Municipal
- Hospital
- Parks
- Water Feature
- Active Railroads
- Hertford County Parcels
- Downtown Area
- Elementary School





Town of Ahoskie Comprehensive Bicycle Plan

Map 2.2 Existing Transportation Infrastructure



Legend

-  Signalized Intersections
-  Transition Areas *
-  NCDOT Roads
-  Private Road
-  Local Streets
-  Water Feature
-  Active Railroads
-  Hertford County Parcels
-  Parks
-  Elementary School
-  High Schools
-  Town Limits
-  Ahoskie ETJ Limits

* Transition Area: A location where the movement or passage changes along the roadway or route.





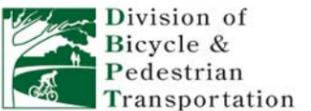
Town of Ahoskie Comprehensive Bicycle Plan

Map 3.1 NCDOT Transportation Improvement Projects



Legend

- Primary Roads
- Secondary Roads
- Streets (Ahoskie)
- TIP R-2205
- Municipal Boundary
- Ahoskie ETJ Limits





Town of Ahoskie Comprehensive Bicycle Plan

Map 4.1 Destinations & Points of Interest



Legend

- Gymnasium/Fields
- Movie Theatre
- High School
- Exercise Facility
- Municipal
- Elementary School
- Hospital
- Shopping Center
- Parks
- Elementary School
- High Schools
- Water Feature
- Active Railroads
- Hertford County Parcels
- Downtown Area





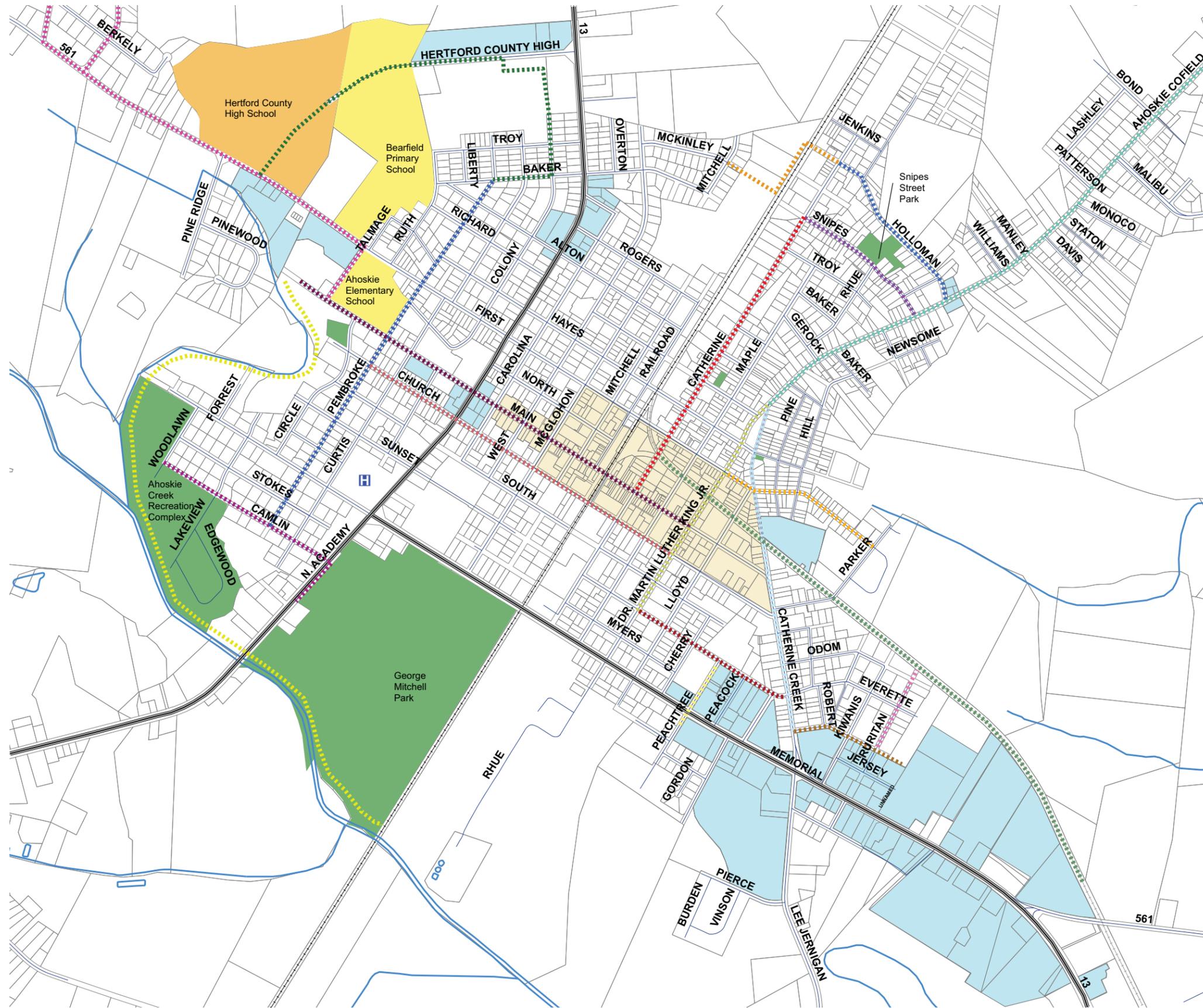
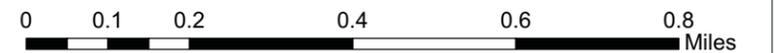
Town of Ahoskie

