

BICYCLE & PEDESTRIAN MASTER PLAN

for the Greenville Urban Area Metropolitan Planning Organization





ACKNOWLEDGEMENTS

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PUBLIC INVOLVEMENT

Thank you to the more than 700 residents who participated in this planning process through the online comment form, public workshops, and meetings.





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ECU Students crossing on 10th Street



EXECUTIVE SUMMARY

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Overview

In summer 2010, the City of Greenville and the Greenville Urban Area Metropolitan Planning Organization (MPO) began developing a Bicycle and Pedestrian Master Plan. The purpose of this Bicycle and Pedestrian Master Plan is to provide clear priorities, tools and programs for improving the bicycle and pedestrian environments in the Greenville urban area, which includes the City of Greenville, Town of Ayden, Town of Winterville, Village of Simpson, and portions of Pitt County.

Nationally, such issues as unstable gas prices, environmental concerns, and a growing interest in health and wellness are demonstrating the need for bicycle and pedestrian-friendly cities. On a local level, this Plan represents a strong commitment to take on such issues, translating them into affordable personal mobility, carbon-free transportation, and healthy, active lifestyles for Greenville urban area residents. The chief outcome of this Plan will be an integrated, seamless transportation framework to facilitate walking and biking as viable transportation alternatives throughout the region.

The development of this Plan included an open, participatory process, with area residents providing input through public workshops, stakeholder meetings, the project Steering Committee, social media, and an online comment form.

This Plan features:

- A thorough analysis of current conditions for walking and biking in Greenville
- A comprehensive recommended bicycle and pedestrian network
- Standards and guidelines for the development of bicycle and pedestrian facilities
- A prioritized list of recommended strategic and low-cost improvements
- Integration of bicycle and pedestrian policy into codes and ordinances
- Recommendations for programming, maintenance, and funding



The Planning Process

The planning process began in August 2010 and concludes in early 2011. This diagram illustrates the main steps of the planning process. Public participation (through workshops, steering committee meetings, and the online survey) plays a key role in plan development.



Vision Statement

This Bicycle and Pedestrian Master Plan will expand opportunities for transportation, recreation, and healthy lifestyles throughout the region. Our streets, sidewalks, and trails will be designed and maintained to allow safe interaction between all modes of travel. In addition to physical improvements for walking and bicycling, this plan will also promote connectivity, accessibility, and safety for pedestrians and bicyclists through programs and policies that focus on education, encouragement, and enforcement.



Measurable Goals

The ultimate goal is for this Plan to be fully implemented within a 30-year time frame.

Bi-annual meetings should be held for the evaluation of progress on each of the following goals, including an official plan update in 2016. During each evaluation, City and MPO staff and members of the Bicycle and Pedestrian Advisory Commission (BPAC) should identify steps to be taken before the next evaluation.

1. Continually reduce the number of bicycle and pedestrian accidents per year.
2. Increase the miles of bike lanes as a percent of total regional roadways.
3. Complete five high priority bicycle and pedestrian projects by 2012 and complete the top 10 bicycle and pedestrian projects by 2014.
4. Earn a designation for Greenville as a ‘Bicycle-Friendly Community’ through the League of American Bicyclists by 2012.
5. Earn designations for Greenville, Winterville, Ayden, and Simpson as a ‘Walk-Friendly Communities’ through the Pedestrian & Bicycle Information Center by 2014.
6. Double the 2000 Census bicycle and pedestrian commute rate by 2016.
7. Launch or participate in three new bicycle or pedestrian programs in three years:

A) Bike-Walk Education and Encouragement Programs

- Continue to work with the Bicycle and Pedestrian Advisory Commission, specifically in their implementation of this plan.
- Produce online and hardcopy walking, bicycle, and transit maps and obtain a variety of educational materials for distribution and online display that cover bicycle and pedestrian safety, etiquette, and rules and regulations.
- Engage and partner with multiple Greenville area schools to become involved with national Safe Route to School programs and funding opportunities.

B) Bicyclist, Pedestrian, and Motorist Enforcement Program and Internal Training

- Provide officers with an educational brochure to be given out during pedestrian and bicycling-related citations and warnings.
- Offer training for planning, public works, engineering, and law enforcement staff that focuses on walking and bicycling-related issues.

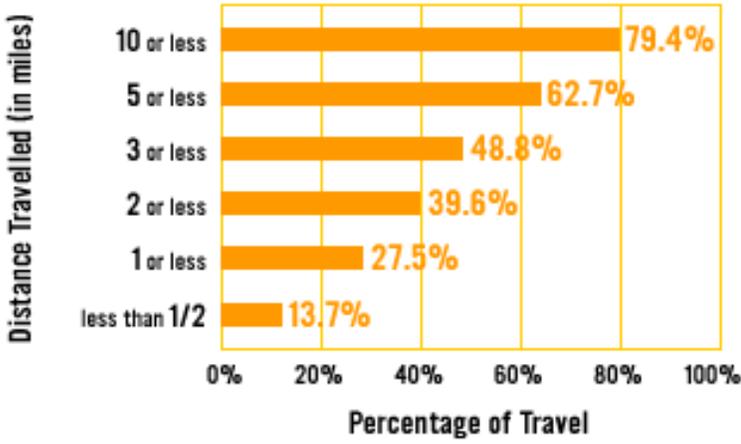
C) Bicycle Facility Development Program

- Hire a full-time multi-modal planner for the MPO.
- Establish regular CIP and TIP funding for roadway retrofits and restriping.
- Integrate bicycle-related improvements with scheduled roadway maintenance and restriping projects.
- Add bicycle parking at 50 key locations throughout the region.



Health and Wellness & Alternative Transportation

Daily Trip Distances



Above: By walking or biking for our trips that are less than 2 miles, we could eliminate 40% of local car trips.



It is well documented that an active community is a healthy community. The declining health of America’s population is alarming. Study after study affirms that sedentary lifestyles and prolonged periods of inactivity are major deterrents to health, leading to a rise in the occurrence of cardiovascular disease, hypertension, diabetes, osteoporosis and some cancers. Land use and transportation are quickly becoming areas of focus as communities strive to become more walkable, bikeable and accessible. Transportation safety and enhanced mobility along with the pattern and density of development are proven corollaries to community health and wellness.

Safer roadways, greenways, and improved facilities for pedestrians and bicyclists, aid in safety, improve the environment, and encourage more people to enter the outdoors for transportation, recreation, and day-to-day activities.



3

Utility bike for everyday trips, like grocery shopping (image from www.yubabike.com)



Assessing Needs and Opportunities

FIELDWORK AND ANALYSIS

The consultant team conducted an in-depth analysis, photo inventory, and evaluation of current conditions for biking and walking:

- 71 intersections were inventoried (including photos) for pedestrian crossing facilities. Pedestrian treatments were recommended for each intersection.
- Over 200 miles of arterial, collector, and some local roads were analyzed and measured for possible on-road bicycle facilities.
- Special attention was paid to school areas, Downtown areas, roadway crossings, and key destinations.



Analysis included an on-the-ground evaluation.



Above: Examples of good existing infrastructure.

Below: Opportunities for improvement.



GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS data for existing trails, sidewalks, and bicycle facilities was supplemented with aerial photography, transportation data, trip attractors, schools, parcels, waterways, etc. to provide a comprehensive map and tool for developing the recommended bicycle and pedestrian networks. These data resources revealed numerous gaps in the existing sidewalk system and opportunities for new facilities.

EXISTING PLANS

Numerous plans, guidelines, and strategies have addressed issues relating to bicycle and pedestrian facilities in the Greenville Urban Area. They have addressed land use, alternative transportation, roadway design, open space, parks and recreation, and other initiatives. Special consideration was given to current community plans, policies, and documents to better integrate this Plan into the fabric of area planning efforts, and to incorporate the insights, visions, and findings of past plans as appropriate.

PUBLIC INPUT

The consultant team developed numerous products to facilitate public comments that included:

- An online comment form and hardcopy companion
- Project website with links to project information
- Facebook page, Twitter page & Community Walk map input website
- Flyers for public workshops
- Newsletters with project updates

A series of public workshops were held in October and December 2010 to receive input into the process.

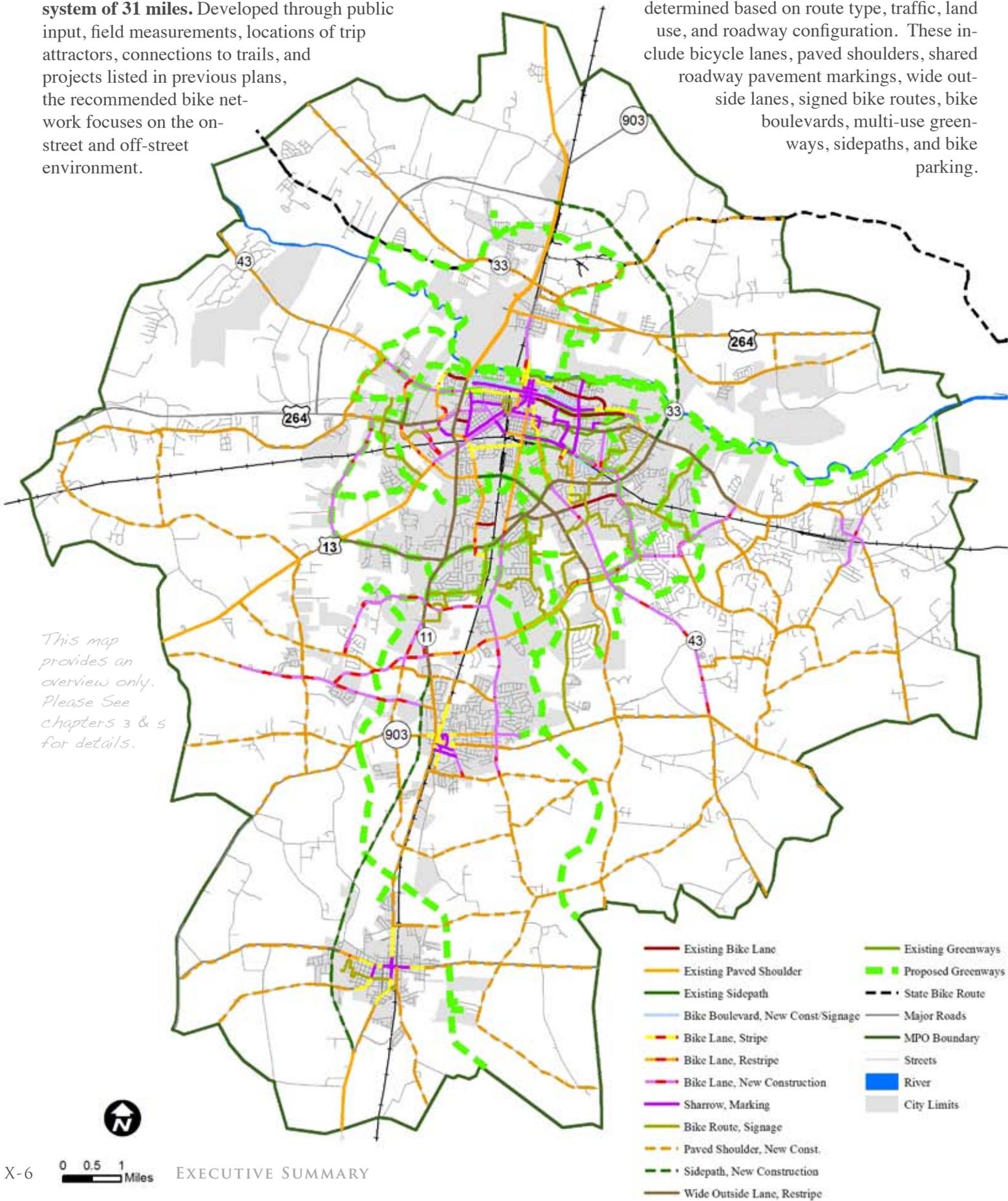
| How important to you is improving walking and biking conditions in the Greenville urban area? | | Response Percent | Response Count |
|---|--|------------------|----------------|
| Very important | | 88.7% | 638 |
| Somewhat important | | 9.5% | 68 |
| Not important | | 1.8% | 13 |

Above: More than 700 people responded to the comment form, the large majority indicating the importance of this Plan.

Bicycle Network

Approximately 286 miles added to current system of 31 miles. Developed through public input, field measurements, locations of trip attractors, connections to trails, and projects listed in previous plans, the recommended bike network focuses on the on-street and off-street environment.

Several facility types are recommended and determined based on route type, traffic, land use, and roadway configuration. These include bicycle lanes, paved shoulders, shared roadway pavement markings, wide outside lanes, signed bike routes, bike boulevards, multi-use greenways, sidepaths, and bike parking.

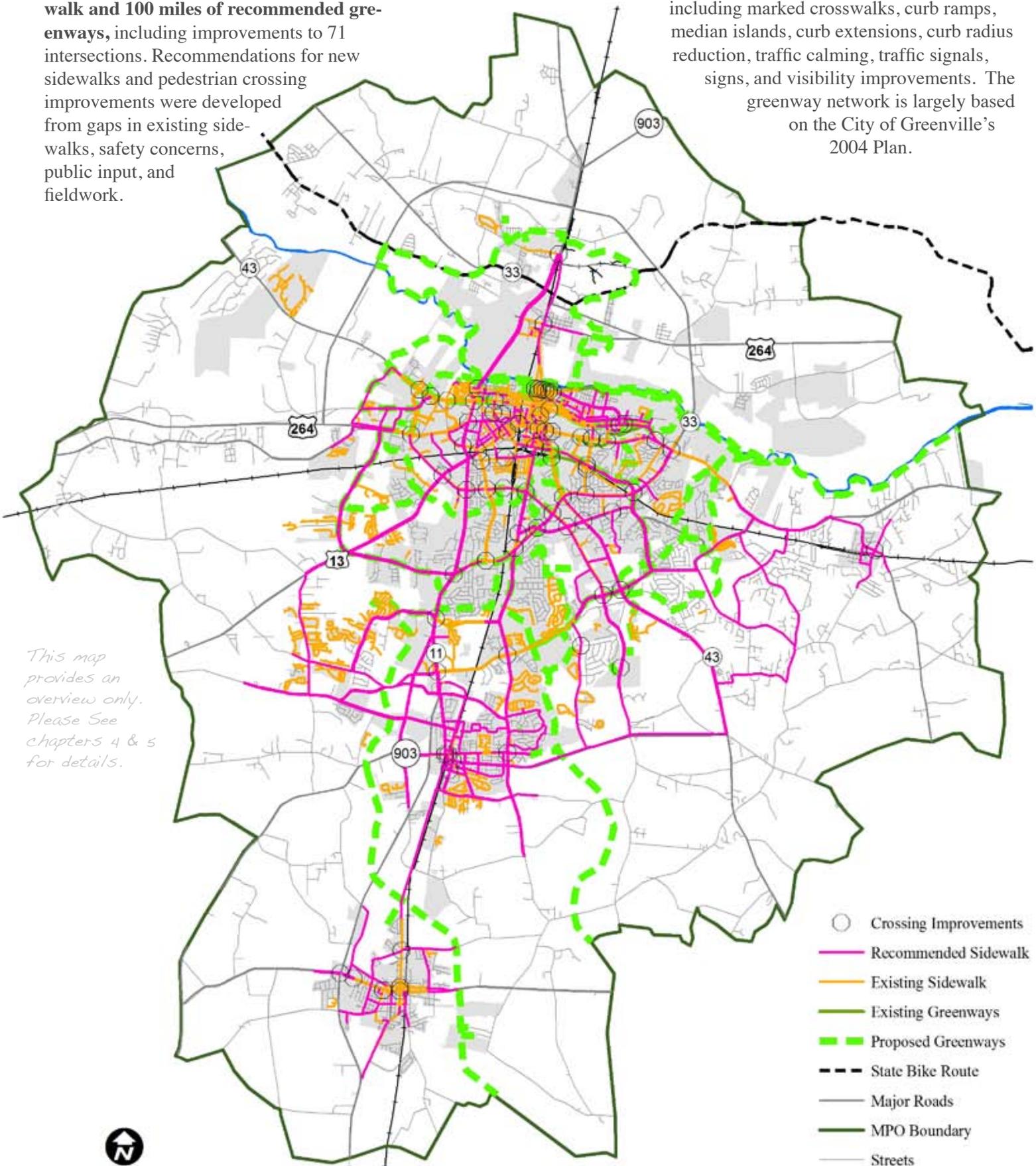




Pedestrian Network

Approximately 190 miles of recommended sidewalk and 100 miles of recommended greenways, including improvements to 71 intersections. Recommendations for new sidewalks and pedestrian crossing improvements were developed from gaps in existing sidewalks, safety concerns, public input, and fieldwork.

A combination of treatments are considered including marked crosswalks, curb ramps, median islands, curb extensions, curb radius reduction, traffic calming, traffic signals, signs, and visibility improvements. The greenway network is largely based on the City of Greenville's 2004 Plan.



This map provides an overview only. Please See chapters 4 & 5 for details.

- Crossing Improvements
- Recommended Sidewalk
- Existing Sidewalk
- Existing Greenways
- Proposed Greenways
- - - State Bike Route
- Major Roads
- MPO Boundary
- Streets
- River
- City Limits



0 0.5 1 Miles



Bicycle and Pedestrian Programs

Creation of a successful Bicycle and Pedestrian Network will involve more than facility improvements. The long-term success of the network will also depend on related education, encouragement, and enforcement programming. There are many program groups and resources already working in the region including the City of Greenville Bicycle and Pedestrian Advisory Commission (BPAC), East Carolina Injury Prevention Program (ECIPP), Safe Communities Coalition of Pitt County, Safe Kids Pitt County, Friends of Greenville Greenways (FROGGS), and others that are working to encourage walking and bicycling. These groups should work together with the MPO and its municipalities to launch additional programs, access program funding, and reach further into residents of each community.

It will be critical for the Greenville Urban Area and its partners to:

- inform pedestrians, bicyclists, and motorists about safe behaviors in a multimodal roadway environment,
- enforce laws that make pedestrian and bicycle travel safer,
- encourage people of all ages and abilities to use the bicycle and pedestrian facilities, and
- promote and develop programmatic activities that encourage physical, activity and healthy living.

Key recommended programs include:

- continue Safe Routes to School initiatives,
- Bicycle-friendly community status,
- Walk-friendly community and university status,
- a user-friendly Bicycle and Pedestrian map and website that features existing routes and related information,
- targeted enforcement in locations with heavy amounts of pedestrians or bicyclists,
- internal staff training, and
- Bike/Walk to Work Day events.

These programs will enhance the overall health and wellness of the community by promoting, teaching, and enforcing safety.



1



2



3



4

1. On-road bicycle skills workshop
2. Pedestrians at ECU.
3. Cyclist on W. Arlington Blvd.
4. Bicycle Rodeo - an education/encouragement event



Implementation: Realizing the Vision

Implementing the recommendations within the Bicycle and Pedestrian Master Plan will require leadership on the part of the Greenville Urban Area and its municipalities, and a dedication to the development of a bicycle and pedestrian friendly community. The Greenville Urban Area has several opportunities that can help propel implementation:

- First, is the extensive grassroots interest among citizens, local groups, municipalities, and East Carolina University that can provide a voice and support for the Plan. For example, the City of Greenville BPAC is one of the first of its kind in the State of North Carolina. Also, almost 1,000 people participated during this planning process indicating a strong interest at the resident level.
- A second opportunity is building upon Greenville's great system of existing greenways, sidewalks, and destinations.
- A third opportunity is to take advantage of the region's growth by developing facilities as part of future development and construction. These opportunities provide a base and starting point for development and implementation.

Implementing the recommendations of this Plan will require a combination of funding sources that include local, state, federal, and private money. It will be necessary for the Greenville Urban Area to secure funding to undertake the short-term, top priority projects while simultaneously developing a long-term funding strategy to allow for continued development of the overall system. Community foundations and revenue-generating programs for bicycle and pedestrian facilities should also be utilized to raise funds for development and maintenance.

Below: Steering Committee meetings and public workshops.



Above: Cyclist on Elm near the Green Mill Run Greenway.



Project Cutsheets and Development

Bicycle and pedestrian facilities were prioritized by their ability to provide connectivity, serve underserved areas, and improve safety in areas of concern. Higher priorities were also assigned to facilities that could be installed at a lower cost. It is recommended that these facilities be built first to have an immediate impact on the Greenville Urban Area. However, all recommended bicycle and pedestrian facilities in this Plan should be built as opportunity arises (such as roadway reconstruction or new development).

A variety of tools provide the Greenville Urban Area MPO with a quick reference for facility development. Approximately 20 individual cutsheets for both high priority on-road bicycle facilities and sidewalk improvements have been developed for the City of Greenville. Top priority project maps and project descriptions have been developed for Pitt County, Town of Winterville, Town of Ayden, and Village of Simpson as well. Pilot projects to address critical needs were also developed to provide guidance.

Roadway construction and reconstruction projects offer excellent opportunities to incorporate facility improvements for non-motorized modes. It is much more cost-effective to provide bicycle and pedestrian facilities in conjunction with these projects than to initiate the improvements later as “retrofit” projects. Approximately 40 miles of low-cost “retrofit” projects have been identified for on-road bicycle lanes or sharrows through simple striping and restriping procedures. Roadway design guidelines are provided for project development and are important policy documents because they describe the types of facilities that should be provided during construction and reconstruction projects.



Existing conditions at the intersection of Greenville & Charles.



Photo visualization showing high visibility crosswalks and pedestrian activated countdown signals.



Existing conditions along W. 5th Street.

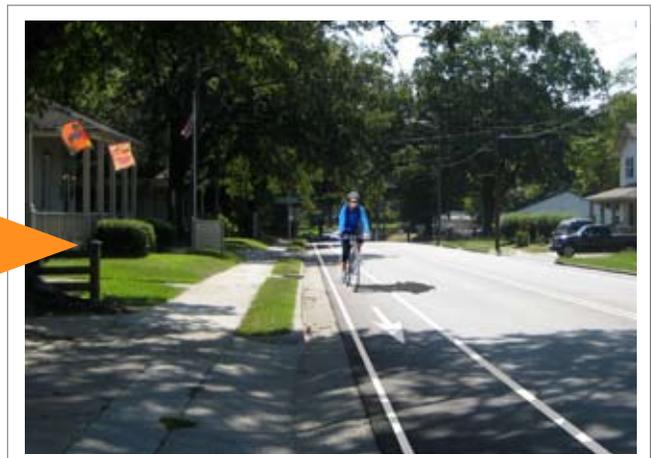


Photo visualization showing the addition of a bike lane.



Policy/Administrative Action Steps

The implementation chapter provides a table of 57 action steps divided into eight task categories, and three timeframe phases. The categories of steps are: 1) Local adoptions, 2) Infrastructure improvements, 3) Local and regional coordination, 4) Programs, 5) Policies, 6) Further studies, 7) Staffing needs, and 8) Evaluation and databases. This action-oriented guide should be used to implement the recommendations of this Plan. Some of the most important steps are described below:

1

ADOPT THIS PLAN

The most important action step for the Greenville Urban Area is to adopt, publicize, and champion this Plan at the City, County, MPO, and local municipality levels. This should be considered the first step in implementation. Through adoption of this document and its accompanying maps as the official bicycle and pedestrian plan, the MPO and its municipalities will be better able to shape transportation and development decisions so that they fit with the goals of this Plan. Most importantly, having an adopted Plan is extremely helpful in securing funding from state, federal, and private agencies. Adopting this Plan does not commit the MPO, County, and its municipalities to dedicate or allocate funds, but rather indicates the intent to implement this Plan over time, starting with these key action steps.

2

CREATE AN IMPLEMENTATION STRATEGY

The Greenville Urban Area MPO should develop an internal strategy to implement the Bicycle and Pedestrian Master Plan. As a part of this strategy, the MPO should identify specific individuals and program areas that will be responsible for implementing the various aspects of the Plan from day-to-day efforts to long range goals. The MPO should add a full-time Bicycle and Pedestrian Planner position to focus on the implementation of this Plan. Each municipality should assign an existing position to focus on bicycle and pedestrian-related issues and become knowledgeable about the Bicycle and Pedestrian Master Plan. The MPO should also work closely with the City of Greenville Bicycle and Pedestrian Advisory Commission (BPAC) to assist in implementation. The BPAC should provide a communications link between the citizens and the City of Greenville, as well as an avenue for reviewing/revising project priorities.

3

CONSIDER ADOPTION OF A “COMPLETE STREETS” POLICY

There is a growing national trend towards integrating bicycling, walking and transit as a routine element in roadway projects. This movement has developed under the name of “Complete Streets,” which is defined by the Complete the Streets Coalition as follows:

“Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.”

- www.completethestreets.org

By adopting a “Complete Streets” policy, the Greenville Urban Area commits to developing new roadways and reconstructing existing roadways to accommodate all users.



4

BECOME A BICYCLE FRIENDLY COMMUNITY (BFC)

The BFC campaign is an awards program that recognizes municipalities that actively support bicycling. A BFC provides safe accommodation for bicycling and encourages its residents to bike for transportation and recreation. Communities that are bicycle-friendly are seen as places with a high quality of life, and becoming a bicycle friendly community often translates into increased property values, business growth and increased tourism.

5

LAUNCH PROGRAMS

The Greenville Urban Area should continue, expand and develop education, encouragement, and enforcement programs, including the Safe Routes to School program. These programs will bring increased visibility to the process and educate the public about walking and biking safety.

6

BEGIN TOP PRIORITY PROJECTS

Top priority projects identified during this study provide an immediate impact where there is need. The on-road bike priority projects are low-cost and “shovel ready.” The MPO should establish a process of incorporating bicycle and pedestrian network recommendations during future funded roadway improvements.

7

CONDUCT FURTHER STUDIES

This plan is largely a guidance document that has identified areas of need in the Greenville Urban Area. Further studies will address these needs in a more specific manner. Additional recommended studies are: a bicycle parking study, bus stop access improvement study, pedestrian and bicycle railroad crossing study, traffic calming and speed limit reduction study, driveway access management study, and an update to the City of Greenville Greenways Master Plan.

8

EVALUATE PROGRESS

The Greenville Urban Area MPO, its partners, and municipalities should monitor implementation progress on a regular basis. This will ensure continued momentum and provide opportunities for updates and changes to process if necessary. Evaluation methods include quarterly meetings, the development of an annual performance report, update of bicycle and pedestrian infrastructure databases, pedestrian and bicycle counts, assessment of new facilities, and plan updates.

Additional Resources

In addition to these strategies and tools, the Bicycle and Pedestrian Master Plan includes other implementation resources. A list of funding sources is included to help take advantage of available options. Design guidelines for bicycle, pedestrian, and trail facilities are provided to meet facility development needs and serve as a guide for minimum standards. Policy recommendations are geared at updating language in local codes and planning documents to ensure that bicycle and pedestrian needs are addressed in future development. Finally, the plan also features a detailed action steps table that will guide implementation of the plan.



Cyclist near Elm & Fern.



1 INTRODUCTION

Chapter Contents

Overview

*Vision Statement
and Goals*

The Planning Process

*The Value of Walkable
and Bicycle-Friendly
Communities*

Overview

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Nationally, such issues as unstable gas prices, environmental concerns, and a growing interest in health and wellness are demonstrating the need for bicycle and pedestrian-friendly cities. On a local level, this Plan represents a strong commitment to take on such issues, translating them into affordable personal mobility, carbon-free transportation, and healthy, active lifestyles for Greenville urban area residents. The chief outcome of this Plan will be an integrated, seamless transportation framework to facilitate walking and biking as viable transportation alternatives throughout the region.

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- Standards and guidelines for the development of bicycle and pedestrian facilities
- A prioritized list of recommended strategic and low-cost improvements
- Integration of bicycle and pedestrian policy into codes and ordinances
- Recommendations for programming, maintenance, and funding

Vision Statement and Goals

Vision statements and project goals were collected through project steering committee meetings, input from City staff, and public input. These were combined, condensed, and crafted into the vision statement for this Plan.

MASTER PLAN VISION STATEMENT

This Bicycle and Pedestrian Master Plan will expand opportunities for transportation, recreation, and healthy lifestyles throughout the region. Our streets, sidewalks, and trails will be designed and maintained to allow safe interaction between all modes of travel. In addition to physical improvements for walking and bicycling, this plan will also promote connectivity, accessibility, and safety for pedestrians and bicyclists through programs and policies that focus on education, encouragement, and enforcement.



MEASURABLE GOALS FOR THE MASTER PLAN

The purpose of this Plan is to make this vision a reality. Measurable goals, derived from this vision, are listed below. While the MPO and local municipalities must lead this effort, overall success will also require continued, active participation and encouragement from local residents and community organizations. The ultimate goal is for this Plan to be fully implemented within a 30-year time frame.

Bi-annual meetings should be held for the evaluation of progress on each of the following goals, including an official plan update in 2016. During each evaluation, City and MPO staff and members of the Bicycle and Pedestrian Advisory Commission (BPAC) should identify steps to be taken before the next evaluation.

1. Continually reduce the number of bicycle and pedestrian accidents per year.
2. Increase the miles of bike lanes as a percent of total regional roadways.
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6. Double the 2000 Census bicycle and pedestrian commute rate by 2016.
7. Launch or participate in three new bicycle or pedestrian programs in three years:

A) Bike-Walk Education and Encouragement Programs

- Continue to work with the Bicycle and Pedestrian Advisory Commission, specifically in their implementation of this plan.
- Produce online and hardcopy walking, bicycle, and transit maps and obtain a variety of educational materials for distribution and online display that cover bicycle and pedestrian safety, etiquette, and rules and regulations.
- Engage and partner with multiple Greenville area schools to become involved with national Safe Route to School programs and funding opportunities.

B) Bicyclist, Pedestrian, and Motorist Enforcement Program and Internal Training

- Provide officers with an educational brochure to be given out during pedestrian and bicycling-related citations and warnings.
- Offer training for planning, public works, engineering, and law enforcement staff that focuses on walking and bicycling-related issues.

The Greenville area will accommodate all types of bicyclists: recreational riders, commuters, utilitarian riders, and experts.

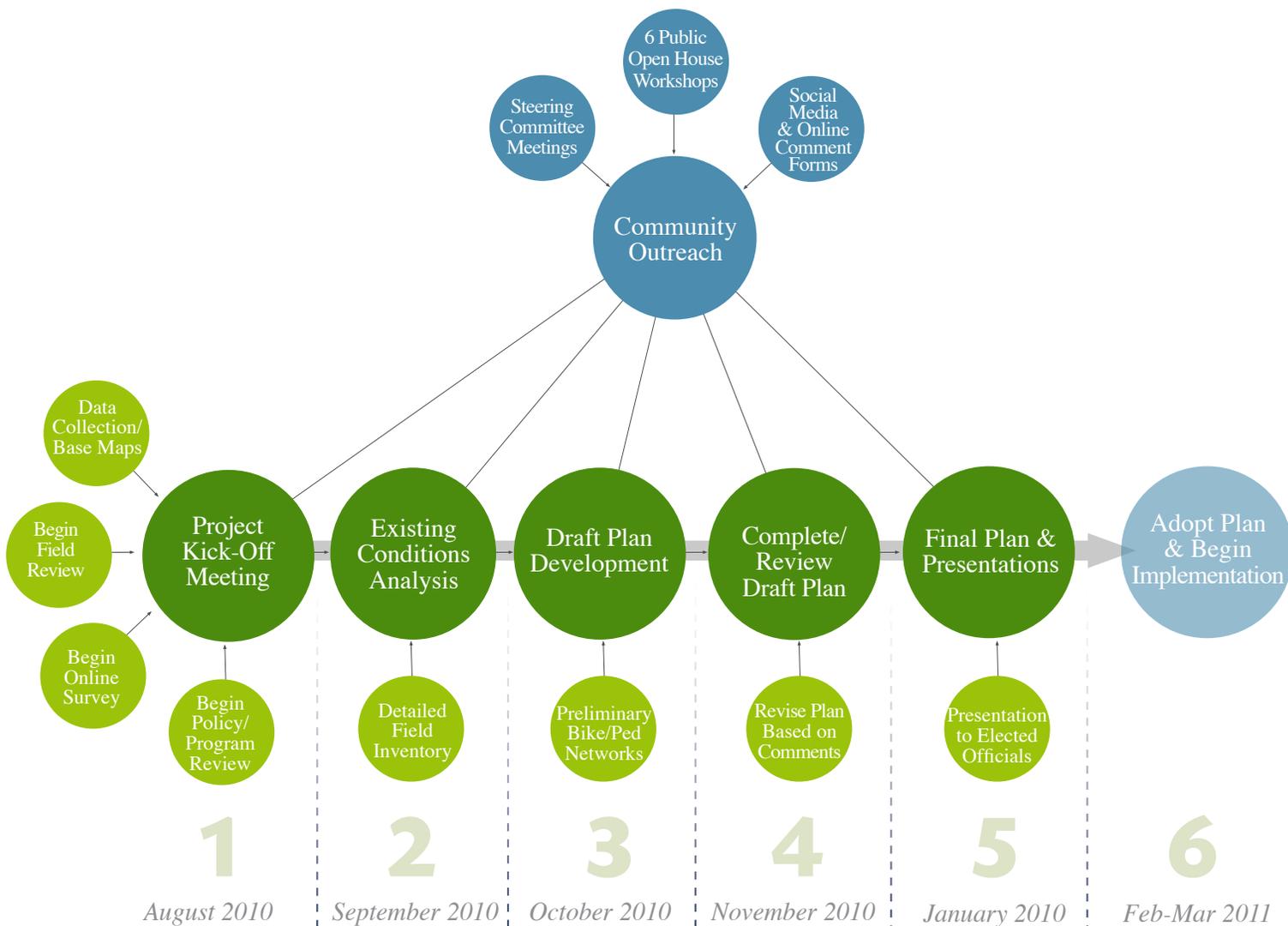




- C) Bicycle Facility Development Program
- Hire a full-time multi-modal planner for the MPO.
 - Establish regular CIP and TIP funding for roadway retrofits and restriping.
 - Integrate bicycle-related improvements with scheduled roadway maintenance and restriping projects.
 - Add bicycle parking at 50 key locations throughout the region.

The Planning Process

The planning process began in August 2010 and concludes in early 2011. This diagram illustrates the main steps of the planning process. Public participation (through workshops, steering committee meetings, and the online survey) plays a key role in plan development.





The Value of Walkable and Bicycle-Friendly Communities

Given the extensive commitment of time and resources needed to fulfill the goals of this plan, it is also important to keep in mind the immense value of bicycle and pedestrian transportation. Increased rates of bicycling and walking will help to improve people's health and fitness, improve livability of our communities, enhance environmental conditions, decrease traffic congestion, and contribute to a greater sense of community.

Scores of studies from experts in the fields of public health, urban planning, urban ecology, real estate, transportation, sociology, and economics have supported such claims and affirm the substantial value of supporting bicycling and walking as they relate to active living and alternative transportation. Communities across the United States and throughout the world are implementing strategies for serving the bicycling and walking needs of their residents, and have been doing so for many years. They do this because of their obligations to promote health, safety and welfare, and also because of the growing awareness of the many benefits outlined below.

INCREASED HEALTH AND PHYSICAL ACTIVITY

A growing number of studies show that the design of our communities—including neighborhoods, towns, transportation systems, parks, trails and other public recreational facilities—affects people's ability to reach the recommended daily 30 minutes of moderately intense physical activity (60 minutes for youth). According to the Centers for Disease Control and Prevention (CDC), "physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year, and contributes to the obesity epidemic."¹ The increased rate of disease associated with inactivity reduces quality of life for individuals and increases medical costs for families, companies, and local governments.

The CDC determined that creating and improving places to be active could result in a 25 percent increase in the number of people who exercise at least three times a week.² This is significant considering that for people who are inactive, even small increases in physical activity can bring measurable health benefits. Establishing a safe and reliable network of sidewalks, bicycle lanes, and safe crossings throughout the Greenville urban area will positively impact the health of local residents. The Rails-to-Trails Conservancy puts it simply: "Individuals must choose to exercise, but communities can make that choice easier."³

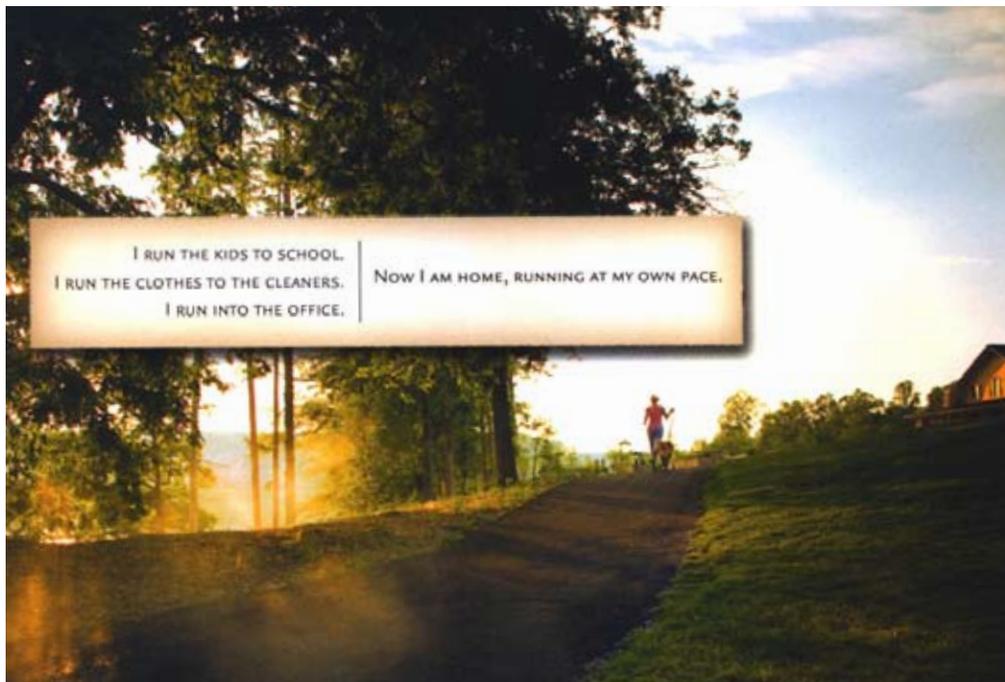
ECONOMIC BENEFITS

Bicycling and walking are affordable forms of transportation. According to the Pedestrian and Bicycle Information Center (PBIC), of Chapel Hill, NC, the cost of operating a bicycle for a year is approximately \$120, compared to \$8,847 for operating a car over the same time period.⁴ Bicycling becomes even more attractive from an economic standpoint when the unstable price of oil is factored into the equation. Between 2000 and 2008, oil prices more than quadrupled (topping \$4 a gallon at the highest point) before decreasing again by 2010.⁵ The unstable cost of fuel reinforces the idea that local communities should be built to accommodate people-powered transportation, such as walking and biking.

From a real estate standpoint, consider the positive impact of trails and greenways, which are essential components of a complete bicycle and pedestrian network. According to a 2002 survey of homebuyers by the National Association of Home Realtors and the National Association of Home Builders, trails ranked as the second most important community amenity out of a list of 18 choices.⁶ Additionally, the study found that 'trail

A new residential development advertises the "Last Greenway Sites Available"





I RUN THE KIDS TO SCHOOL.
I RUN THE CLOTHES TO THE CLEANERS.
I RUN INTO THE OFFICE.

NOW I AM HOME, RUNNING AT MY OWN PACE.

Developers are taking advantage of the positive impact of trails on property values by marketing their greenways; left and below are examples of two magazine advertisements from developers that focus their marketing on greenways.



I WANT
top schools nearby
my kids to get fresh air
my kids to have lots of friends
our TV to be ignored

A place where video games get lonely from lack of use. A place where people are always going somewhere—families hiking on the miles of trails, or kids biking to our onsite top-rated schools. A place with best-in-class amenities, including a huge Aquatic Club. A place with a natural setting and tight-knit neighbors that always seem to be doing something together. All this and beautiful homes to match? That's FishHawk Ranch.





availability' outranked 16 other options including security, ball fields, golf courses, parks, and access to shopping or business centers. Findings from the American Planning Association (*How Cities Use Parks for Economic Development*, 2002), the Rails-to-Trails Conservancy (*Economic Benefits of Trails and Greenways*, 2005), and the Trust for Public Land (*Economic Benefits of Parks and Open Space*, 1999) further substantiate the positive connection between trails and property values across the country.

Finally, from a tourism perspective, cyclists can add real value to local economies. For example, in the Outer Banks, NC, bicycling is estimated to have an annual economic impact of \$60 million; 1,407 jobs are supported by the 40,800 visitors for whom bicycling was an important reason for choosing to vacation in the area. The annual return on bicycle facility development in the Outer Banks is approximately nine times higher than the initial investment.⁷ Similarly, Damascus, VA, the self-proclaimed 'Friendliest Trail Town', features 34-miles of trail where approximately \$2.5 million is spent annually related to recreation visits. Of this amount, non-local visitors spend about \$1.2 million directly into the economies of Washington and Grayson counties.⁸

ENVIRONMENTAL IMPROVEMENTS

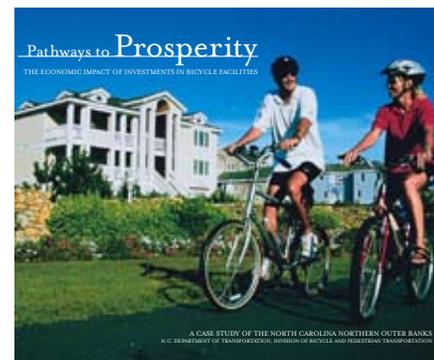
As demonstrated by the Southern Resource Center of the Federal Highway Administration, when people get out of their cars and walk or bike, they reduce measurable volumes of pollutants.⁹ Other environmental impacts include a reduction in overall neighborhood noise levels and improvements in local water quality as fewer automobile-related discharges wind up in the local rivers, streams, and lakes.

Trails and greenways are also part of any bicycle and pedestrian network, conveying unique environmental benefits. Greenways protect and link fragmented habitat and provide opportunities for protecting plant and animal species. Aside from connecting places without the use of air-polluting automobiles, trails and greenways also reduce air pollution by protecting large areas of plants that create oxygen and filter air pollutants such as ozone, sulfur dioxide, carbon monoxide and airborne particles of heavy metal. Finally, greenways improve water quality by creating a natural buffer zone that protects streams, rivers and lakes, preventing soil erosion and filtering pollution caused by agricultural and road runoff.

TRANSPORTATION BENEFITS

In 2001, the National Household Travel Survey found that roughly 40% of all trips taken by car are less than 2 miles. By taking these short trips on a bicycle or by foot, rather than in a car, citizens can substantially impact local traffic and congestion. Additionally, many people do not have access to a vehicle or are not able to drive. According to the *National Household Travel Survey (NHTS)*, one in 12 U.S. households does not own an automobile and approximately 12 percent of persons 15 or older do not drive.¹⁰ An improved hike and bike network provides greater and safer mobility for these residents.

Traffic congestion is often a major problem in fast growing areas such as the Greenville urban area (it is estimated that the population of the Greenville urban area could increase from 119,074 in 2007 to 224,732 by 2035).¹¹ Congestion reduces mobility, increases auto-operating costs, adds to air pollution, and causes stress. Bicyclists and pedestrians can help alleviate overall congestion because each pedestrian or bicyclist is one less car on the road.



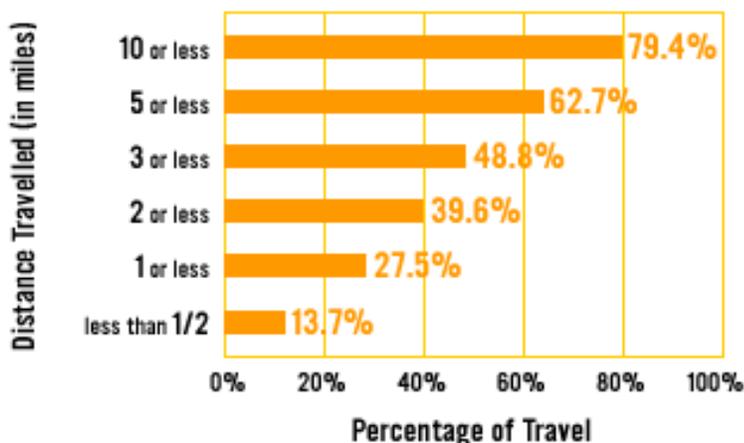
Download the full report, "Pathways to Prosperity", from: www.ncdot.gov/bikeped/researchreports/



Above: By walking or biking for our trips that are less than 2 miles, we could eliminate 40% of local car trips.



Daily Trip Distances



Right: 'Daily Trip Distances' chart from the Bicycle and Pedestrian Information Center website, www.pedbikeinfo.org

QUALITY OF LIFE

Many factors go into determining quality of life for the citizens of a community: the local education system, prevalence of quality employment opportunities, and affordability of housing are all items that are commonly cited. Increasingly though, citizens claim that access to alternative means of transportation and access to quality recreational opportunities such as parks, trails, greenways, and bicycle routes, are important factors for them in determining their overall pleasure within their community. Communities with such amenities can attract new businesses, industries, and in turn, new residents. Furthermore, quality of life is positively impacted by bicycling and walking through the increased social connections that take place by residents being active, talking to one another and spending more time outdoors and in their communities.

According to the Brookings Institution, the number of older Americans is expected to double over the next 25 years.¹² All but the most fortunate seniors will confront an array of medical and other constraints on their mobility even as they continue to seek both an active community life, and the ability to age in place. Trails built as part of the bicycle and pedestrian transportation network generally do not allow for motorized vehicles—however, they do accommodate motorized wheelchairs, which is an important asset for the growing number of senior citizens who deserve access to independent mobility.

Children under 16 are another important subset of our society who deserve access to safe mobility and a higher quality of life. According to the U.S. Environmental Protection Agency, fewer children walk or bike to school than did so a generation ago. In 1969, 48 percent of students walked or biked to school, but by 2001, less than 16 percent of students between ages 5 and 15 walked or biked to or from school.¹³

According to the National Center for Safe Routes to School, “Walking or biking to school gives children time for physical activity and a sense of responsibility and independence; allows them to enjoy being outside; and provides them with time to socialize with their parents and friends and to get to know their neighborhoods.”¹⁴ In a 2004 CDC survey, 1,588 adults answered questions about barriers to walking to school for their youngest child aged 5 to 18 years.¹⁵ The main reasons cited by parents included distance to school, at 62%, and traffic-related danger, at 30%. Strategic additions to MPO’s urbanized area bicycle and pedestrian network could shorten the distance from homes to schools, and overall hike and bike improvements can improve the safety of our roadways.



Footnotes from, “*The Value of Walkable and Bicycle-Friendly Communities*”:

1. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (1996). *Physical Activity and Health: A Report of the Surgeon General*.
2. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2002). *Guide to Community Preventive Services*.
3. Rails-to-Trails Conservancy. (2006) *Health and Wellness Benefits*.
4. Pedestrian and Bicycle Information Center. (2008). *Economic Benefits: Money Facts*. Retrieved 8/8/2008 from www.bicyclinginfo.org/why/benefits_economic.cfm and <http://aaanewsroom.net/main/default.asp?categoryid=4&articleid=760>: AAA Cost to Operate Car in 2010.
5. King, Neil. *The Wall Street Journal: Another Peek at the Plateau*. (2/27/08): In February 2008, the Wall Street Journal quoted industry experts, stating, “supply constraints could push the price of oil to \$150 a barrel by 2010”.
6. National Association of Realtors and National Association of Home Builders. (2002). *Consumer’s Survey on Smart Choices for Home Buyers*.
7. NCDOT and ITRE. (2006). *Bikeways to Prosperity: Assessing the Economic Impact of Bicycle Facilities*.
8. Virginia Department of Conservation. (2004). *The Virginia Creeper Trail: An Assessment of User Demographics, Preferences, and Economics*.
9. Federal Highway Administration, Southern Resource Center. (1999). *Off-Mode Air Quality Analysis: A Compendium of Practice*. To calculate air quality benefits of bicycling, first calculate the Daily VMT reduction. $VMT\ Reduction = PD * Area * L * BMS$, where PD = Population density, persons/mile; Area = Project length * 1 mile radius, mile; L = Round trip length, one-half of the project length times 2 daily trips, miles; BMS = Bike mode share, %. Last, calculate the Daily Emission reductions for a pollutant. $Ed = EFx * VMT\ Reduction$, where Ed = Daily Emissions, grams/day; EFx = Emission factor for pollutant x, grams/mile; VMT = vehicle mile/day.
10. U.S. Department of Transportation (DOT), Bureau of Transportation Statistics (BTS) and the Federal Highway Administration (FHWA). (2002). *National Household Travel Survey*.
11. City of Greenville, North Carolina. (2009). *RFP for the Bicycle and Pedestrian Master Plan*.
12. Brookings Institution. 2003. *The Mobility Needs of Older Americans: Implications for Transportation Reauthorization*.
13. US EPA. (2003). *Travel and Environmental Implications of School Siting*.
14. National Center for Safe Routes to School. (2006). *National Center for Safe Routes to School Talking Points*.
15. Centers for Disease Control and Prevention. *The Importance of Regular Physical Activity for Children*. Accessed 9/16/05 at http://www.cdc.gov/nccdphp/dnpa/kidswalk/health_benefits.htm.



2 EXISTING CONDITIONS

Chapter Contents

Overview

Methodology

*Existing Pedestrian
Conditions*

*Existing Bicycle
Conditions*

Demographic Analysis

*Demand and Needs
Analysis*

*Review of
Existing Plans*

Overview

This chapter contains a description of work, summary of existing conditions for the GUAMPO area, and a demand analysis. This existing conditions analysis led to the development of the Bicycle and Pedestrian Network recommendations.

Methodology

The Consultant team conducted a thorough investigation and analysis of existing conditions. The major categories of work are described below.

FIELDWORK

The consultant team spent five days in the GUAMPO area to examine, document, and photo inventory existing bicycle and pedestrian conditions. Special attention was paid to school areas, Downtown areas, crossings, and other destinations.

Accomplishments included:

- 71 intersections were inventoried and photo inventoried for pedestrian crossing facilities. Recommended pedestrian treatments were developed for each intersection.
- Over 200 miles of arterial, collector, and subcollector roads were analyzed and measured for possible on-road bicycle facilities.
- Active bicyclists and pedestrians were monitored and photo-inventoried.
- Existing, exemplary facilities were noted and photo-inventoried.
- Barriers to bicycle and pedestrian travel were noted.

GIS DEVELOPMENT

The consultant team collected existing GIS data layers and developed new data as well. Tasks accomplished include:

- Update/revision of existing trails/bicycle facilities
- Demographic data and map development
- Bicycle and pedestrian crash mapping

EXISTING PLAN REVIEW

Existing, relevant plans, documents, and ordinances were reviewed and summarized.



PUBLIC INPUT

The consultant team developed numerous products to facilitate public comments that include:

- Online comment form and hardcopy companion
- Project website with links to project information
- Facebook page
- Twitter page
- Community Walk map input website
- Flyers for public workshops
- Newsletters with project updates

A series of public workshops were held in October and December 2010 to receive input into the process.

Existing Pedestrian Conditions

GENERAL EXISTING PEDESTRIAN CONDITIONS

The Greenville MPO Urban Area features some areas that are quite pedestrian-friendly. There are 155 miles of sidewalks in the MPO, mostly confined within the municipalities of Greenville, Winterville, and Ayden. On any given day, hundreds of pedestrians can be observed throughout the metro Greenville area, especially near Downtown, near ECU, and in lower-income neighborhoods.

Sidewalks and crosswalks have existed in the Downtown areas in many cases since the early history of the cities. While some neighborhoods surrounding the Downtown areas have adequate pedestrian facilities, others, unfortunately contain none leaving many areas disconnected from town cores, schools, parks, and businesses.

In recent years, area municipalities have taken proactive steps towards becoming more pedestrian-friendly. The City of Greenville has installed dozens of countdown signals and new sidewalks, and has an adopted greenway plan. In addition, metro Greenville has a number of trails and sidepaths for recreation and transportation. These facilities provide a good foundation for a more comprehensive pedestrian network throughout the region. Winterville recently adopted a pedestrian plan and is currently working on implementing the recommendations. Additionally, Ayden is actively constructing new sidewalks and crossings at the time of this study.

However, there are still many key gaps in the existing pedestrian network within the entire MPO. This lack of connectivity makes pedestrian travel difficult. The majority of intersections, despite having pedestrian accommodations, lack complete pedestrian solutions (see the Intersection Inventory Tables at the end of this chapter).

Highlights of existing pedestrian conditions are presented below with recommendations in Chapter 3.

EXISTING PEDESTRIAN FACILITIES

The majority of pedestrian facilities are found in the municipality Downtown cores and in scattered suburban neighborhoods. A table of these facility mileage totals is below and Maps 2.1-2.6 show these facilities.



New sidewalk construction at Lee and Fairmount Village SW in Ayden.



EXISTING PEDESTRIAN FACILITIES

| <i>Mileage</i> | <i>Facility Type</i> |
|----------------|----------------------|
| 155 | Sidewalk |
| 3.3 | Greenways/Trails |
| 0.65 | Side Path |
| 25 | Paved Shoulder |

In addition to linear facilities, there are many crossing facilities found at intersections and at midblocks. Marked crosswalks, curb ramps, and signalization are common across the MPO but are largely inconsistent from crossing to crossing.

Many areas of the Greenville Urban Area MPO feature high-quality pedestrian environments. These include the following:

Greenville Downtown: Due to the grid road network, short blocks, low traffic speeds, and existing sidewalks/crosswalks, the Downtown is a safe, comfortable environment for pedestrians. With many sections of on-street parking, curb extensions are commonplace creating shorter crossing distances for pedestrians and serving as traffic calming devices. The Town Commons Park and Greenway bridge provide excellent pedestrian-friendly destinations. The highest concentration of marked crosswalks and pedestrian signalization is found in Downtown Greenville (See Map 2.3).

Downtown Greenville: Intersection of Cotanche and Reade



Downtown Greenville: Town Commons Bridge

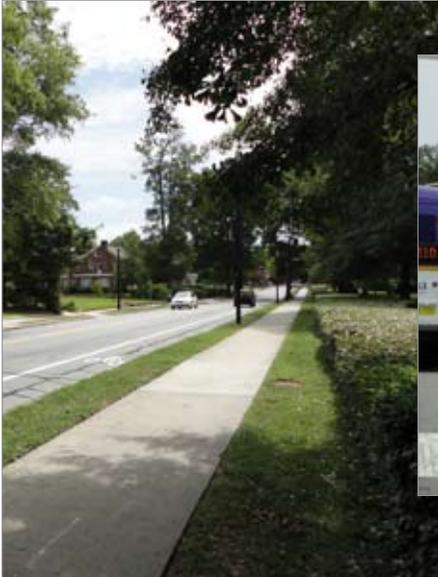


Downtown Greenville: Curb extensions at 1st and Reade





ECU and adjacent roadways (particularly area bordered by 5th Street, Cotanche Street, 10th Street, and Maple Street): Numerous sidewalks, high-visibility crosswalks, and pedestrian signalization are found along bordering streets and within campus. This is critical as hundreds of student pedestrians walk and bike across campus and adjacent roadways each day.



Fifth St near ECU



Tenth St near ECU

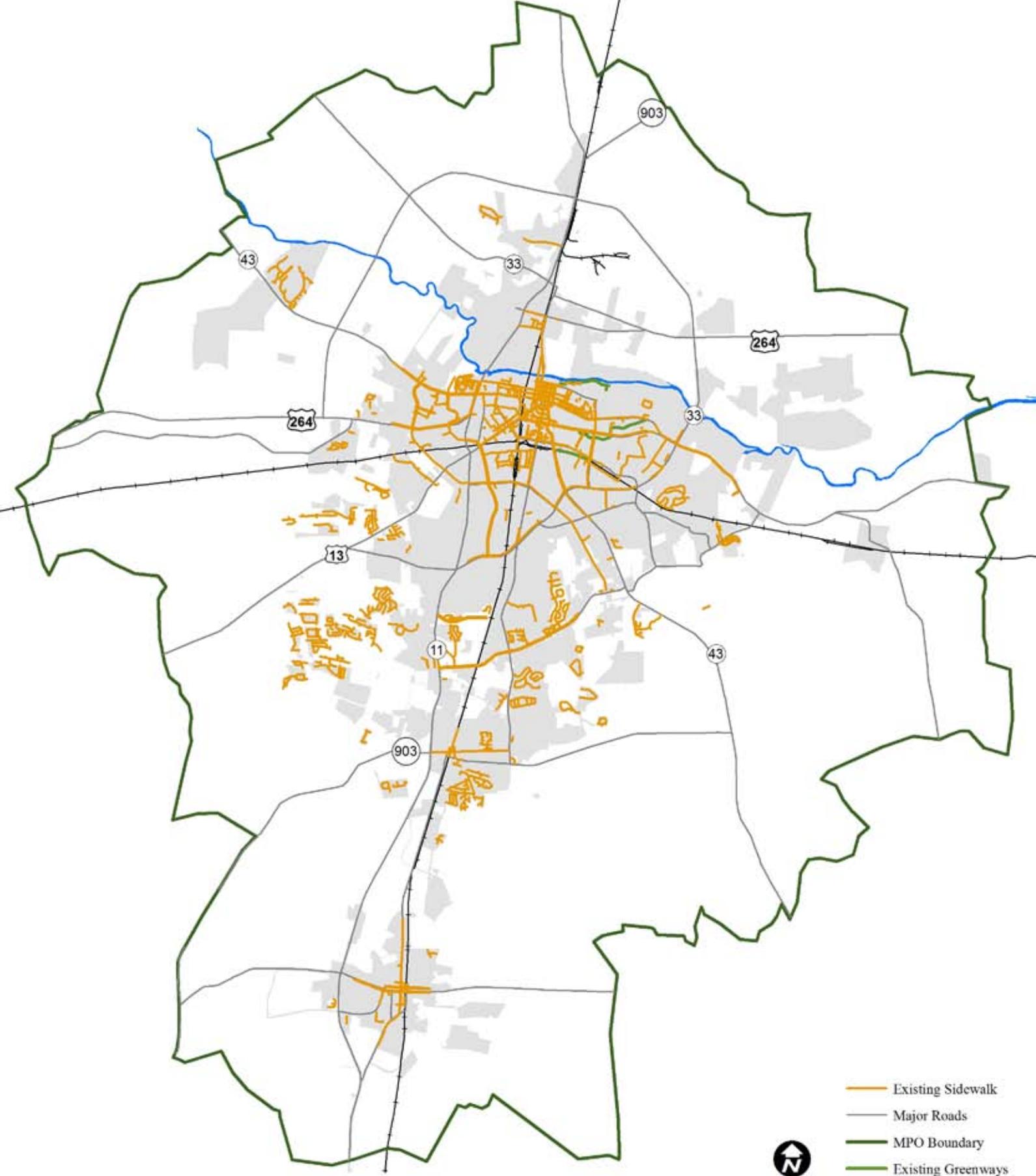


Charles Greenway crossing (good greenway road crossing with refuge)

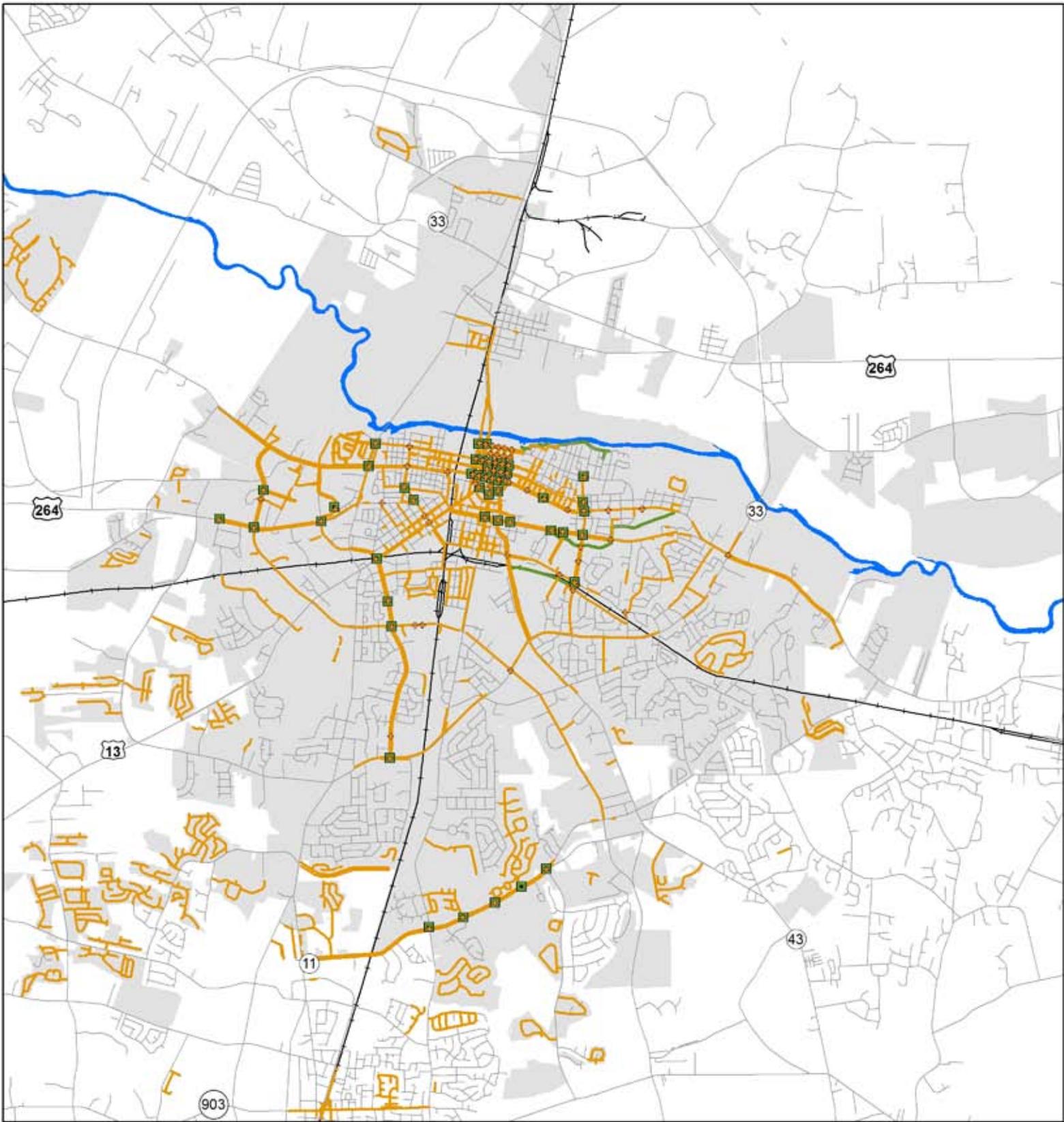
Downtown Ayden: With building fronts accessible from the sidewalk, Downtown Ayden has a walkable small-town feel. At the major intersections, marked crosswalks are textured and highly-visible, making the designated walkways very clear.



*Downtown Ayden:
Third and Lee*



MAP 2.1 EXISTING PEDESTRIAN
CONDITIONS - MPO

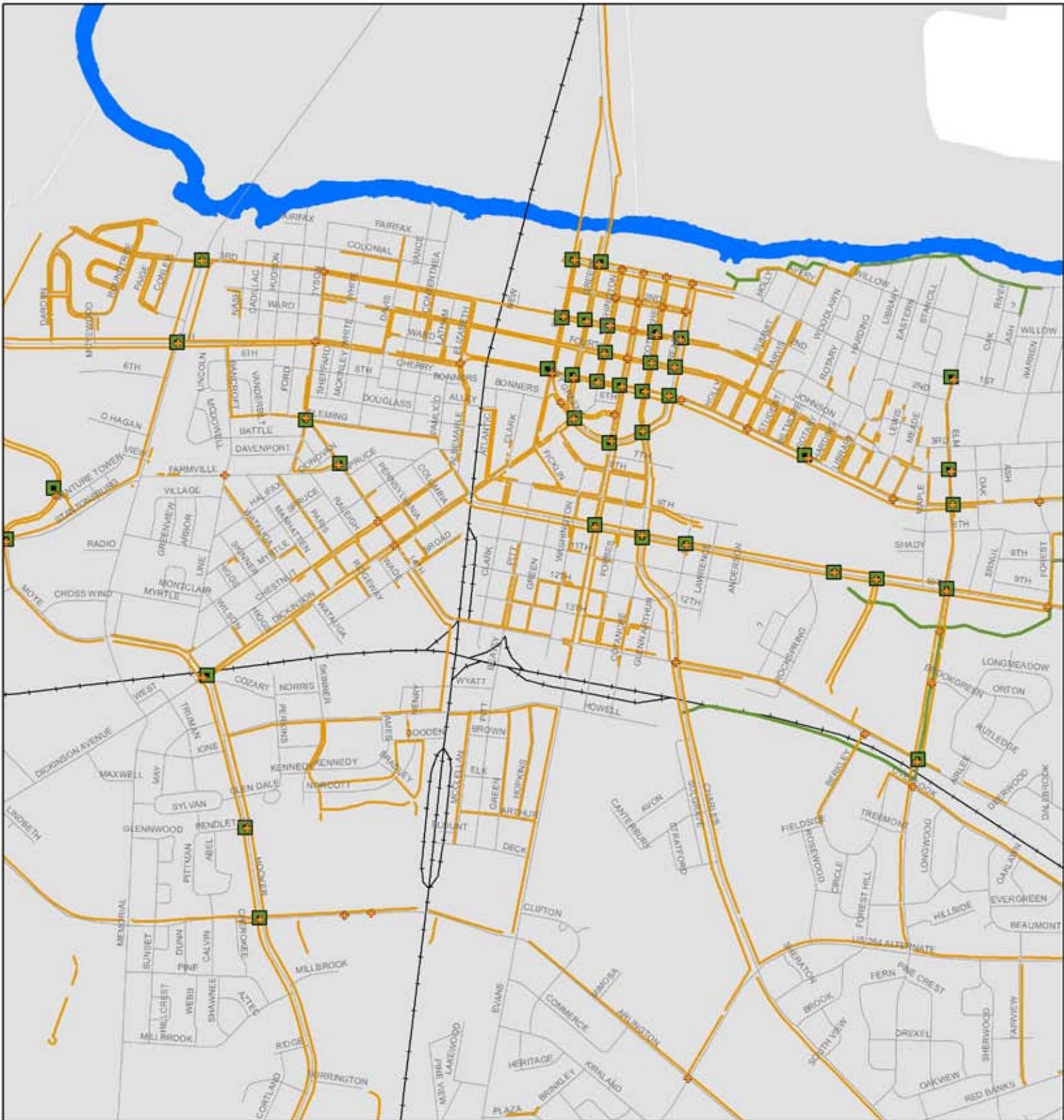


MAP 2.2 EXISTING PEDESTRIAN CONDITIONS - GREENVILLE

- ◆ Crosswalk Locations
- Ped Head & Crosswalk Locations
- Ped Head Locations
- Existing Sidewalk
- Existing Greenways
- River
- City Limits

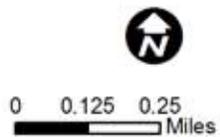


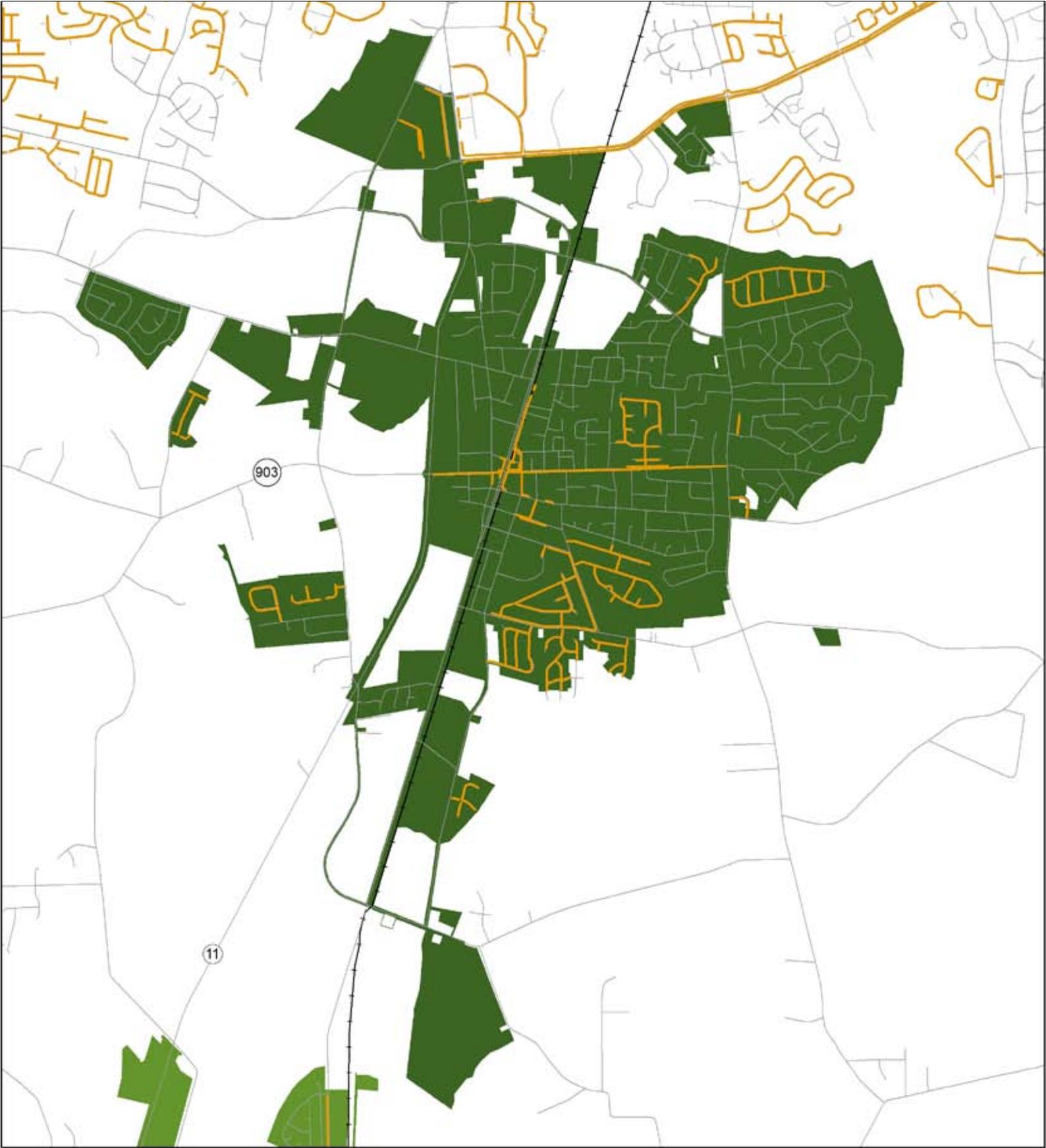
0 0.5 1 Miles



MAP 2.3 EXISTING PEDESTRIAN CONDITIONS - DOWNTOWN GREENVILLE

- ◆ Crosswalk Locations
- Ped Head & Crosswalk Locations
- Ped Head Locations
- Existing Sidewalk
- Streets
- Existing Greenways
- River
- City Limits





MAP 2.4 EXISTING PEDESTRIAN CONDITIONS - WINTERVILLE

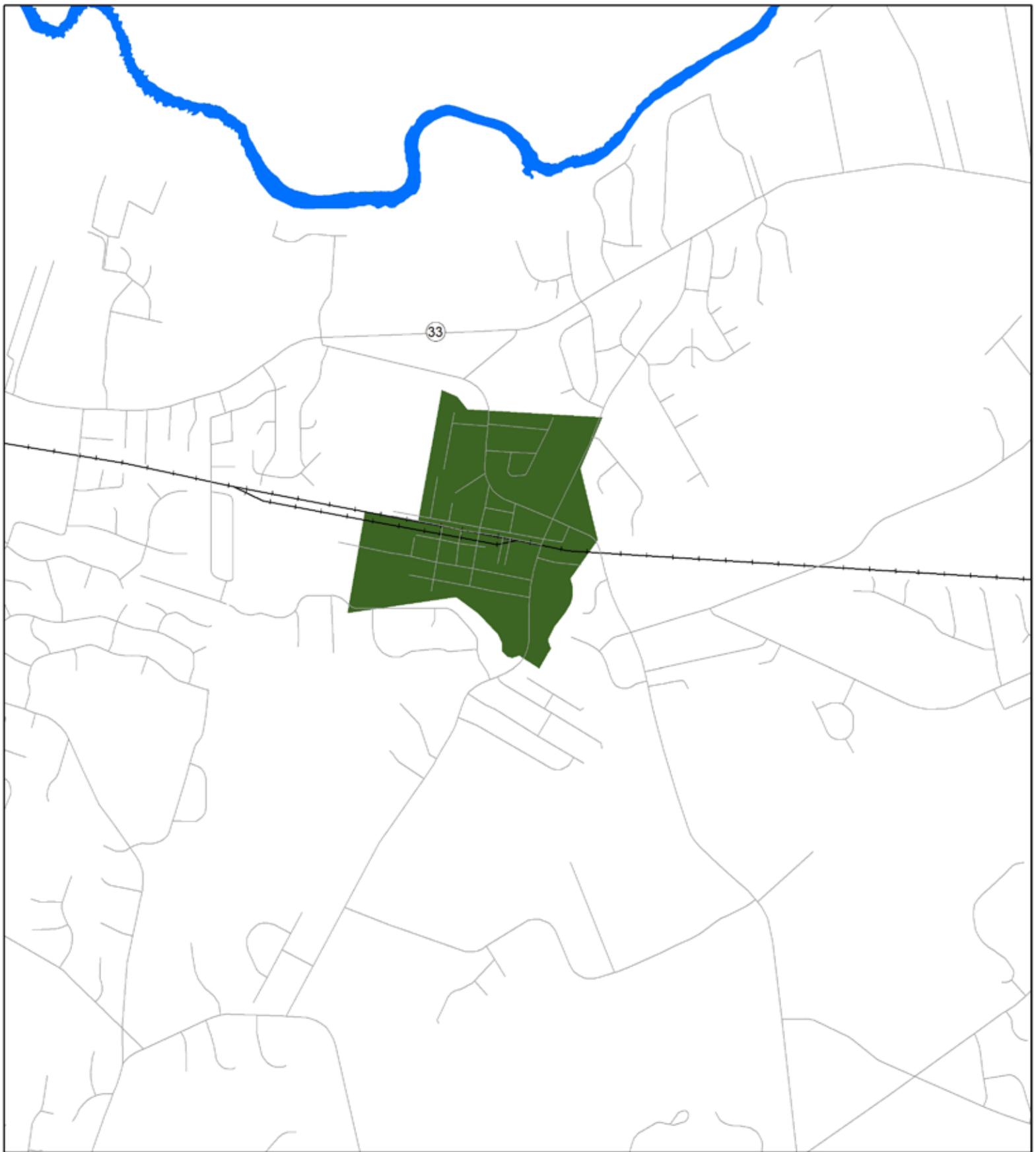
 Existing Sidewalk
 Streets
 Winterville
 Ayden

0 0.25 0.5
 Miles

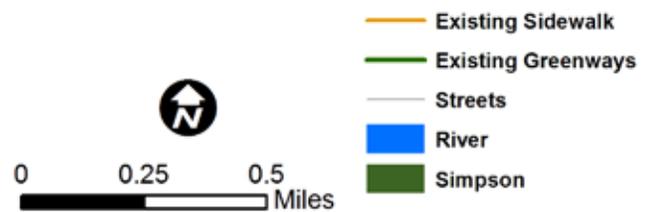


MAP 2.5 EXISTING PEDESTRIAN CONDITIONS - AYDEN





MAP 2.6 EXISTING PEDESTRIAN
CONDITIONS - SIMPSON





PHYSICAL BARRIERS TO WALKING

In addition to a deficiency of facilities for walking, a number of physical barriers may also deter people from venturing out on foot. An analysis of these barriers was developed by the consulting team and by input from the public through a “Community Walk” website. The most significant barriers include the following:

Sidewalk connectivity issues (Maps 2.7-2.10 portray key gaps in the sidewalk system):

There is a lack of sidewalk connectivity between existing facilities and destinations, including major arterial and collector roadways. Many sidewalks are incomplete, with gaps, and force pedestrians to walk in unsafe conditions alongside busy roadways. In many cases, worn foot paths can be found indicating the presence of pedestrians. Example key roadways that lack sidewalk along long stretches include:

- Memorial Blvd
- Red Banks Rd.
- Evans St. (from 14th St. to Fire Tower Rd.)
- Charles Blvd (from Greenville Blvd. to Fire Tower Rd)
- 14th Street (from ECU to Fire Tower Rd.)
- Greenville Blvd. (throughout town sidewalk mostly just on one side)
- Dickinson Blvd. (from Hooker Rd. to Greenville Blvd.)



Worn footpath on Tenth Street



Sidewalk gap at First Street in downtown Greenville



Worn footpath at Dickinson



Missing sidewalk at Third and Jolly in Aiden



Lack of sidewalks at Ange and Sylvania in Winterville



Memorial & Fifth - lack of high-visibility marked crosswalks



Fifth at ECU - Nice accommodations, but missing curb ramps



Tenth & Forest Hill greenway crossing - Long roadway crossing with an opportunity for a pedestrian refuge



South Greenville Elementary crossing - lacks curb ramps, in-roadway signage, high-visibility marked crosswalk, and bulbouts



Lee & South Pitt in Ayden - marked crosswalks and curb ramps are missing



Fleming School crosswalk - lacks curb ramps, in-roadway signage, high-visibility marked crosswalk, and bulbouts



Tyson & Sixth - marked crosswalks and curb ramps are missing



Lee & Faye in Ayden - marked crosswalks and curb ramps are missing

High-volume, high speed roadways: There are numerous multi-lane, high-volume, high-speed roadways that are difficult to cross and navigate safely for pedestrians. These roads include Memorial Blvd/NC11, 10th St, Greenville Blvd, Charles Blvd, Dickinson Ave, Arlington Blvd, Evans Street, Stantonsburg Road, and Fire Tower Road.

Inadequate crossing facilities:

- Most intersections do not feature high-visibility marked crosswalks (Most crosswalks are standard, parallel white stripes).
- Curb ramps are often incomplete or inadequate and quite variable within each intersection.
- The majority of key intersections do not feature pedestrian countdown signals (several do have signalization but without countdowns).
- Median refuge islands are not commonplace although there are opportunities for their provision, especially in three or five lane roadway cross sections.
- Marked crosswalks near schools often lack curb ramps, in-roadway signage, high-visibility marked crosswalks, and bulbouts (which would be particularly useful with on-street parking).
- Where sidewalks exist along arterials and collectors, marked crosswalks and curb ramps are often missing crossing intersecting minor roadways.



Railroad crossing access issues: There is poor access across railroad tracks. At-grade crossings are the most common type of crossing throughout the Greenville MPO and many of these are dangerous for pedestrians because of the uneven surfaces with the roadway and tracks (not to mention the hazards they cause for people with strollers, wheelchairs, or walkers).



Evans at the railroad crossing with no pedestrian accommodation

Driveway access management: High frequencies and sizes of driveways and parking lot curb-cuts present repeated hazards to pedestrians as the automobile crosses the pedestrians' path of travel. This is a common issue along major commercial arterial roadways including the following:

- Dickinson Avenue from Wilson Street to 10th Street
- 10th Street from Dickinson Avenue to Evans Street
- All major arterial commercial sections (Memorial, Greenville, Stantonsburg, Arlington)



Third & Lee in Ayden - long driveway with no pedestrian accommodation

Roadways currently designed for automobile only: Many roads were designed around the automobile and need to be redesigned to become more pedestrian friendly. Adding traffic calming measures, improved crossings, planted medians, sidewalks, and shade trees would help reduce speeding and the hazards that speeding presents to pedestrians and drivers.

Non-pedestrian friendly bus stops: Many bus stops feature only a sign with no sidewalk, shelter, or bench. While some stops did feature all of the above, these conditions should be consistent to create safe, accessible, and functional pedestrian spaces.



Tenth & Dickenson - multiple wide curb cuts (plus parking on sidewalk shown here)

Sidewalk maintenance issues: Many sidewalks are cracked, overgrown and/or are no longer level. This is a significant issue along stretches of 10th Street, Dickinson Avenue, and 14th Street near Downtown Greenville.



Bus Stop at Greenville Town Commons - just a sign, without any other accommodations for people waiting for the bus



Bus Stop along Hooker with a shelter and seating area for transit users

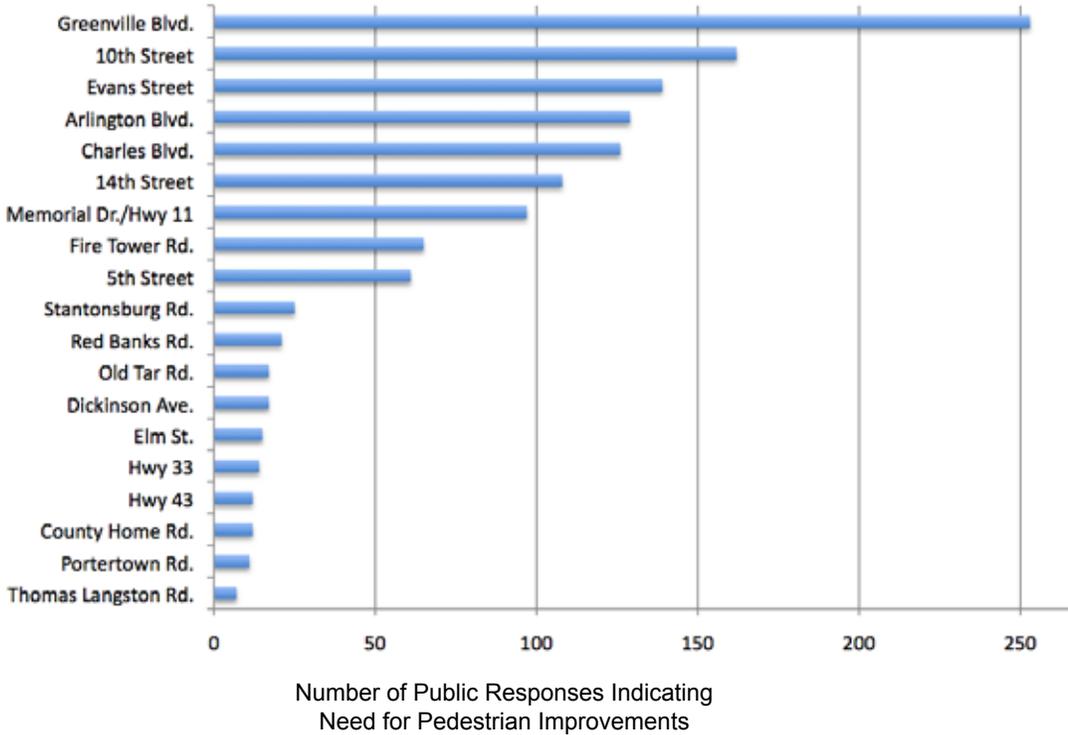


Sidewalk in poor condition along Dickinson

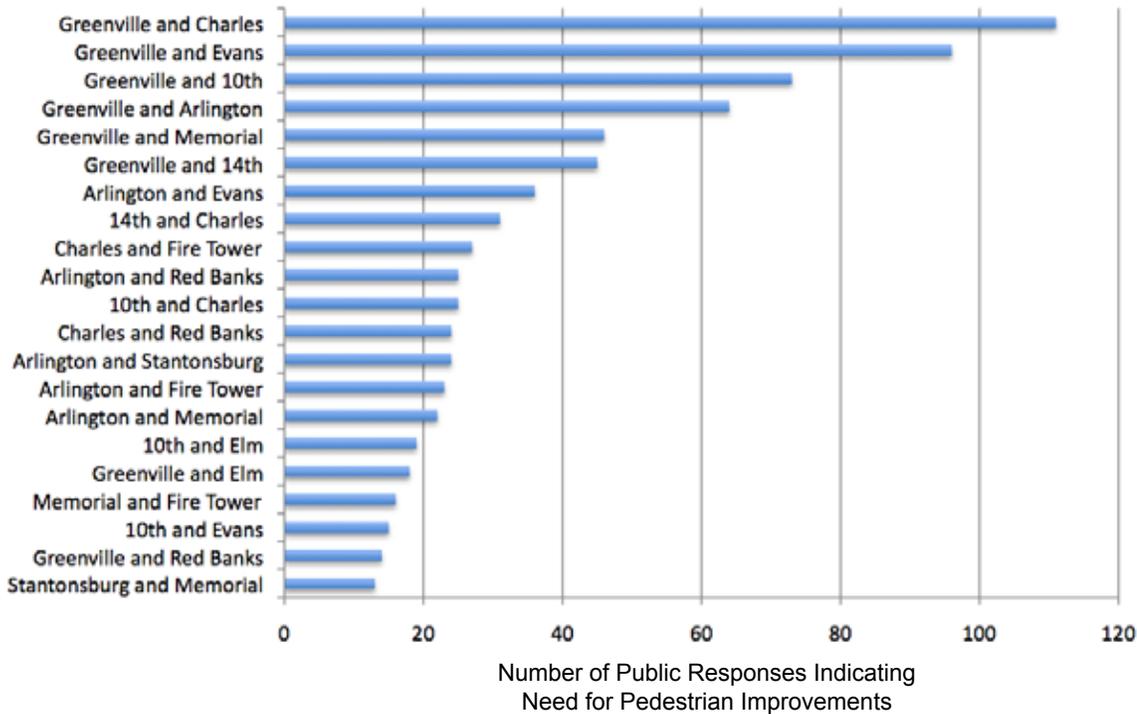


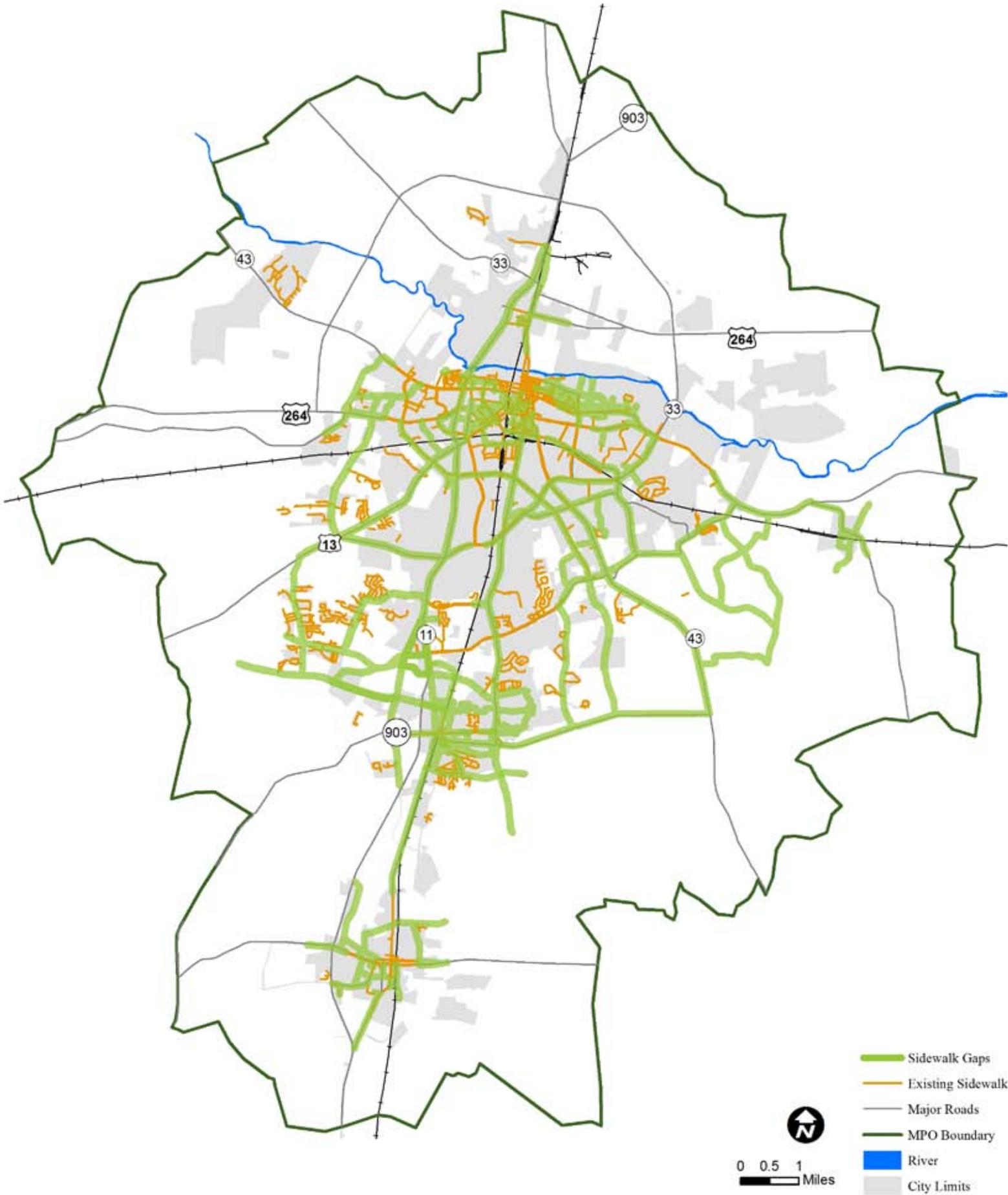
In addition to these barriers, a number of roadways and intersections were identified as needing significant pedestrian improvements. Without sidewalk and adequate crossing treatments, these roadways and intersections are barriers to walking. Results from the comment form identify the most important locations for improvement. The Top 15 roadway corridors and intersections are shown in the tables below:

TOP ROADWAY CORRIDORS IDENTIFIED BY THE PUBLIC AS IN NEED PEDESTRIAN IMPROVEMENTS

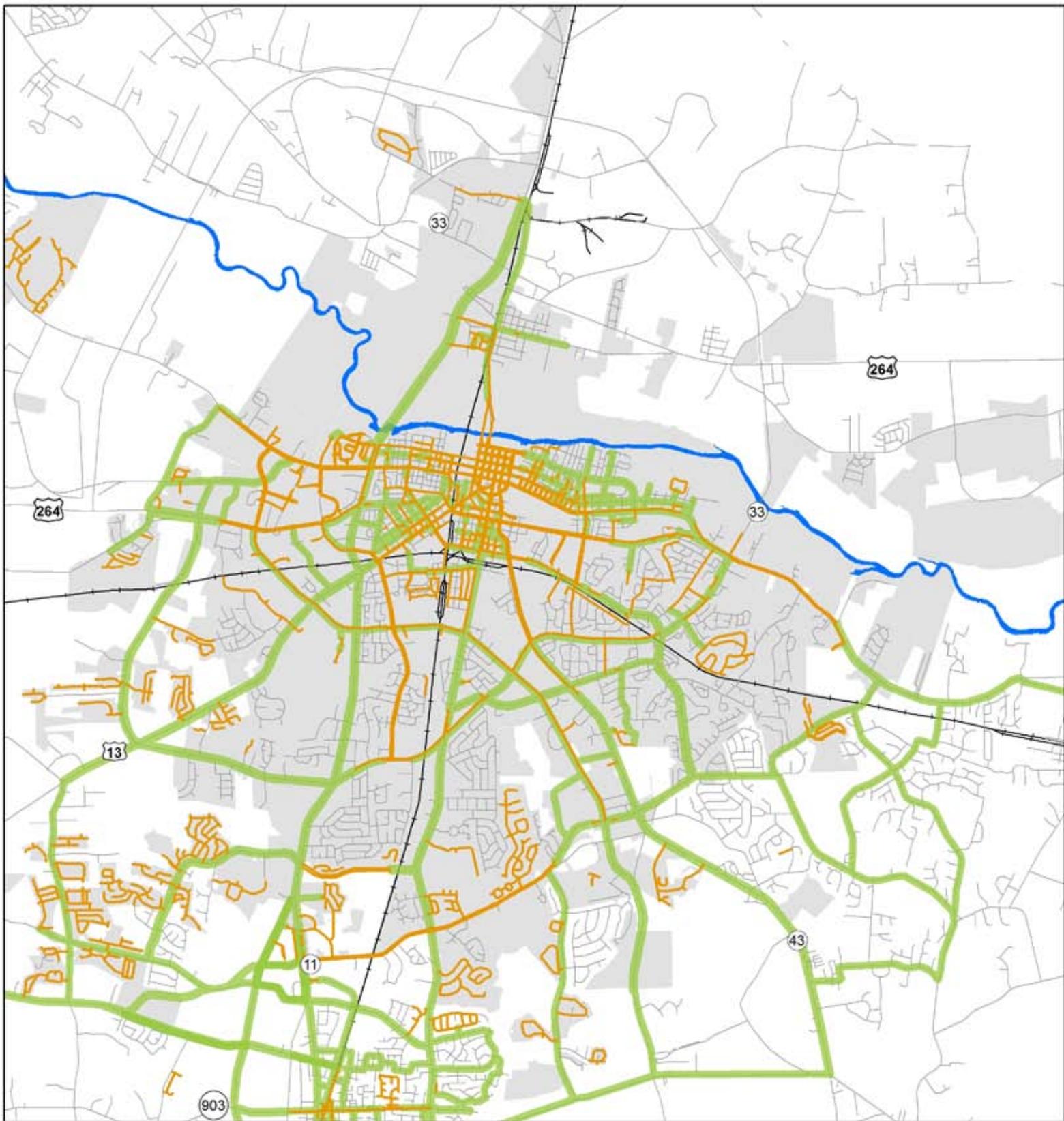


TOP INTERSECTIONS IDENTIFIED BY THE PUBLIC AS IN NEED PEDESTRIAN IMPROVEMENTS



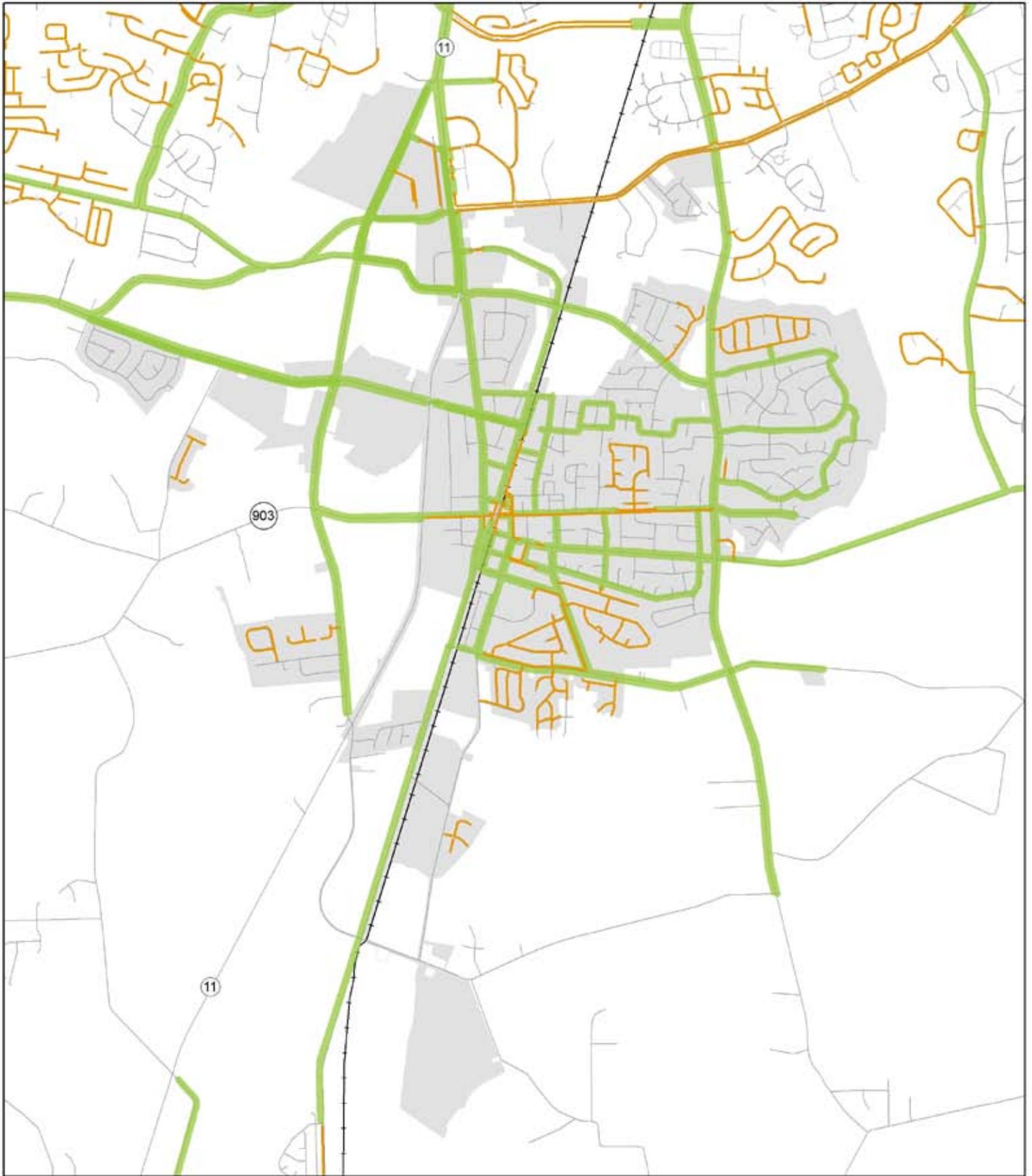


MAP 2.7 EXISTING SIDEWALK GAPS - MPO



MAP 2.8 EXISTING SIDEWALK GAPS
- GREENVILLE





MAP 2.9 EXISTING SIDEWALK GAPS
- WINTERVILLE





MAP 2.10 EXISTING SIDEWALK GAPS
- AYDEN



NOTE: See Map 2.6 for 'Sidewalk Gaps' in the Town of Simpson (there are no existing sidewalks).