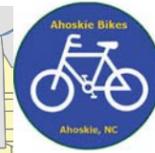
Comprehensive Bicycle Plan

Map 4.2 Proposed Opportunities

Legend

- Peachtree Route
- E. First Street Route
- Rails-To-Trails Route
- Ruritan Route
- Sunset Route
- MLK Route
- Jessie-Meyers Route
- Catherine Creek Route
- Ahoskie Cofield Route
- Catherine Street Route
- Snipes Street Route
- Holloman Route
- Williams Circle Connection
- Ahoskie Creek Route
- Hertford County Schools Route
- W. First Street Route
- Main Street Route
- Church Street Route
- Pembroke Route
- Park Route
- Main Thoroughfares
- Hospital
- Water Feature
- Elementary School
- High Schools
- Parks
- Abandoned Railroads
- Active Railroads
- Hertford County Parcels
- Downtown Area
- Commercial Parcel



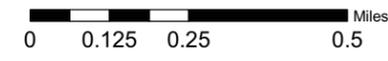
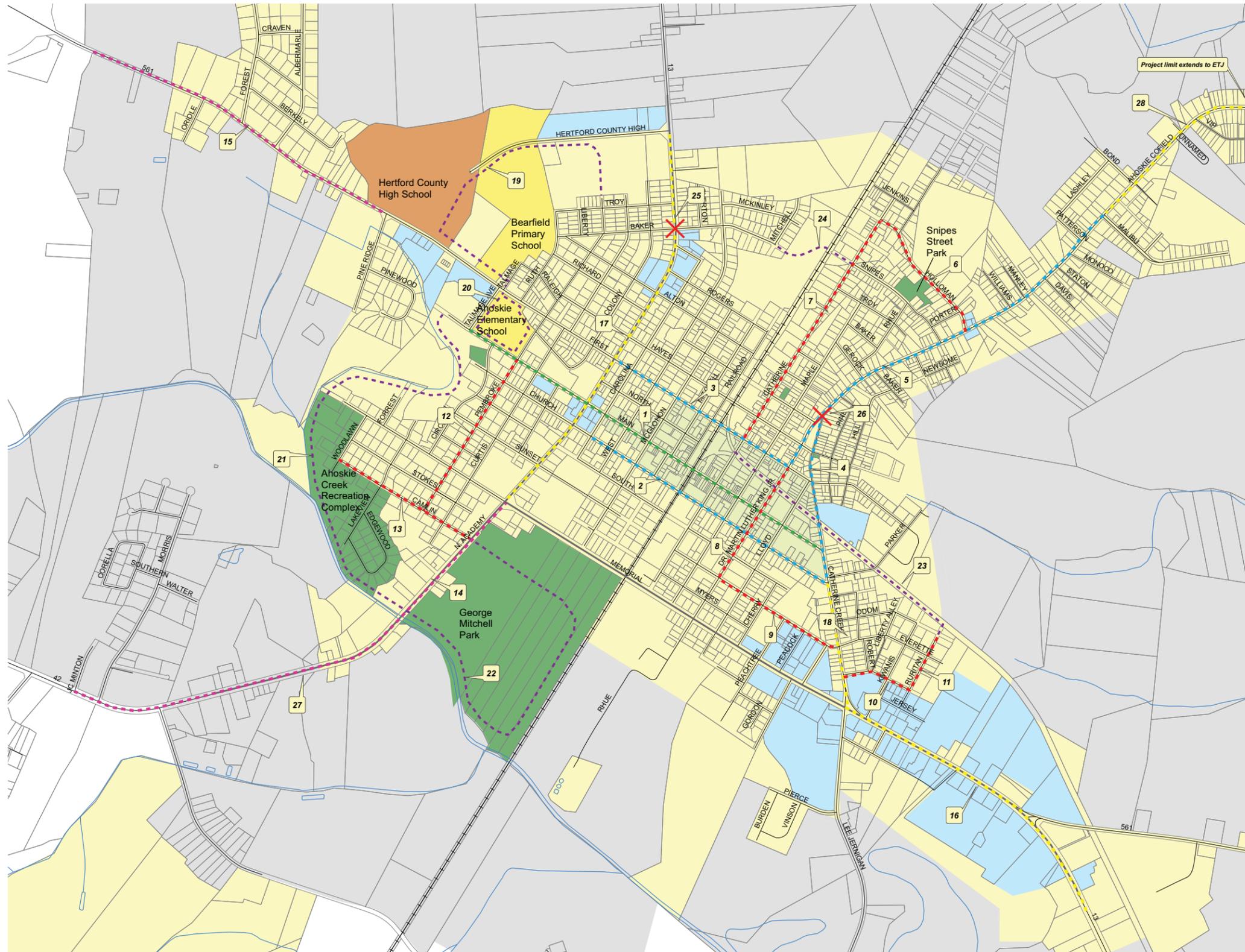