PEDESTRIAN BEHAVIOR

Pedestrian-activity is significant throughout portions of the Greenville Urban Area MPO. The areas of highest pedestrian activity include lower-income areas (where walking or biking is a transportation necessity), West Fifth Street/West 14th Street/Dickinson Avenue/Memorial Drive area, the Downtown areas, and ECU.

Pedestrians were often seen crossing roads not in the designated marked crosswalk. This is due to the pedestrian's decision to take the shortest route and the pedestrian's false perception that it is safer to cross at another location.

PERSPECTIVES OF THE WALKING PUBLIC

Another expression of existing conditions, need, and demand came from the public involvement process. Public input was gathered through several means, including an online comment form. For the full report, see Appendix A. Key pedestrian-related results are shown below:



Chestnut & Fourteenth - boy crosses through traffic, rather than at crosswalk



Fifth & Tyson - man crosses through middle of intersection, rather than at crosswalk

| <i>What factors discourage walking?</i> | | Response Percent | Response Count |
|--|--|-------------------------|-----------------------|
| Lack of sidewalks and trails | | 84.4% | 595 |
| Lack of crosswalks at traffic signals | | 59.3% | 418 |
| Lack of pedestrian signals at intersections | | 50.5% | 356 |
| Automobile traffic and speed | | 73.2% | 516 |
| Pedestrian unfriendly streets and land uses | | 76.7% | 541 |
| Lack of interest | | 4.8% | 34 |
| Lack of time | | 10.4% | 73 |
| Aggressive motorist behavior | | 60.0% | 423 |
| Sidewalks in need of repair | | 24.7% | 174 |
| Lack of nearby destinations | | 25.1% | 177 |
| Criminal activity | | 34.2% | 241 |
| Level of street lighting | | 30.9% | 218 |
| Lack of landscaping and/or buffer between sidewalks and road | | 35.6% | 251 |



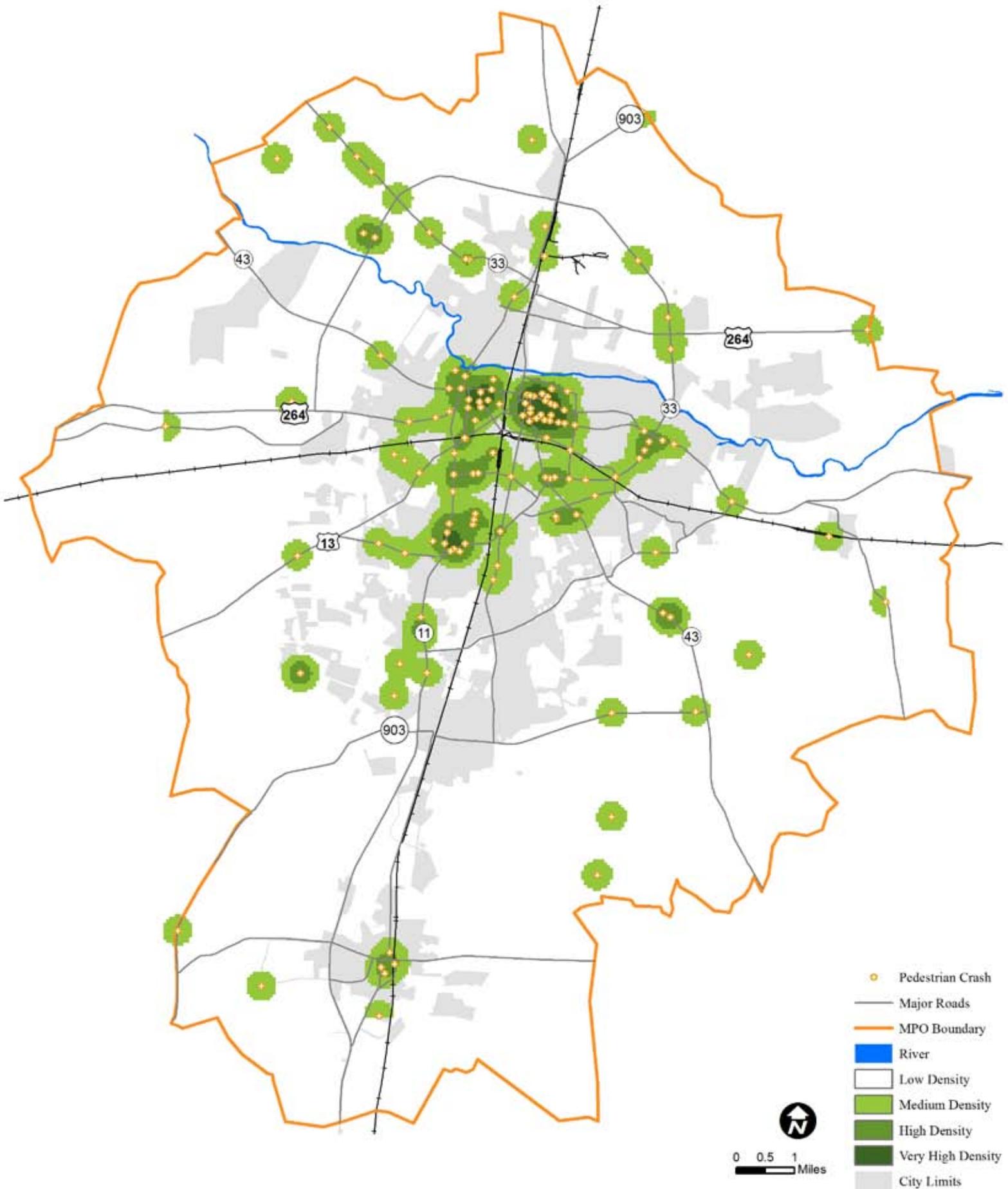
| <i>How do you rate present pedestrian conditions in the Greenville urban area?</i> | | Response Percent | Response Count |
|--|--|-------------------------|-----------------------|
| Excellent | | 2.9% | 21 |
| Fair | | 44.5% | 320 |
| Poor | | 52.6% | 378 |

| <i>What walking and bicycling destinations would you most like to get to?</i> | | Response Percent | Response Count |
|---|--|-------------------------|-----------------------|
| Place of work | | 55.3% | 388 |
| School | | 27.8% | 195 |
| ECU | | 58.7% | 412 |
| Pitt Community College | | 13.8% | 97 |
| Restaurants | | 44.4% | 312 |
| Public Transportation | | 16.7% | 117 |
| Shopping | | 44.0% | 309 |
| Parks | | 73.9% | 519 |
| Entertainment | | 40.9% | 287 |
| Trails and greenways | | 83.8% | 588 |
| Libraries or recreation centers | | 58.7% | 412 |

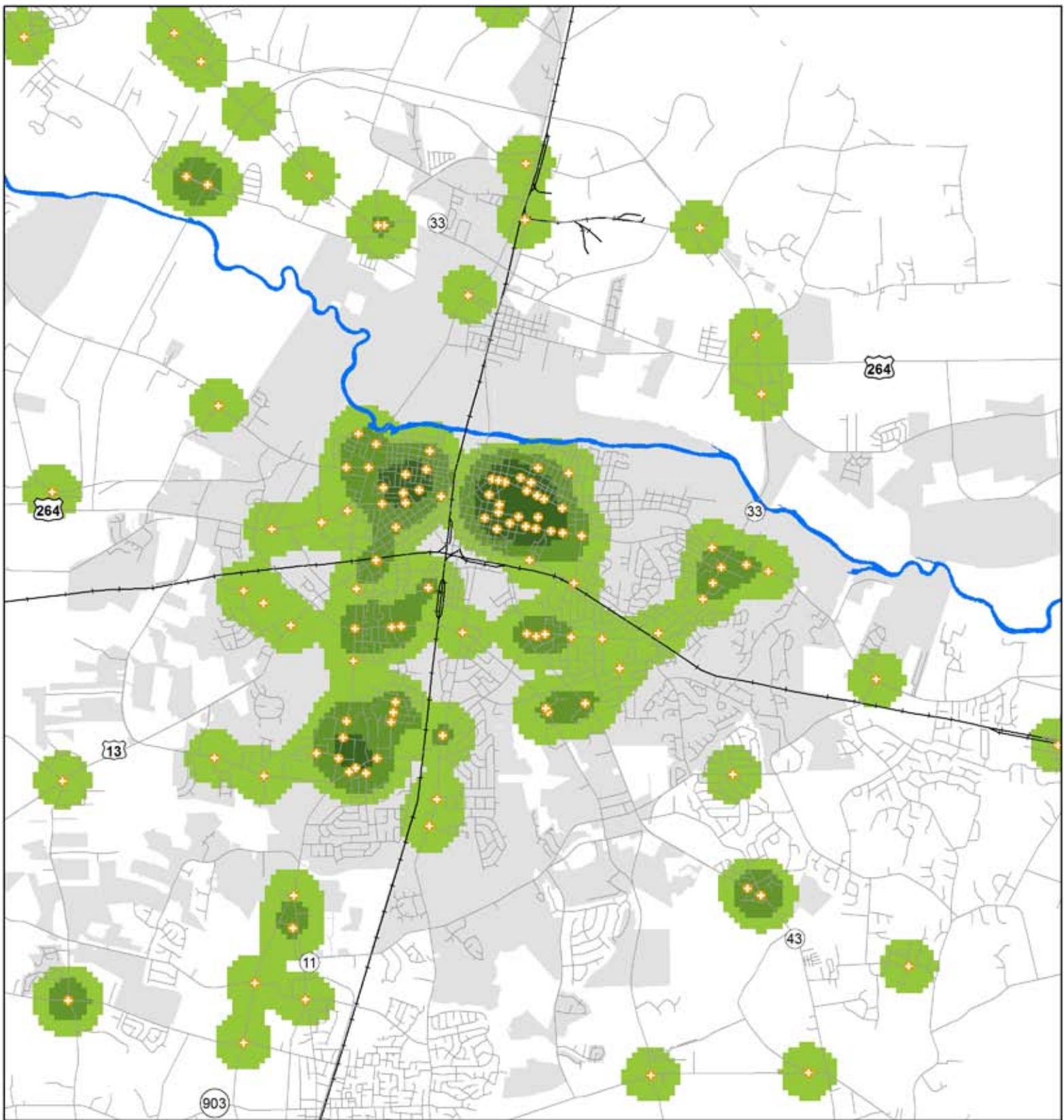
PEDESTRIAN CRASHES

Pedestrian crash data from 2000-2010 was provided by NCDOT and geocoded by Greenways Incorporated. One hundred fifty eight (158) pedestrian accidents were mapped and can be seen in Maps 2.11 and 2.12. The majority of crashes took place in the metro Greenville area with clusters in more rural locations where sidewalks are not present. When focused on the City of Greenville map, a distinct pattern can be seen in the in the areas by ECU and Downtown.

NOTE: Use Maps 2.11 and 2.12 for pedestrian crashes in Winterville, Ayden & Simpson.



MAP 2.11 PEDESTRIAN CRASHES - MPO



MAP 2.12 PEDESTRIAN CRASHES - GREENVILLE





Existing Bicycle Conditions

The Greenville Urban Area MPO is generally not bicycle-friendly. There is a lack of a connected, bicycle facility system throughout the region. The City of Greenville has taken several proactive steps to become more bicycle-friendly by installing bicycle lanes and bicycle racks around the downtown area. Greenville also has provided a number of trails and side paths throughout the city for recreation and transportation. These facilities provide a good foundation for a bicycle facility network throughout the city. Currently, downtown Greenville and neighborhoods close to Eastern Carolina University are generally safe for bicycling due to lower traffic speeds and street connectivity.



ECU campus bike racks

However, a majority of the roads in the Greenville Urban Area MPO pose numerous dangers to bicyclists as they travel to and from destinations. Some of these hazards include commercial corridors that are designed solely for motorized transportation, multiple-lane high-speed roadways, narrow roadways with little or no shoulders, and dangerous railroad and driveway crossings. Furthermore, it was observed that few bicyclists wear helmets while riding and often ride in the wrong direction.



Bike racks at the Convention Center

There are very limited bicycle facilities outside the City of Greenville. The only identified bicycle facilities are a few roadways with paved shoulders but these are often unconnected and located on busy roadways.

EXISTING BICYCLE FACILITIES

There are various bicycle facilities throughout the Greenville MPO, mostly in the City of Greenville, with more planned in near-term projects. A table of these facilities is below and Maps 2.13-2.17 show these facilities.

| Mileage/Amount | Facility Type |
|----------------|------------------|
| 31 | Bicycle Racks |
| 4.3 | Bicycle Lanes |
| 3.3 | Greenways/Trails |
| 0.65 | Side Path |
| 25 | Paved Shoulder |



Wide paved shoulder on Memorial (southbound photo)

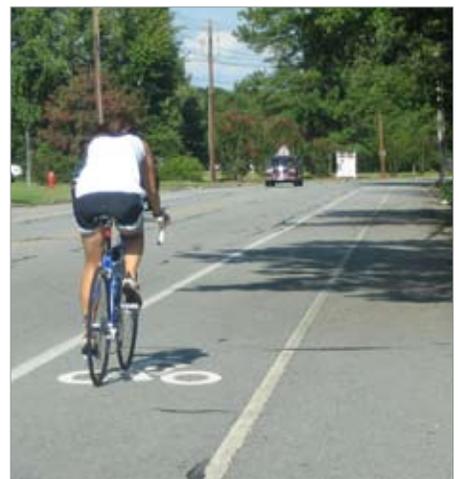
In addition, there are numerous roadways throughout the region that feature a wide outside lane. These provide opportunities for the implementation of bike lanes through simple striping rather than roadway widening.



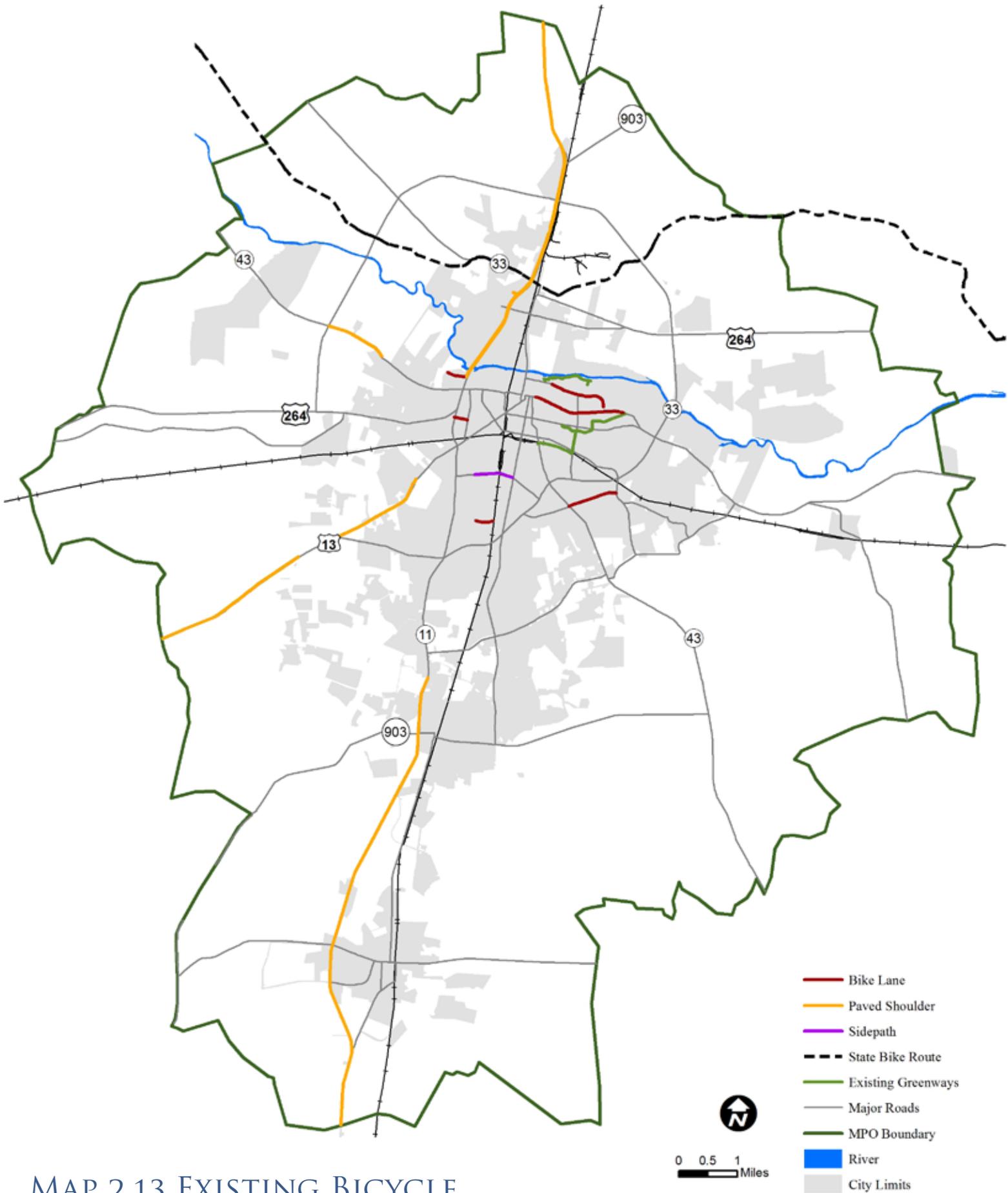
Cyclists & bicycle rack at the Greenville Library



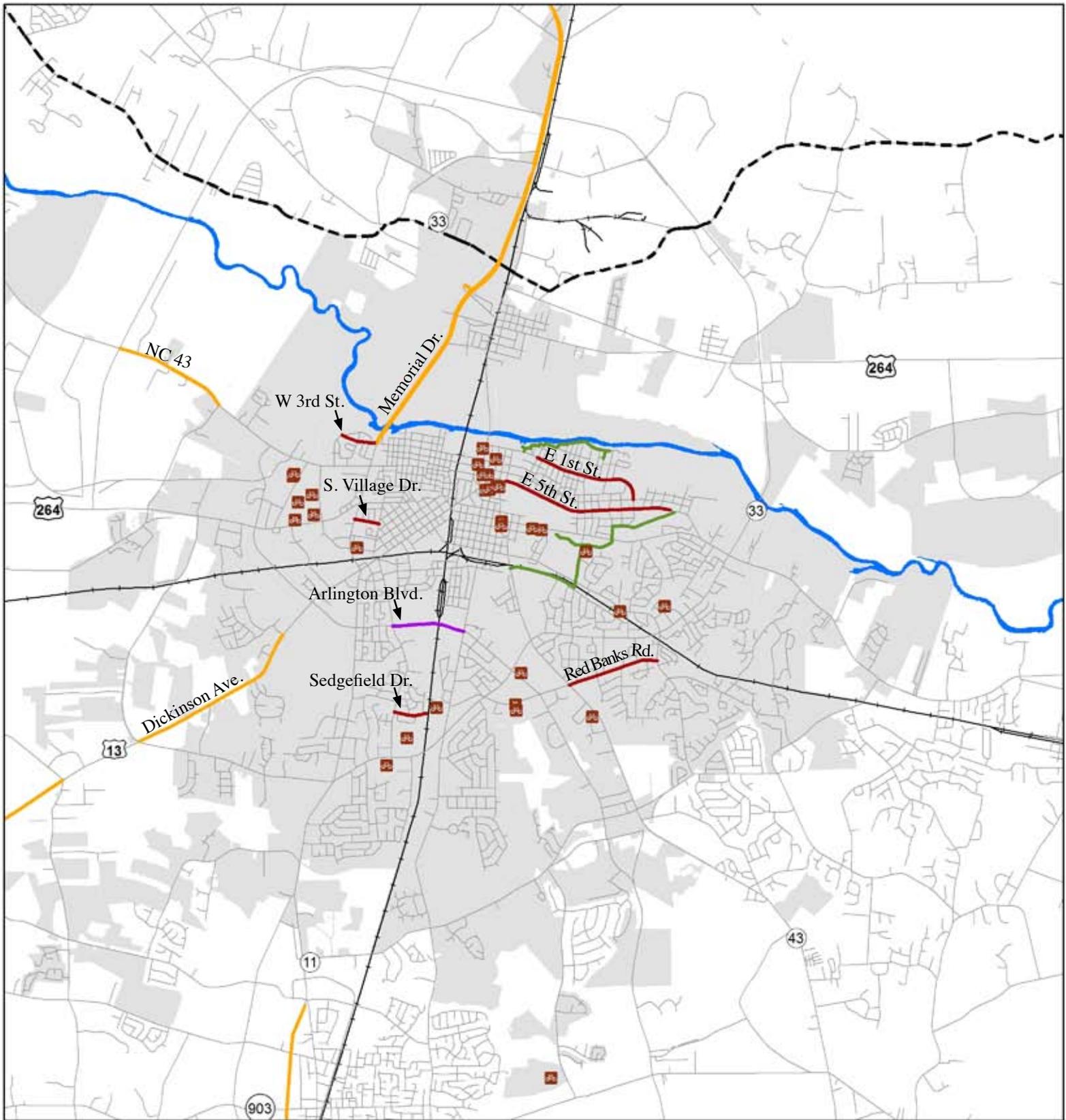
Bike lanes on Third Street



Bicyclist riding in the bike lane on Redbanks near Dellwood

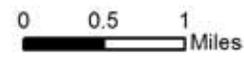


MAP 2.13 EXISTING BICYCLE CONDITIONS - MPO



MAP 2.14 EXISTING BICYCLE CONDITIONS - GREENVILLE

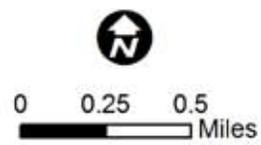
-  Bike Racks
-  Bike Lane
-  Paved Shoulder
-  Sidepath
-  State Bike Route
-  Existing Greenways
-  Streets
-  River
-  City Limits

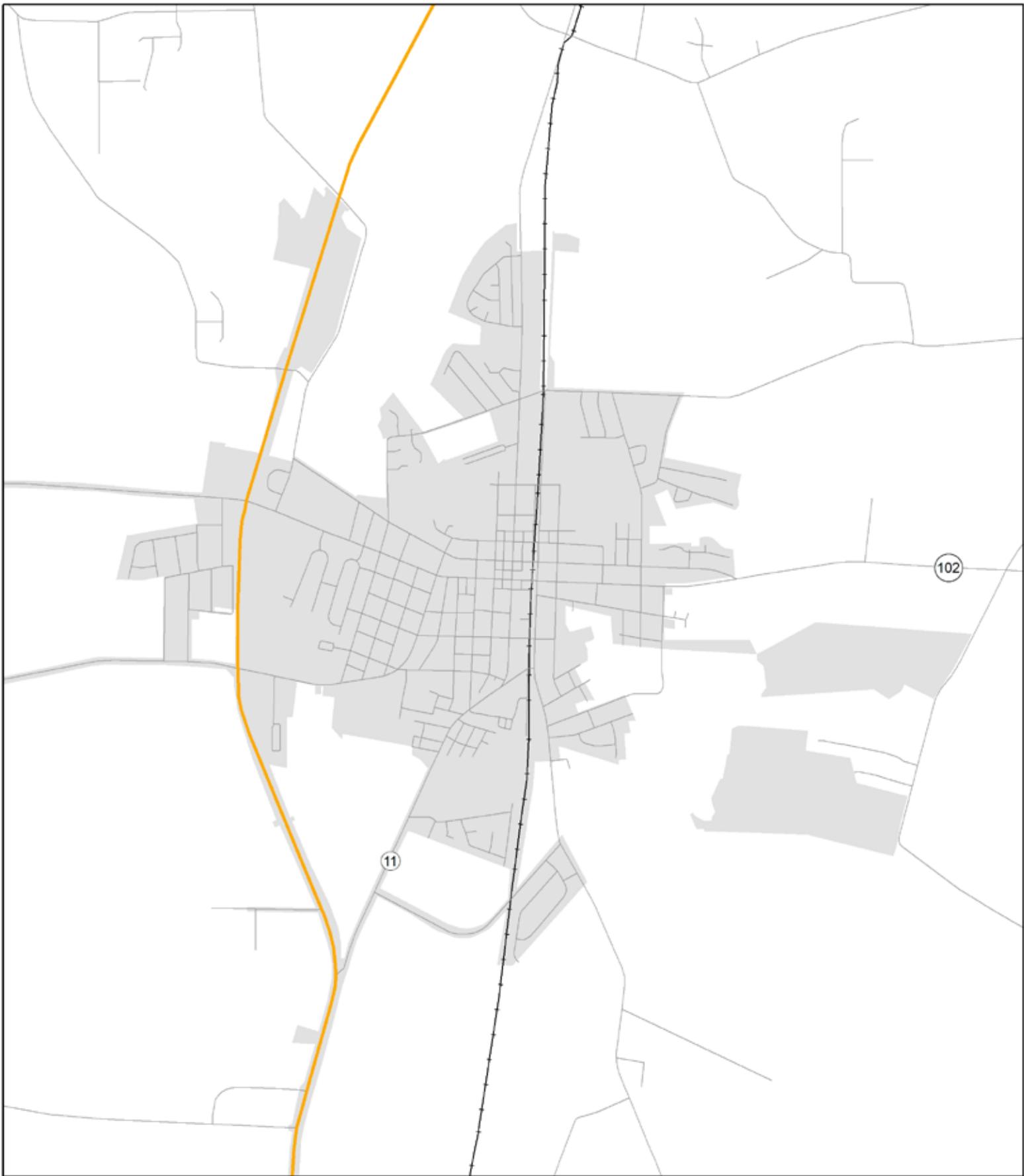




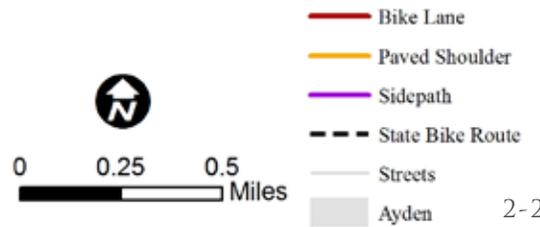
MAP 2.15 EXISTING BICYCLE CONDITIONS - WINTERVILLE

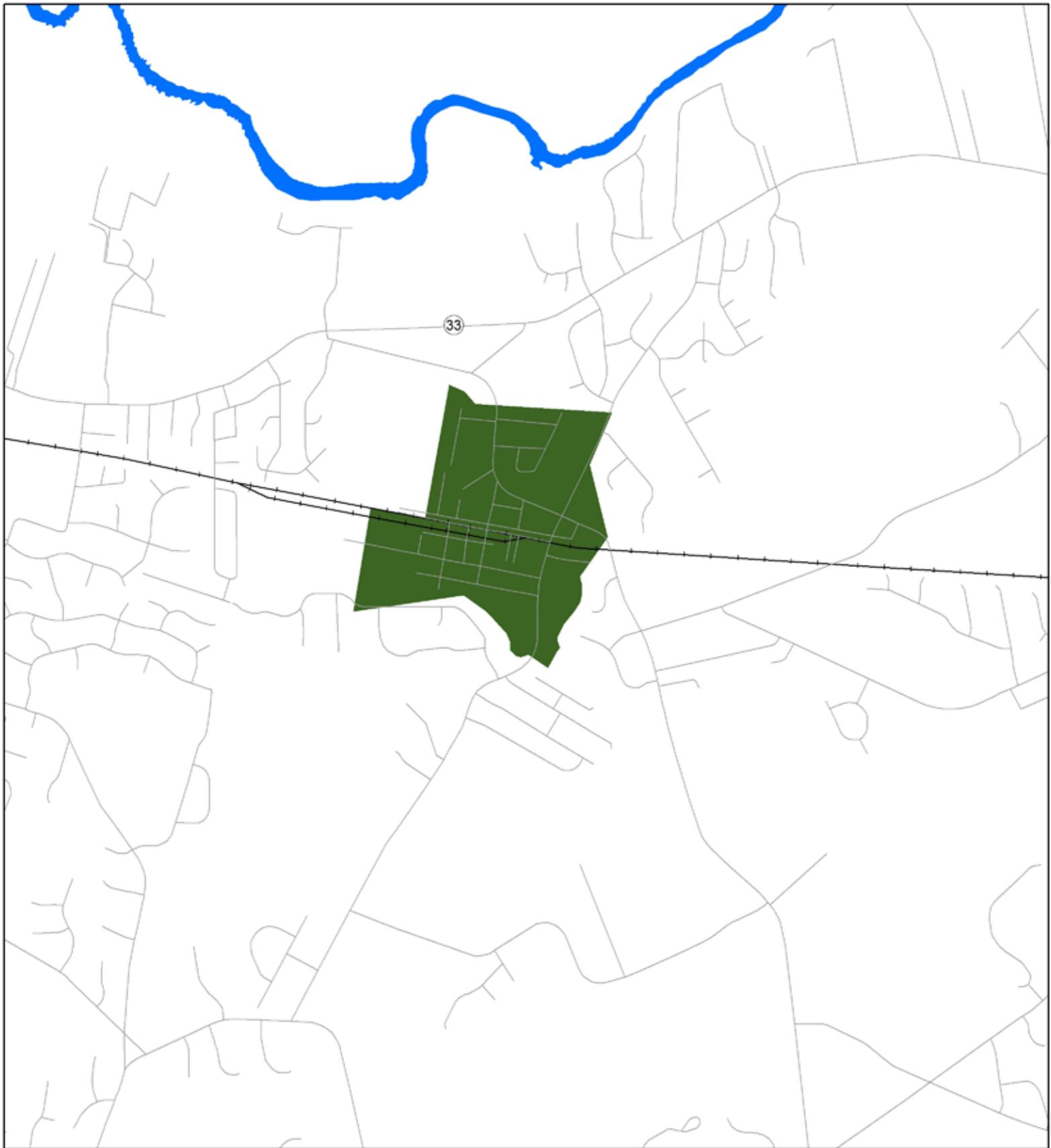
- Bike Lane
- Paved Shoulder
- Sidepath
- - - State Bike Route
- Streets
- Winterville



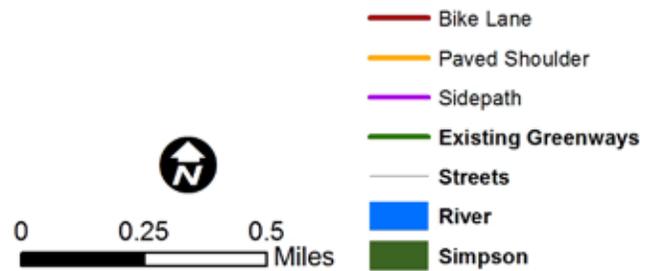


MAP 2.16 EXISTING BICYCLE
CONDITIONS - AYDEN





MAP 2.17 EXISTING BICYCLE
CONDITIONS - SIMPSON





Bicyclist at NC 11 & NC 102 in Ayden, a high volume, high-speed roadway



Lack of shoulder space for bicyclists (and no sidewalks for pedestrians) at Mill & Boyd in Winterville



Lack of bicycle facilities on Fifth - shared lane markings or bicycle lanes would show the correct direction of travel for bicyclists.



Lack of comfortable space on-road for this bicyclist on Fourteenth.

A bicyclist at a busy intersection (Charles & Fourteenth) riding against traffic or in the crosswalk.

PHYSICAL BARRIERS TO BICYCLING

In addition to a deficiency of on-street facilities for bicycling, a number of physical barriers may also deter people from venturing out on a bicycle. An analysis of these barriers was developed by the consulting team and by input from the public through a “Community Walk” website. The most significant barriers include the following:

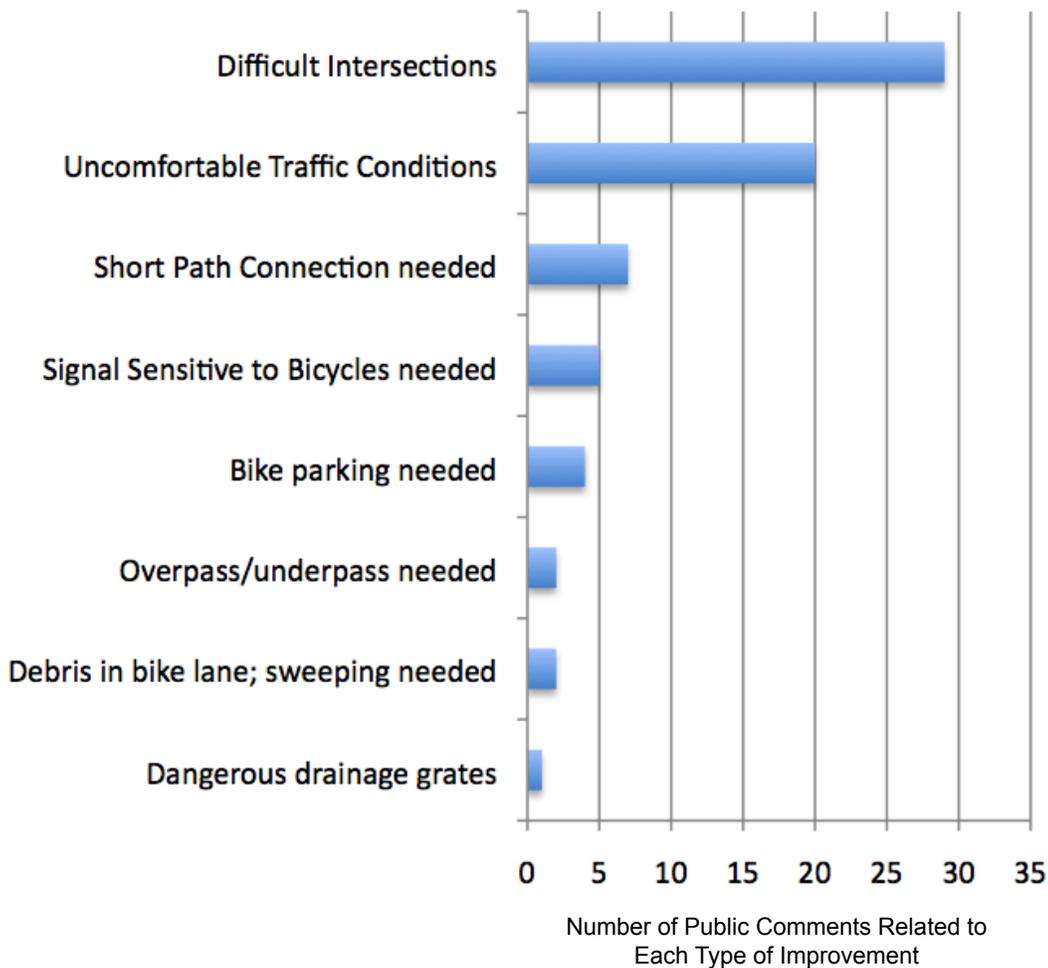
- *Connectivity issues:* There is a lack of connectivity between existing facilities and destinations.
- *Crossing high-volume, high speed roadways:* There are numerous busy roadways that are difficult to cross and navigate safely for bicyclists and pedestrians.
- *High-volume, high-speed roadways:* There are many wide high-volume commercial roadways throughout the MPO with high speeds and little shoulder where bicyclists are not safe. Some of these roads include Memorial Blvd/NC11, 10th St, Greenville Blvd, Charles Blvd, Dickinson Ave, Arlington Blvd, Evans Street, Stantonsburg Road, and Fire Tower Road.
- *Narrow roadways and lanes:* There are also many roadways throughout the MPO that are too narrow for bicyclists to travel safely on them. These roads have little or no shoulder and have relatively high vehicle travel speeds which pose multiple hazards for bicyclists.
- *Railroad crossing access issues:* There is poor access across railroad tracks. At-grade crossings are the most common type of crossing throughout the Greenville MPO and many of these are dangerous for bicyclists because of the uneven surfaces with the roadway and tracks (not to mention the hazards they cause for people with strollers, wheelchairs, or walkers). Tunnels and bridges throughout the MPO also often pose problems to bicyclists because of their narrow widths.
- *Driveway access management:* A high frequency of driveways and parking lot curb-cuts present repeated hazards to cyclists as the automobile crosses the cyclists’ path of travel.
- *Roadways currently designed for automobile only:* Many roads were designed around the automobile and need to be redesigned or re-stripped to become more bicycle friendly. Narrowing existing lanes and adding planted medians, sidewalks, and shade trees could also help reduce speeding and the hazards that speeding presents to cyclists, pedestrians, and drivers.





In addition to these barriers, 140 comments were received from the public by an interactive website using “Community Walk” software. These comments identified both desirable locations for bicycling and those where cyclists find uncomfortable and hazardous conditions. The table below lists the types of conditions that tend to be the greatest deterrent to cycling as well as the number identified by respondent

TYPES OF BICYCLE-RELATED COMMENTS COLLECTED ON THE ‘COMMUNITY WALK’ WEBSITE





Bicyclist riding in the correct position and direction on Arlington & Beasley

BICYCLIST BEHAVIOR

Bicyclist activity is significant throughout portions of the Greenville Urban Area MPO. The areas of highest bicycle activity include lower-income areas (where walking or biking is a transportation necessity), the West Fifth Street/West 14th Street/Dickinson Avenue/Memorial Drive area, the Downtown areas of Greenville, Ayden, and Winterville, and ECU.

The majority of bicyclists were seen biking against traffic (on the wrong side of the road) or on the sidewalk. Also, the majority of bicyclists were not wearing helmets. This is likely due to a lack of education and a perceived notion that it is safer to bike against traffic or in a sidewalk.



Bicyclist riding without a helmet on Fifth - very few bicyclists were observed wearing helmets during the field review



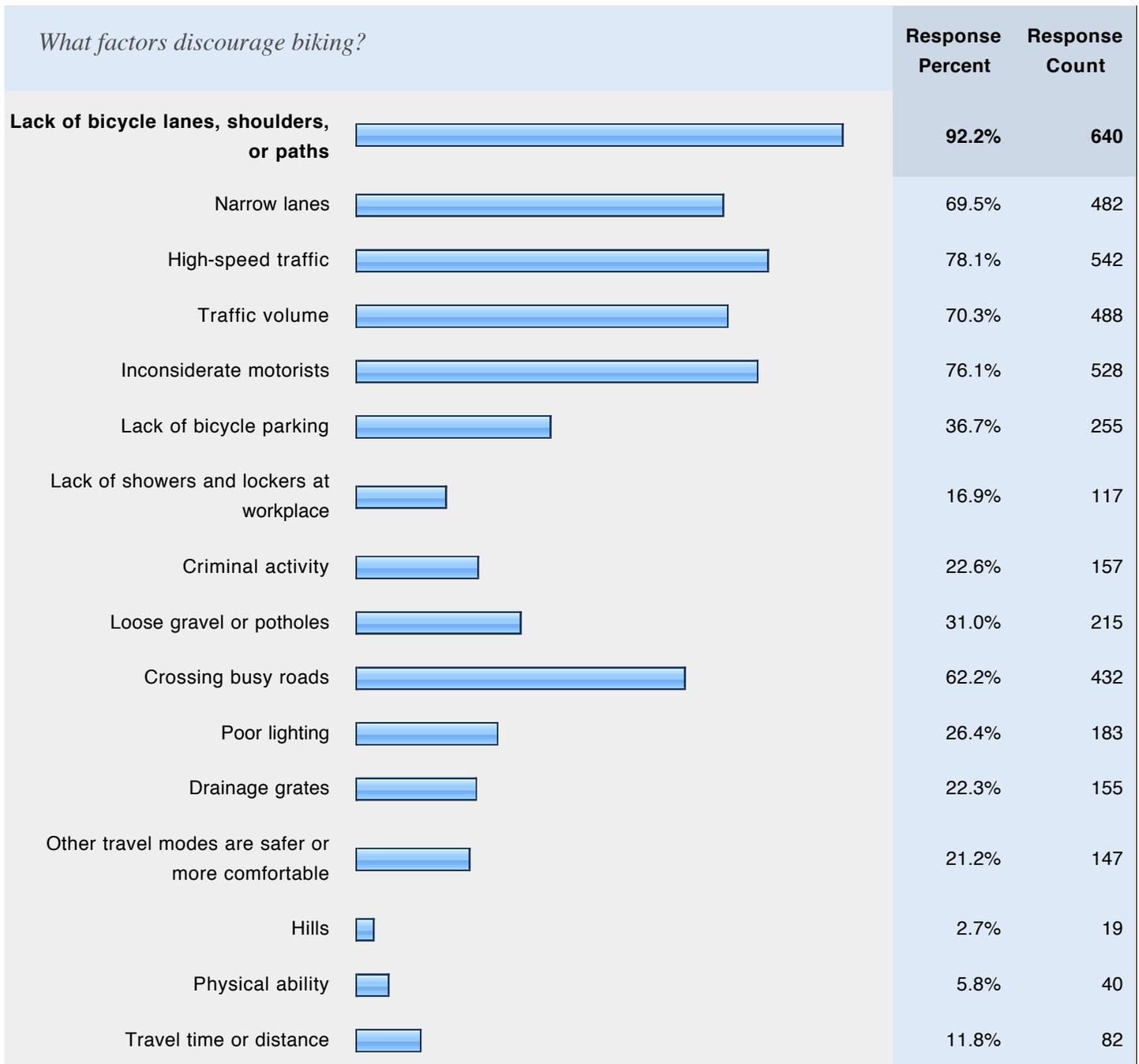
Bicyclist riding in the wrong direction (against traffic) without a helmet at Fourteenth & Fleming - this was the most commonly observed scenario for bicyclists during the field review

PERSPECTIVES OF THE BICYCLING PUBLIC

Another expression of existing conditions, need, and demand came from the public involvement process. Public input was gathered through several means, including an online comment form. For the full report, see Appendix A. Key bicycle-related results are shown below:

| <i>How do you rate present bicycling conditions in the Greenville urban area?</i> | | Response Percent | Response Count |
|---|--|-------------------------|-----------------------|
| Excellent | | 1.0% | 7 |
| Fair | | 17.8% | 128 |
| Poor | | 81.2% | 584 |

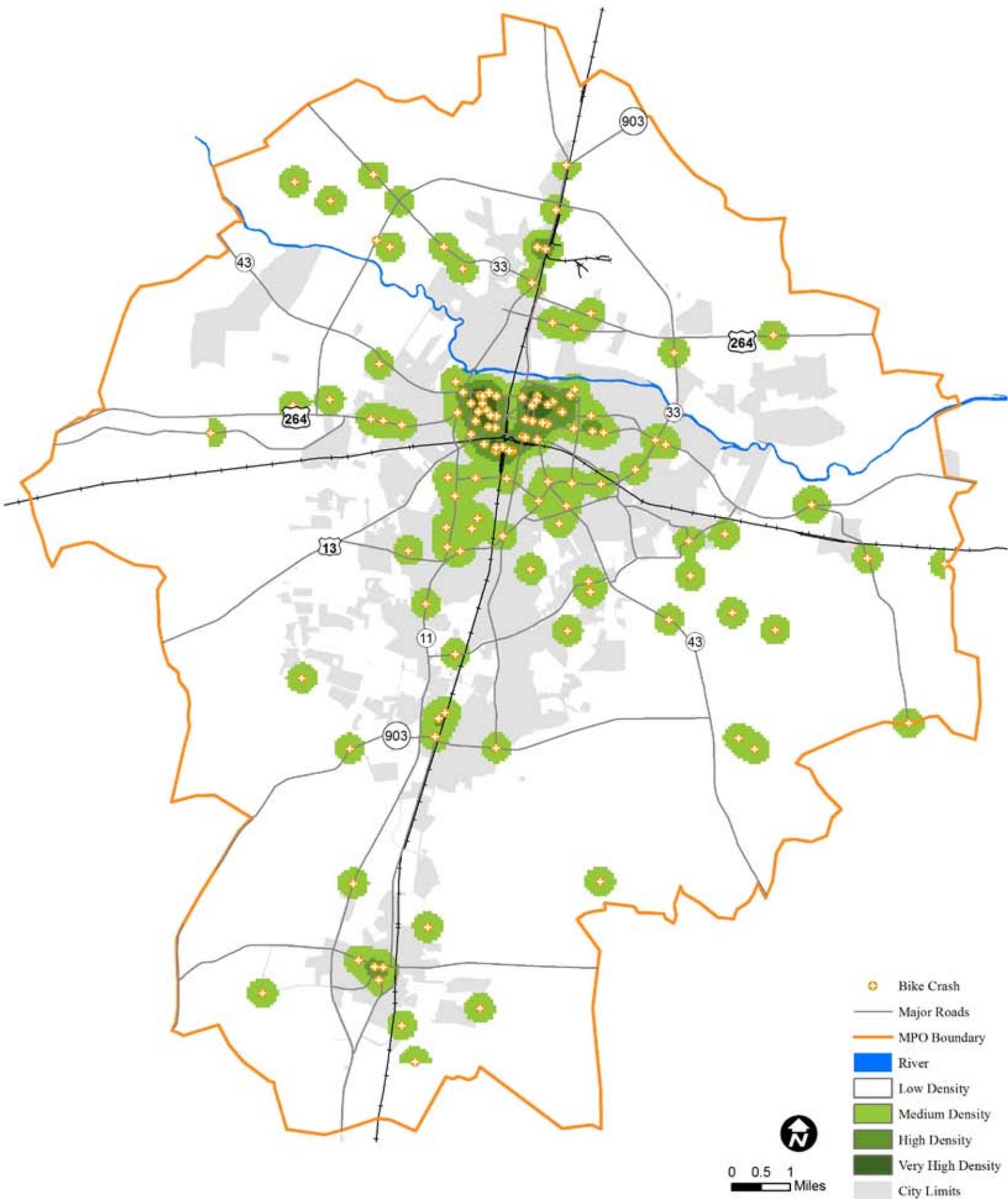
| <i>How important to you is improving walking and biking conditions in the Greenville urban area?</i> | | Response Percent | Response Count |
|--|--|-------------------------|-----------------------|
| Very important | | 88.7% | 638 |
| Somewhat important | | 9.5% | 68 |
| Not important | | 1.8% | 13 |



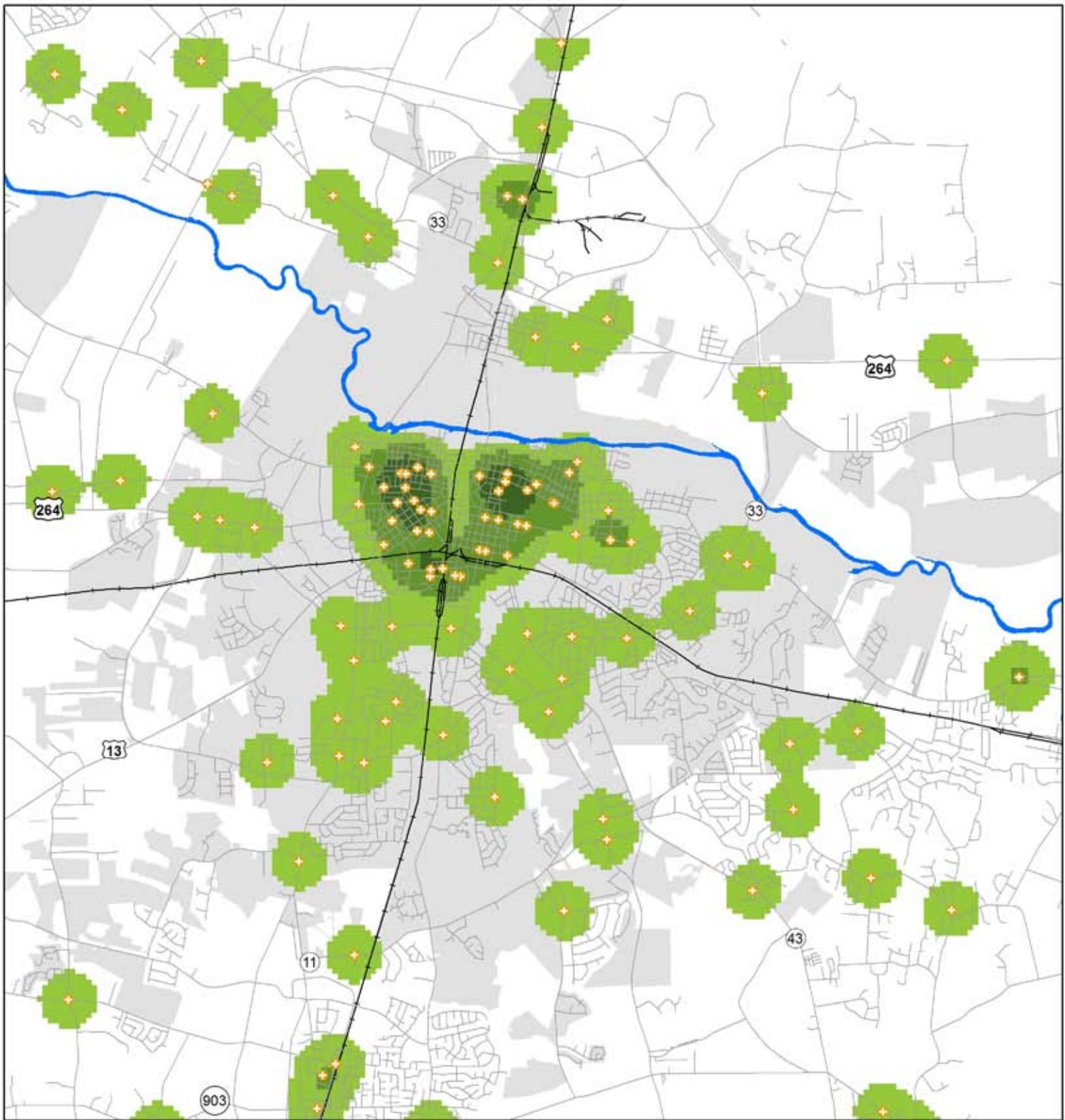
BICYCLE CRASHES

Bicycle crash data from 2000-2010 was provided by NCDOT and geocoded by Greenways Incorporated. One hundred thirty one (131) bicycle accidents were mapped and can be seen in Maps 2.18 and 2-19. The majority of crashes took place in the metro Greenville area with clusters in other locations, such as Winterville and Ayden. When focused on the City of Greenville map, a distinct U-shaped pattern bicycle crash density can be seen in the Downtown area, on both sides of the rail road tracks by Fleming St/14th St and Reade St and Cotanche St.

NOTE: Use Maps 2.18 and 2.19 for bicycle crashes in Winterville, Ayden & Simpson.



MAP 2.18 BICYCLE CRASHES - MPO



MAP 2.19 BICYCLE CRASHES - GREENVILLE





Demographic Analysis

Through analyses of demographic information, user need and demand can be better understood. Regardless of the availability or condition of existing bicycle and pedestrian facilities, a number of residents walk throughout the GUAMPO area to destinations such as work, shopping centers, parks, and neighbors' homes. During fieldwork, pedestrians and bicyclists were observed throughout different areas of Greenville, Winterville, Ayden, Simpson, and Pitt County. US Census demographic data provides geographic information regarding the means of transportation to work and percent of population not owning a vehicle.

IT SHOULD BE NOTED THAT THE FOLLOWING ANALYSES USE 2000 CENSUS DATA. THESE MAPS AND ANALYSES SHOULD BE UPDATED WITH 2010 CENSUS DATA WHEN AVAILABLE.

VEHICLE OWNERSHIP (MAPS 2.20 & 2.21)

When considering Pitt County as a whole, 9.3% of the working population did not own a vehicle in 2000. In the City of Greenville, 8.7% of the working population did not own a vehicle in 2000. A more detailed geographic investigation of US census data provides a further understanding of need. Maps 2.20 and 2.21 (% Not Owning a Vehicle by Block Group) present a geographic view of the percentage of workers that do not own a vehicle and would thus be more dependent on alternative means of transportation. The darker shades of green show block group areas where higher percentages of the working population do not own a vehicle. The highest percentages are found within the Downtown core and ECU area and range between 11-43%. Overall, the area around ECU contains the highest percentages per block group in the MPO region.

BICYCLE AND PEDESTRIAN MODE SHARE (MAPS 2.22, 2.23, 2.24, & 2.25)

The GUAMPO Area Percent Working Population Biking and Walking to Work maps present a geographic view of the percentage of pedestrian and bicycle commuters by block group. The darker shades of green show areas in which higher numbers of people are already walking or biking to work.

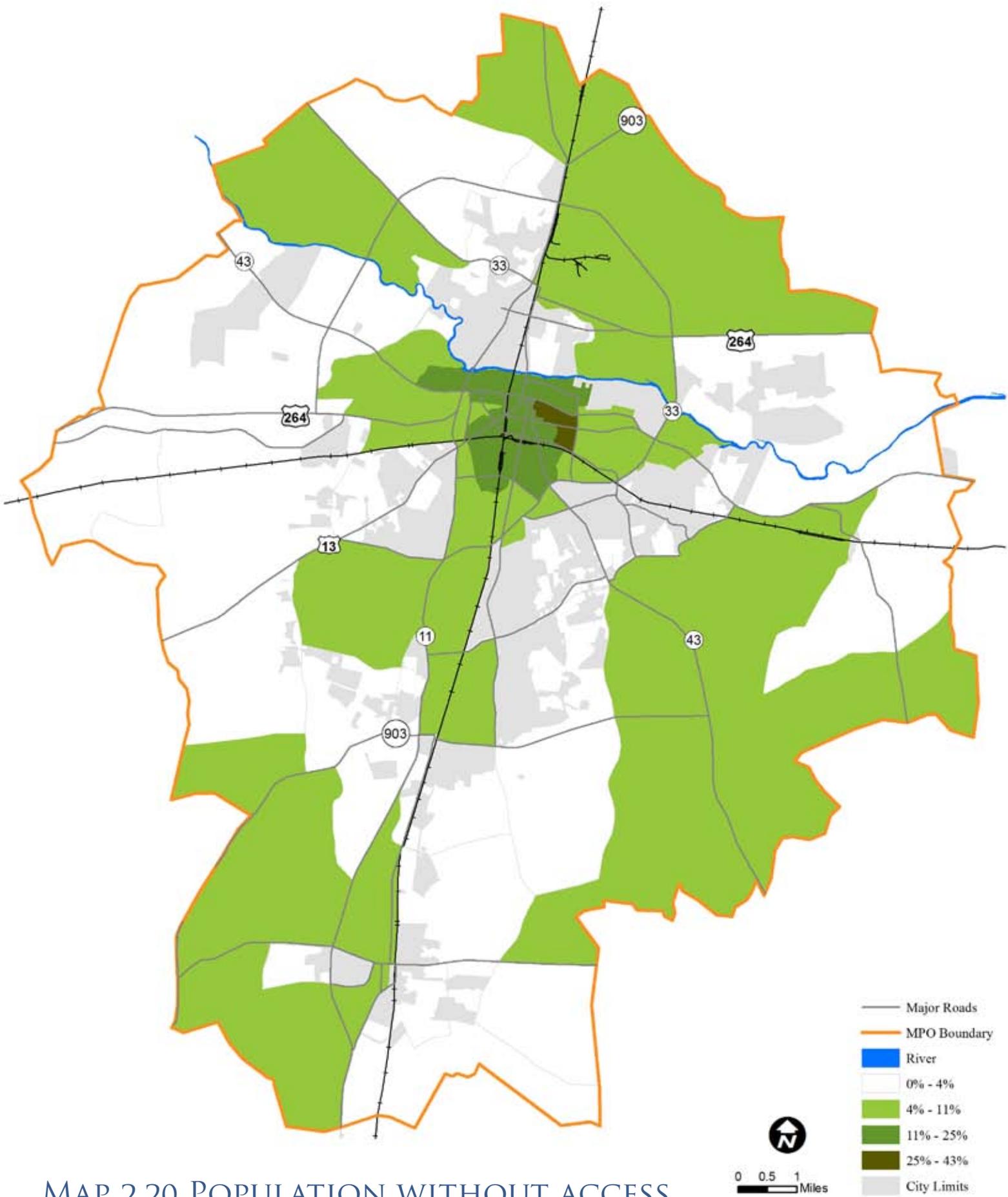
The highest percentages of those walking to work are confined to the Greenville urban core and ECU areas. Anywhere between 7-30% of workers walk to work in the urban core.

The higher percentages of those biking to work are more geographically sporadic. Still, the highest block group percentages are found mostly in the City of Greenville, especially in and around the Downtown area.

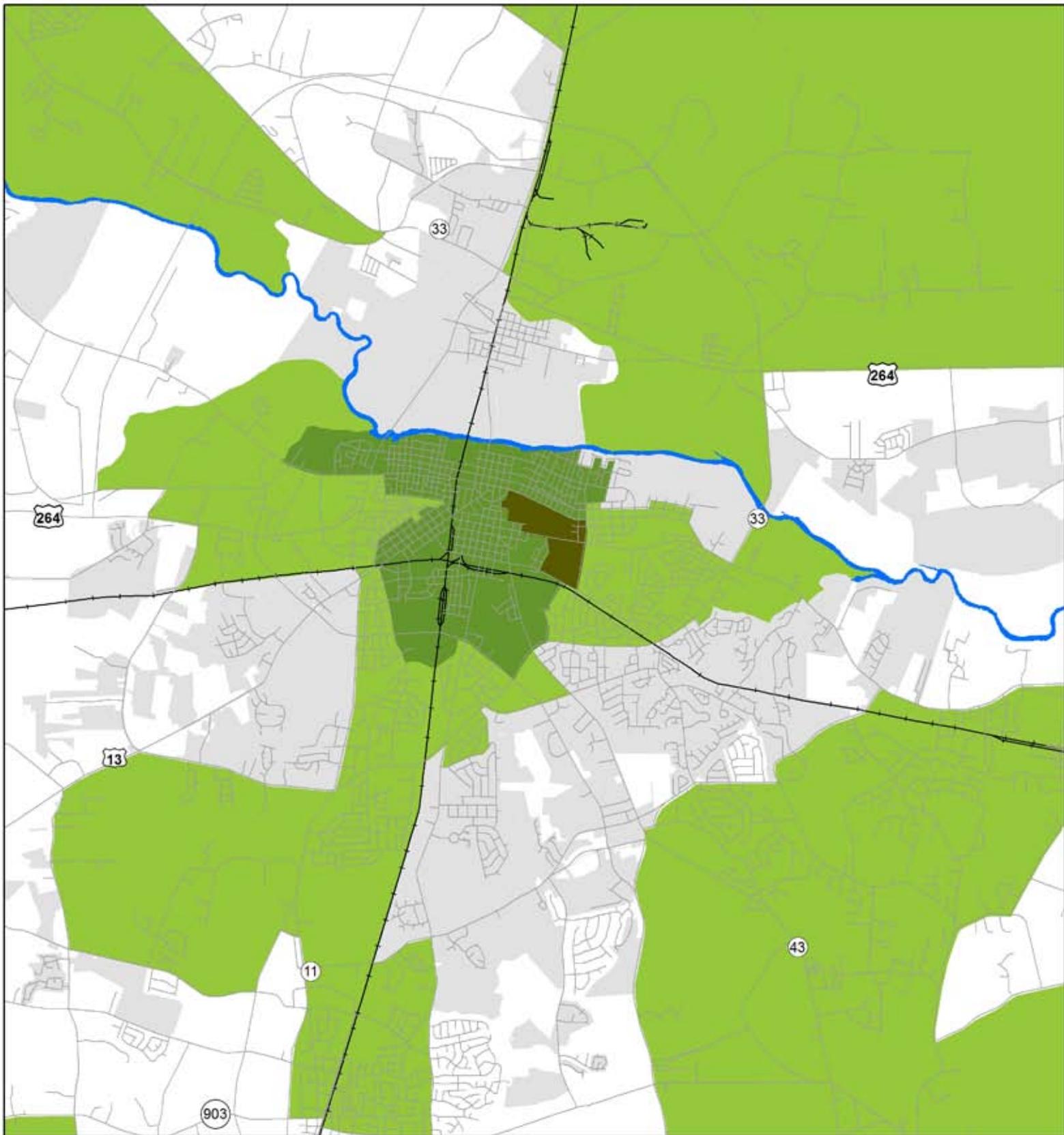
MEDIAN FAMILY INCOME (MAPS 2.26 & 2.27)

The Median Family Income maps present income levels at the block group level. While this isn't a direct representation of bicycle and pedestrian use, it does indicate higher potential need for walkable and bikable spaces. As gas prices rise in the future, there may be increased need for bicycle and pedestrian travel, especially among lower-income groups.

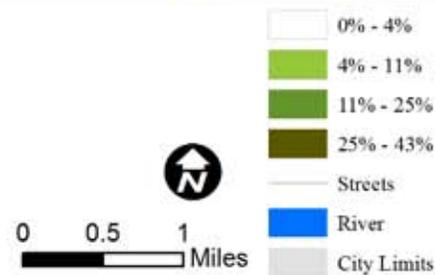
Lower-income areas are most commonly found in the City of Greenville urban core and areas north, south, east and west of the Central Business District. Other pockets of low-income communities can be found in Winterville and Ayden. The wealthiest areas of the MPO region are in the southeastern portions of the City of Greenville and along NC 11, south of the City of Greenville.

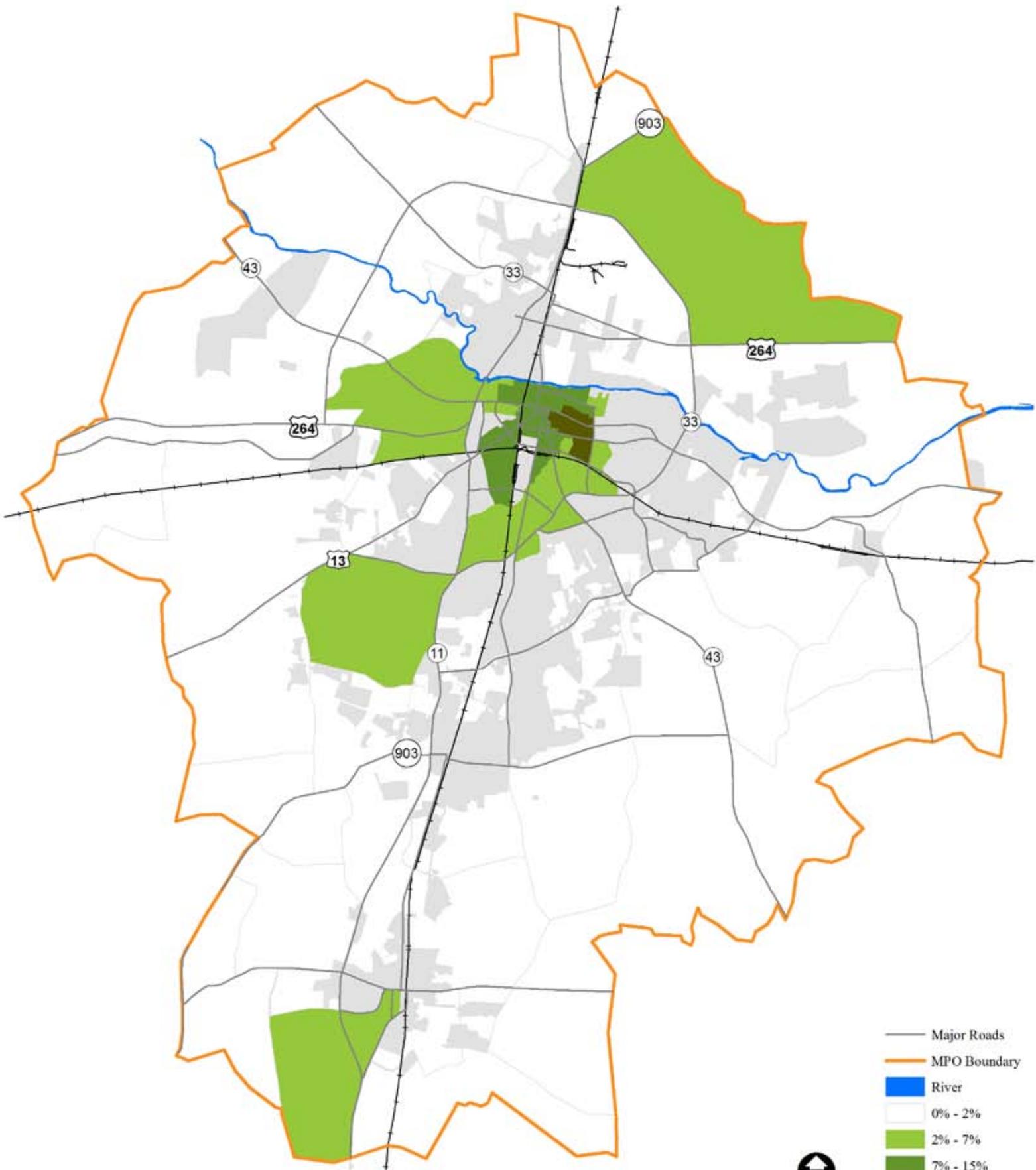


MAP 2.20 POPULATION WITHOUT ACCESS TO AN AUTOMOBILE - MPO

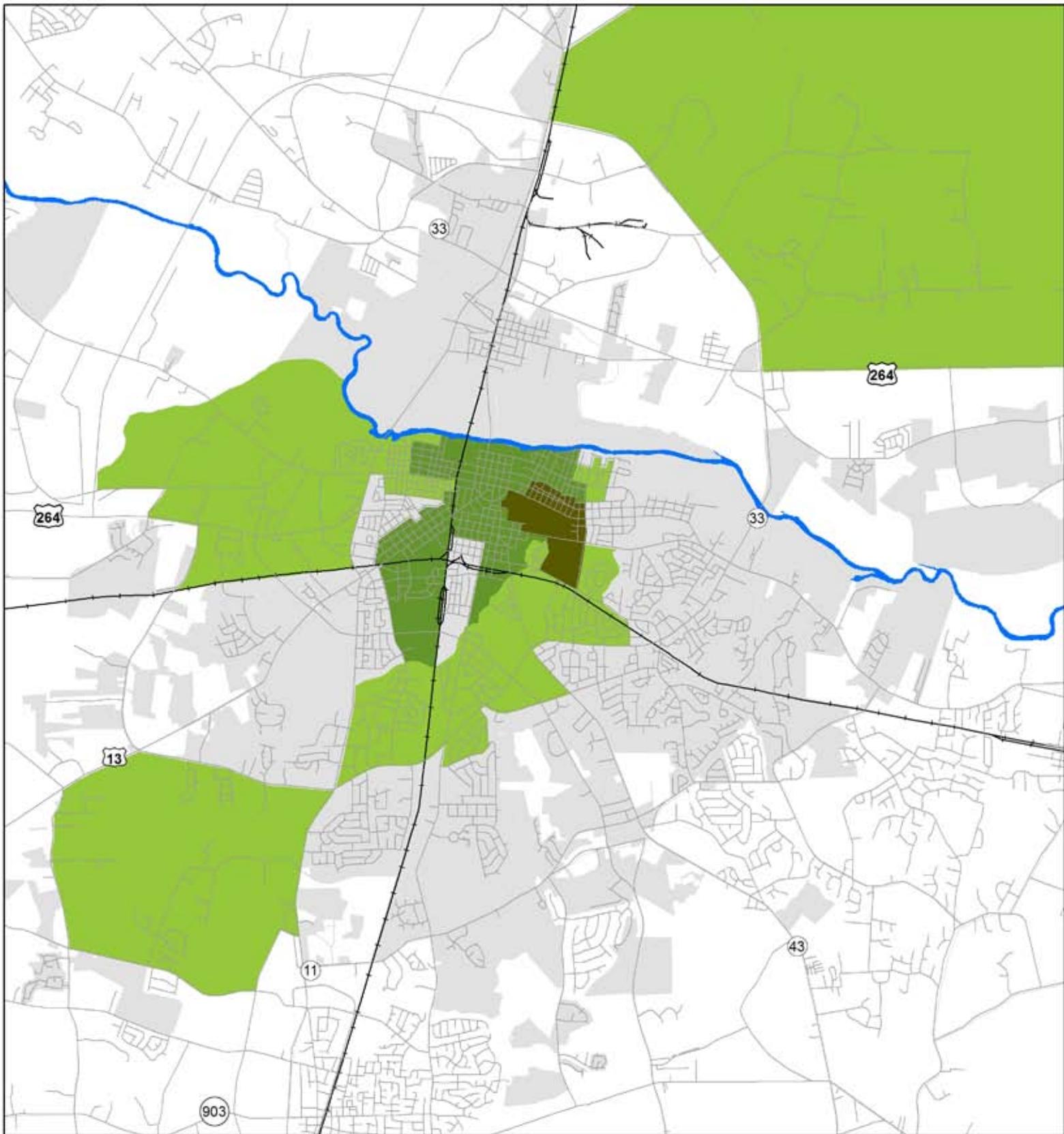


MAP 2.21 POPULATION WITHOUT ACCESS TO AN AUTOMOBILE - GREENVILLE

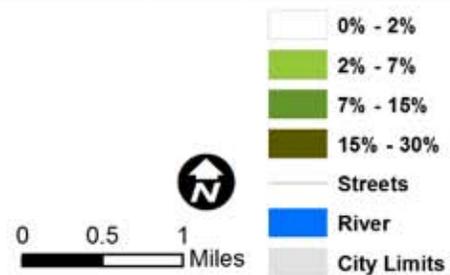


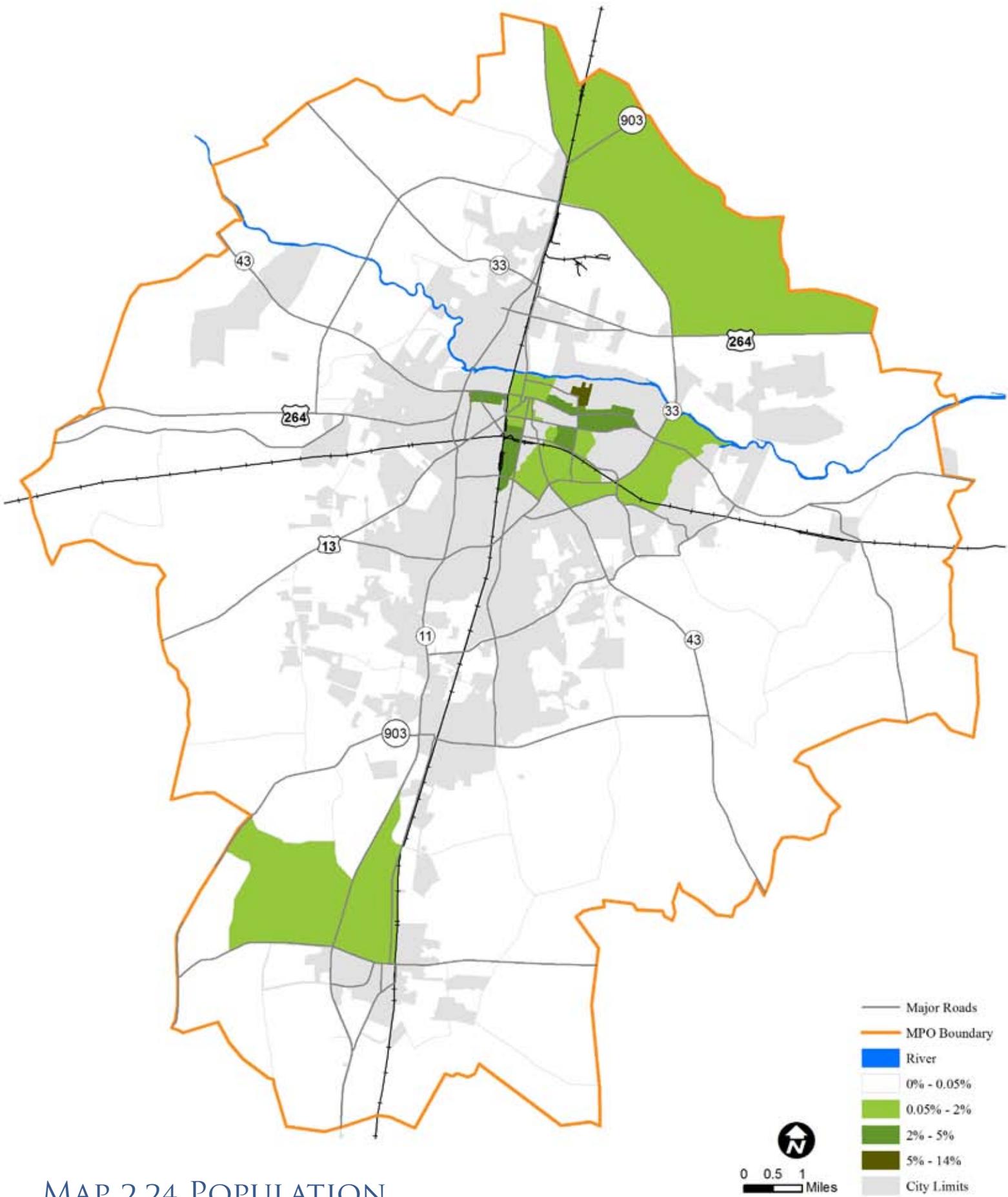


MAP 2.2 POPULATION
WALKING TO WORK - MPO

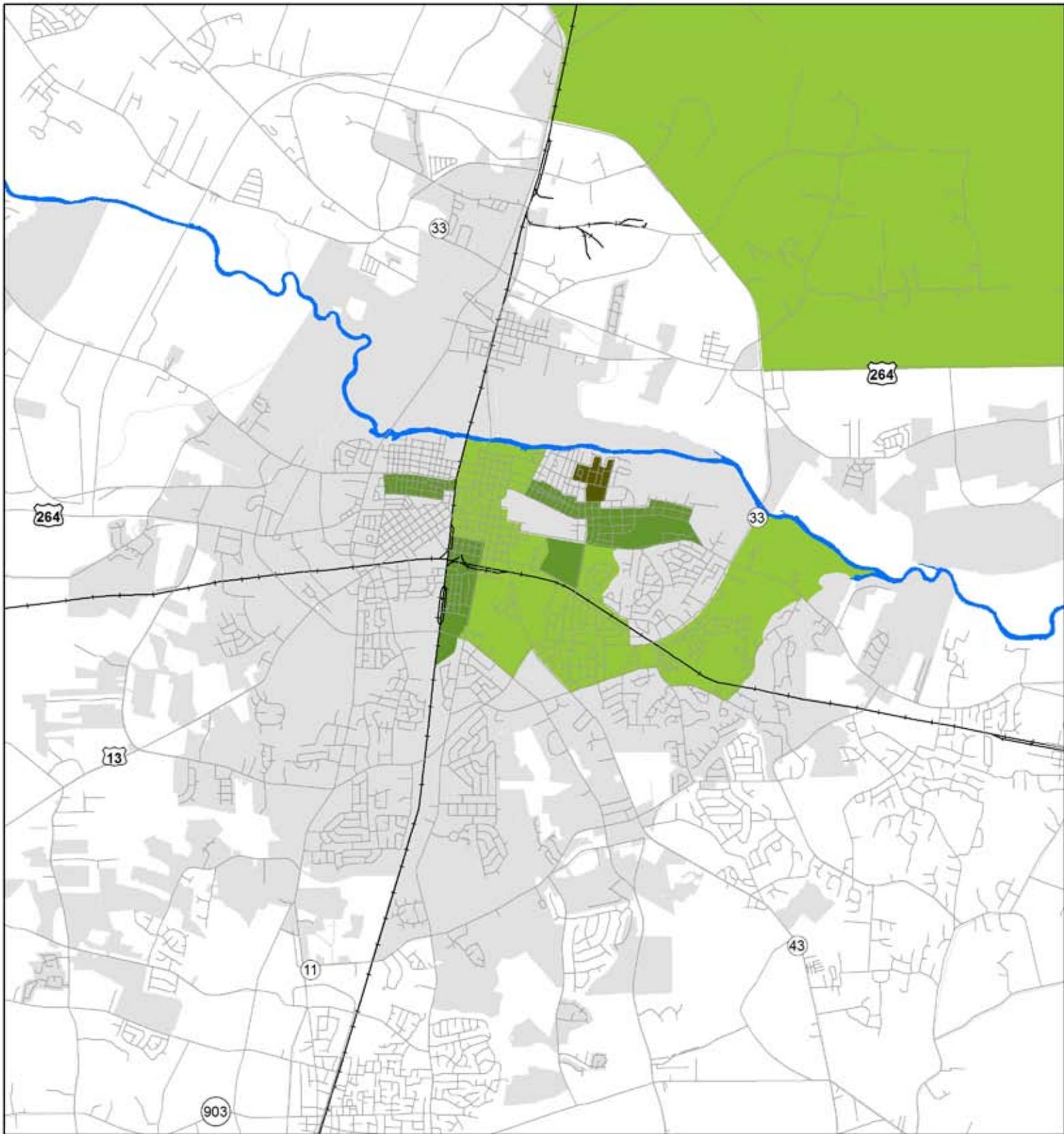


MAP 2.23 POPULATION WALKING TO WORK - GREENVILLE

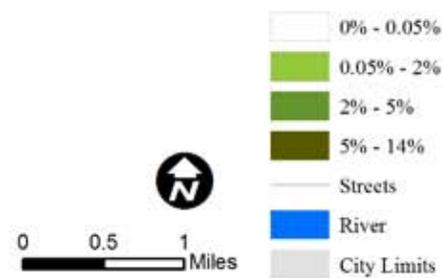


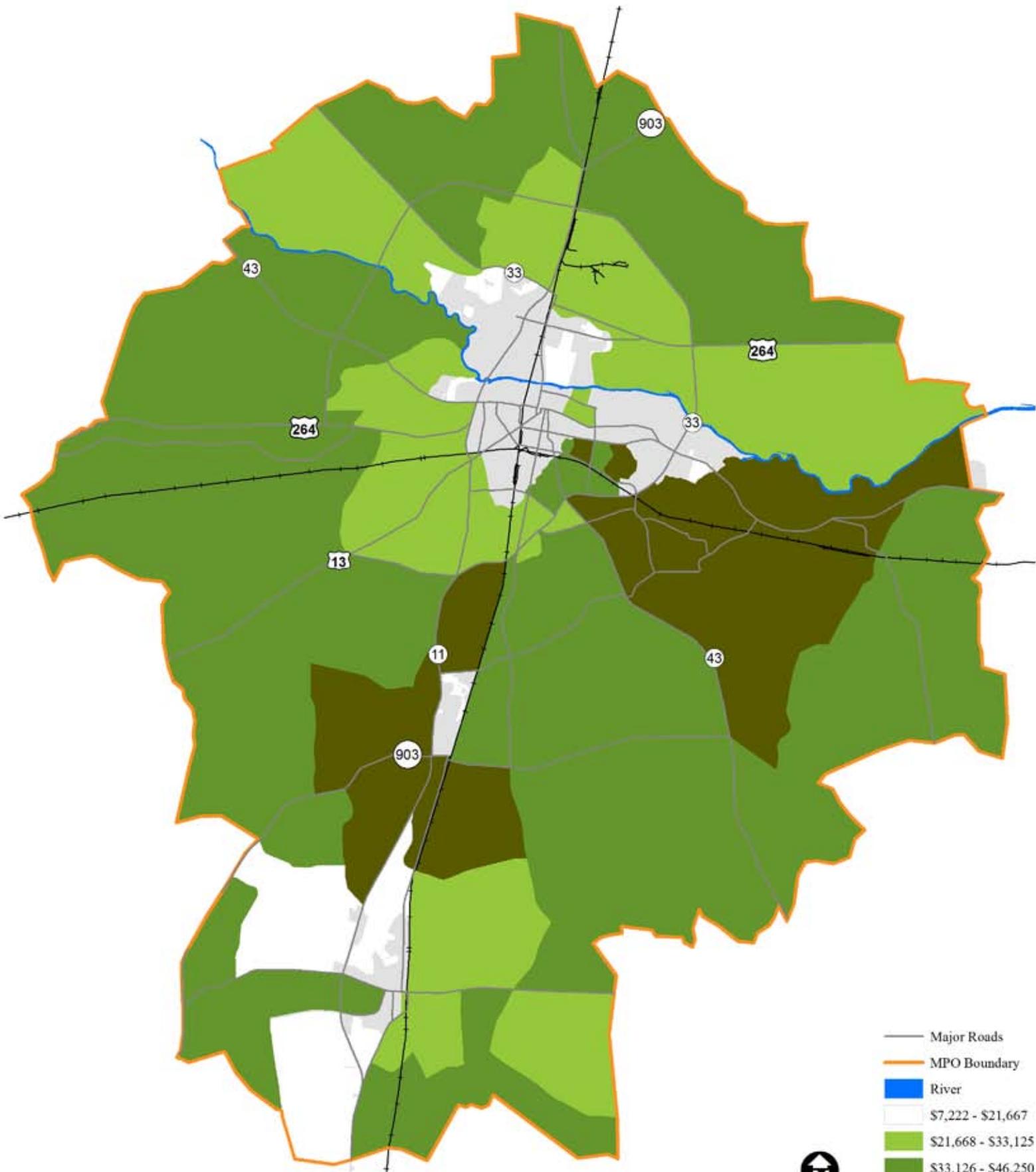


MAP 2.24 POPULATION
BICYCLING TO WORK - MPO

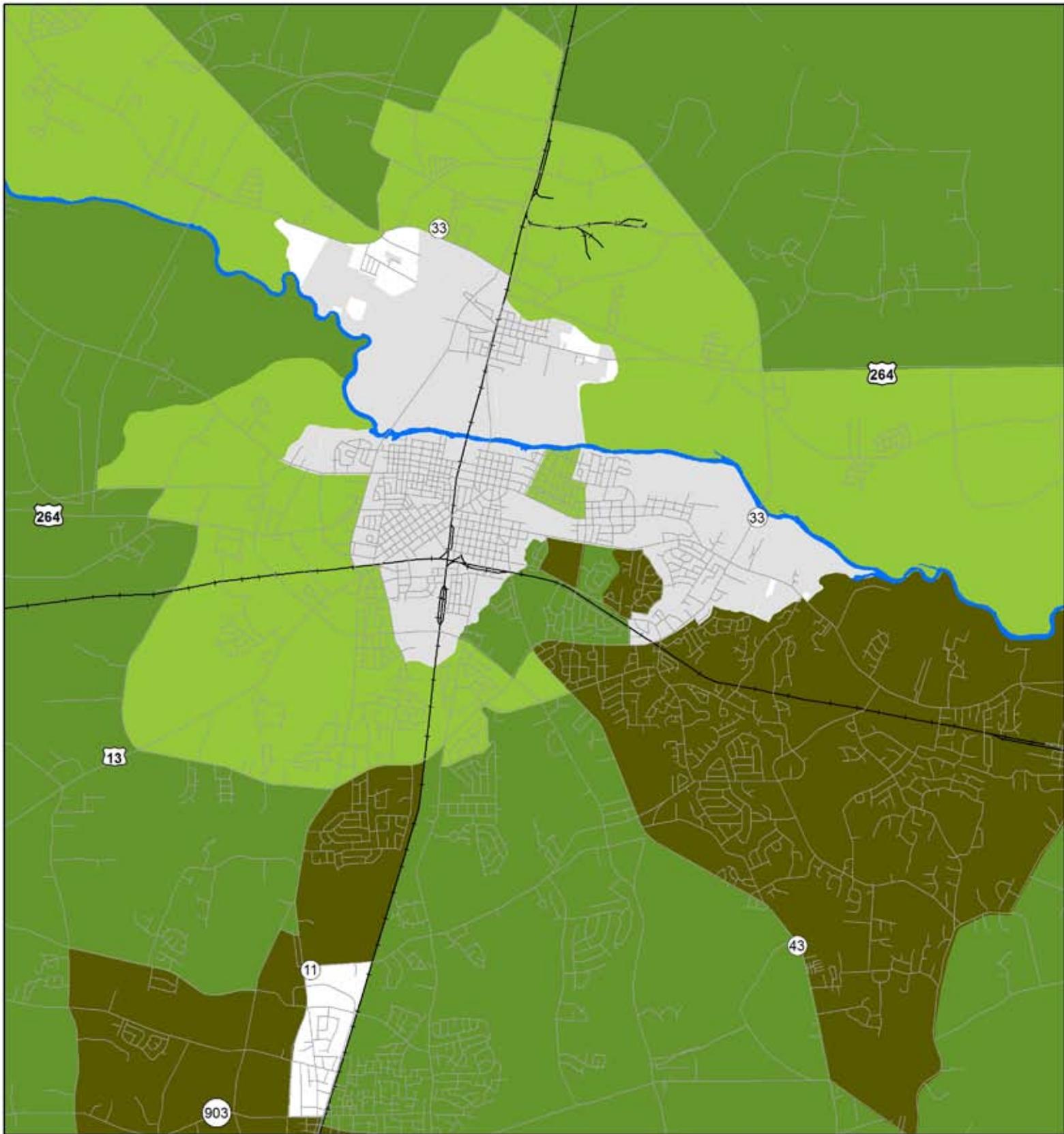


MAP 2.25 POPULATION BICYCLING TO WORK - GREENVILLE





MAP 2.26 RANGE OF INCOME - MPO



MAP 2.27 RANGE OF INCOME - GREENVILLE





Demand and Needs Analysis

The need and demand for a more accessible, safe and functional bicycle, pedestrian and greenway system is paramount throughout Greenville and Pitt County. This is clearly demonstrated through fieldwork analysis, public input, demographic analyses, and user demand models.

User demand and service area analyses serve as the basis for developing a system of pedestrian and bicycle facilities and the policies that should guide GUAMPO. It is important to consider a number of factors that impact the overall pedestrian and bicycling environment. The service area and user demand analysis consider demographic characteristics, demand models of non-motorized travel, and public input.

DEMAND ANALYSIS

A variety of demand models are often used to quantify usage of existing bicycle and pedestrian facilities, and to estimate potential usage of new facilities. The purpose of these models is to provide an overview of the demand for bicycling and walking in Pitt County and the City of Greenville. As with all models, the results show a range of accuracy that can vary based on a number of assumptions and available data. The models used for this study incorporate information from existing publications as well as data from the U.S. Census. All data assumptions and sources are noted in the tables following each section of the analysis.

U.S. Census data provides a useful baseline for quantifying demand. Overall, across the State of North Carolina, walking and bicycling remained virtually the same between the 2000 and 2005-2007 (years the American Community Survey (ACS) data is available). In 2000, the percentages were 0.2% for bicycling and 1.9% for walking. In 2005-2007, the percentages were 0.2% again for bicycling and 1.8% for walking.

When focused locally on Pitt County, there has been a slight decrease in walking and bicycling mode share. In 2000, the percentages were 0.4% for bicycling and 2.4% for walking. In 2005-2007, the percentages were 0.2% for bicycling and 2.1% for walking. Finally, a comparison may be made for walking in the City of Greenville. In 2000, the walking mode share was 4.1% and in 2005-2007, the walking mode share was 3.1%.

*Sources: US Census 2000 and the Census Transportation Package:
http://download.ctpp.transportation.org/profiles_2005-2007/ctpp_profiles.html*

It is important to note that the Census and ACS data only counts trips to work, and does not capture the area's significant amount of travel to schools, other utilitarian travel, or recreation. The model in the following section uses Census data as a baseline, along with documented sources to incorporate the full range of bicycle and pedestrian mobility in the GUAMPO region.

DEMAND MODELS

The GUAMPO bicycle and pedestrian demand models consist of several variables including commuting patterns of working adults, and predicted travel behaviors of area college students and school children. For modeling purposes, two study areas were analyzed. The first study area included all residents within the City of Greenville (2005-2007). The second study area covered Pitt County (2005-2007). The information was ultimately aggregated to estimate the total existing demand for bicycle and pedestrian facilities in the city. Tables identify the variables used in the model. Data regarding the existing labor force (including number of workers and percentage of bicycle and pedestrian commuters) was obtained from the 2005-2007 U.S. Census American Community Survey (ACS). The 2005-2007 Census was also used to estimate the number of children in Greenville and Pitt County. This figure was combined with data from National Safe Routes to School surveys to estimate the proportion of children riding bicycles



or walking to and from school. College students constituted a third variable in the model due to the presence of East Carolina University and Pitt Community College. Data from the Federal Highway Administration regarding bicycle mode share in university communities was used to estimate the number of students bicycling to and from campus. It was assumed that 100% of college students are pedestrians at some point each day. Finally, data regarding non-commute trips was obtained from the 2001 National Household Transportation Survey to estimate bicycle and pedestrian trips not associated with traveling to and from school or work.

EXISTING PEDESTRIAN DEMAND (CITY OF GREENVILLE)

Pedestrian demand can best be understood by knowing each person is a pedestrian at some point during their day. This can involve a walk through a parking lot or walk to a bus stop. The following table estimates daily pedestrian activity in Greenville. Potentially almost 220,000 walking trips occur each day with non-commuting trips making up the majority of existing pedestrian demand.

AGGREGATE ESTIMATE OF EXISTING DAILY PEDESTRIAN ACTIVITY IN GREENVILLE

| <i>Variable</i> | <i>Figure</i> | |
|--|----------------|---------|
| Employed Adults, 16 Years and Older | | |
| a. Study Area Population (1) | 68,962 | |
| b. Employed Persons (2) | 31,730 | |
| c. Pedestrian Commute Percentage (2) | 3.1% | |
| d. Pedestrian Commuters | 984 | (b*c) |
| School Children | | |
| e. Population, ages 5-14 (3) | 7,134 | |
| f. Estimated School Pedestrian Commute Share (4) | 11% | |
| g. School Pedestrian Commuters | 785 | (e*f) |
| College Students | | |
| h. Full-Time College Students (5) | 27,677 | |
| i. Pedestrian Commute Percentage (6) | 100% | |
| j. College Pedestrian Commuters | 27,677 | (h*i) |
| Work and School Commute Trips Sub-Total | | |
| k. Daily Commuters Sub-Total | 29,446 | (d+g+j) |
| l. Daily Commute Trips Sub-Total | 58,892 | (k*2) |
| Other Utilitarian and Discretionary Trips | | |
| m. Ratio of "Other" Trips in Relation to Commute Trips (7) | 2.73 | ratio |
| n. Estimated Non-Commute Trips | 160,775 | (l*m) |
| Total Estimated Pedestrian Trips | 219,667 | (l+n) |

Notes: Census data collected from 2005-2007 U.S. Census American Community Survey (ACS) for Greenville.

- (1) 2005-2007 ACS
- (2) 2005-2007 ACS
- (3) 2005-2007 ACS
- (4) Estimated share of school children who commute by bicycle or foot, as of 2000 (source: National Safe Routes to School Surveys, 2003).
- (5) Source: Wikipedia for East Carolina University.
- (6) Assuming all college students are pedestrians at some point each day.
- (7) 27% of all trips are commute trips (source: National Household Transportation Survey, 2001).



EXISTING BICYCLE DEMAND (CITY OF GREENVILLE)

The table below summarizes estimated existing daily bicycle trips in Greenville. The table indicates that over 22,000 trips are made on a daily basis. The model also shows that non-commuting trips comprise the vast majority of existing bicycle demand.

AGGREGATE ESTIMATE OF EXISTING DAILY BICYCLING ACTIVITY IN GREENVILLE

| <i>Variable</i> | <i>Figure</i> | |
|--|---------------|---------|
| Employed Adults, 16 Years and Older | | |
| a. Study Area Population (1) | 68,962 | |
| b. Employed Persons (2) | 31,730 | |
| c. Bicycle Commute Percentage (2) | 0.2% | |
| d. Bicycle Commuters | 63 | (b*c) |
| School Children | | |
| e. Population, ages 6-14 (3) | 7,134 | |
| f. Estimated School Bicycle Commute Share (4) | 2% | |
| g. School Bicycle Commuters | 143 | (e*f) |
| College Students | | |
| h. Full-Time College Students (5) | 27,677 | |
| i. Bicycle Commute Percentage (6) | 10% | |
| j. College Bicycle Commuters | 2,768 | (h*i) |
| Work and School Commute Trips Sub-Total | | |
| k. Daily Commuters Sub-Total | 2,974 | (d+g+j) |
| l. Daily Commute Trips Sub-Total | 5,948 | (k*2) |
| Other Utilitarian and Discretionary Trips | | |
| m. Ratio of "Other" Trips in Relation to Commute Trips (7) | 2.73 | ratio |
| n. Estimated Non-Commute Trips | 16,238 | (l*m) |
| Total Estimated Bicycle Trips | 22,186 | (l+n) |

Notes: Census data collected from 2005-2007 U.S. Census American Community Survey (ACS) for Greenville.