Town of Ahoskie Comprehensive Bicycle Plan

Map 7.1 Final Preliminary Project Recommendations

Legend

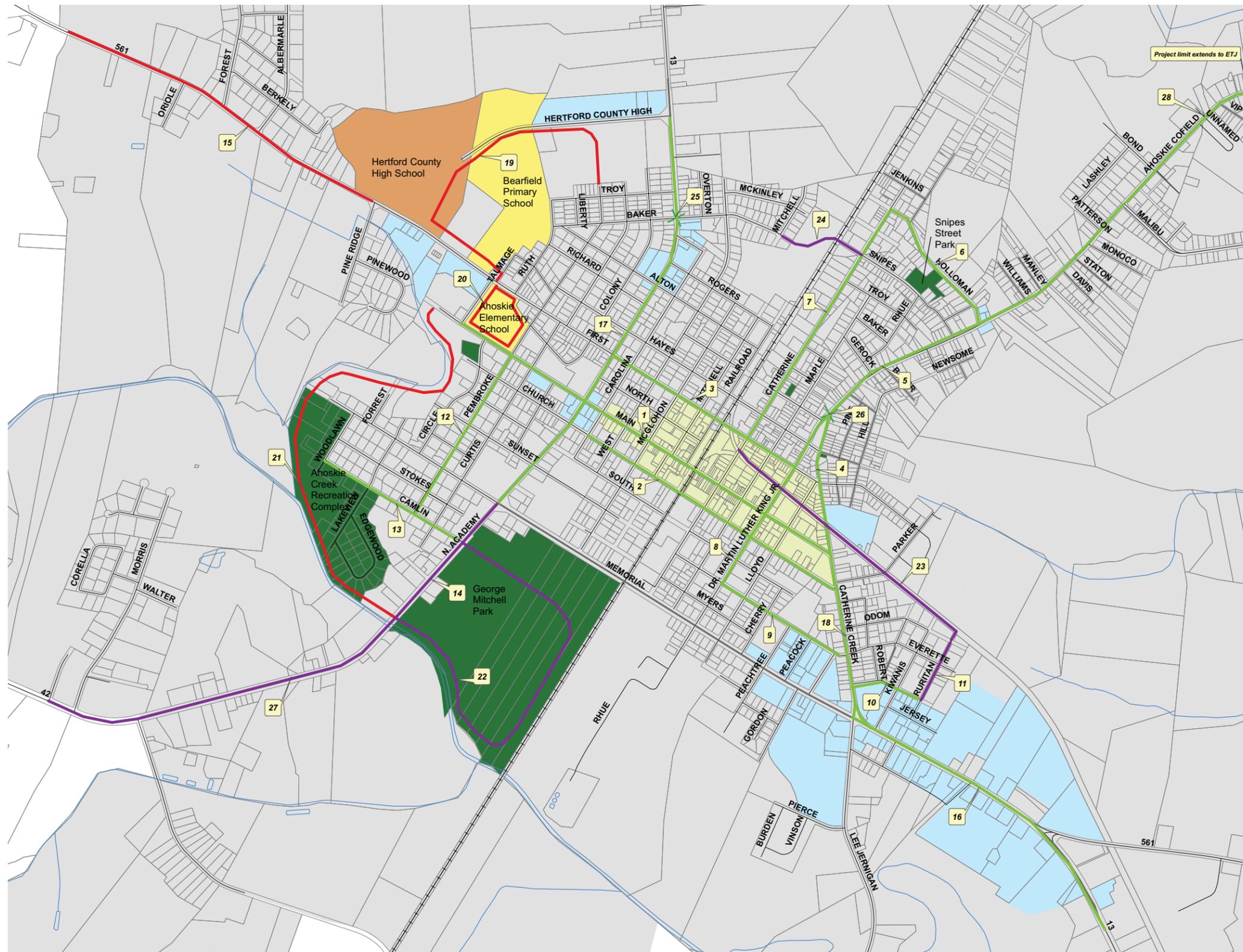
- Intersection Improvement
- Signed Routes
- Sharrows
- Share The Road Signage
- Bike Lanes
- Paved Shoulder
- Multi-Use Trail
- Main Thoroughfares
- Water Feature
- Active Railroads
- Roads
- Downtown Area
- Commercial Parcel
- Parks
- Elementary School
- High Schools
- MunicipalBoundaries_polys
- Ahoskie ETJ Limits
- Map Reference #





Town of Ahoskie Comprehensive Bicycle Plan

Map 7.2 Prioritized Project Schedule



Legend

- Long Term Improvement Projects
- Mid-Term Improvement Projects
- Short Term Improvement Projects
- Short Term Intersection Projects
- Main Thoroughfares
- Water Feature
- Active Railroads
- Roads
- Downtown Area
- Commercial Parcel
- Parks
- Elementary School
- High Schools
- Ahoskie ETJ Limits
- Map Reference #