- (1) 2005-2007 ACS
- (2) 2005-2007 ACS
- (3) 2005-2007 ACS
- (4) Estimated share of school children who commute by bicycle, as of 2000 (source: National Safe Routes to School Surveys, 2003).
- (5) Source: Wikipedia for East Carolina University.
- (6) Review of bicycle commute share in 7 university communities (source: National Bicycling & Walking Study, FHWA, Case Study #1, 1995).
- (7) 27% of all trips are commute trips (source: National Household Transportation Survey, 2001).



EXISTING PEDESTRIAN DEMAND (PITT COUNTY)

The following table estimates daily pedestrian activity in Pitt County. Potentially over 281,000 walking trips occur each day with non-commuting trips making up the majority of existing pedestrian demand.

AGGREGATE ESTIMATE OF EXISTING DAILY PEDESTRIAN ACTIVITY IN PITT COUNTY

| <i>Variable</i> | <i>Figure</i> | |
|--|----------------|---------|
| Employed Adults, 16 Years and Older | | |
| a. Study Area Population (1) | 148,337 | |
| b. Employed Persons (2) | 67,511 | |
| c. Pedestrian Commute Percentage (2) | 2.1% | |
| d. Pedestrian Commuters | 1,418 | (b*c) |
| | | |
| School Children | | |
| e. Population, ages 5-14 (3) | 18,958 | |
| f. Estimated School Pedestrian Commute Share (4) | 11% | |
| g. School Pedestrian Commuters | 2,085 | (e*f) |
| | | |
| College Students | | |
| h. Full-Time College Students (5) | 34,177 | |
| i. Pedestrian Commute Percentage (6) | 100% | |
| j. College Pedestrian Commuters | 34,177 | (h*i) |
| | | |
| Work and School Commute Trips Sub-Total | | |
| k. Daily Commuters Sub-Total | 37,680 | (d+g+j) |
| l. Daily Commute Trips Sub-Total | 75,360 | (k*2) |
| | | |
| Other Utilitarian and Discretionary Trips | | |
| m. Ratio of "Other" Trips in Relation to Commute Trips (7) | 2.73 | ratio |
| n. Estimated Non-Commute Trips | 205,733 | (l*m) |
| | | |
| Total Estimated Pedestrian Trips | 281,093 | (l+n) |

Notes: Census data collected from 2005-2007 U.S. Census American Community Survey (ACS) for Pitt County.

(8) 2005-2007 ACS

(9) 2005-2007 ACS

(10) 2005-2007 ACS

(11) Estimated share of school children who commute by bicycle or foot, as of 2000 (source: National Safe Routes to School Surveys, 2003).

(12) Source: Wikipedia for East Carolina University and Pitt Community College.

(13) Assuming all college students are pedestrians at some point each day.

(14) 27% of all trips are commute trips (source: National Household Transportation Survey, 2001).



EXISTING BICYCLE DEMAND (PITT COUNTY)

The table below summarizes estimated existing daily bicycle trips in Pitt County. Over 29,000 trips are made on a daily basis.

AGGREGATE ESTIMATE OF EXISTING DAILY BICYCLING ACTIVITY IN PITT COUNTY

| <i>Variable</i> | <i>Figure</i> | |
|--|---------------|---------|
| Employed Adults, 16 Years and Older | | |
| a. Study Area Population (1) | 148,337 | |
| b. Employed Persons (2) | 67,511 | |
| c. Bicycle Commute Percentage (2) | 0.2% | |
| d. Bicycle Commuters | 135 | (b*c) |
| | | |
| School Children | | |
| e. Population, ages 6-14 (3) | 18,958 | |
| f. Estimated School Bicycle Commute Share (4) | 2% | |
| g. School Bicycle Commuters | 379 | (e*f) |
| | | |
| College Students | | |
| h. Full-Time College Students (5) | 34,177 | |
| i. Bicycle Commute Percentage (6) | 10% | |
| j. College Bicycle Commuters | 3,418 | (h*i) |
| | | |
| Work and School Commute Trips Sub-Total | | |
| k. Daily Commuters Sub-Total | 3,932 | (d+g+j) |
| l. Daily Commute Trips Sub-Total | 7,864 | (k*2) |
| | | |
| Other Utilitarian and Discretionary Trips | | |
| m. Ratio of "Other" Trips in Relation to Commute Trips (7) | 2.73 | ratio |
| n. Estimated Non-Commute Trips | 21,469 | (l*m) |
| | | |
| Total Estimated Bicycle Trips | 29,333 | (l+n) |

Notes: Census data collected from 2005-2007 U.S. Census American Community Survey (ACS) for Pitt County.

(8) 2005-2007 ACS

(9) 2005-2007 ACS

(10) 2005-2007 ACS

(11) Estimated share of school children who commute by bicycle, as of 2000 (source: National Safe Routes to School Surveys, 2003).

(12) Source: Wikipedia for East Carolina University and Pitt Community College.

(13) Review of bicycle commute share in 7 university communities (source: National Bicycling & Walking Study, FHWA, Case Study #1, 1995).

(14) 27% of all trips are commute trips (source: National Household Transportation Survey, 2001).



Review of Existing Plans

GREENVILLE URBAN AREA BICYCLE MASTER PLAN 2002

The City of Greenville and the Greenville Urban Area Metropolitan Planning Organization created the Greenville Urban Area Bicycle Task Force as a joint effort to produce this plan in 2002. This bicycle plan encompassed the Greenville MPO planning area and set forth a strong foundation of support for bicycle facilities and programs. The following is a list of recommendations from this plan that have been utilized and evaluated in this current planning effort:

The 113 miles of Bikeway 2025 numbered routes include:

- 27 miles of bike lanes
- 34 miles of paved shoulders

The ultimate system also includes about 12 miles of Greenway bike paths.

Bikeway 2000 is the short-term system. The 82 miles of numbered routes include:

- 7 miles of bike lanes
- 33 miles of roads striped for auto/bicycle shared-use wide outside lanes

General Recommendations:

- G-1 The Greenville Urban Area becomes a “Bicycle Friendly Community”.
- G-2 Each local government (including Pitt County), the Greenville Urban Area Metropolitan Planning Organization, and NCDOT Division 2 hires a full-time employee to serve as its bicycle coordinator.
- Form a Bicycle Advisory Commission to oversee the progress of implementation of the plan, amend the plan when needed, and report to the local boards, commissions, and governing bodies on bicycle matters.

Promotion Recommendations:

- P-1 Each local government dedicate “Bike to Work Days” and “Bicycle Safety Month.”
- P-2 Popular destinations have bike racks to encourage bicycling to them.
- P-3 Each local government promotes bicycling via maps, brochures, and other means.
- Safety Recommendations:
 - S-1 Area governments adopt and enforce a comprehensive bicycle ordinance.
 - S-2 Educate drivers and bicyclists that bicycles are to be treated like other vehicles on the roadway regarding traffic laws and “rules of the road.”
 - S-3 Enact or expand safety programs and strategies to reduce the number of bicycle-auto accidents.
 - S-4 Increase bicycle helmet use including using incentives for using a helmet and disincentives for not wearing a helmet.
 - S-5 Area governments enforce traffic laws upon bicyclists and drivers that take unsafe and improper measures that violate existing traffic laws.

Bikeway Recommendations:

- B-1 Include bicycle-friendly treatments in all street and road construction projects, whether they are on a designated (numbered) bikeway route or not. All multilane thoroughfare projects not identified in the Bicycle Master Plan for bike lanes should have wide curb lanes.
- B-2 Make all existing streets and roads as bicycle friendly as possible, whether they are on a designated (numbered) bikeway route or not. All multilane thoroughfares not identified in the Bicycle Master Plan for bike lanes should have wide curb lanes.



- B-3 Treat bicycles like other vehicles on the roadway in bikeway development.
- B-4 On the designated Bikeway System (i.e., numbered routes), the preferred bikeway treatment on thoroughfares is bike lanes (urban sections) and paved shoulders (rural sections), subject to design standards.
- B-5 On the designated Bikeway System, bike lanes are not necessary on collectors and local streets.
- B-6 On the designated Bikeway System, consider bike lanes on very wide urban collector streets.
- B-7 Five-lane thoroughfares with high volumes of traffic and frequent driveways should not have bike lanes but instead be constructed or retrofit with wide curb lanes (13 feet minimum, 14 feet ideal).
- B-8 Design and operate urban and suburban collector streets with bikeways to keep traffic speeds as low as reasonably possible.
- B-9 Make efforts to minimize the number of driveways on thoroughfares.
- B-10 Make intersections and crossings of thoroughfares safer for bicycles.
- B-11 Bike paths may be necessary to provide the necessary connections to the bikeway system. Support the development of the Greenway Committee’s proposed transportation corridors.
- B-12 Encourage young children to use sidewalks, quiet neighborhood streets, and bike paths.
- B-13 Encourage groups such as the Pitt County Health Department to consider developing bicycle exercise loops using the Bikeway 2000 system as a basis.
- Bikeway Implementation Recommendations:
 - BI-1 Sign bike routes with visible and understandable signs, in accordance with AASHTO and NCDOT standards.
 - BI-2 Mark bike lanes in accordance with AASHTO and NCDOT standards.
 - BI-3 Include bike lanes for the designated (numbered) bikeway routes in the recommended cross-sections of the Greenville Urban Area MPO’s thoroughfare plan and the City’s MSDD.
 - BI-4 Restripe existing multilane thoroughfares to the new wide curb lane standard when the roadway is resurfaced or the striping wears out.
 - BI-5 Include the wide curb lane standard in the recommended cross-sections for widening projects to multilane thoroughfares in the Greenville Urban Area MPO’s thoroughfare plan and NCDOT and local design standards.
 - BI-6 Try “Denver bike route” painted markings as a demonstration project.
 - BI-7 Display the new bikeway system on maps/brochures. The routes on the maps/brochures and numbered bikeway signs should denote “easy” versus “difficult” routes.
 - BI-8 Keep bikeways clear of debris (glass, sticks, etc.) and the road surfaces kept smooth.
 - BI-9 Convert drainage grates over to bicycle-safe setups as a road on the designated (numbered) bikeway system is resurfaced.
 - BI-10 Periodically replace or repaint signs and markings.
- Bikeway Funding Recommendations:
 - BF-1 The implementing agencies apply to NCDOT for Transportation Enhancement dollars for cost of the signs and markings necessary for Bikeway 2000 and bike paths for the Bikeway 2025 system.
 - BF-2 Any roadway construction project involving a bike route that is designated on the Bikeway 2000 and 2025 systems include the installation of signs and poles in the project’s scope and construction cost.
 - BF-3 Consider including the transit to bicycle intermodal connection in the scope of transit capital projects.



Transit and Bicycling Recommendations:

- T-1 Develop a strong connection between transit systems and bicycle use in order to encourage the use of both modes:
 - By providing adequate levels of secure bicycle parking at key transit nodes, covered against wet weather when feasible.
 - By providing adequate bicycle access to transit connections.
 - By providing for bicycle transport on bus and rail systems.
- T-2 Transit operators consider the ability of transit to connect with bicycles, to the benefit of both, in all transit developments.

Plan Implementation Recommendations:

- PI-1 Each local unit of government, the Greenville Urban Area Metropolitan Planning Organization, and NCDOT Division 2 appoint a staff person to serve as its bicycle coordinator. This responsibility should be added to their job description/list of duties. The bicycle coordinator should be included in review/project development processes.
- PI-2 Form Bicycle Advisory Commission(s) to oversee the progress of implementation of the plan, amend the plan when needed, and report to the local boards and commissions on bicycle matters.

HORIZONS GREENVILLE'S COMMUNITY PLAN 2004

The Horizons Greenville's Community Plan provides strong support for bicycle, pedestrian and non-motorized transportation. This plan realizes the importance and envisions bicycling and walking as viable and convenient modes of transportation. Below are some relevant excerpts from this plan:

Mobility Plan Elements 4:

- M5. To provide safe, convenient, and efficient opportunities for pedestrian and bicycle movement.
- M10. To improve transit connections /services between neighborhoods and major activity centers.
- M12. To develop alternative transportation system (to include walkways and bikeways).
- The City shall continue to require sidewalks along streets in new developments. The City shall provide additional pedestrian facilities in targeted areas of existing development. The City will adopt policies that minimize walking distances and encourage pedestrian movement. The City shall include bicycle facilities in the design of roadway improvements and new construction projects.
- Recreation and Parks Plan Elements 7:
- RP7. To continue the construction of greenway projects in the City.
- RP8. To continue to acquire more open space for the enjoyment of citizens.
- RP9. To expand recreation infrastructure (i.e., sidewalks and bike paths).
- Environmental Quality Plan Elements 11:
- EQ10. To preserve floodplains as areas for wildlife habitat and wildlife corridors.
- EQ11. To reserve areas of the floodplain for open space corridors and greenways.
- EQ12. To protect the City's air quality by reducing dependence on automobile travel through sound transportation planning.
- Urban Form and Land Use Plan Elements 16:
- 1(d). Each citizen should have access to open space in the neighborhood in which he or she lives and works. It is critical that open spaces, parks, and greenways be an important part of Greenville's overall development pattern. Greenways, in particular, should provide a continuous system of open spaces which provide pedestrian links between neighborhoods, focus areas, and employment centers.



- 2(b). Major transportation corridors should have wider outside lanes. To provide necessary room for safe travel for bicycles and stopping areas for buses, certain corridors should be designated for these uses, and three to five feet of width should be added to outside lanes.
- 2(i). Residential Corridors – The purpose of these roads is to collect traffic from local neighborhood streets and move it onto connector thoroughfares. Residential collectors should be designed to accommodate public transit and non-vehicular traffic. Sidewalks should be included in the design of the street, and utilities should be placed underground. Non-residential office and commercial uses should be restricted along residential corridors and be limited to the intersection of residential collectors, or a collector and a major or minor connector. A planting plan should be developed for all residential collectors. A planted median is always preferred over a three- or four-lane facility. The designation and development of collector streets should be used in conjunction with the development of a grid street pattern. Collector streets should supplement, not replace, a pattern of connecting and coordinated streets.
- 4(d). Pedestrian connections should be developed between sites within focus areas. People should be able to move safely and conveniently by foot between businesses within a focus area. It should not be necessary to drive from store to store within focus areas.

HORIZONS GREENVILLE'S COMMUNITY PLAN 2009-2010 REVIEW

The City of Greenville conducted a five year assessment of the progress of the Horizons Greenville's Community Plan 2004. This assessment evaluated all of the policy recommendations and goal statements set forth in the original plan to assess their status and effectiveness. This review includes synopsis on each policy recommendation and goal statement by the City department responsible for carrying through with them. While this review is not a re-write, it provides evaluation and guidance to further aid the community plan. Below are some examples from this review:

- 2(y). Create walkable communities/ neighborhoods: CDD Planning Division (PWD Engineering Division: Ongoing enforcement of subdivision development ordinances including street interconnectivity requirements and sidewalk construction standards, adoption of terminal street standards February 2006 (Ord. 06-13).)
- 1(l). Promote existing City policy on sidewalk construction among neighborhood organizations, parks, and school systems (PWD Engineering Division: Ongoing)
- 1(m). Develop a sidewalk map of the City; consider adopting a sidewalk plan which assesses the need for sidewalks and describes specific sidewalk projects to be completed (PWD Engineering Division: This has been completed and is updated as new sidewalks are added.)
- 1(n). Ensure that convenient pedestrian access is provided between adjacent new subdivisions. (PWD Engineering Division: Ongoing. Included as part of the development review process.)
- 2(d). Map sidewalks, greenways, and bikeways. (PWD Engineering Division, CDD Planning Division: Mapping has been completed and is updated by PW as new sidewalks are added, greenway parcels mapped by CDD following final plat dedication of easements.)



WINTERVILLE COMPREHENSIVE PEDESTRIAN PLAN 2008

See Appendix G for list of projects from this plan.

This plan provides important guidance for the Town of Winterville to become a more walk able community. It offers recommendations for facilities, policies, and programs to aid in increasing safe and efficient pedestrian mobility throughout Town. This action plan includes over 113 identified potential projects that were prioritized, resulting in 40 recommended pedestrian projects, in addition to recommended programs and policies. Some of these recommendations are included below. Please refer to the full document for details.

Pedestrian Crossings / Intersection Improvements Opportunities:

- Add crosswalks and walk signals at the Downtown intersection of Main Street and Mill Street, and consider similar treatments for other signalized intersections throughout the community.
- The town should consider 4-way stops at major [un-signalized] intersections near school entrances, such as the Boyd Street and Mill Street intersection in front of W. H. Robinson Elementary.
- Install a four-way stop and high-visibility crosswalks at the Jones Street and Kennedy Street intersection (behind W. H. Robinson Elementary).
- Improvements to the intersection of Worthington Street and Railroad Street, near WH Robinson Elementary, should be made to create a safer crossing for students. Recommendations could include a four-way stop with marked crosswalks.
- See Map 4.3 for suggested locations of crossing improvements throughout Winterville. Many of these locations need further study, but treatment options include walk signals, curb ramps, marked crosswalks and curb extensions.

School Zones Opportunities:

- School zones should be marked at all Winterville schools with pavement markings and flashing speed limit signs. The Town may consider active speed monitor speed limit signs in school areas where speeding is a problem.
- Important crossings should be painted with high-visibility, zebra-striped crosswalks and marked with high-visibility “school crossing” signs.
- Install a sidewalk along Kennedy Street to link residential area north of W. H. Robinson Elementary School to the school property (highpriority).
- Install a sidewalk along Forlines Road from Elm Street to Swift Creek to provide connection from residential areas to South Central High School and Creekside Elementary School.
- Install a sidewalk along Ange Street from Windmill Drive to Barrel Drive to provide connection to Winterville Recreation Park and A.G.Cox Middle School from neighboring residential neighborhoods.
- Install a sidewalk along Sylvania Street to provide a continuous connection from neighboring residential areas.
- Install a sidewalk along Church Street in front of A.G. Cox Middle School to improve safety and connectivity to the school.
- Install a sidewalk along Worthington Street to provide a connection to W.H. Robinson Elementary School and nearby residential neighborhoods.
- Remove the existing crosswalk on Mill Street near Boyd Street and instead consider a four-way stop with curb extensions, crosswalks and “Yield to Pedestrians” signage to create safer pedestrian movements to/from the school and surrounding neighborhood.
- Schools should be a priority for pedestrian improvements, including intersection improvements and greenway connectors to existing sidewalks. Funding may be available through the NCDOT Safe Routes to School program.



Policy Opportunities:

- Consider development of street tree ordinances to add and protect shade trees along major thoroughfares and Downtown streets.
- Consider additional language in ordinances to encourage greenway connections between cul-de-sacs and schools, parks or other cul-de-sacs.
- Such greenway connections, as illustrated on Map 4.3, could greatly benefit pedestrians throughout Winterville and more safely accommodate children walking to parks, schools and other neighborhood destinations.
- Update sidewalk requirements in existing ordinances to require sidewalks on both sides of major arterials and connectors, as well as to require sidewalks along the frontage of property in order to create better sidewalk connections along major roads. Sidewalk requirements should be consistent for subdivided and un-subdivided (commercial) development.
- Create a maintenance program/policy to help keep sidewalks clear of debris and overgrowth.

Other Opportunities:

- Install a sidewalk along Old Tar Road from Ashley Meadows Drive to Main Street to provide connection to existing commercial establishments.
- Install a sidewalk along Mill Street from Vernon White to Main Street to provide connection to Downtown from the surrounding residential areas.
- Install a sidewalk along Church Street to connect south Church Street and Laurie Ellis Road providing a connection to the existing daycare facility on the south side Laurie Ellis Road.
- In order to slow traffic and encourage on-street parking, parallel parking stalls should be painted on streets such as Church Street, Main Street and Cooper Street.
- Consider traffic calming tools such as speed humps, neckdowns, curb extensions and/or enforcement techniques to slow traffic on streets with speeding problems, such as Old Tar Road and Mill Street

Top 10 potential projects from the Winterville Comprehensive Plan:

1. Railroad Street – From Main Street to Sylvania Street. Install continuous sidewalk and curb ramps along west side of street to connect existing sidewalks and the Downtown.
2. Railroad Street – From Cooper Street to Sylvania Street. Install continuous sidewalk and curb ramps along east side of street to connect Downtown.
3. Blount Street – From Ange Street to Academy Street. Install continuous sidewalk and curb ramps along north side of street to connect A.G. Cox.
4. Blount Street – From Ange Street to Existing Sidewalk. Install continuous sidewalk and curb ramps along entire length of street (south side) to connect A.G. Cox.
5. Blount Street – From Mill Street to Church Street. Install continuous sidewalk and curb ramps along north side of street to connect Downtown and A.G. Cox.
6. Hammond Street – From Railroad Street to Jones Street. Install continuous sidewalk and curb ramps along both sides of street to connect to Downtown and W.H. Robinson.
7. Cooper Street (Spot) – From Church Street to Academy Street. Install continuous sidewalk and curb ramps along both sides of street to connect existing sidewalks.
8. Church Street – From Sylvania Street to Main Street. Install continuous sidewalk and curb ramps along west side of street for connection to Downtown and A.G. Cox .
9. Church Street – Liberty Street to Laurie Ellis Road. Install sidewalk and curb ramps along west side of street to provide a continuous sidewalk to A.G. Cox.
10. Main Street – From Railroad Street to Church Street. Install continuous sidewalk and curb ramps along south side of road to connect existing sidewalks.



GREENWAY MASTER PLAN GREENVILLE, NC 2004

The 2004 Greenway Master Plan was designed to: 1) Reevaluate the feasibility of the greenway corridor proposals found in the original plan, ensuring that they continue to be viable routes. 2) Offer alternatives for those corridors found to be no longer feasible and 3) Present new corridors that can provide opportunities in previously underserved areas of the community and can meet additional recreation, transportation, and natural area protection needs. This plan recommends 42 greenway projects and priority areas. These recommendations have been utilized and evaluated during this current planning process. A few recommendations from the 2004 plan are in the table below. Please refer to the full 2004 plan for details.

Greenway Corridor Descriptions (from the Greenville, NC Greenway Master Plan, 2004)

| ID | Corridor Name | Priority Level | Length (miles) | Trail Type(s) | Cost | Page Number |
|----|---------------------------------------|----------------|----------------|---------------|---------------|-------------|
| 1 | Green Mill Run Greenway | Complete | 1.3 | 4 | Completed | 22 |
| 2 | Completed Sidewalk Connectors | Complete | 8.8 | 5 | Completed | 24 |
| 3 | Green Mill Run, Phase II | A | 0.6 | 4 | \$200K | 26 |
| 4 | Green Mill Run, Phase II - Alternates | A | 1.2 | 1,2,5 | See p.28 | 28 |
| 5 | Green Mill Run, Phase II - Natural | A | 1.3 | 1,2 | See p.30 | 30 |
| 6 | Green Mill Run, Charles to Evans | A | 0.5 | 4 | \$110K | 32 |
| 7 | South Tar River Phase I | A | 2.9 | 4,5 | \$400K | 34 |
| 8 | Beech Street | A | 0.6 | 3,4,5 | \$80K | 36 |
| 9 | Green Mill to South Tar | A | 1.3 | 4 | \$270K | 38 |
| 10 | 3rd Street Connector | B | 2 | 4,5 | \$130K | 40 |
| 11 | W. Greenville Sidewalk Connector | B | 5.2 | 5 | \$300K | 42 |
| 12 | Schoolhouse Branch | B | 1.3 | 4 | \$650K | 44 |
| 13 | Bells Branch | C | 1.5 | 3,5 | \$130K | 46 |
| 14 | Hardee Creek | C | 2.1 | 3,5 | \$160K | 48 |
| 15 | Tar River to Hardee Creek | C | 0.9 | 2 | \$390K | 50 |
| 16 | 14th Street, Elm to Greenville | C | 1 | 5 | \$100K | 52 |
| 17 | Green Mill, Evans to Allen | C | 3.5 | 4 | \$800K | 54 |
| 18 | Green Mill, Evans Alternate | C | 0.7 | 5 | \$70K | 56 |
| 19 | Green Mill, Lake Ellsworth | C | 1.3 | 4 | \$260K | 58 |
| 20 | Harris Mill Run, South | C | 2.8 | 4,5 | \$300K | 60 |
| 21 | South Tar River Phase II | D | 2.4 | 2,4 | \$1.3 million | 62 |
| 22 | Parker's Creek | D | 4.9 | 2,4,5 | \$1 million | 64 |
| 23 | Parker's Creek Alternate | D | 0.7 | 3,5 | \$60K | 66 |
| 24 | Meeting House Branch | D | 2.4 | 3,4 | \$340K | 68 |
| 25 | Meeting House/Fire Tower Hub | D | 1.5 | 5 | \$90K | 70 |
| 26 | 14th Street Trail, SE Segment | D | 1.4 | 5 | N/A | 72 |
| 27 | College Court System | E | 4 | 4,5 | \$350K | 74 |
| 28 | Hardee - Bells Fork Extension | E | 2.8 | 3,5 | \$225K | 76 |
| 29 | Fire Tower | E | 1.8 | 5 | \$180K | 78 |
| 30 | Fire Tower to Hub - Connector | E | 2.8 | 2,5 | \$245K | 80 |
| 31 | Harris Mill Run, North | E | 1.4 | 4 | \$280K | 82 |
| 32 | Fork Swamp Greenway | Future | 3.3 | 2,3 | \$660K | 84 |
| 33 | Fork Swamp Loop | Future | 2 | 2,3,5 | \$150K | 86 |
| 34 | Swift Creek Greenway | Future | 2.6 | 2,4 | \$750K | 88 |
| 35 | Swift Creek to Memorial | Future | 0.7 | 5 | \$65K | 90 |
| 36 | Bike Alternate to Greenville Blvd | Future | 1.7 | 5 | N/A | 92 |
| 37 | Allen Road to Evans Street | Future | 6.6 | 5 | \$700K | 94 |
| 38 | Evans to Queen Anne's Connector | Future | 0.5 | 5 | \$50K | 96 |
| 39 | Hub Loop, Southern Connector | Future | 2.8 | 5 | \$40K | 98 |
| 40 | South Tar River Phase III | Future | 2 | 4,5 | \$400K | 100 |
| 41 | North Tar River | Future | 9.1 | 1,2 | See p.102 | 102 |
| 42 | Parkers Creek Extension | Future | 3.9 | 4,5 | \$600K | 104 |



PITT COUNTY GREENWAY PLAN 2025 (CREATED IN 2006)

The Pitt County Greenway Plan was intended to serve as a guide for the establishment of a countywide network of greenways and trails. This Plan also serves to expand the City of Greenville's existing greenway system and proposes extensions from the corridors cited in the 2004 Greenway Master Plan. This plan recommends the consideration of 215 miles of greenway network of which 155 miles are in unincorporated areas, 45 miles are within the EJT boundaries, and 14 miles within city limits. Below are the pertinent recommendations. Please refer to the full document for details.

Summary of All Proposed Greenways by Municipality (from the Pitt County Greenway Plan 2025, Created in 2006)

| UNIT | LENGTH IN FEET | MILES | PCT |
|---------------------------------|---------------------|---------------|----------------|
| Ayden City & ETJ Combined | 39,096.48 | 7.40 | 3.42% |
| Bethel City & ETJ Combined | 32,439.98 | 6.14 | 2.84% |
| Falkland City & ETJ Combined | 8,681.13 | 1.64 | 0.76% |
| Farmville City & ETJ Combined | 63,342.16 | 12.00 | 5.55% |
| Greenville City & ETJ Combined | 18,520.98 | 3.51 | 1.62% |
| Grifton City & ETJ Combined | 65,940.26 | 12.49 | 5.77% |
| Grimesland City & ETJ Combined | 135.02 | 0.03 | 0.01% |
| Simpson City & ETJ Combined | 22,577.64 | 4.28 | 1.98% |
| Unincorporated | 813,876.00 | 154.14 | 71.26% |
| Winterville City & ETJ Combined | 77,586.16 | 14.69 | 6.79% |
| TOTAL | 1,142,195.81 | 216.33 | 100.00% |

TOWN OF AYDEN COMPREHENSIVE SIDEWALK PLAN (2009)

The Town of Ayden has many residential neighborhoods and commercial corridors that do not have connective sidewalk networks in place for their pedestrian travelers. This is in part due to the piecemeal manner in which these sidewalks were put into place. Prior to 2006, subdivisions were not required to provide sidewalks, so most did not. The same is true in many stretches of the Town's busiest commercial corridors. This lack of connectivity does not facilitate or promote pedestrian circulation, nor does it provide for safe or convenient pedestrian movement.

See Appendix G for list of projects from this plan.

The Comprehensive Sidewalk Plan was developed to correct these problems and to provide communitywide, comprehensive guidelines to govern the future growth of the town's sidewalk network. The Plan stresses the concept of connectivity in three major areas; (1) connectivity of the existing sidewalks within our community's neighborhoods, (2) connectivity between and among these neighborhoods, and (3) connectivity along and between the City's major commercial corridors. The result of this Plan will be a system of sidewalks that will facilitate and promote the safe and convenient circulation of pedestrian traffic throughout the Town. The plan identifies approximately 6.82 miles of existing sidewalks and 9.66 miles of new sidewalk needs. Please refer to the full plan for details.



3 BICYCLE NETWORK RECOMMENDATIONS

Chapter Contents

Overview

Methodology for Bike Network Design

Recommended Facility Types

Facility Types for Arterial/Collector Roads

Facility Types for Local and Neighborhood Streets

Off-road paths

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Ancillary Improvements

Pilot Projects

Regional Connectivity

Bike Network Maps

Overview

The recommended Greenville Urban Area MPO bike network represents a comprehensive set of existing and proposed bicycle transportation and recreation facilities. The network includes on-road and off-road facilities such as bicycle lanes, signed routes, and greenways.

The following sections of this chapter include: 1) how the network was designed (methodology); 2) descriptions of the types of facilities and treatments that make up the system; 3) overall system breakdown, 4) ancillary facilities, 5) pilot projects, 6) regional connectivity, and 7) bike network maps.

Methodology for Bike Network Design

The bike facility system was designed by first assembling all existing bicycle-related recommendations and information from current plans and studies. Secondly, a thorough analysis with geographic information systems (GIS) and fieldwork was conducted to examine roadways for recommendations. The analysis inventoried the existing roadway network (MPO study area) based on existing suitability for bicycling as well as the potential for installing bicycle facilities through some type of roadway improvement. Bicycle network objectives included:

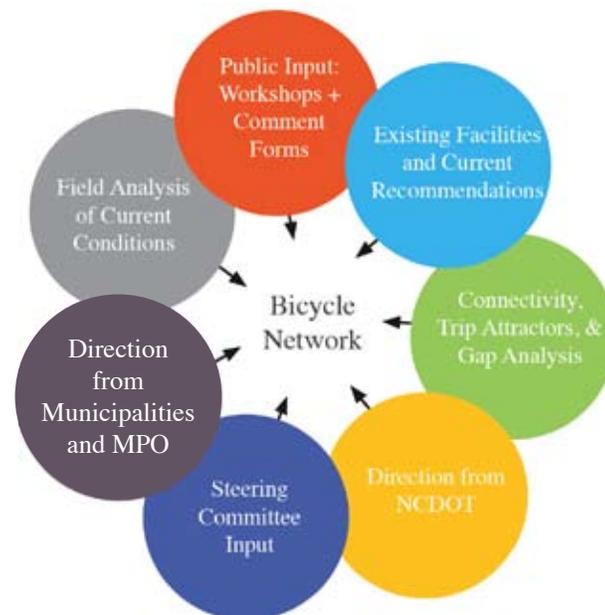
- Overcome barriers and lack of connectivity.
- Achieve thorough geographic coverage across populated areas.
- Provide facilities that connect important destinations and serve all populations, particularly lower-income communities whose populations depend more on bicycling for transportation.
- Provide the best possible safety in traffic.
- Ensure routes are continuous, direct, convenient, and linking to other routes.
- Where needed and feasible, provide parallel routes to busy arterial roadways that serve the needs of all cyclists.

The network segments were chosen with the following questions in mind:

- Does this enhance access to important destinations such as ECU, schools, shopping, employment centers, parks, trails, Downtowns, etc?
- Is the existing street right-of-way width sufficient for making improvements?
- Is there relative ease of bicycle improvement implementation without roadway widening (striping, pavement marking, restriping, etc)?
- Is this an opportunity for improvement because of an already scheduled roadway improvement project (including projects from GUAMPO TIP list)?
- Are there relatively low traffic volumes and speeds (generally comfortable for bicycling without major improvements)?



- Does the route provide connectivity within and between municipalities?
- Was the route recommended by the public and local government staff?
- Can the route circumvent barriers such as major highways, railroads, waterways, and bridges?
- Does the route complement and add to the existing and recommended greenway trails network?



The recommended bike network and assembled information was presented to the public, local government staff, the Steering Committee, and various project stakeholders. Together, the input from these groups helped to inform the overall system design; through writing and drawing on input maps, filling-out comment forms, direct dialogue, and e-mailed comments. These and other key inputs are shown in the diagram at right.

Recommended Facility Types

A variety of bicycle facilities are recommended due to 1) the range of skill and comfort levels involved in bicycling, and 2) the range of existing conditions for bicycling in different landscapes and on different roadway environments. One facility type will not fit all roadways because of variations in roadway configurations and land use; thus a toolbox of facility types is used. These recommendations are at a planning level only and will require further analysis before implementation.

Key Inputs - See chapter 2 for more information on these inputs.

The recommended bicycle system is made up of two major types of facilities (on-road and off-road). Within each type are multiple facility options that are tailor-recommended for specific segments of the overall system. Descriptions and standards for each type are described in Appendix B: Design Guidelines. The images and descriptions below are provided for a quick reference when viewing the Bicycle Network Maps at the end of this chapter.

Facility Types for Arterial/Collector Roads

These on-road bike facility types are used typically on arterial, collector, and subcollector roadways where motor vehicle traffic volumes or speeds are higher than residential roads. They include:

BICYCLE LANE

A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are always located on both sides of the road (except one way streets), and carry bicyclists in the same direction as adjacent motor vehicle traffic. The minimum width for a bicycle lane is four feet; five- and six-foot bike lanes are typical for collector and arterial roads. Where bicycle lanes are recommended in this plan, speed limit reduction should be strongly considered. Various methods of bicycle lane construction are described below.



Bicycle lane (design guidelines on page B-6)

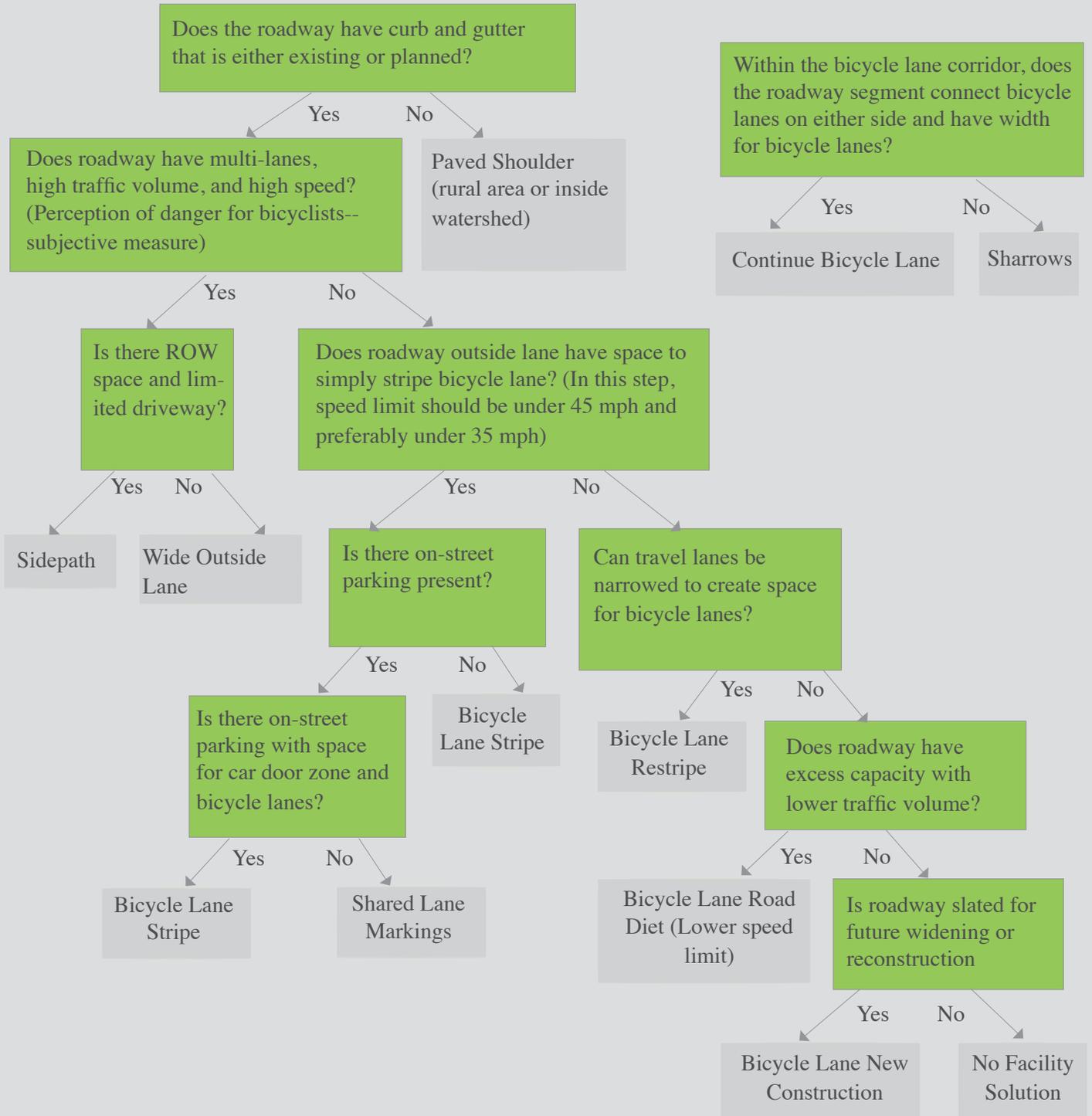
Bicycle Lane - Road Diet:

Road diets typically involve reducing the number of travel lanes (from a four-lane road to a two-lane road with center turn lane, for example) allowing adequate space for bicycle lanes. Road diets also have traffic calming benefits. These projects can occur during roadway resurfacing projects.



DECISION TREE FOR RECOMMENDING BICYCLE FACILITIES

The following methodology was used in order to determine what type of facility to recommend for individual roadways. Utilizing such information as future roadway reconstruction schedules, existing roadway widths, existing roadway speed limits, and existing traffic volumes, the decisions were made through a decision-tree, as presented below.





Bicycle Lane - Stripe:

Refers to projects that require only the striping of a bicycle lane, with no other changes needed to the roadway or existing roadway striping.

Bicycle Lane - Restripe:

Refers to projects that require restriping travel lanes (often to a more narrow width) allowing adequate space for bicycle lanes. Narrowing the widths of travel lanes has been demonstrated to have no affect on overall roadway capacity (see page 8-10 for more on this topic). In this plan, a restripe is recommended where existing travel lanes can be reduced to a minimum of 11 feet. These projects can occur during roadway resurfacing projects.

Bicycle Lane - New Construction:

Refers to projects that require adding additional pavement width to the roadway to allow adequate space for bicycle lanes. It is likely that these bicycle facilities will be implemented to coincide with future roadway construction projects.

WIDE OUTSIDE LANE

A wide outside lane refers to the through lane closest to the curb and gutter of a roadway. The American Association of State Highway and Transportation Officials (AASHTO) standard lane width to accommodate both motorists and bicyclists is 14'. This facility type allows motorists to more safely pass slower moving bicyclists without changing lanes. Wide outside lanes are intended for bicyclists with traffic-handling skills and are typically recommended on multi-lane, higher volume roadways.



Wide outside lane (design guidelines on page B-9)

PAVED SHOULDERS

Paved shoulders are the part of a roadway which is contiguous and on the same level as the regularly traveled portion of the roadway. There is no minimum width for paved shoulders, however a width of at least four feet is preferred. Ideally, paved shoulders should be included in the construction of new roadways and/or the upgrade of existing roadways, especially where there is a need to more safely accommodate bicycles. Paved shoulders make up the majority of recommendations in this Plan because of the substantial mileage of rural roadways. When development occurs, roadways are reconstructed, and/or curb and gutter are added in the future, bicycle lanes should be considered for some of these roadways.



Paved shoulder (design guidelines on page B-9)

SHARED MARKINGS ("SHARROWS")

Shared lane markings are used on roadways where dedicated bicycle lanes are desirable but are not possible due to physical or other constraints (roadway width, on-street parking, etc). Placed in a linear pattern along a corridor (typically every 100-250 feet), shared lane markings make motorists more aware of the potential presence of cyclists; direct cyclists to ride in the proper direction; and remind cyclists to ride further from parked cars to avoid 'dooring' collisions.



Sharrows (design guidelines on page B-5)

Facility Types for Local and Neighborhood Streets

Because local and neighborhood streets feature lower traffic volume and lower speeds, they already provide a safe, legitimate option for bicycle travel. Bicycle travel on these roads is typically not separated from motor vehicle traffic.



Signed route (design guidelines on page B-51)



Bicycle boulevard (design guidelines on page B-10)

SIGNED BICYCLE ROUTE (ENHANCED SHARED ROADWAY)

These routes are recommended on roadways where bikeway signage and markings are used to increase driver awareness of bicycles on the roadway and traffic calming devices and/or intersection crossing treatments enhance bicycle travel. Typically, these routes are recommended in locations that serve as alternate routes for dangerous roadways. They were chosen as part of the network because of the importance of overall system connectivity and connectivity to destinations such as parks and schools. Sharrow markings may be considered in special circumstances such as higher traffic volumes.

BICYCLE BOULEVARD

These special facilities are recommended on streets with low motorized traffic volumes and speeds where bicycle travel is given priority and where signs, markings, traffic calming and other improvements are used to discourage through trips by motor vehicles. Bicycle boulevards also include safe, convenient bicycle crossings of busy arterial streets. Bicycle boulevards are not just signed bicycle routes, but are streets on which bicycles have preference over cars and designed in a way to effectively divert motorized traffic. Design elements that may be included are diverters, reconfiguration of stop signs to favor the bike boulevard, traffic calming and shared lane markings, as well as crossing improvements at high traffic crossings. Automotive traffic still has access to residences or businesses, but traffic control devices are used to control automobile traffic speeds and access while supporting through bicycle traffic.

Bicycle boulevards are best developed in areas with especially high potential for bicycle use so that the presence of bicyclists themselves on the street becomes a significant design element. Bicycle boulevards are also best developed in areas where through motor vehicle traffic can reasonably be directed to other streets.

Off-road paths

Off-road bikeways are intended to create completely separated spaces for bicyclists and pedestrians. These are the preferred facility for novice and average bicyclists. Special consideration must be given to environmental conditions and for all roadway crossings. Greenways recommended in this plan were largely derived from the 2004 Greenville Greenway Master Plan and the Pitt County Greenway Plan. Some minor modifications and additions were made based on Committee input and public input.



Sidepath (design guidelines on page B-35)



Multi-use path/greenway (design guidelines on page B-33)

SIDEPATHS

Multi-use paths located within the roadway corridor right-of-way, or adjacent to roads, are called 'Sidepaths.' Sidepaths are most appropriate in corridors with few driveways and intersections. Bicycle routes where side paths are recommended should also have adequate on-road bicycle facilities (such as paved shoulders or bicycle lanes) wherever possible.

MULTI-USE PATHS OR GREENWAYS

Multi-use paths are completely separated from motorized vehicular traffic and are constructed in their own corridor, often within an open-space area. Multi-use paths include greenway trails, rail-trails and other facilities built exclusively for bicycle and pedestrian traffic. The most significant greenway recommendation is the continued development of greenways recommended in the 2004 Greenville Greenways Master Plan.



Bike System Breakdown

MILEAGE TABLE (BREAKOUT OF FACILITY RECOMMENDATIONS)

| <i>Recommended Facility</i> | <i>Method</i> | <i>Mileage</i> |
|--------------------------------|------------------|----------------|
| In-roadway Bikeways | | |
| Bike Lane | Stripe | 11.1 |
| Bike Lane | Restripe | 15.3 |
| Bike Lane | New Construction | 39 |
| Paved Shoulder | New Construction | 143 |
| Wide Outside Lane | Restripe | 21.1 |
| Shared roadway Bikeways | | |
| Sharrow | Stripe | 13.4 |
| Bike Boulevard | New Construction | 2.2 |
| Signed Route | Signage | 24.2 |
| Off-road Paths | | |
| Sidepath | New Construction | 17.2 |
| | | |
| | Total | 286.5 |

Ancillary Improvements

In order to create safe, bikeable communities, it is critical to take a comprehensive approach, looking beyond the construction of linear facility types described above. This includes, but is not limited to, roadway crossings, automobile speed reduction, and end-of-trip facilities such as bicycle parking.

INTERSECTIONS/CROSSINGS

Roadway crossings present a particular challenge for bicyclists. The Greenville Urban Area has a number of complex intersections and uncontrolled roadway crossings that are barriers to popular routes. This is because 1) they cannot be avoided, or 2) creation of a detour would require a major inconvenience for bicyclists, who would be unlikely to use it. In many cases, the roadways to be crossed are 5-lane arterials such as E 10th Street and Greenville Blvd.

Design guidelines for bicycle-friendly intersections and crossings are on pages B-11, B-32 and B-45.

Many of these intersections and unsignalized crossings will require further study to determine appropriate treatment and placement of crossings. These locations will require special design considerations. Their unique nature suggests that a wide variety of solutions may be employed, such as the following:

- Bicycle signal heads
- Advance bicycle boxes
- Bicycle detection technology to actuate traffic signals
- HAWK signals
- Adjustment of signal phases and timing
- Special striping patterns
- New curb ramps and crosswalk striping
- Curb extensions
- Allowing bicyclists to use sidewalks in discrete locations
- Signs communicating safety precautions, operational directives and wayfinding
- Minimizing right turn on red lights



In addition to all of the on-street facilities and treatments described above, there are other accommodations that are being used in U.S. cities, that are still in the experimental phase. Some of these facilities may be useful in Greenville; however, it is expected that this will not be the case until later phases of plan implementation.

Seventy-one intersections were inventoried, including the top 25 identified by the public as needing improvement, with recommendations for pedestrian accommodations in Chapter 4. These improvements will improve the bicycle safety at these locations as well.

SPEED LIMIT REDUCTION

Speed limit reduction should be strongly considered along some of the Greenville Urban Area roadways, especially as bike lanes are added. Traffic speed was considered a major deterrent to bicycling and walking by the public. It was the second highest ranked factor that discouraged biking (the highest ranking factor was lack of facilities). Specific roadways in which high-speed traffic are a concern are:

- County Home Road (near farmers market, community gardens, recreation center, and Wintergreen Primary/Intermediate Schools)
- Arlington Blvd.
- Evans St
- Old Tar Rd.
- Thomas Langston Rd.
- Charles Blvd.
- 10th Street
- 14th Street

It is recommended that further study be conducted to determine appropriate speed limit reduction and that enforcement also be a part of a comprehensive solution.

END-OF-TRIP FACILITIES/BICYCLE PARKING

Citizen input during this planning process identified bike parking, storage, and/or shower facilities as critical to making transportation by bicycle possible.

Bike parking is an essential component of the bike system as an end-of-trip facility by providing increased convenience, accessibility, and functionality. It is often a forgotten component of a complete system. Properly designed and placed bike parking at multiple land uses in addition to corridor bikeways makes cycling a more feasible option for trips to work, the grocery, parks, etc. Parking should be ubiquitous, convenient and secure, and complement the surrounding streetscape. It should be as convenient as motor vehicle parking. Covered parking should also be considered especially at government buildings, employment centers, commercial locations, schools, and universities. The Greenville Urban Area MPO and its municipalities have an opportunity to proactively respond to the parking needs of residents today as well as anticipate parking desires in the future.

Bicycle parking can be introduced in a number of ways:

- Building code improvements (requirements for bicycle parking spaces with new development).
- Public right-of-way bike rack additions (for short-term parking).
- Bicycle parking innovation/aesthetics.
- Bicycle stations (enhanced bike parking areas with lockers and other features).
- End-of-trip facilities to also include showers/changing stations especially at places of work.

Design guidelines for bicycle parking are on pages B-20.



The Greenville Urban Area MPO should do the following to ensure bike parking becomes a priority:

- Seek changes to regulations to ensure all land uses provide ample bike parking and end-of-trip facilities such as showers/change facilities and lockers.
- Ensure high quality, placement, and function of bike parking to ensure practical, safe, and functional use.
- Encourage owners of buildings to add or upgrade bicycle parking.
- Establish a funding stream to fulfill future parking demand, improvements, and maintenance.

It is recommended that a separate bicycle parking study be conducted to identify and prioritize specific locations needing bike parking facilities. During this planning process, the following locations were identified:

- Harris Teeter (14th and Charles)
- Harris Teeter (Fire Tower and Charles)
- Town Commons Park
- Green Springs Park
- 10th and Evans (Starbucks)
- Locations along 3rd Street, 4th Street, 5th Street, and Evans
- Downtown Greenville
- Schools
- Bus stops
- Downtown Ayden
- Downtown Winterville
- Downtown Simpson

Further information about bicycle parking and stations can be found in Appendix B: Design Guidelines.

Pilot Projects (see Chapter 5 for examples)

In addition to the recommended bicycle network, a number of new treatments are recommended here as pilot projects. A pilot project provides the opportunity to test a new facility type where an improvement is needed. Three types of bike pilot projects have been identified for the Greenville MPO. If proven successful, the Greenville MPO should apply these treatments in additional locations. See Appendix B: Design Guidelines for more information on these recommended treatments.

BIKE BOULEVARDS

- 3rd Street from N. Memorial Drive to Meade Street (with sharrow in Downtown core from 2nd Street to Reade Street) (1,500-1,800 ADT in 2005/2006 on West 3rd Street)
- Overlook Dr. from S. Elm Street to Beaumont Dr. (less than 1,000 ADT)

BIKE DETECTION LOOPS

- College Hill Drive/10th Street (Greenville)
- Elm Street/14th Street (Greenville)
- Founders Drive/5th Street (Greenville)



Design guidelines for detector loops are on pages B-14.



*Design guidelines for
pega-tracking are on
pages B-12.*



*Design guidelines for
HAWK signals are on
pages B-32.*

BIKE LANE THROUGH INTERSECTION (PEGA-TRACKING)

- 5th Street and Elm Street (Greenville)
- After pilot project, consider for other major intersections as needed.

HAWK SIGNAL (BICYCLE AND PEDESTRIAN FACILITY)

- Forest Hill/Greenway and 10th Street (Greenville). The City of Greenville is adding a median refuge island for this crossing of the five-lane 10th Street. Without a signal currently present and the heavily used greenway crossing 10th Street, a HAWK signal would provide a safe opportunity to stop traffic and allow for crossing of bicyclists and pedestrians.
- 3rd Street crossing near Ayden Middle School Road (Ayden). This crossing would connect Ayden Elementary and Ayden Middle Schools. Without a signal currently present, a HAWK signal would provide a safe opportunity to stop traffic and allow crossing.
- County Home Road midblock crossing (Pitt County). This crossing would connect the Pitt County Recreation Complex, the Wintergreen schools, a community garden, and a senior center. It would also connect two trails on each side of the road that currently dead-end at the road with no crossing facility.

Regional Connectivity

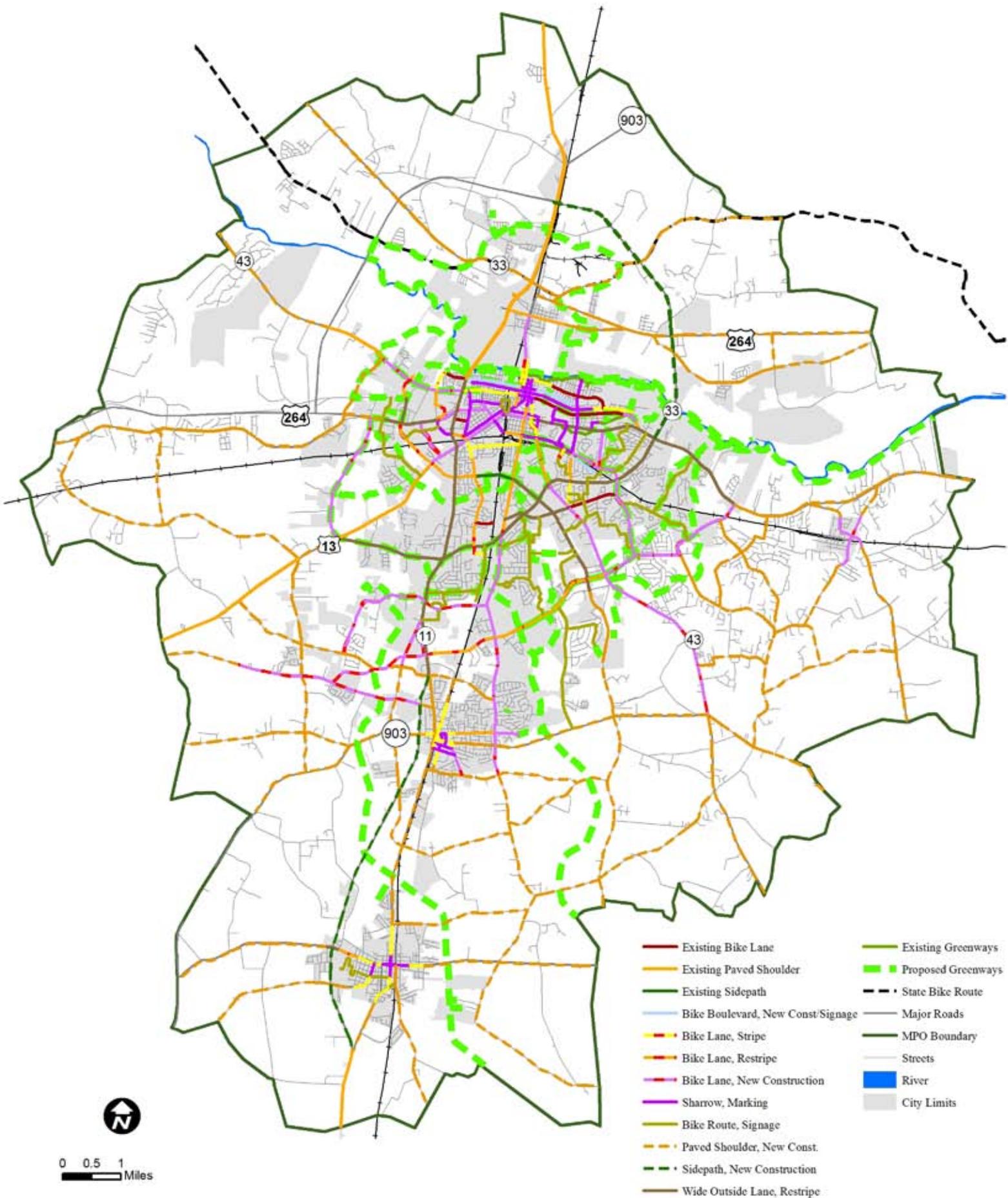
The Greenville Urban Area should look beyond its boundaries and link bicycle and pedestrian facilities to neighboring and regional destinations. It is recommended that all member jurisdictions, Pitt County, and the Greenville Urban Area MPO coordinate efforts with surrounding communities and counties to create long distance connections for alternative transportation and recreation. It will be critical to ensure compatibility and connectivity with ongoing planning efforts and actual bicycle facilities that meet at municipality borders.

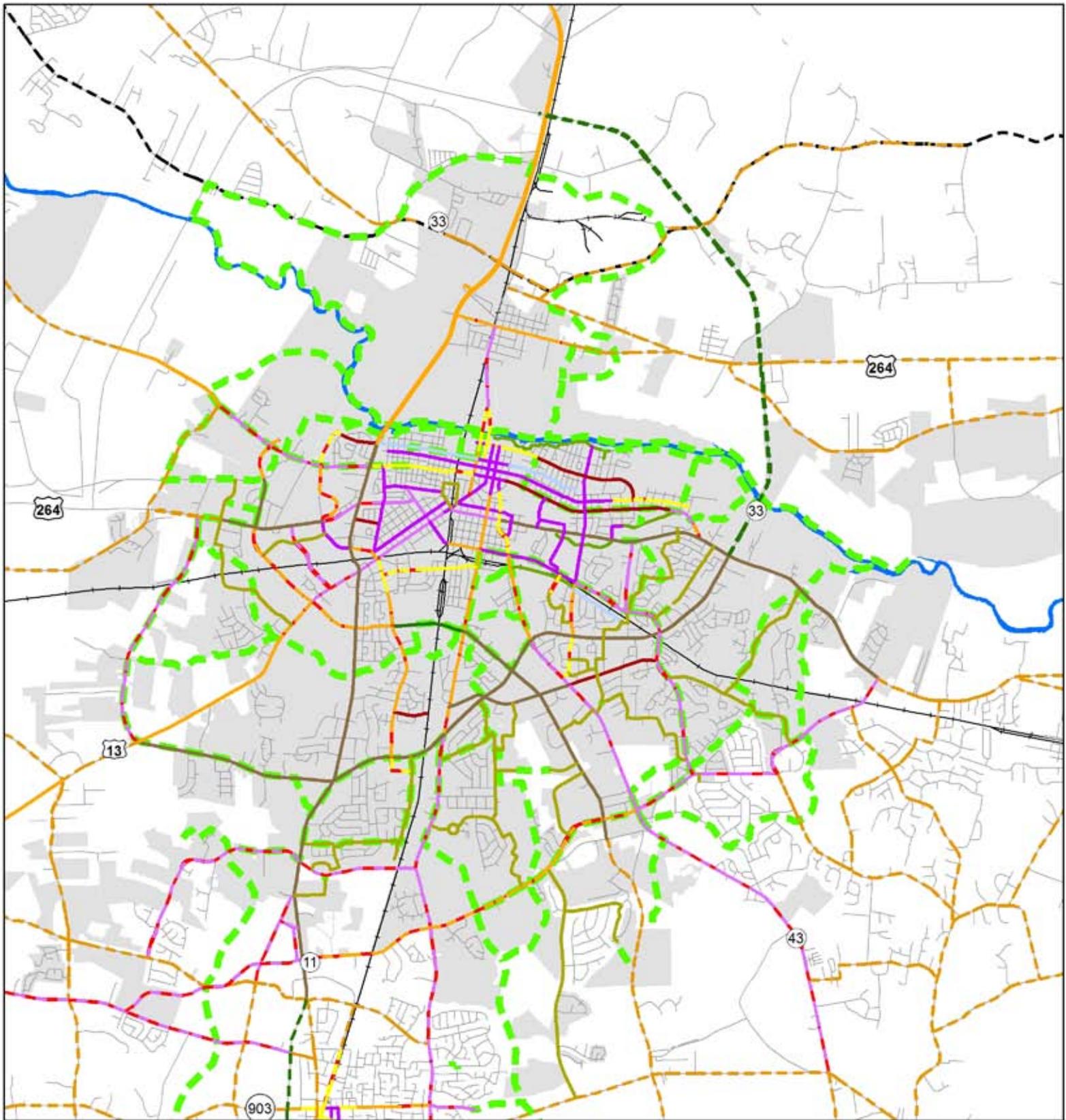
A key regional greenway corridor is the East Coast Greenway. At the time of this plan development, two conceptual greenway spines have been suggested through eastern North Carolina. One spine would traverse from the Raleigh-Durham area to Wilmington. The other spine would traverse through coastal regions, including Edenton, Wiliamston, Greenville, Jacksonville, and Wilmington. It will be important to collaborate with local and state officials, stakeholders, and the East Coast Greenway Alliance. By promoting and advancing the goals of the East Coast Greenway, the City of Greenville and surrounding jurisdictions can help ensure the passage of the national trail through the area. The Greenville Urban Area MPO should continue to work with local ECGA advocates to develop a plan for the East Coast Greenway through the metro rea and consider designating existing trails as segments of the East Coast Greenway.

Bike Network Maps

The following maps display the bike recommendations for the Greenville Urban Area MPO and each member jurisdiction. For priority pilot project descriptions and maps, see Chapter 5.

MAP 3.1 BICYCLE RECOMMENDATIONS: MPO



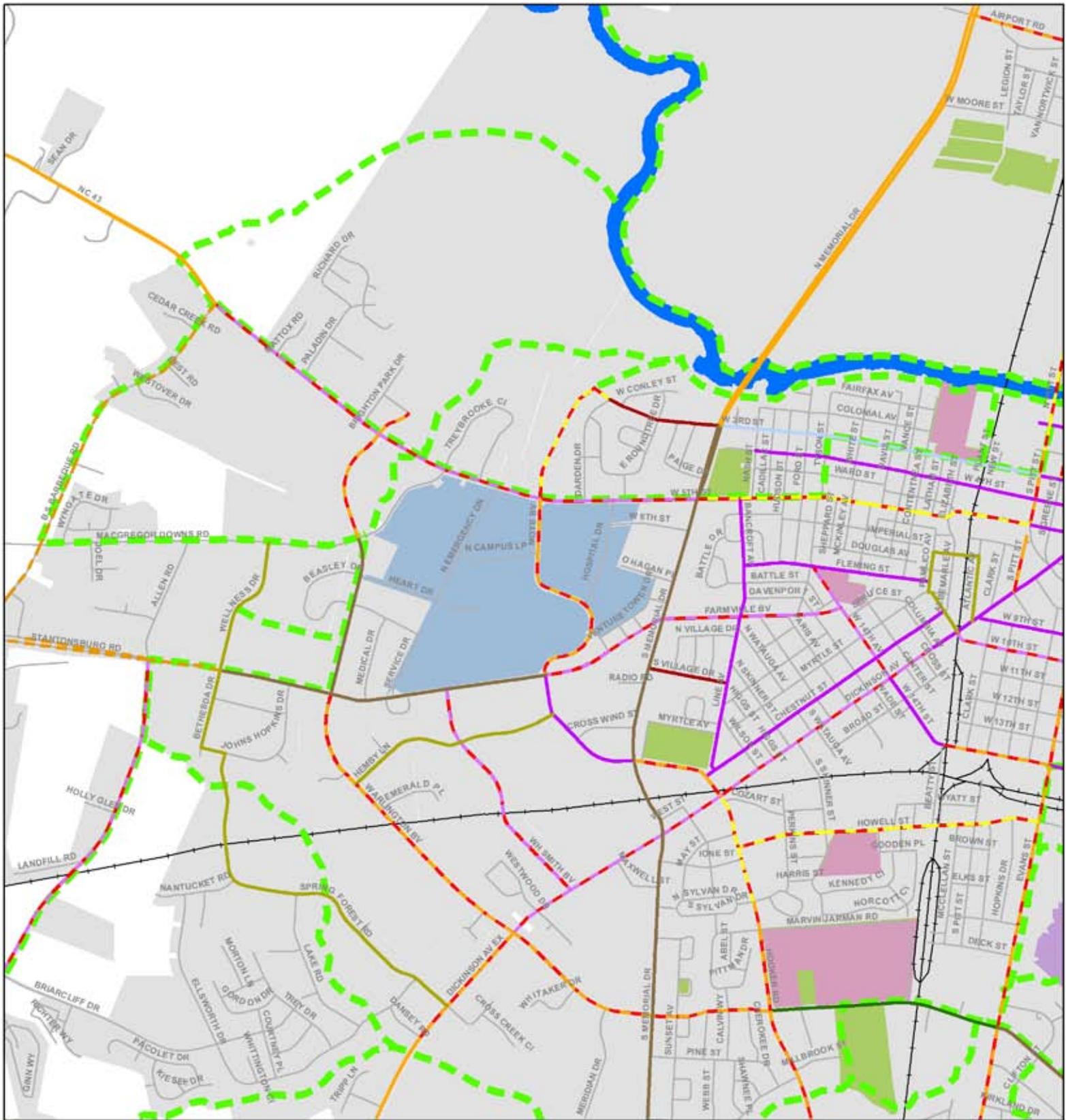


MAP 3.2 BICYCLE RECOMMENDATIONS: GREENVILLE

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrow, Marking | | Streets |
| | Bike Boulevard, New Const/Signage | | Bike Route, Signage | | River |
| | Existing Sidepath | | Paved Shoulder, New Const. | | City Limits |
| | Bike Lane, Stripe | | Sidepath, New Construction | | |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | |
| | | | Existing Greenway | | |
| | | | Proposed Greenway | | |



0 0.5 1 Miles

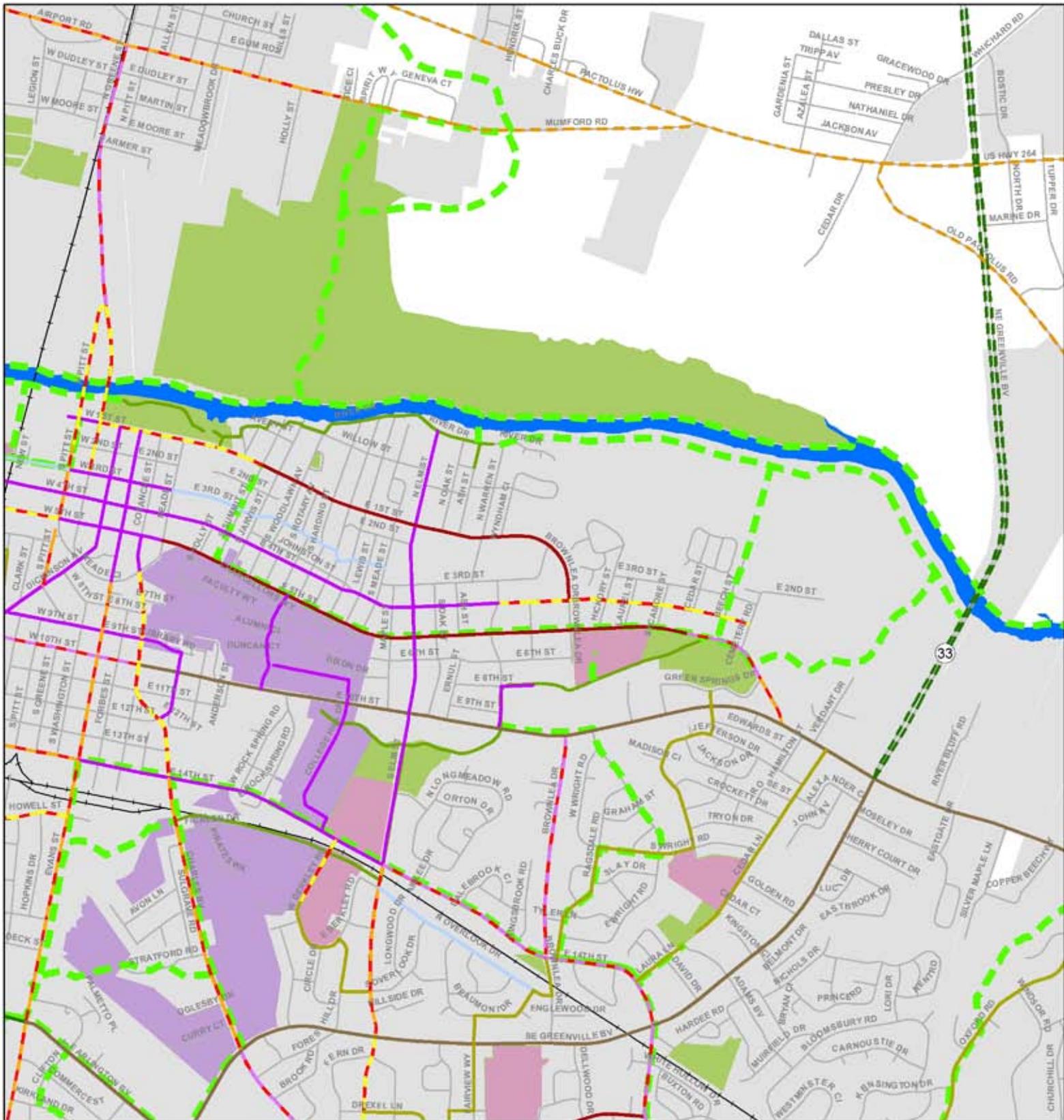


MAP 3.3 BICYCLE RECOMMENDATIONS: GREENVILLE (NW)

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrow, Marking | | Streets |
| | Existing Sidepath | | Bike Route, Signage | | River |
| | Bike Boulevard, New Const/Signage | | Paved Shoulder, New Const. | | Schools |
| | Bike Lane, Stripe | | Sidepath, New Construction | | Parks |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | ECU |
| | | | Existing Greenway | | Hospital |
| | | | Proposed Greenway | | City Limits |



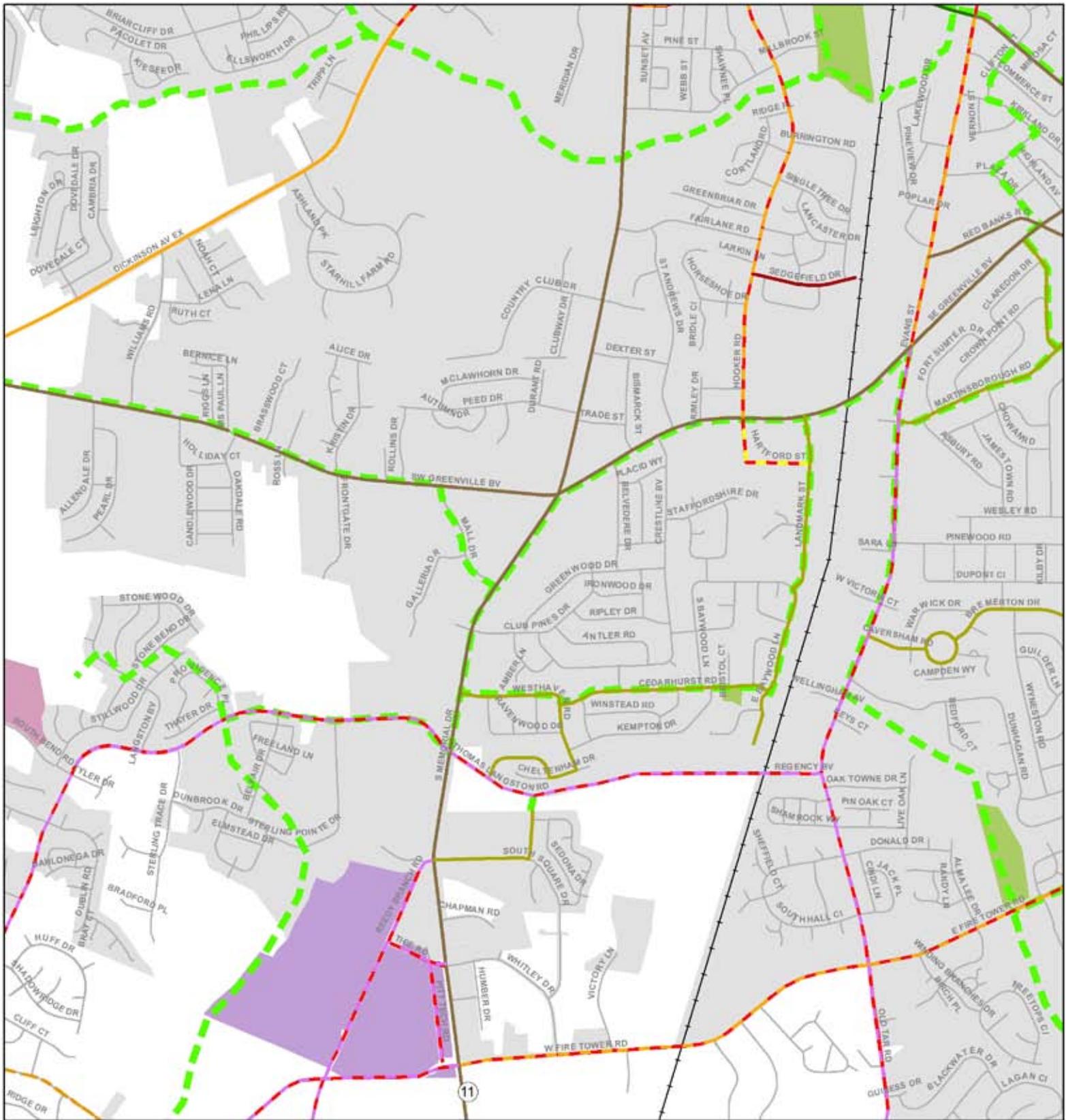
0 0.25 0.5 Miles



MAP 3.4 BICYCLE RECOMMENDATIONS: GREENVILLE (NE)

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrows, Marking | | Streets |
| | Existing Sidepath | | Bike Route, Signage | | River |
| | Bike Boulevard, New Const/Signage | | Paved Shoulder, New Const. | | Schools |
| | Bike Lane, Stripe | | Sidepath, New Construction | | Parks |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | ECU |
| | | | Existing Greenway | | Hospital |
| | | | Proposed Greenway | | City Limits |

0 0.25 0.5 Miles

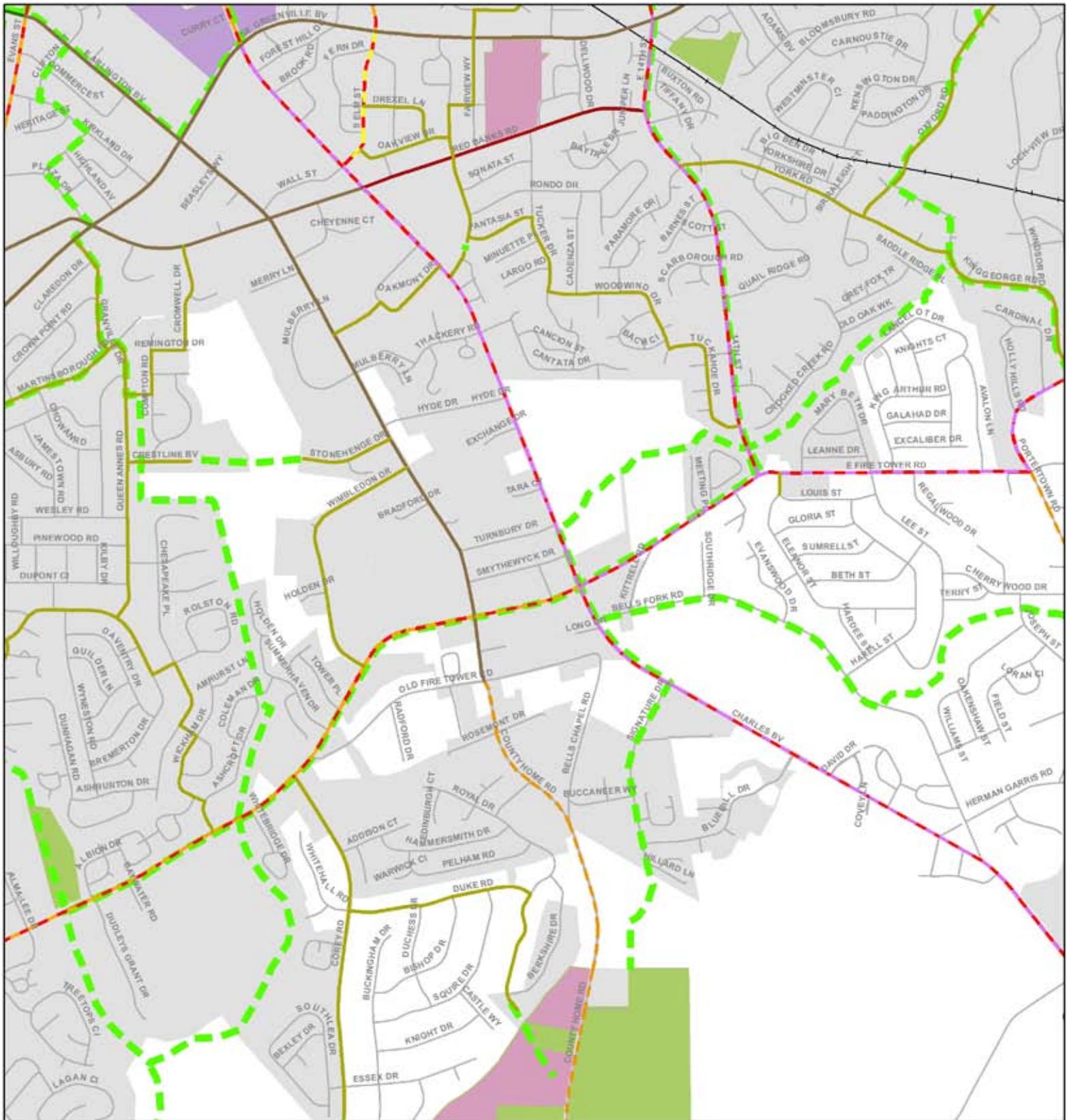


MAP 3.5 BICYCLE RECOMMENDATIONS: GREENVILLE (SW)

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrow, Marking | | Streets |
| | Existing Sidewalk | | Bike Route, Signage | | River |
| | Bike Boulevard, New Const/Signage | | Paved Shoulder, New Const. | | Schools |
| | Bike Lane, Stripe | | Sidewalk, New Construction | | Pitt C.C. |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | Parks |
| | | | Existing Greenway | | Hospital |
| | | | Proposed Greenway | | City Limits |



0 0.25 0.5 Miles

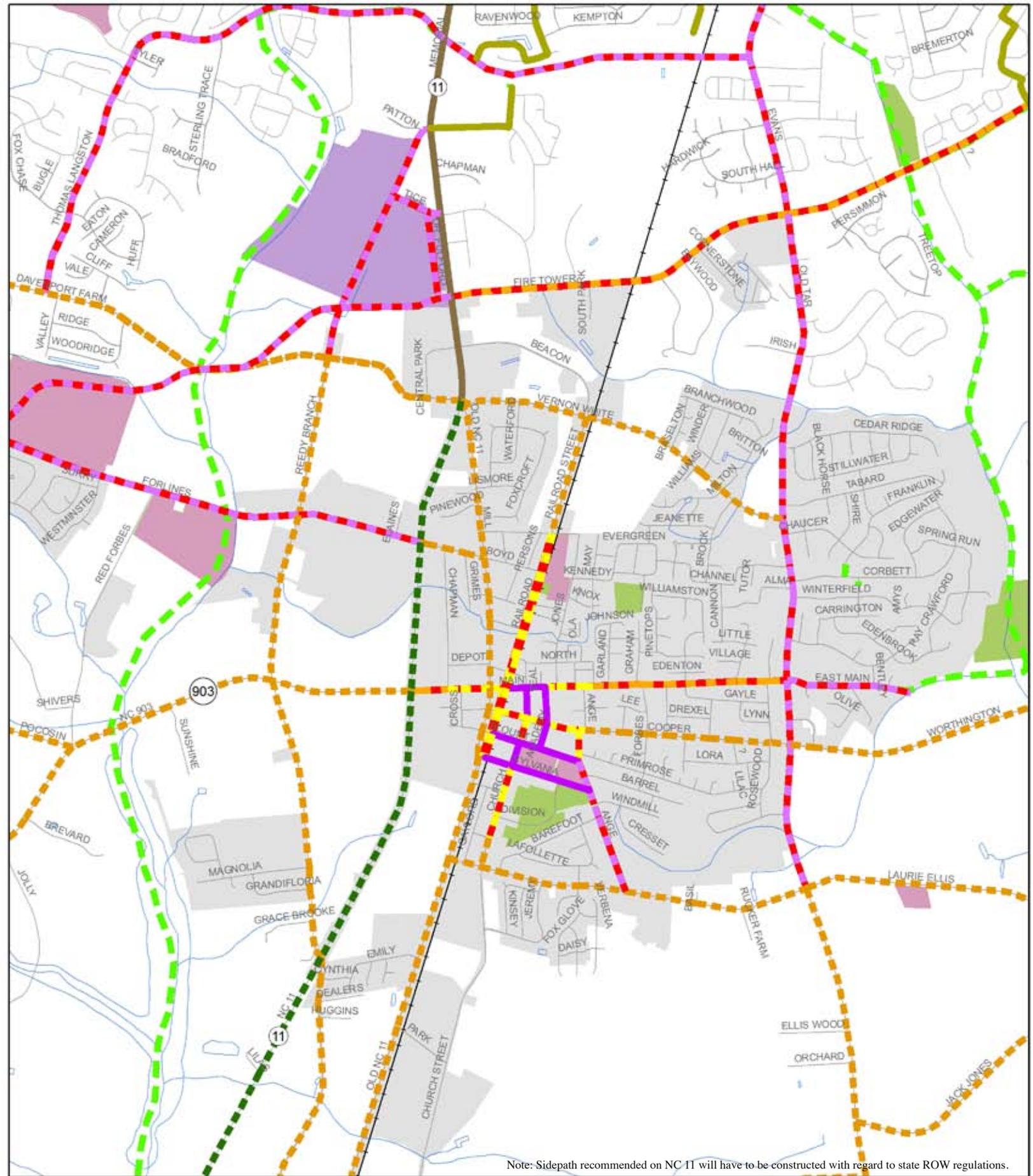


MAP 3.6 BICYCLE RECOMMENDATIONS: GREENVILLE (SE)



0 0.25 0.5 Miles

- Existing Bike Lane
- Existing Paved Shoulder
- Existing Sidepath
- Bike Boulevard, New Const/Signage
- Bike Lane, Stripe
- Bike Lane, Restripe
- Bike Lane, New Construction
- Sharrow, Marking
- Bike Route, Signage
- Paved Shoulder, New Const.
- Sidepath, New Construction
- Wide Outside Lane, Restripe
- Existing Greenway
- Proposed Greenway
- State Bike Route
- Streets
- River
- Schools
- Parks
- ECU
- Hospital
- City Limits

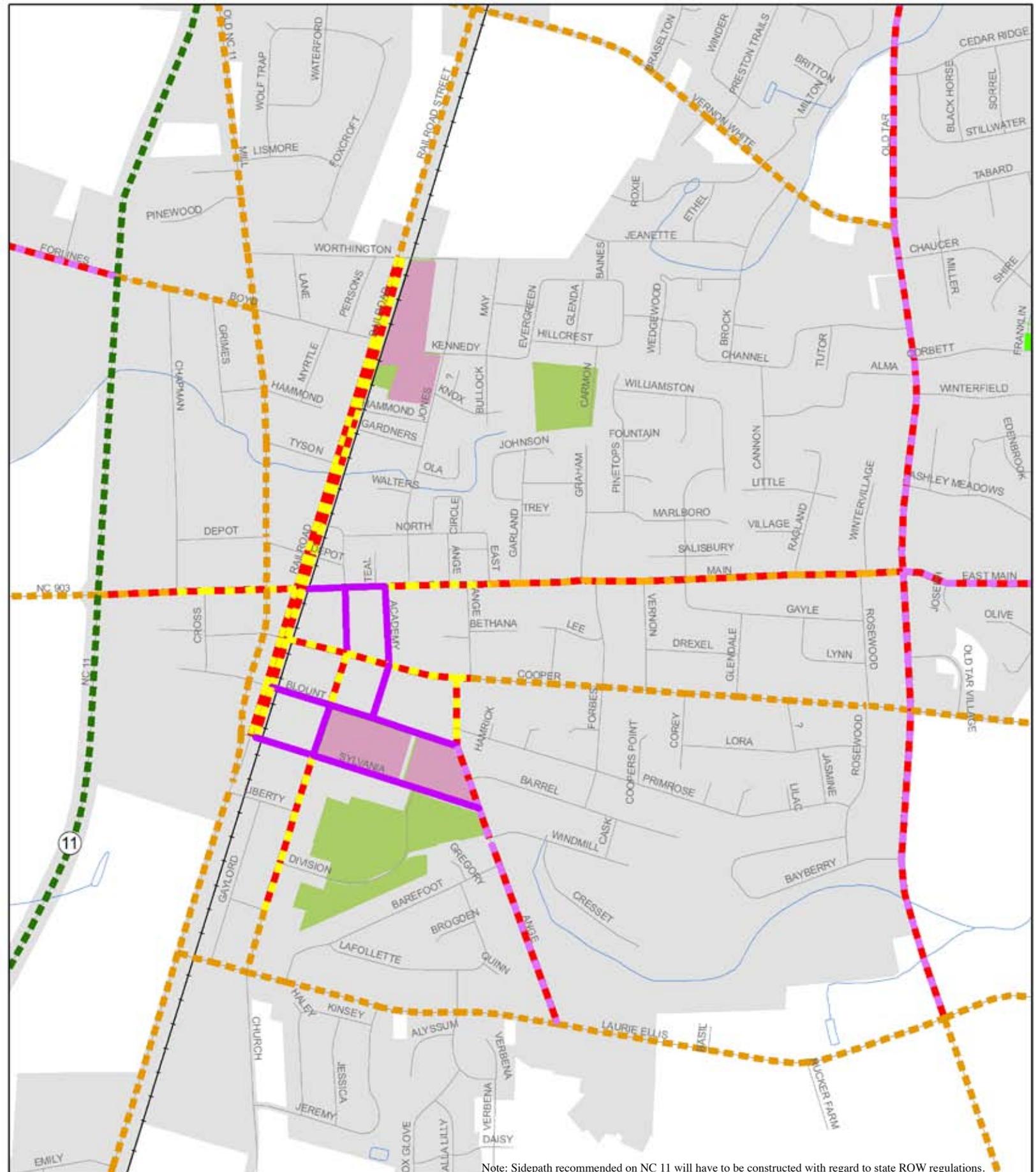


Note: Sidewalk recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.7 WINTERVILLE BIKE RECOMMENDATIONS



- Existing Bike Lane
- Sharrow, Marking
- State Bike Route
- Existing Paved Shoulder
- Bike Route, Signage
- Streets
- Bike Lane, Stripe
- Paved Shoulder, New Const.
- Hydrology
- Bike Lane, Restripe
- Sidewalk, New Construction
- Schools
- Bike Lane, New Construction
- Wide Outside Lane, Restripe
- Parks
- Recommended Greenways
- Pitt Community College
- Winterville

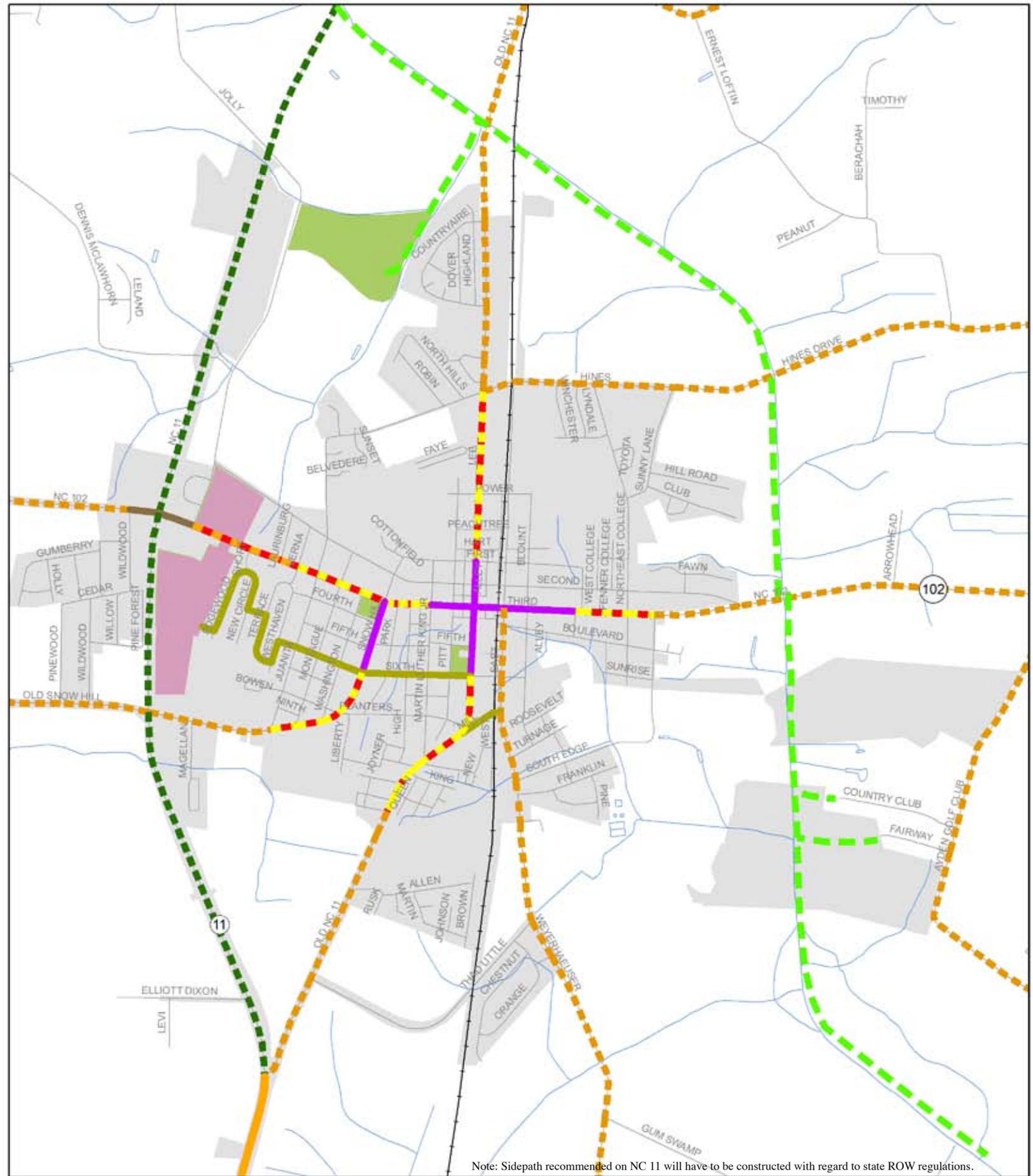


Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.8 WINTERVILLE DOWNTOWN BIKE RECOMMENDATIONS



- | | | | | | |
|--|-----------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Sharrow, Marking | | State Bike Route |
| | Existing Paved Shoulder | | Bike Route, Signage | | Streets |
| | Bike Lane, Stripe | | Paved Shoulder, New Const. | | Hydrology |
| | Bike Lane, Restripe | | Sidepath, New Construction | | Schools |
| | Bike Lane, New Construction | | Wide Outside Lane, Restripe | | Parks |
| | | | Recommended Greenways | | Winterville |



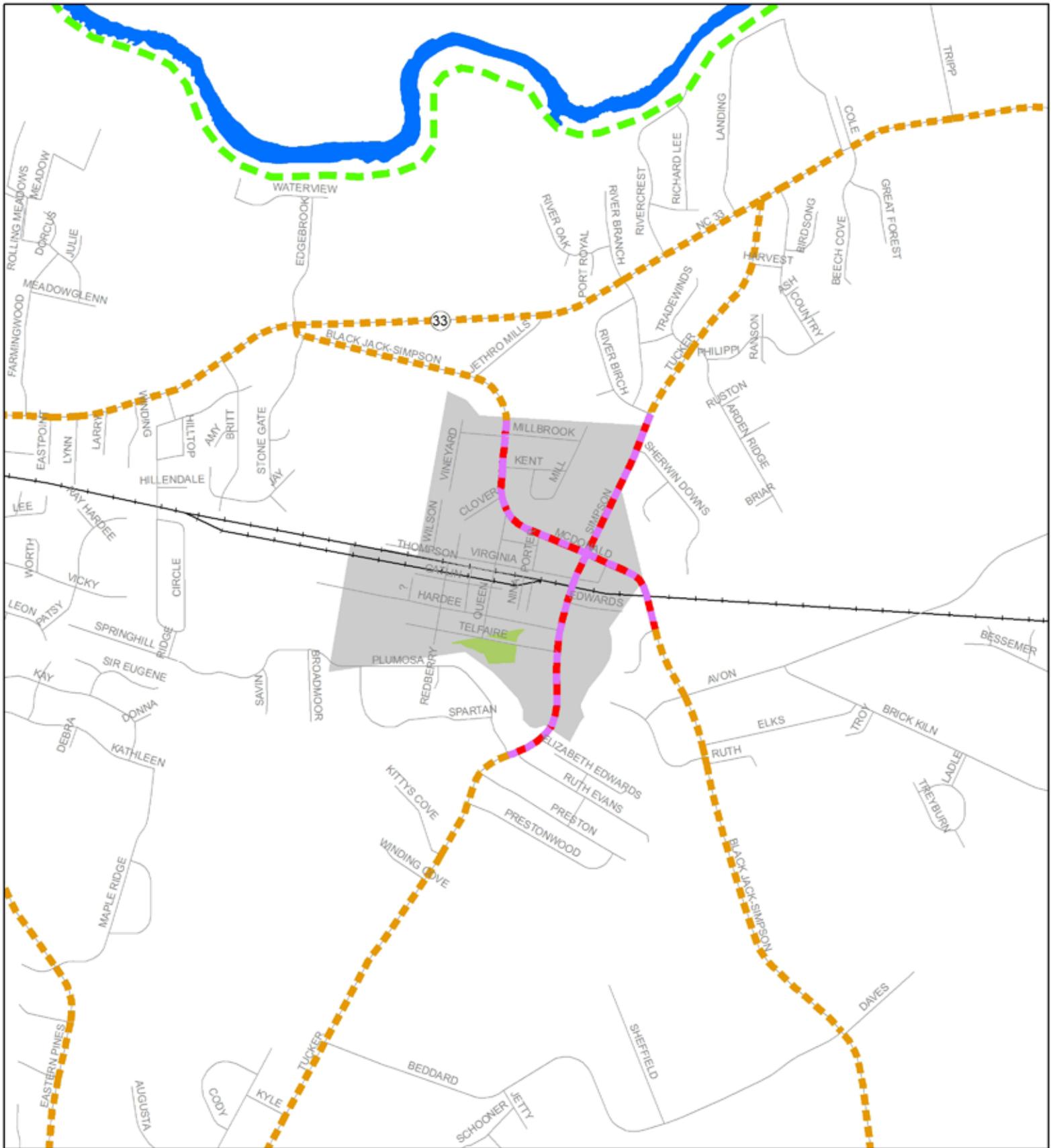
Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.9 AYDEN BIKE RECOMMENDATIONS



0 0.25 0.5 Miles

- | | | |
|-----------------------------|-----------------------------|------------------|
| Recommended Greenways | Sharrow, Marking | State Bike Route |
| Existing Bike Lane | Bike Route, Signage | Streets |
| Existing Paved Shoulder | Paved Shoulder, New Const. | Hydrology |
| Bike Lane, Stripe | Sidepath, New Construction | Schools |
| Bike Lane, Restripe | Wide Outside Lane, Restripe | Parks |
| Bike Lane, New Construction | | Ayden |



MAP 3.10 SIMPSON
BIKE RECOMMENDATIONS

- Bike Lane, New Construction
- - - Paved Shoulder, New Const.
- - - Recommended Greenways
- Streets
- River
- Parks
- Simpson



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double-sided printing)*



Chapter Contents

Overview

Methodology

Pedestrian Network Facility Types

Crossing Improvement Recommendations

Long-term Recommendations

Pedestrian Network Maps

Overview

The proposed pedestrian network is a series of pedestrian improvements that creates a more connected, comprehensive system. It has been developed from past planning efforts, public input, committee input, field analysis, and geographic information systems (GIS) mapping. This chapter presents the methodology, recommended pedestrian network facility types, intersection improvement recommendations, and pedestrian network maps.

Successful development of the pedestrian network will require a long-term, cooperative effort between the City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County, and NCDOT. Cooperative effort is important because many key recommendations come on roadways that are owned and maintained by different entities.

Methodology

The guiding philosophy in devising the network is the hubs and spokes model. Pedestrian corridors (spokes) should connect to trip attractors (hubs), such as parks, schools, Downtown, shopping centers, and other pedestrian corridors. The network then becomes a practical solution for pedestrian connectivity (see diagram at below).

Fieldwork included an examination of conditions at major intersections, conditions along primary corridors, conditions at pedestrian hubs, conditions near schools, and a consideration of gap connectivity. Map discussion and analysis was conducted at steering committee meetings and public meetings to pinpoint specific areas in need of pedestrian improvements.

The 'hubs and spokes' model conceptually illustrates how key destinations can be linked through various types of pedestrian facilities.



Pedestrian Network Facility Types

The Proposed Pedestrian Network for the Greenville Urban Area consists of three chief types of projects:

SIDEWALK PROJECTS

The recommended sidewalks aim to expand upon the existing network of sidewalks to provide a more connected system that connects destinations along roadways. 190 miles of new sidewalk are recommended for the Greenville Urban Area.

GREENWAY PROJECTS

The recommended greenways aim to expand upon a comprehensive off-road system that utilizes stream corridors and easements. Approximately 100 miles of greenway are recommended (These were largely derived from the 2004 Greenville Greenway Master Plan).

CROSSING IMPROVEMENTS

The crossing improvements aim to improve existing crossing facilities or create new crossing facilities at intersections and at mid-blocks. These improvements are critical in order to maintain a safe, connected system throughout the City.

In addition to these three chief capital improvement efforts, a comprehensive approach geared to walkability should be taken that includes such elements as traffic calming, driveway access management, and signage. It is recommended that a separate study be conducted to determine traffic calming needs and driveway access management needs throughout the Greenville Urban Area. Traffic calming can dramatically increase safety, even without the introduction of sidewalks. See Appendix B: Design Guidelines for more information on these types of treatments.

Crossing Improvement Recommendations

Most intersections in the Greenville Urban Area need some form of improvement. (71 intersections were analyzed in more detail with recommendations provided). Some of the treatments recommended in this chapter have been proven to reduce crashes, as shown in the 2007 FHWA Crash Reduction Factors Study (<http://safety.fhwa.dot.gov>). The table below shows some typical countermeasures and associated crash reduction factors from that study.

TABLE 4.1 PEDESTRIAN CRASH REDUCTION FACTORS

| Countermeasure | Crash Reduction Factor |
|---|------------------------|
| Install sidewalk | 74% |
| Install pedestrian countdown signal heads | 25% |
| Install pedestrian refuge islands | 56% |
| Improve/install pedestrian crossings | 25% |

Together these proposed facilities should be developed or improved to create a safe and connected pedestrian network throughout the Greenville Urban Area. On-road and off-road components should be integrated to provide a connected pedestrian transportation and recreation network. All pedestrian facility projects undertaken should aim to meet the highest standards possible when topography and right-of-way allows. Design guidelines in Appendix B provide detailed information regarding facility type, treatment, and proper placement.



Sidewalk construction on 5th Street in Greenville.



Typical crossing improvements include curb ramps, pedestrian-countdown signals, and marked crosswalks.

'Continental' striping for crosswalks is recommended for higher visibility



INTERSECTION RECOMMENDATION TABLES

Committee input, public input, and consultant fieldwork identified 71 key intersections in the Greenville Urban Area in need of improvement. These are by no means the only crossing improvements needed throughout the region. All intersections should meet standards provided in Appendix B: Design Guidelines. Where striping or restriping crosswalks is recommended, the new crosswalks should be high-visibility ‘continental’ striping, as shown at left.

All recommendations are developed at a planning level and will need a more detailed project-level review. The conclusions reached through further review may vary from those presented herein.

TABLE 4.1 INTERSECTION RECOMMENDATIONS

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Obstruction | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|---------|------------|---|----------------------------|--|---------------------------|--------------------------|--------------------------|-----------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|--|
| 1 | Mumford | Greene | Y (across railroad tracks) | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | Railroad crossing - separated space needed for pedestrians. Marked crosswalks needed across Mumford on E side, across Greene on S side |
| 2 | 1st | Reade | N | - | Y | - | - | Y (one) | N | N | N | N | Y | Y | N | N | Paint white stripes on outside of brick paver (so marked crosswalk stands out better); High-visibility marked crosswalks needed over 1st. Consider in-roadway signage and median island |
| 3 | 1st | Cotanche | N | - | Y | (Cotanche) | - | Y (two) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Opportunity for curb extensions onto 1st (south side) where there is on-street parking |
| 4 | 1st | Evans | N | - | Y | - | - | Y (one) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Opportunity for curb extensions onto 1st (south side) where there is on-street parking |
| 5 | 1st | Washington | N | - | Y | - | - | Y (all) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Need curb ramps all corners. |
| 6 | 1st | Greene | N | - | Y | - | Y (with truncated domes) | N | N | N | - | N | N | N | N | N | As is, this is a well defined pedestrian crossing. Making marked crosswalks highly-visible is the key here. |
| 7 | 2nd | Greene | N | Y | N | Y (for 2nd) | Y (with truncated domes) | N | N | N | N | N | Y | N | N | N | Need high-visibility marked crosswalk all ways |
| 8 | 5th | Hickory | Y (1 side of Hickory and south side of 5th) | N | N | N | - | Y (for crossing Hickory) | Y | Y (with on-street parking) | N | N | N | Y | N | N | Utilize median island space for a refuge. Curb extension should be provided on school side. Crossing guard needed here. |
| 9 | 5th | Brownlea | Y | Y (all ways) | - | Y (for Brownlea) | Y | Y | N | N | N (unless signal added) | N | Y | N | N | N | Crossing guard needed here. With turn lanes and no stoplight, a signal may be warranted. A pedestrian activated signal or HAWK may also be considered. |
| 10 | 5th | 10th | Y (all ways) | Y | - | Y | Y | Y | Y (for 5th) | N | Y | N | Y | N | N | N | This intersection is deficient for pedestrian needs. Sidewalk is a primary need here. Clear signage and crosswalks are needed. Existing pork chop island could be enhanced into a better pedestrian refuge. All crosswalks should be highly-visible. |
| 11 | 10th | Hwy 33 | Y | N | Y | - | Y | Y | N | N | Y | N | Y | N | N | N | The existing pork chop is nicely done as a refuge - curb ramp is needed. A safer pedestrian space should be created on SW corner. |
| 12 | 5th | Reade | N | N | Y (add white paint to outside of pavers) | - | - | Y | N | N | Y (add one crossing across Reade) | N | N | N | N | N | |

TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuges (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Observation | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|---------------------------------|----------------------|-------------------------------|--------------------------|---------------------------|--------------------------|--------------------------|-------------------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|---|
| 13 | Evans | Reade | N | - | Y | - | Y | Y | N | N | - | - | N | N | N | N | Need consistent curb ramps with high-visibility marked crosswalk. |
| 14 | Evans | 10th | N | - | Y | - | Y | Y | N | - | N | N | N | N | N | N | Need consistent curb ramps with high-visibility marked crosswalk. |
| 15 | Evans | 14th | Y | - | Y | N | Y | Y | N | - | Y | N | N | N | N | N | Pedestrian signals needed and existing crosswalks are faded. Curb ramps missing and are needed. |
| 16 | Evans | Arlington | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | Need sidewalk first. Marked crosswalk and signals are also needed. Curb ramps need improvement. |
| 17 | Evans | Red Banks | Y | Y | Y | Y | Y | Y | N (NE corner enhance pork chop) | N | Y | N | N | N | N | N | Sidewalk needed first. Marked crosswalks and signals also a priority. The existing pork chop space should be enhanced to a raised pedestrian refuge. |
| 18 | Evans | Greenville | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | FURTHER ANALYSIS NEEDED AT THIS INTERSECTION. Very good pedestrian treatment at this intersection - no recommendations. |
| 19 | Greenville | Hooker | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Need sidewalk first. Not walkable at all right now. |
| 20 | Greenville | Memorial | Y | Y | Y | Y | Y | Y | Y (on Memorial - enhance pork chop) | N | Y | N | N | N | N | N | New truncated dome curb ramps in places. Utilize medians for refuges (long crossing distance); Need sidewalk on Memorial. Consider pedestrian overpass in future. |
| 21 | Memorial | Fire Tower | Y | Y | Y | Y | Y | Y | Y | N | Y | N | N | N | N | N | Make crosswalks highly-visible; Extend and formalize median refuge. |
| 22 | Fire Tower | Old Tar/Evans | Y (on Evans) | N | Y | - | N | N | Y | N | N | N | N | N | N | N | Best opportunity to extend grassy median as refuge into crosswalk. Enhance with high-visibility marked crosswalks. |
| 32 | Memorial | 3rd | Y | Y (across Memorial, one side) | Y | Y | Y | Y | Y (across Memorial) | N | - | N | N | N | N | N | Sidewalk needed along with a safe crossing of railroad. |
| 33 | Memorial | Greene, Greenfield | Y | Y | - | Y | - | - | Y (across Memorial) | N | Y | N | N | N | N | N | High-visibility marked crosswalks also needed across corner entrances/driveways. |
| 34 | Memorial | Moye | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | Update crosswalks here. Many pedestrians and cyclists present. |
| 35 | Dickinson | Hooker, Moye | N | N | Y | - | N | N | N | N | - | N | Y | N | N | N | This intersection needs significant improvement. Stop lines will need to move back with crosswalk addition. |
| 36 | Arlington | Dickinson | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | This intersection needs significant improvement. Sidewalks are very important. With dedicated right turn lanes, a small pork chop island refuge would help slow traffic and help pedestrians. |
| 37 | Arlington | Memorial | Y | Y | Y | Y | N | N | Y (on Memorial - enhance pork chop) | N | Y | N | N | N | N | N | Crosswalk should be highly-visible. Create a refuge where small median island is already located. One push button for pedestrian signal is located in an inaccessible location and should be moved. |
| 38 | Arlington | Hooker | Y | N | Y | - | N | N | Y (on Hooker) | N | - | N | N | N | N | N | Need to add pedestrian crossing signage at midblock; Sidewalk needed on other side of Arlington as well; high-visibility marked crosswalk and curb ramps needed. |
| 39 | Arlington | Rose High - Evans Park Midblock | Y | - | Y | N | N | Y | Y | - | - | - | Y | N | N | N | Enhance refuge and make crosswalks highly-visible. |
| 39_2 | Arlington | Rose pickup dropoff | Y | N | Y | N | Y | Y | Y | N | - | - | - | N | N | N | |

TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Obstruction | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|----------------|----------------------------|---|--------------------------|---------------------------|--------------------------|--------------------------|--|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|---|
| 40 | Howell | Ames | N | N | Y | N | N | Y | N | Y | N | N | N | Y | N | N | With school here, improvements are needed. Bulbouts should be provided where on-street parking is present. In-roadway signage and high-visibility marked crosswalk needed. A crossing guard should also be considered here. |
| 41 | Howell | Hooker | N | Y (across Hooker, on other side from current crosswalk) | N | - | - | Y | Y (with new crosswalk) | N | N | N | Y | N | N | N | Move crosswalk to other side for crossing Hooker because turn lane is unused there. There is opportunity for median refuge island on this side! |
| 42 | Arlington | Greenville | Y | Y | Y | Y | N | Y | N | N | Y | N | N | N | N | N | Sidewalk needed first. Pedestrian signals also important. High-visibility marked crosswalks and curb ramps needed. Driveway access management needed (marked crosswalks should be striped across major driveways) |
| 43 | Greenville | Elm | Y | Y | Y | Y | N | Y | Y (enhance existing Elm islands for refuges) | N | Y | N | N | N | Y (cut back veg.) | N | Sidewalk needed first. Countdown signals are also important here. |
| 44 | Red Banks | Tucker | Y | N | N | N | Y | Y | N | Y (but not into Bike lanes) | N | N | - | Y | N | N | In-roadway signage and bulbouts would be very helpful here at this school location. |
| 45 | Greenville | 14th | Y | Y | - | Y | N | Y | N | N | Y | N | N | N | N | N | Need sidewalk first, then significant crossing improvements. Many pedestrians in area with heavy traffic. Crosswalk should be highly-visible. Curb ramps should be completed and consistent. |
| 46 | 10th | Cotanche | Y | N | Y | - | N | Y | N | N | - | - | Y | N | N | N | Many pedestrians/cyclists in area. Enhance crosswalks to be highly-visible and 2 curb ramps should be provided per corner. Crosswalks are faded and need to be highly-visible. |
| 47 | 10th | Charles | Y | N | Y | - | Y (2 per corner) | - | N | N | - | Y | Y | N | N | N | UNUSUAL INTERSECTION; FURTHER ANALYSIS NEEDED (KH) |
| 48 | 10th | College Hill | N | N | Y | - | Y | Y | Y | N | - | Y | - | - | N | N | Sidewalk needed all ways with significant pedestrian crossing treatments. |
| 49 | 10th | Elm | Y | N | Y | - | Y | Y | N | N | - | Y | Y | N | N | N | Crosswalks are faded and need to be highly-visible. |
| 50 | 5th | Moye | Y | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | UNUSUAL INTERSECTION; FURTHER ANALYSIS NEEDED (KH) |
| 51 | 14th | Dickinson | Y | N | Y | - | Y | N | N | N | Y | N | N | N | N | N | Crosswalks should be highly-visible. |
| 52 | 10th | Dickinson | | | | | | | | | | | | | | | Significant pedestrian crossing improvements needed. Utilize median island as a refuge. Park chop space could also be used as a refuge. |
| 53 | Arlington | Stantonsburg | Y (on Arlington southward) | N | Y | N | N | N | N | N | - | N | Y | N | N | N | Crosswalks should be highly-visible. Refuge opportunity across Memorial with existing island. |
| 54 | Memorial | Stantonsburg | Y | Y | - | Y | Y | Y | Y (on Memorial) | N | Y | N | N | N | N | N | Many pedestrians and cyclists in area. Curb extensions possible on couple corners. Need consistent curb ramps and high-visibility crosswalks. Crossing guard needed too. |
| 55 | Memorial | 5th | Y | N | Y | - | Y | Y | Y (on Memorial) | N | - | N | N | N | N | N | Add bulbouts with on-street parking and make crosswalk highly-visible. |
| 56 | 14th | Fleming, Tyson | Y | N | Y | - | Y | Y | N | Y | - | Y | Y | N | N | N | Realign intersection if possible. Otherwise, need high-visibility marked crosswalks and signals. Curb ramps needed on all corners. |
| 57 | Fleming | Roosevelt | N | N | Y | - | N | Y | N | Y (with on street parking) | N | N | - | Y | N | N | Sidewalk is top priority here. Intersection needs significant improvement to make pedestrian-friendly. |
| 58 | 14th | 5th | N | N | Y | - | Y | Y | N | N | Y | Y | Y | N | N | N | |
| 59 | Arlington | Red Banks | Y | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | |

TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Obstruction | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|-----------------|----------------------|----------------------------|--------------------------|---------------------------|--------------------------|--------------------------|-----------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|--|
| Avden | | | | | | | | | | | | | | | | | |
| 60 | 3rd | Snow Hill | N | N | Y | N | N | Y | N | N | Y | N | Y | N | N | N | Minor improvements will go a long way here (crosswalks, curb ramps, and signals). |
| 61 | 3rd | Lee | N | N | N | N | N | N | N | Y (with on-street parking) | Y | N | Y | N | N | N | Countdown signals important. Also, add curb extensions and improve SE corner (driveaway access management an issue with car repair shop) |
| 62 | 2nd | Lee | N | N | N | Y (restripe) | N | N | N | Y (with on-street marking) | Y | N | Y | N | N | N | Driveaway access management needed here as well. Countdown signals needed. |
| 63 | 3rd | Hwy 11 | Y | Y | - | Y | - | - | Y | Y | Y | N | Y | N | N | N | Sidewalk needed first. Intersection needs significant improvement. Move stop lines back and ensure median island becomes formal refuge. A pedestrian overpass could be considered in future. |
| 64 | N. Lee St. | Hines Dr. | Y | - | Y | - | Y | Y | N | Y (one corner) | N | N | Y | N | N | N | Without a stoplight present, a high-visibility marked crosswalk with signage is needed. |
| 65 | 3rd | School Entrance | N | - | Y | - | Y | Y | N | N | N | N | Y | N | N | N | A HAWK signal should be considered. A crossing guard is essential. |
| Winterville | | | | | | | | | | | | | | | | | |
| 66 | Mill | Main | Y | Y | - | Y | Y | Y | N | N | Y | N | Y | N | N | N | Additional sidewalk needed first. Driveaway access management also needed. |
| 67 | Main | Railroad | Y | Y | Y | Y | N | Y | N | Y (with on-street parking) | N | - | N | Y | N | N | Railroad crossing needs to be made pedestrian-friendly. Marked crosswalks need to be repainted. Curb ramps needed as well. |
| 68 | Church | Sylvania | Y | N | Y | Y | N | Y | N | Y (with on-street parking) | N | N | Y | Y | N | N | Sidewalk needed along Church (school side especially). Curb ramps, high-visibility marked crosswalk and in-roadway signage for Church should be considered. |
| 69 | Church | Cooper | Y | N | Y | N | N | Y | N | N | N | N | Y | N | N | N | |
| 70 | Main | Old Tar | Y | Y | - | - | N | Y | N | N | N | N | Y | N | N | N | Stoplight may be warranted here. If added, also add pedestrian countdown signals. Speed a critical issue on Old Tar so reduced speed limits and clear signage are necessary. |
| Simpson | | | | | | | | | | | | | | | | | |
| 71 | Simpson | McDonald | Y | Y | - | Y | N | N | N | Y | N | - | Y | N | N | N | Sidewalk needed first. |

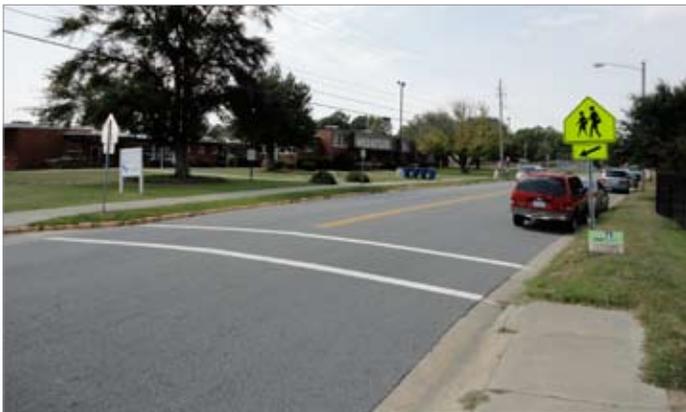


School Improvements

Pedestrian improvements around schools are critical to creating safe environments for children and parents to walk. Schools throughout the GUAMPO area often lack pedestrian infrastructure. In addition to sidewalks, typical improvements to consider around all schools include:

- High-visibility marked crosswalks
- Curb extensions (bulbouts)
- Signage (in-roadway and advanced warning)
- Crossing guard

The photo rendering below shows an example of how to improve a crossing at South Greenville Elementary School.



Long-term Recommendations

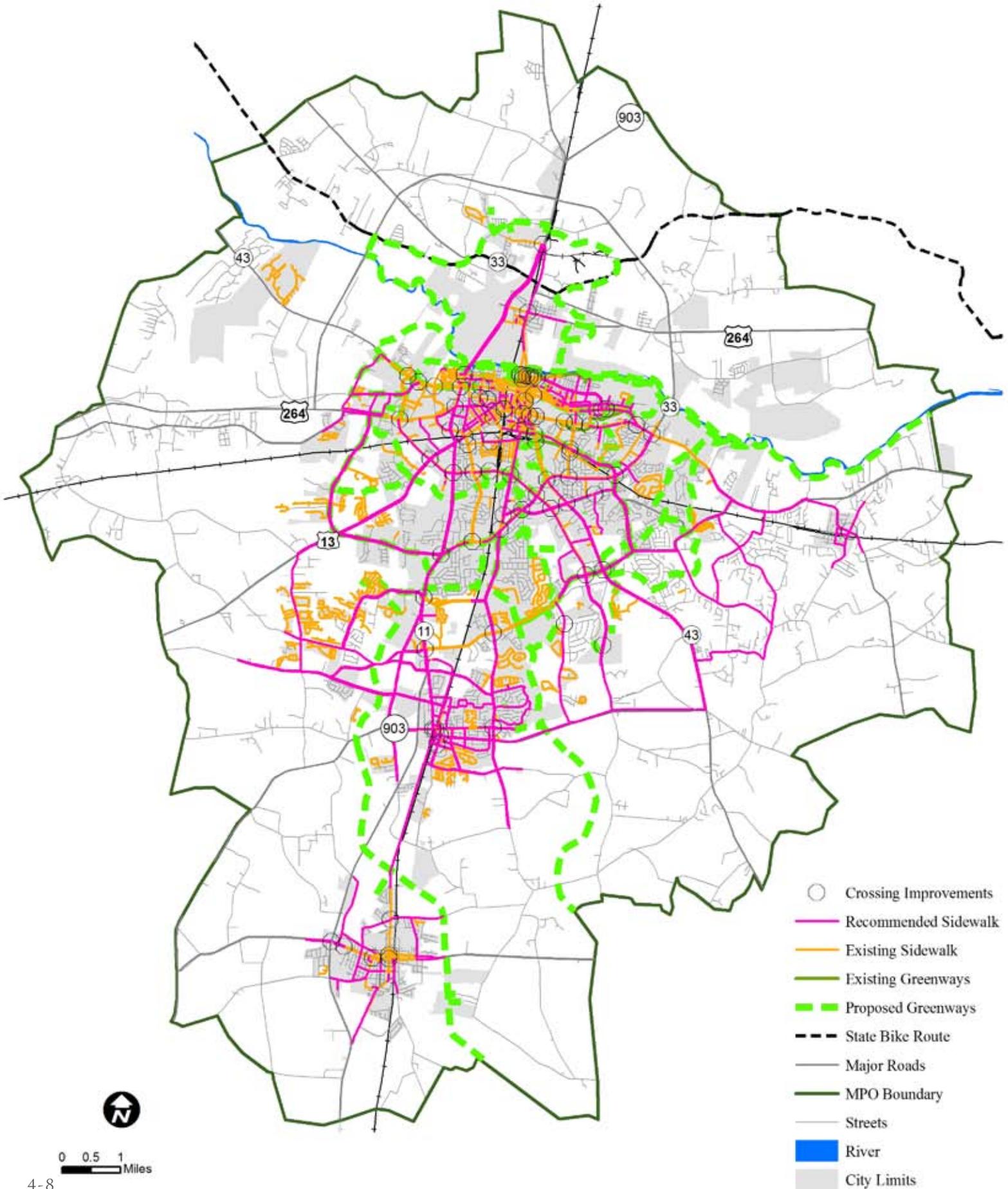
There are several long-term, higher-cost recommendations that should be considered. These include a series of bridges and overpasses identified during this planning process. These will require further study and increased funding support.

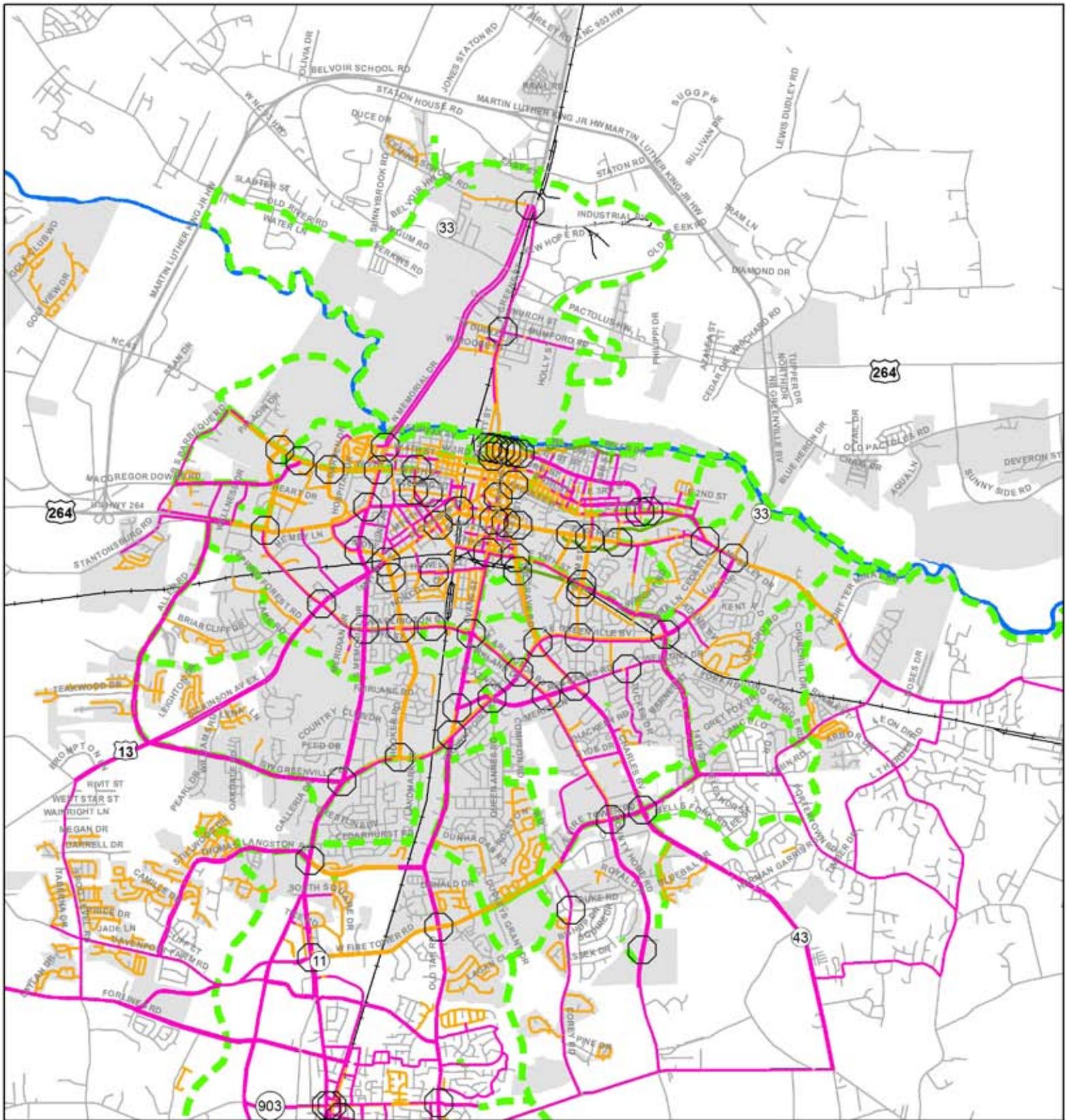
- Bike/ped accommodation over the Tar River. This would connect the Downtown area, Town Commons Park, and a greenway trail to River Park North. This bridge could be a cantilever (along Greene St.) or a separate bridge (near Ashe St.).
- Pedestrian bridge over Memorial Drive near Fire Tower Rd. This bridge would connect Pitt Community College to commercial destinations east of Memorial Drive.
- Pedestrian bridge at 3rd Street and NC 11 (Ayden). This bridge would connect residents east and west across Memorial Drive in Ayden.
- Pedestrian bridges or underpasses to hospital across Stantonsburg Road, near Arlington Blvd., and across Arlington Blvd., near Beasley Dr. These connections would link hospital workers to their residences.

Pedestrian Network Maps

The following maps display the pedestrian network recommendations (sidewalks, greenways, and crossing improvements). For priority pilot project descriptions and maps, see Chapter 5.

MAP 4.1 PEDESTRIAN RECOMMENDATIONS: MPO



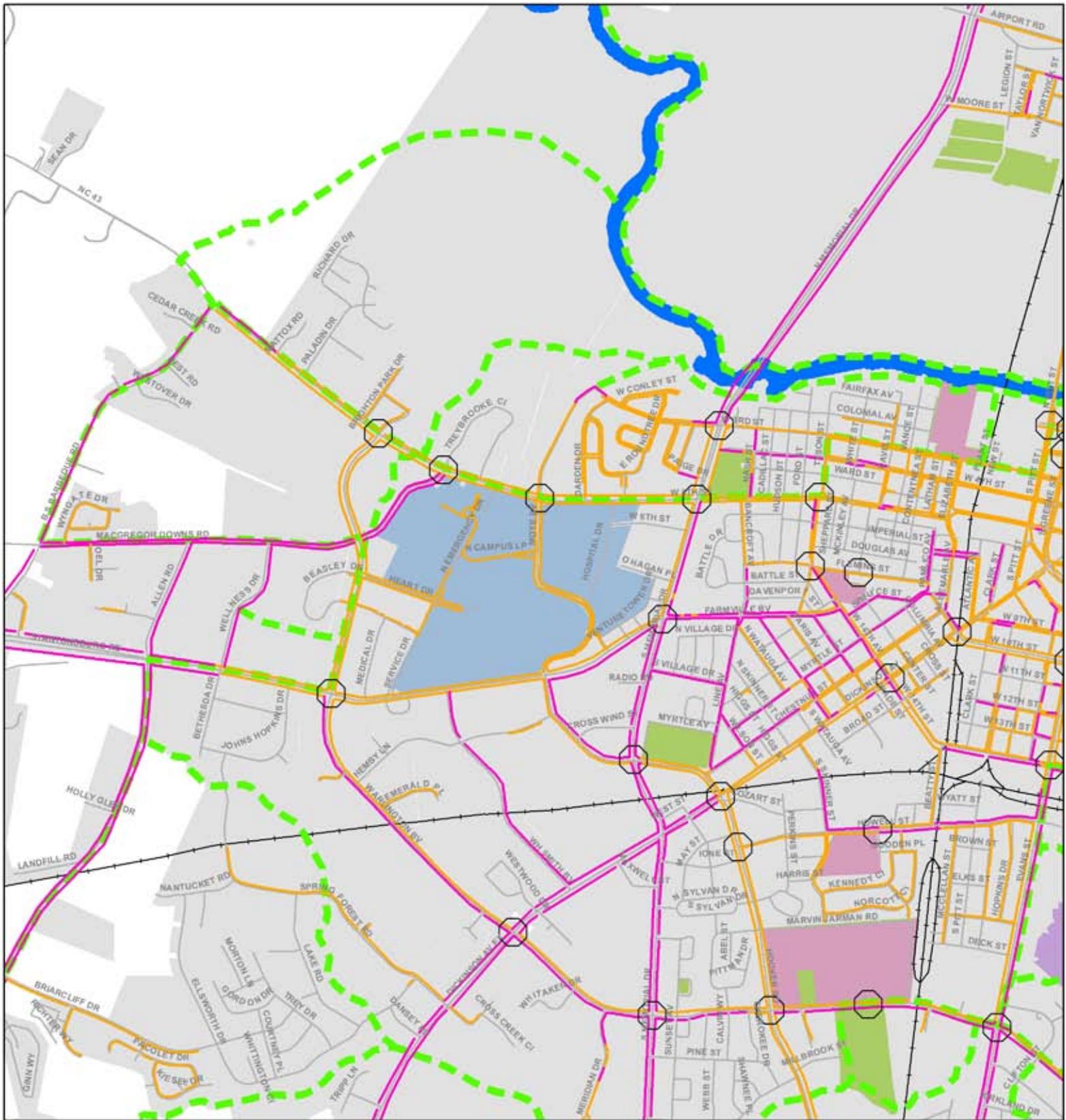


MAP 4.2 PEDESTRIAN RECOMMENDATIONS: GREENVILLE

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Existing Greenway
-  Proposed Greenway
-  Streets
-  River
-  City Limits



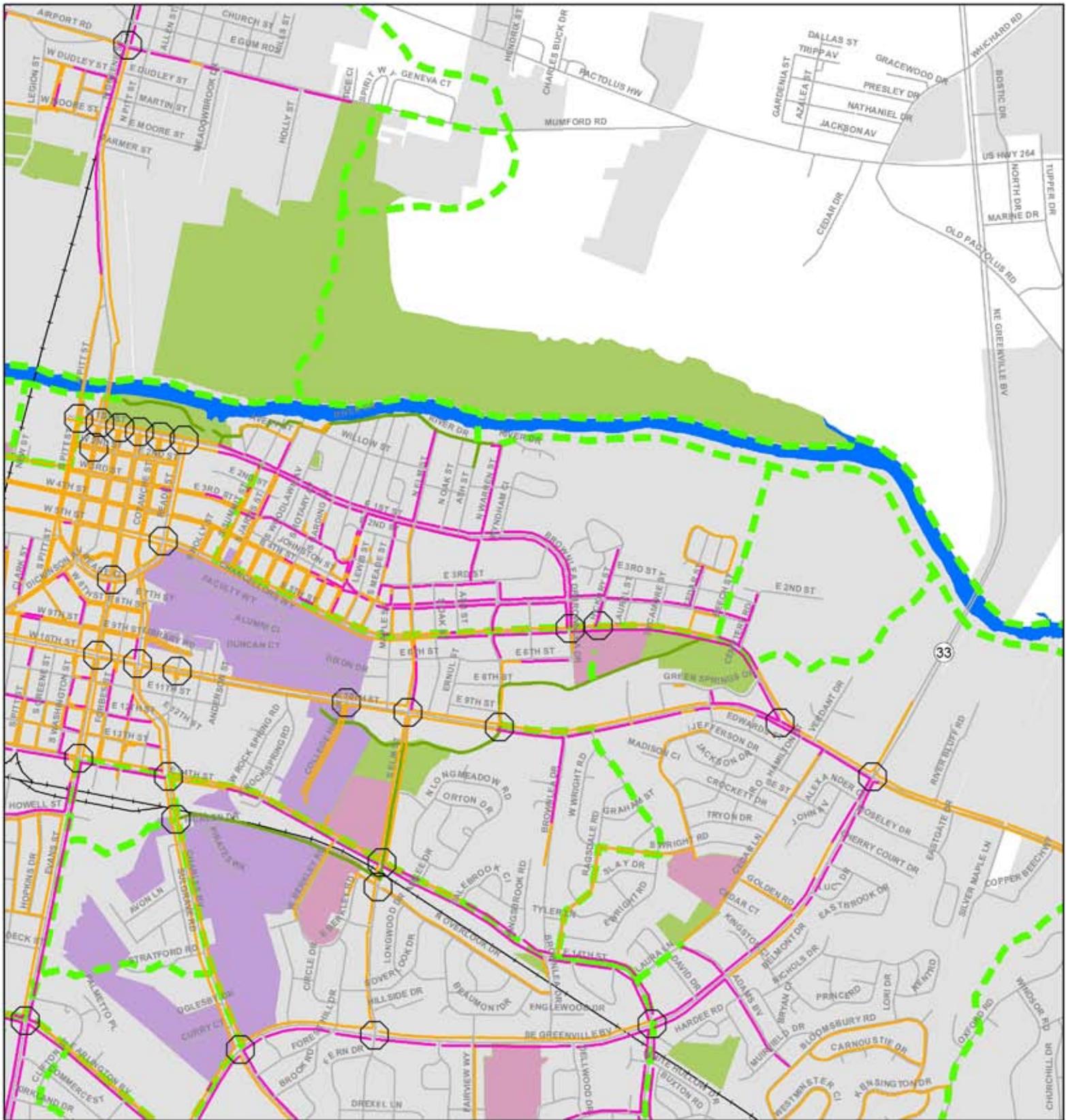
0 0.5 1 Miles



MAP 4.3 PEDESTRIAN
RECOMMENDATIONS:
GREENVILLE (NW)

- | | | | |
|--|-----------------------|---|-------------|
|  | Crossing Improvements |  | River |
|  | Recommended Sidewalk |  | Schools |
|  | Existing Sidewalk |  | Parks |
|  | Existing Greenway |  | ECU |
|  | Proposed Greenway |  | Hospital |
|  | Streets |  | City Limits |

0 0.25 0.5 Miles

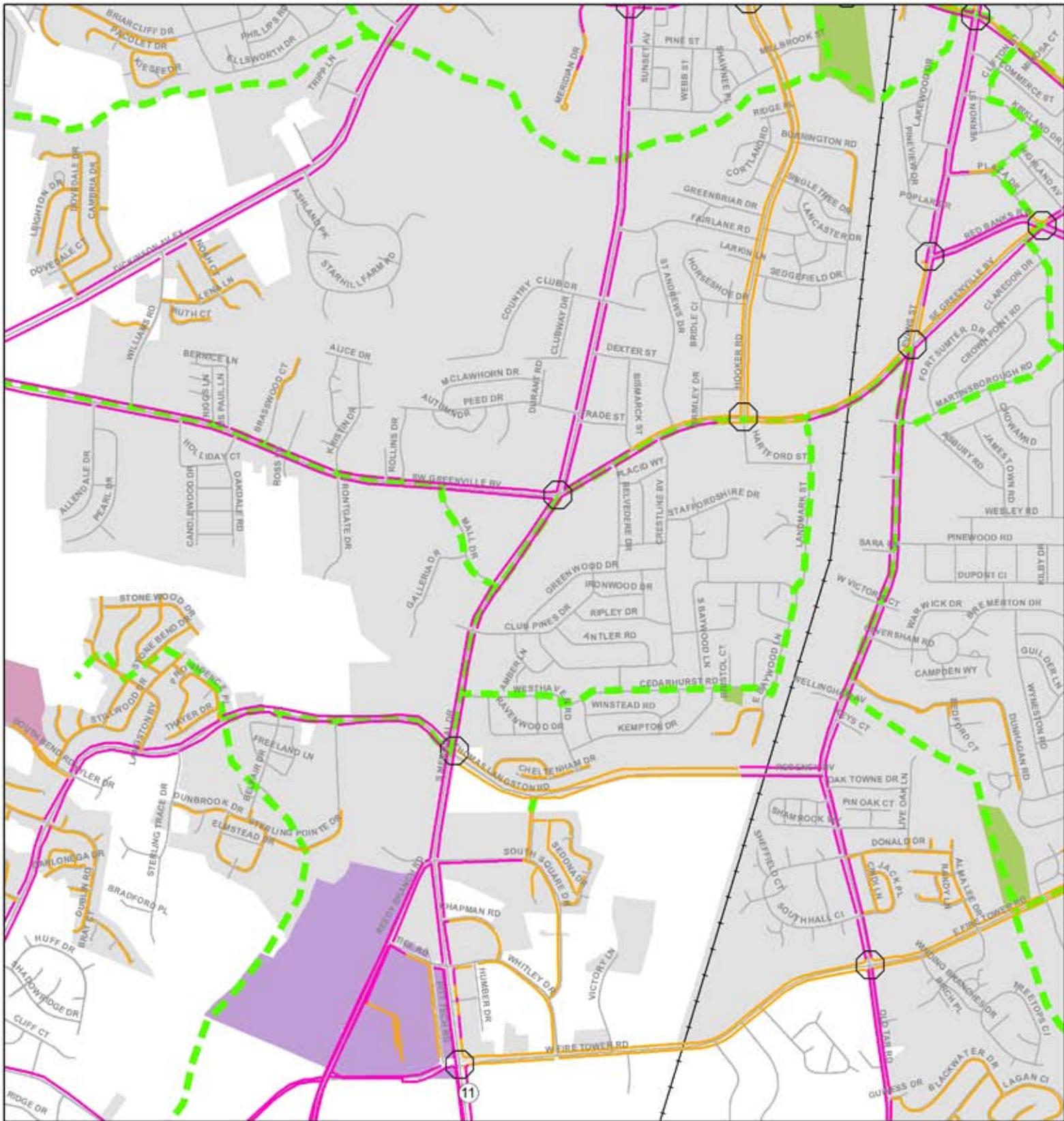


MAP 4.4 PEDESTRIAN RECOMMENDATIONS: GREENVILLE (NE)

- | | | | |
|--|-----------------------|---|-------------|
|  | Crossing Improvements |  | River |
|  | Recommended Sidewalk |  | Schools |
|  | Existing Sidewalk |  | Parks |
|  | Existing Greenway |  | ECU |
|  | Proposed Greenway |  | Hospital |
|  | Streets |  | City Limits |



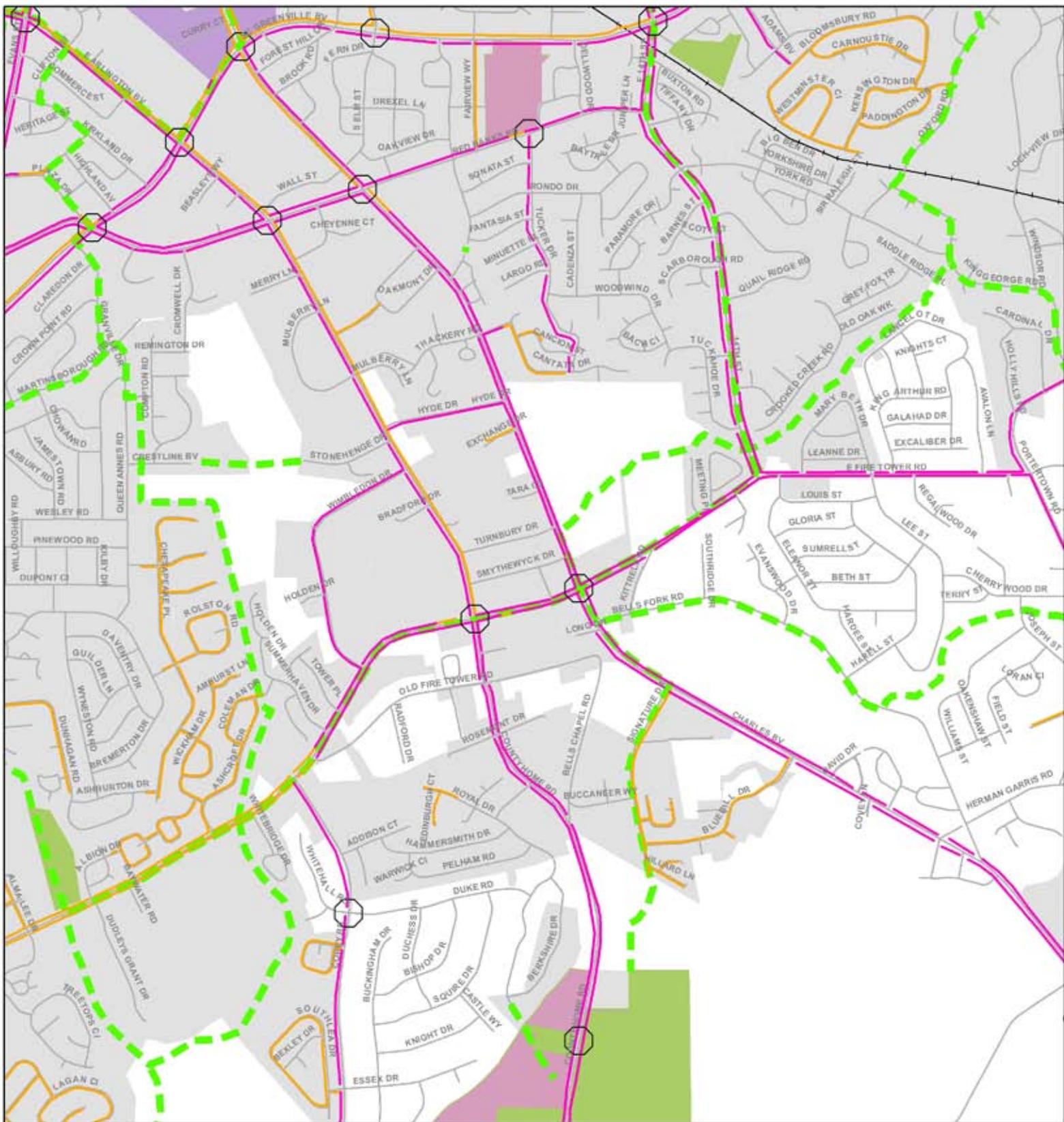
0 0.25 0.5 Miles



MAP 4.5 PEDESTRIAN RECOMMENDATIONS: GREENVILLE (SW)

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Existing Greenway
-  Proposed Greenway
-  Streets
-  River
-  Schools
-  Pitt C.C.
-  Parks
-  Hospital
-  City Limits

0 0.25 0.5 Miles

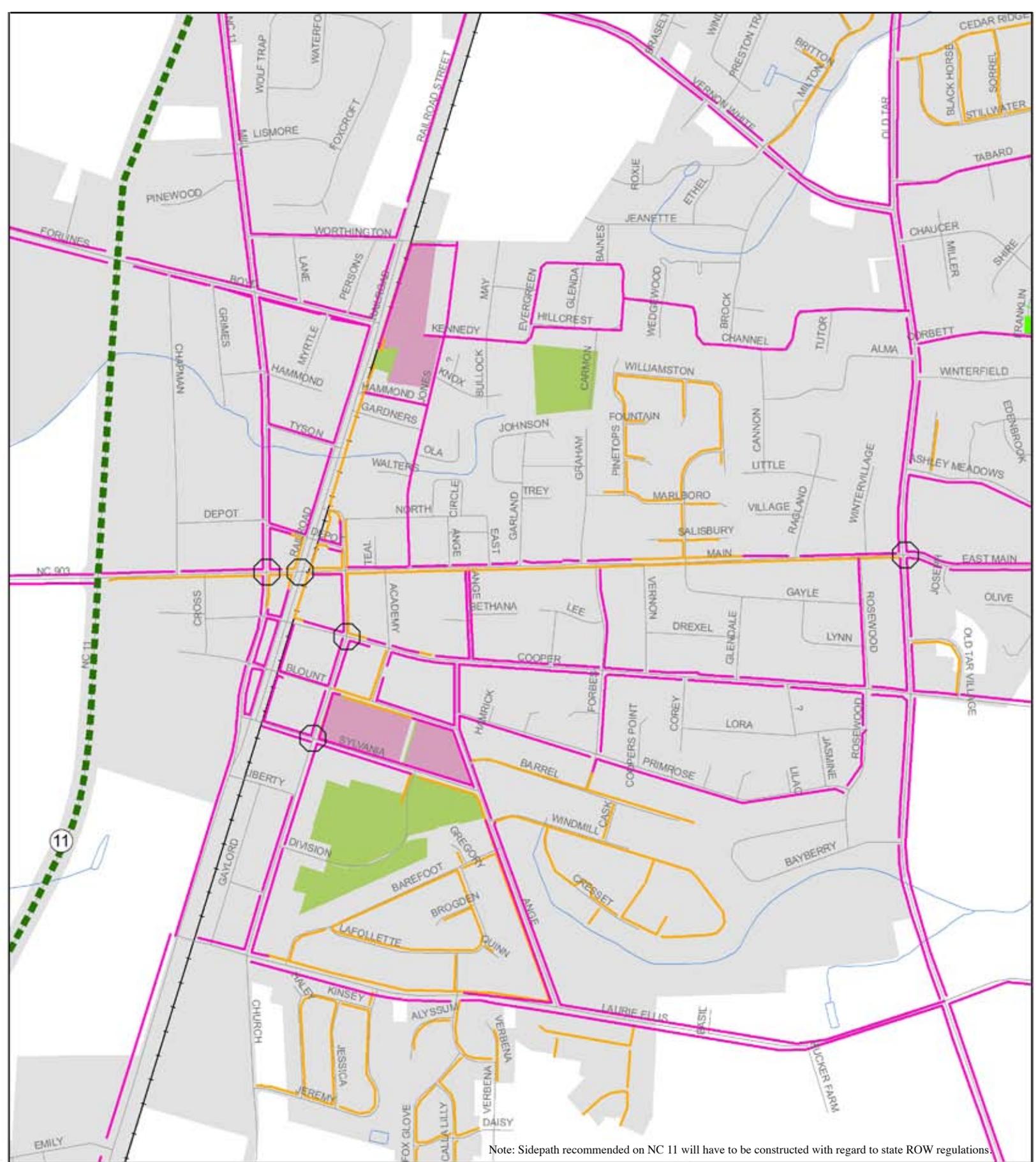


MAP 4.6 PEDESTRIAN RECOMMENDATIONS: GREENVILLE (SE)



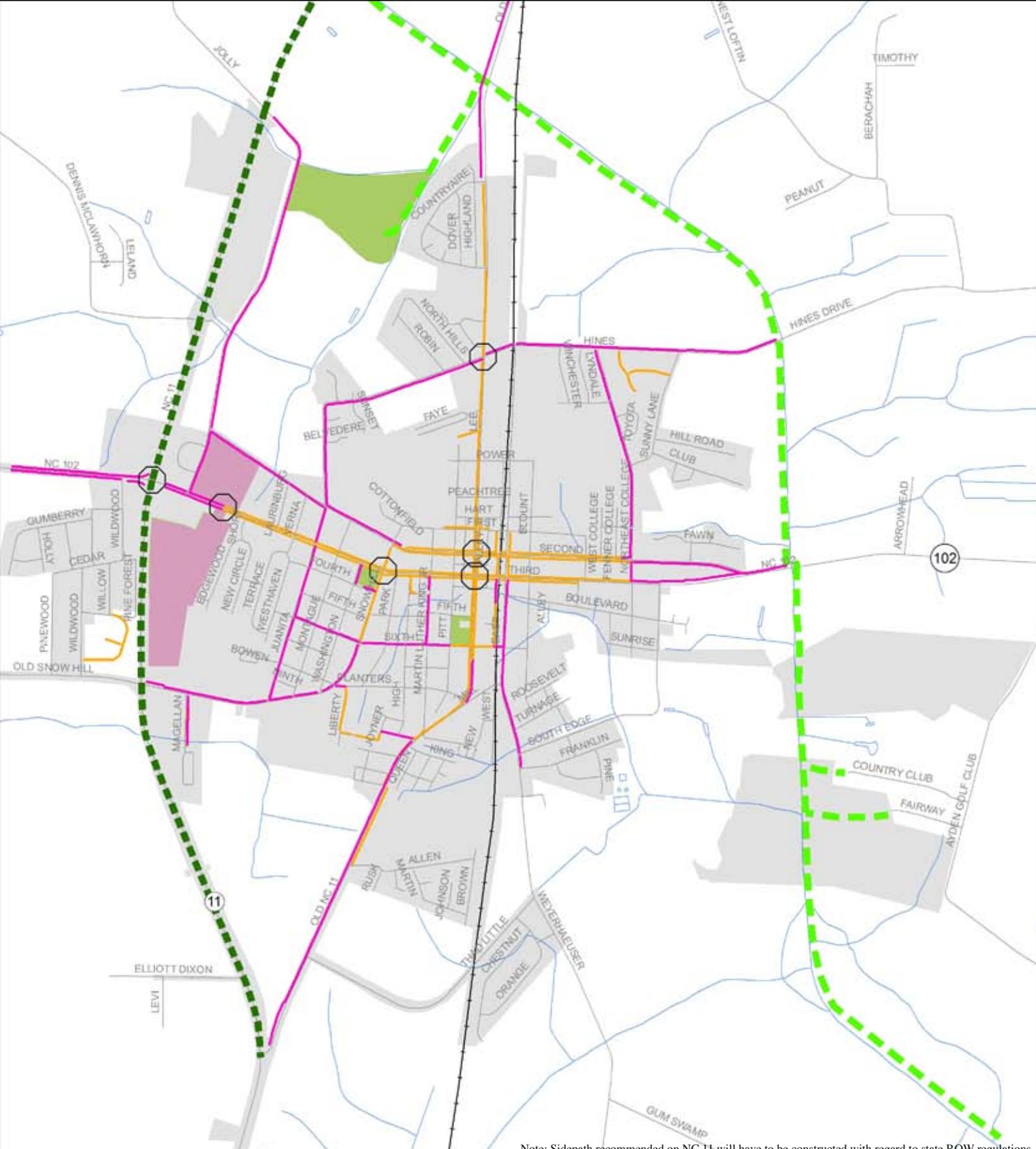
0 0.25 0.5 Miles

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Existing Greenway
-  Proposed Greenway
-  Streets
-  River
-  Schools
-  Parks
-  ECU
-  Hospital
-  City Limits



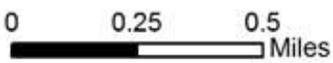
MAP 4.8 WINTERVILLE DOWNTOWN PEDESTRIAN RECOMMENDATIONS

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Sidepath, New Construction
-  Recommended Greenways
-  Streets
-  Hydrology
-  Schools
-  Parks
-  Winterville

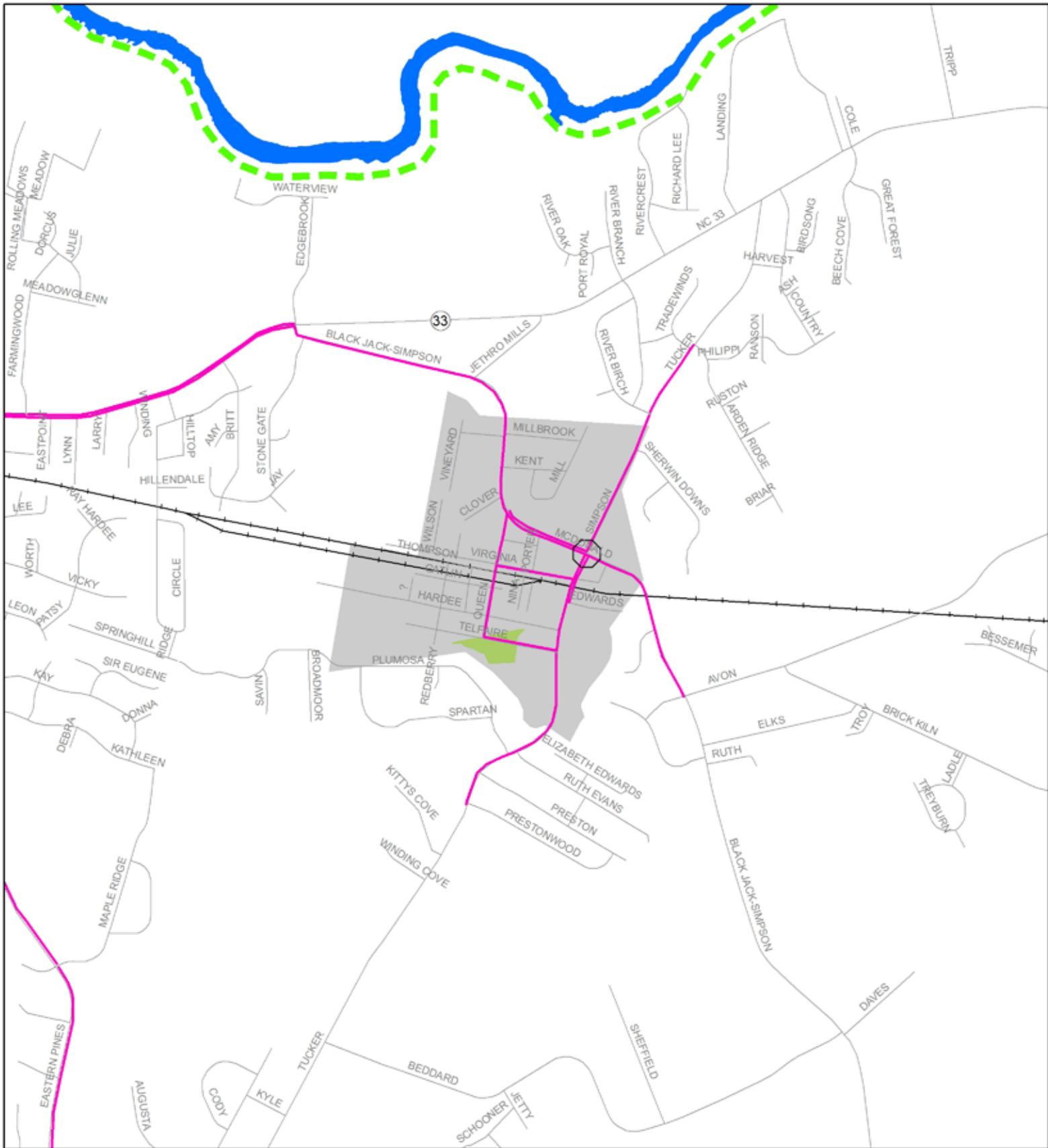


Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 4.9 AYDEN PEDESTRIAN RECOMMENDATIONS



- Crossing Improvements
- Recommended Sidewalk
- Existing Sidewalk
- Sidepath, New Construction
- Recommended Greenways
- Streets
- Hydrology
- Schools
- Parks
- Ayden



MAP 4.10 SIMPSON PEDESTRIAN RECOMMENDATIONS

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Recommended Greenways
-  Streets
-  River
-  Parks
-  Simpson



0 0.25 0.5 Miles



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double-sided printing)*



PRIORITY AND PILOT PROJECTS

Chapter Contents

Overview

Prioritization Methodology

City of Greenville Priority Projects

City of Greenville Key Intersections

Priority Greenways

Pilot Projects

Town of Winterville Priority Projects

Town of Ayden Priority Projects

Village of Simpson Priority Projects

Overview

Comprehensive bicycle and pedestrian networks and intersection improvements were presented in Chapters 3 and 4. This chapter features priority and pilot projects and maps. The priorities outlined in this chapter are for guidance only. While it is ideal to develop facilities in order of priority, it is best to also construct facilities as opportunities arise. Some of the most cost-effective opportunities to provide bicycle and pedestrian facilities are during routine roadway construction, reconstruction, and repaving projects. A new commercial development or a roadway widening project, for instance, would provide the means to build facilities as a component of an existing effort, regardless of priority ranking through this process.

Prioritization Methodology

Projects within the City of Greenville were scored with weighted criteria to determine priorities. Priority projects for Winterville, Ayden, Simpson, and Pitt County were determined through in-depth discussion with local staff and through consultant analysis.

CITY OF GREENVILLE PRIORITIZATION

City of Greenville prioritization began by making a list of all roadways for which bicycle and pedestrian recommendations were made. The roadways were then broken down into segments at logical points, such as major intersections. These segments were then prioritized based on the weighted criteria listed below, which was custom designed for this plan based on Steering Committee input, public input through the online comment form, and existing conditions.

| Criteria | Weight |
|--|--------|
| Direct Access to College/University | 5 |
| Direct Access to/from an Existing or Funded Trail | 5 |
| Direct Access to/from a Park or Recreation Center | 5 |
| Direct Access to/from a School | 5 |
| Top 1-5 “Most in Need of Improvement” from Online Comment Form | 4 |
| Direct Access to/from Downtown | 4 |
| Direct Access to Hospital | 4 |
| Serves Low Income Areas with Lower Car-Ownership Rates | 4 |
| Segment Contains High Level of Reported Bike Accidents | 4 |
| Segment Contains a Top 10 Intersection “Most in Need of Improvement” | 4 |
| Park or Recreation Center Proximity (1/2 mile radius) | 4 |
| Elem., Middle, and High School Proximity (1/2 mile radius) | 4 |
| College/University Proximity (1 mile radius) | 4 |
| Top 6-10 “Most in Need of Improvement” from Online Comment Form | 3 |
| Segment Contains Reported Bike/Ped Accidents | 3 |
| Direct Access to/from Higher Density Residential Areas | 3 |
| Direct Access to Major Shopping Centers* | 3 |
| Direct Access to/from a Proposed Trail | 2 |

City of Greenville Priority Projects

The following pages show the top ten bike projects followed by the top ten pedestrian projects in the City of Greenville.



MAP 5.1 CITY OF GREENVILLE
PRIORITY BIKE PROJECTS
- OVERVIEW MAP

-  Top 10 Bike Priority Projects
-  River
-  ECU
-  City Limits





CITY OF GREENVILLE

BIKE PROJECT #1: E 14TH STREET

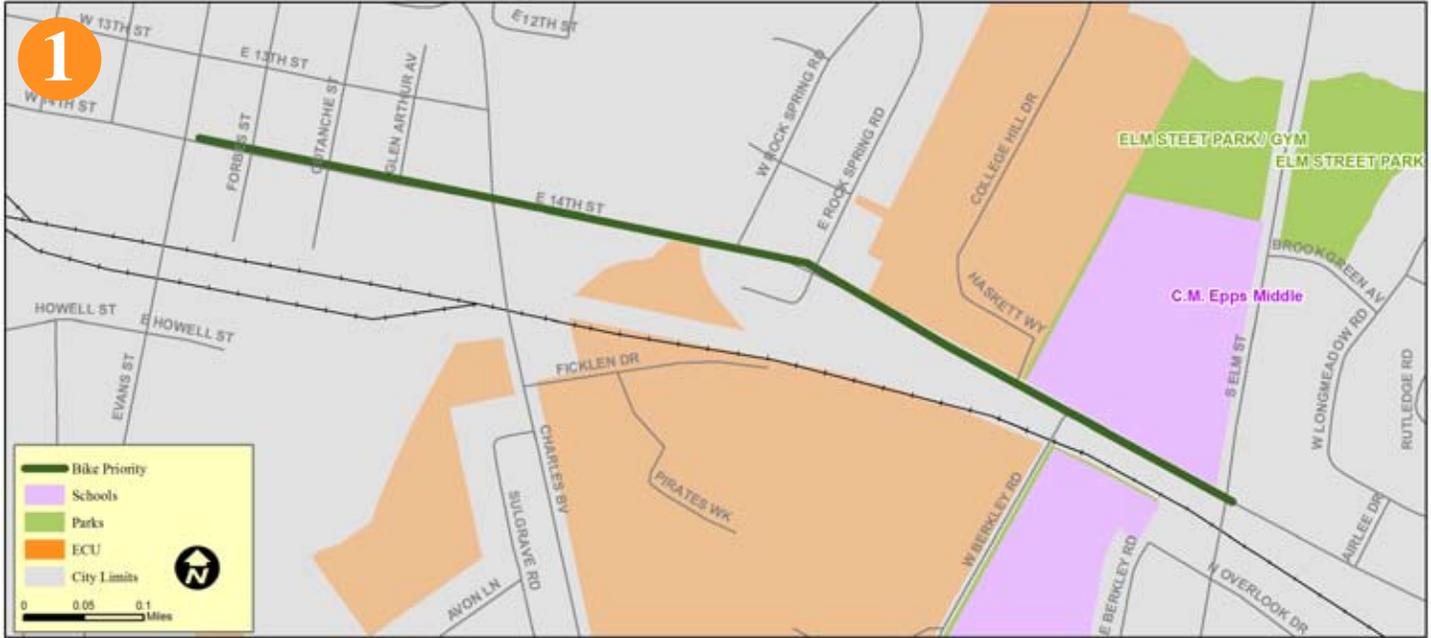
Boundaries: Evans Street and S. Elm Street

Project Facility: Sharrow

Implementation Method: Markings

Distance: 4,870 feet (0.92 miles)

Cost: \$2,639.25



CITY OF GREENVILLE

BIKE PROJECT #2: CHARLES BLVD

Boundaries: E 14th Street and Greenville Blvd

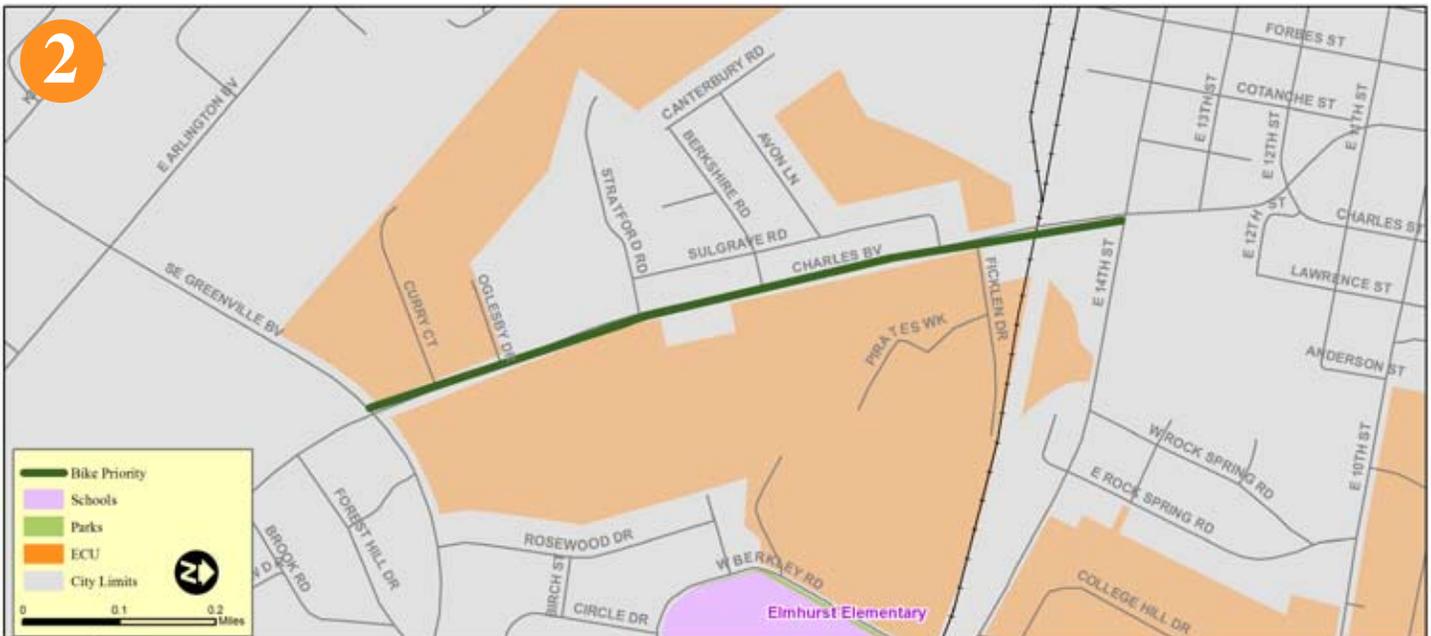
Project Facility: Bike Lane

Implementation Method: Restripe

Distance: 4,290 feet (0.81 miles)

Cost: \$18,938.20

Current Cross Section: 4 lane Divided (28' each side); New Cross Section: 4 lane Divided : 11' | 11' | 6'



CITY OF GREENVILLE
BIKE PROJECT #3: S. ELM STREET

Boundaries: E 14th Street and Greenville Blvd.

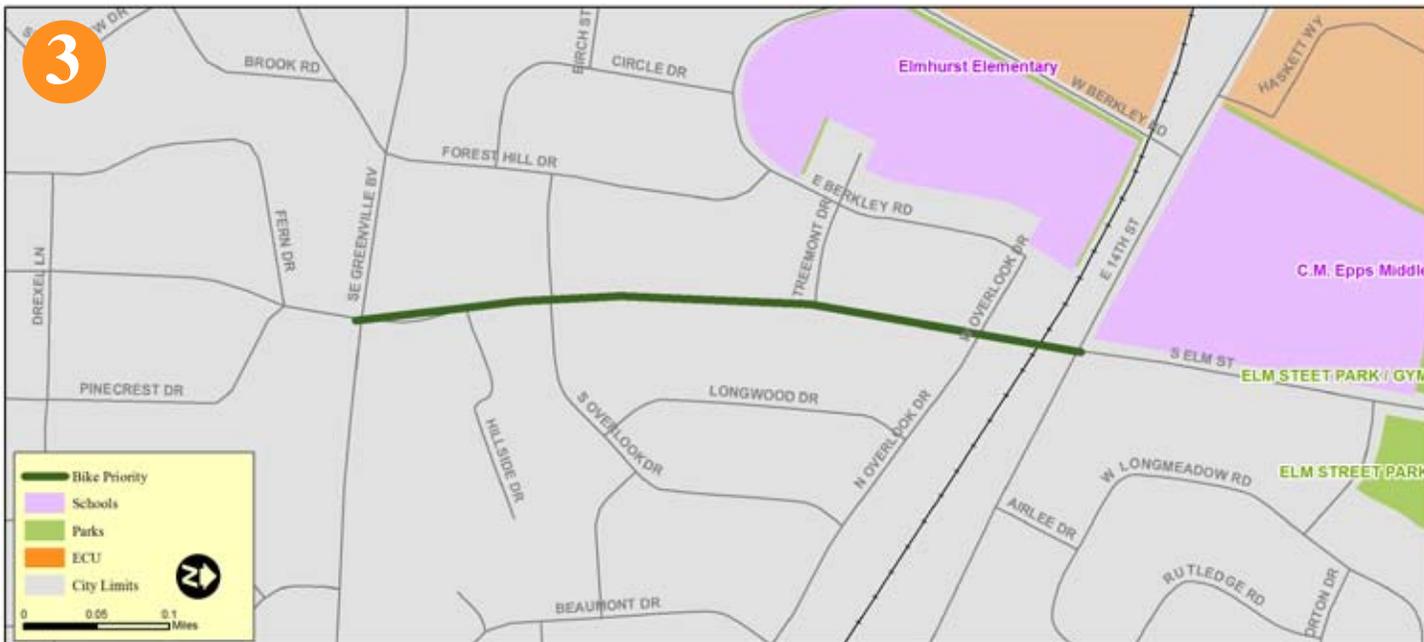
Project Facility: Bike Lane

Implementation Method: Restripe

Distance: 2,592 feet (0.49 miles)

Cost: \$11,717.81

Current Cross Section: 4 lane Divided (32' each side); New Cross Section: 4 lane Divided : 13'|13'|6'



CITY OF GREENVILLE

BIKE PROJECT #4: W. BERKLEY RD.

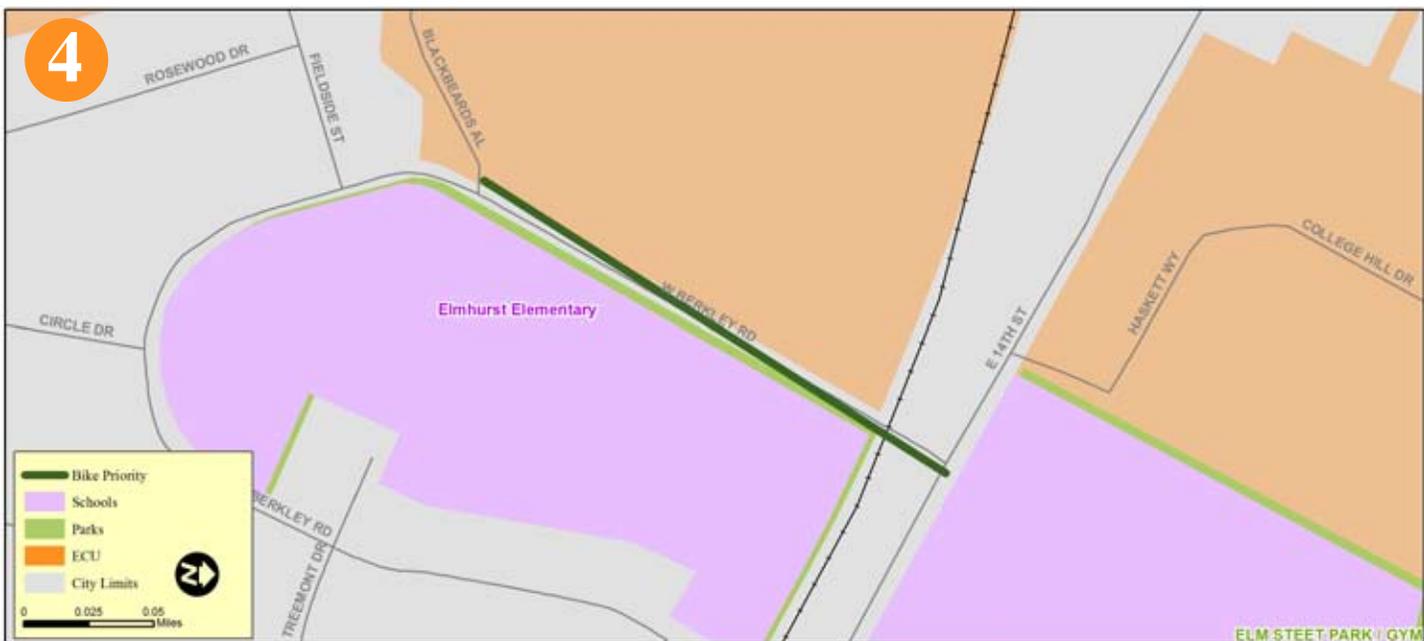
Boundaries: E 14th Street and Blackbeards Alley

Project Facility: Bike Lane

Implementation Method: Stripe

Distance: 1,090 feet (0.21 miles)

Cost: \$2,481.70





CITY OF GREENVILLE

BIKE PROJECT #5: CHARLES BLVD

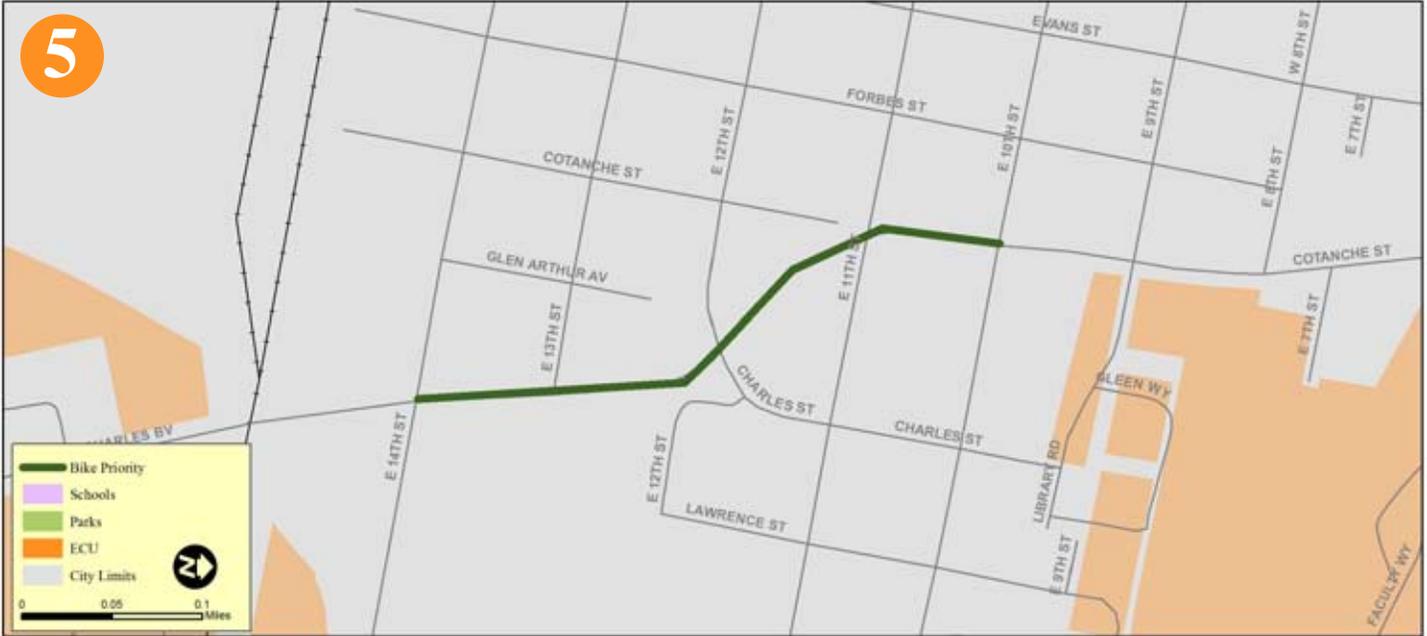
Boundaries: W 10th Street and E 14th Street

Project Facility: Bike Lane

Implementation Method: Stripe

Distance: 1,900 feet (0.36 miles)

Cost: \$4,963.35



CITY OF GREENVILLE

BIKE PROJECT #6: W 5TH STREET

Boundaries: Elizabeth Street and N Memorial Drive

Project Facility: Bike Lane

Implementation Method: Stripe

Distance: 3,782 feet (0.72 miles)

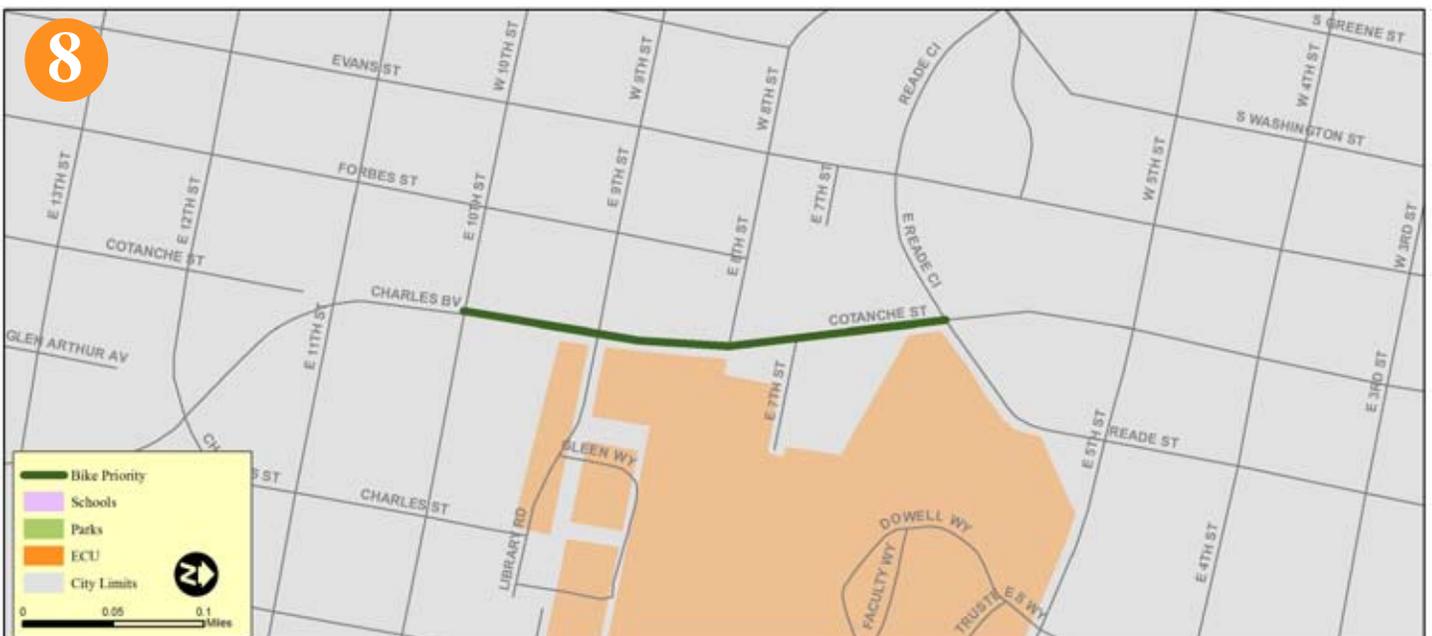
Cost: \$8,680.66



CITY OF GREENVILLE
BIKE PROJECT #7: FLEMING STREET
 Boundaries: Bancroft Avenue to Pamlico Avenue
 Project Facility: Sharrow
 Implementation Method: Marking
 Distance: 2,800 feet (0.53 miles)
 Cost: \$1,127.00

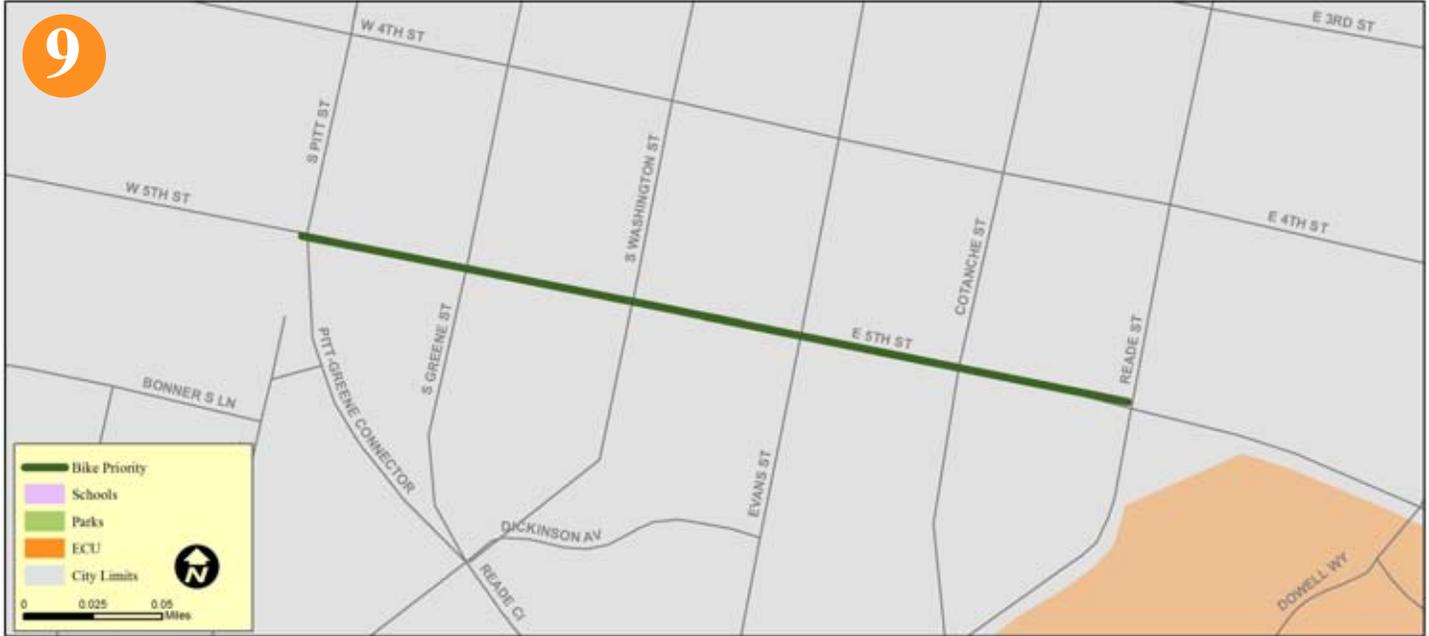


CITY OF GREENVILLE
BIKE PROJECT #8: COTANCHE STREET
 Boundaries: Reade Circle to W 10th Street
 Project Facility: Bike Lane
 Implementation Method: Stripe
 Distance: 1,010 feet (0.19 miles)
 Cost: \$2,601.30



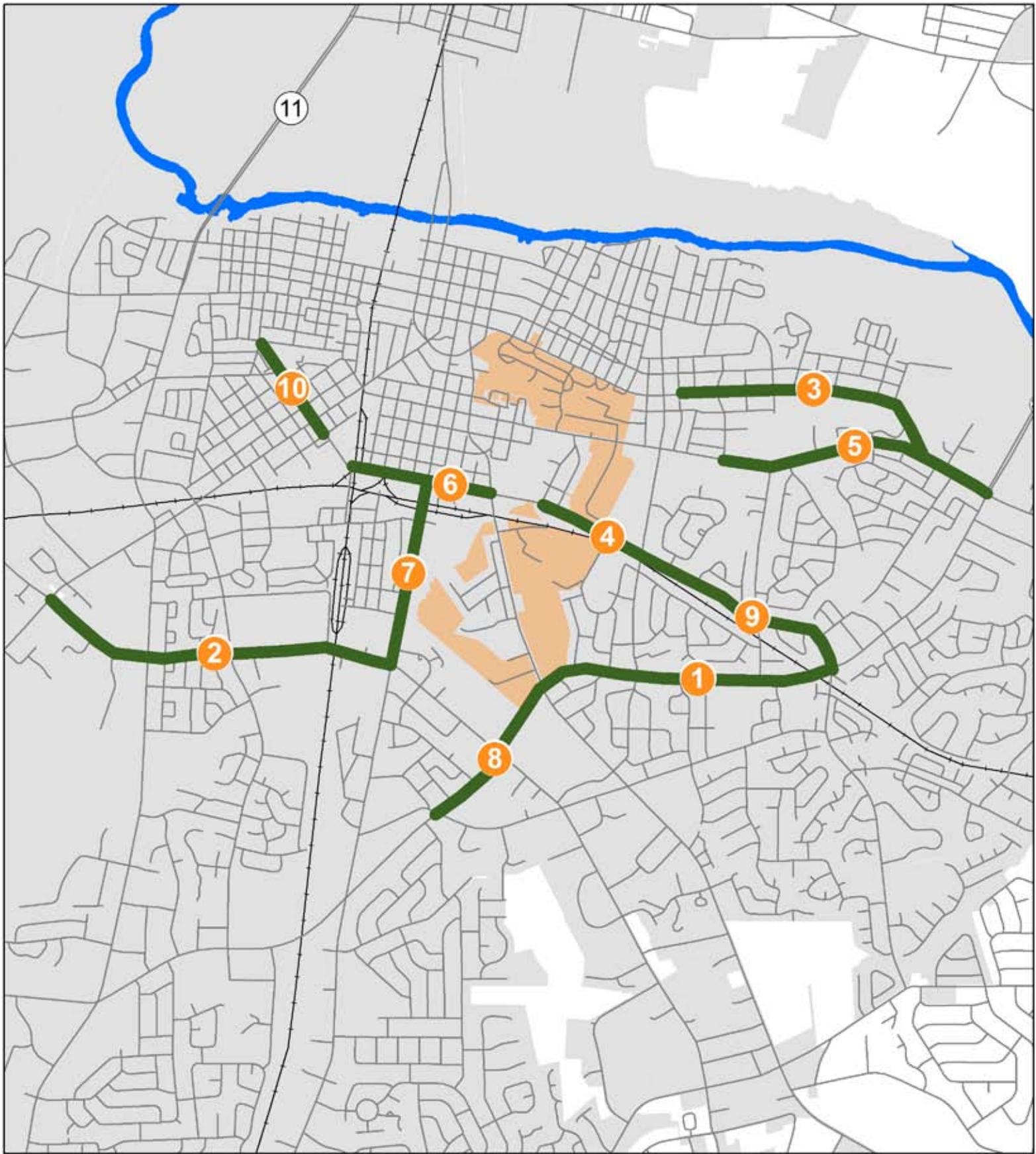


CITY OF GREENVILLE
 BIKE PROJECT #9: E/W 5TH STREET
 Boundaries: Reade Street to Pitt Street
 Project Facility: Sharrow
 Implementation Method: Marking
 Distance: 1,618 feet (0.31 miles)
 Cost: \$753.25



CITY OF GREENVILLE
 BIKE PROJECT #10: COLLEGE HILL DRIVE
 Boundaries: Founders Drive to E 14th Street
 Project Facility: Sharrow
 Implementation Method: Marking
 Distance: 3,774 feet (0.71 miles)
 Cost: \$1,730.75





MAP 5.2 CITY OF GREENVILLE
 PRIORITY PEDESTRIAN PROJECTS
 - OVERVIEW MAP

- Top 10 Sidewalk Priority Projects
- River
- ECU
- City Limits

0 0.45 Miles



CITY OF GREENVILLE
PEDESTRIAN PROJECT #1: SE GREENVILLE BLVD

From/To: Charles Blvd to 14th Street

Distance: 6,359 feet (1.2 miles)

#of Sides: 1

Cost: \$278,000 (\$38/foot, 15% contingency)



CITY OF GREENVILLE
PEDESTRIAN PROJECT #2: W ARLINGTON BLVD

From/To: Dickinson Ave to Evans Street

Distance: 7,794 feet (1.48 miles)

of sides: 1

Cost: \$340,600 (\$38/foot, 15% contingency)





CITY OF GREENVILLE PEDESTRIAN PROJECT #3: E 5TH STREET

From/To: S. Oak Street to E 10th Street

Distance: 6,700 feet (1.27 miles)

of sides: 1 and 2

Cost: \$292,790 (\$38/foot, 15% contingency)



CITY OF GREENVILLE PEDESTRIAN PROJECT #4: E 14TH STREET

From/To: W Rock Spring Road to S Elm Street

Distance: 2,075 feet (0.39 miles)

of sides: 1

Cost: \$90,680 (\$38/foot, 15% contingency)





CITY OF GREENVILLE

PEDESTRIAN PROJECT #5: E 10TH STREET

From/To: Forrest Hill Circle to SE Greenville Blvd.

Distance: 7,400 feet (1.4 miles)

of sides: 1 and 2

Cost: \$ 323,380 (\$38/foot, 15% contingency)



CITY OF GREENVILLE

PEDESTRIAN PROJECT #6: 14TH STREET

From/To: Beatty Street to Charles Street

Distance: 3,037 feet (0.58 miles)

of sides: 1

Cost: \$132,700 (\$38/foot, 15% contingency)



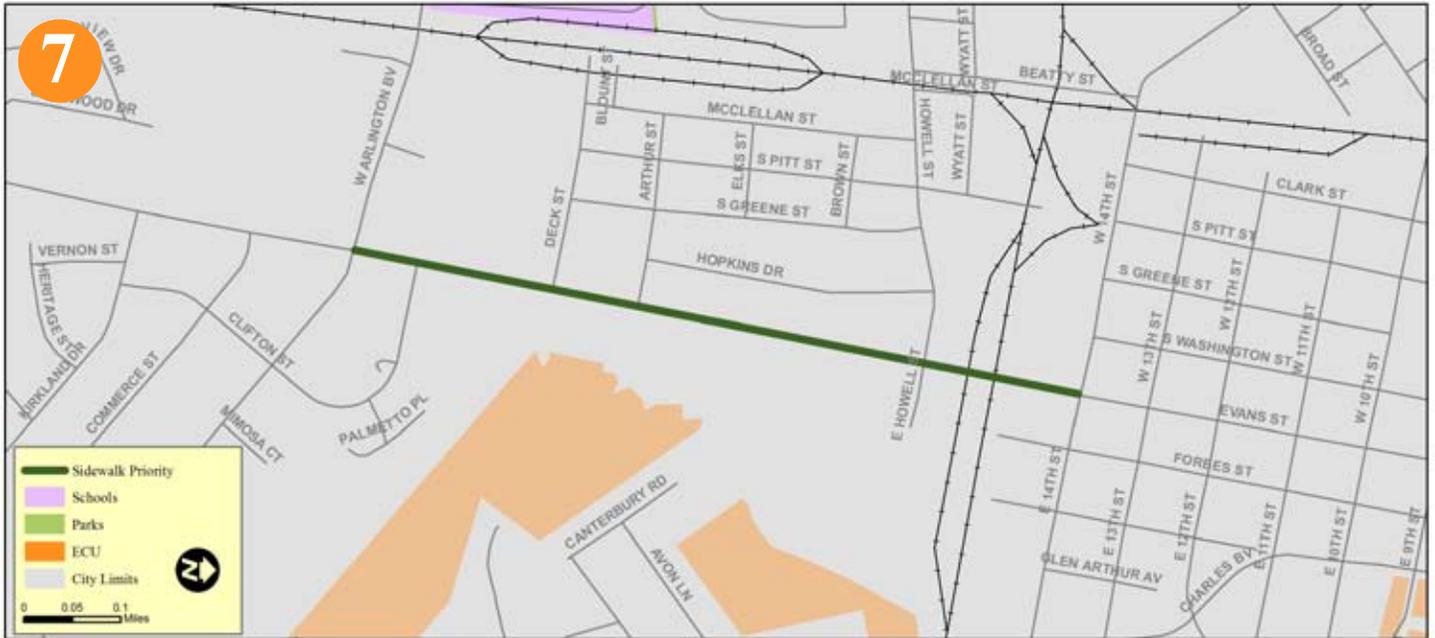
CITY OF GREENVILLE
PEDESTRIAN PROJECT #7: EVANS STREET

From/To: E 14th Street to E Arlington Blvd

Distance: 4,460 feet (0.85 miles)

of sides: 1 and 2

Cost: \$194,900 (\$38/foot, 15% contingency)



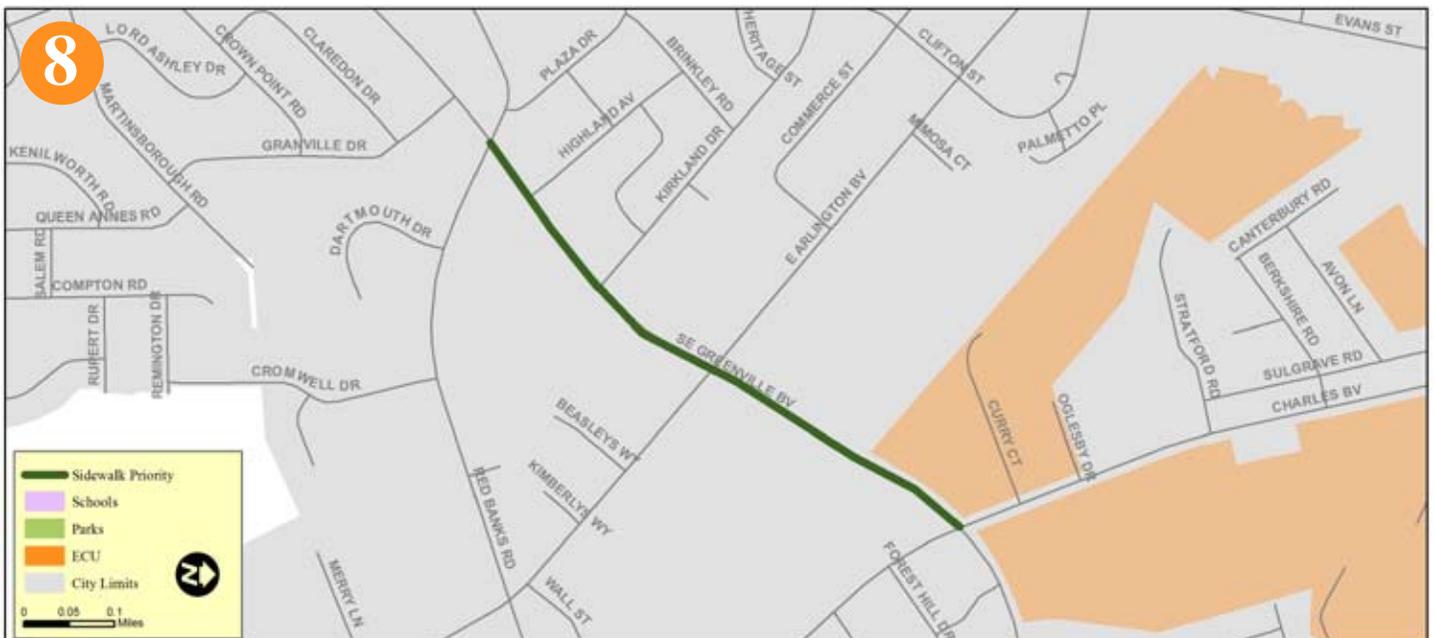
CITY OF GREENVILLE
PEDESTRIAN PROJECT #8: SE GREENVILLE BLVD

From/To: Charles Blvd to Red Banks Rd

Distance: 5,288 feet (1.0 miles)

of sides: 1 and 2

Cost: \$230,700 (\$38/foot, 15% contingency)





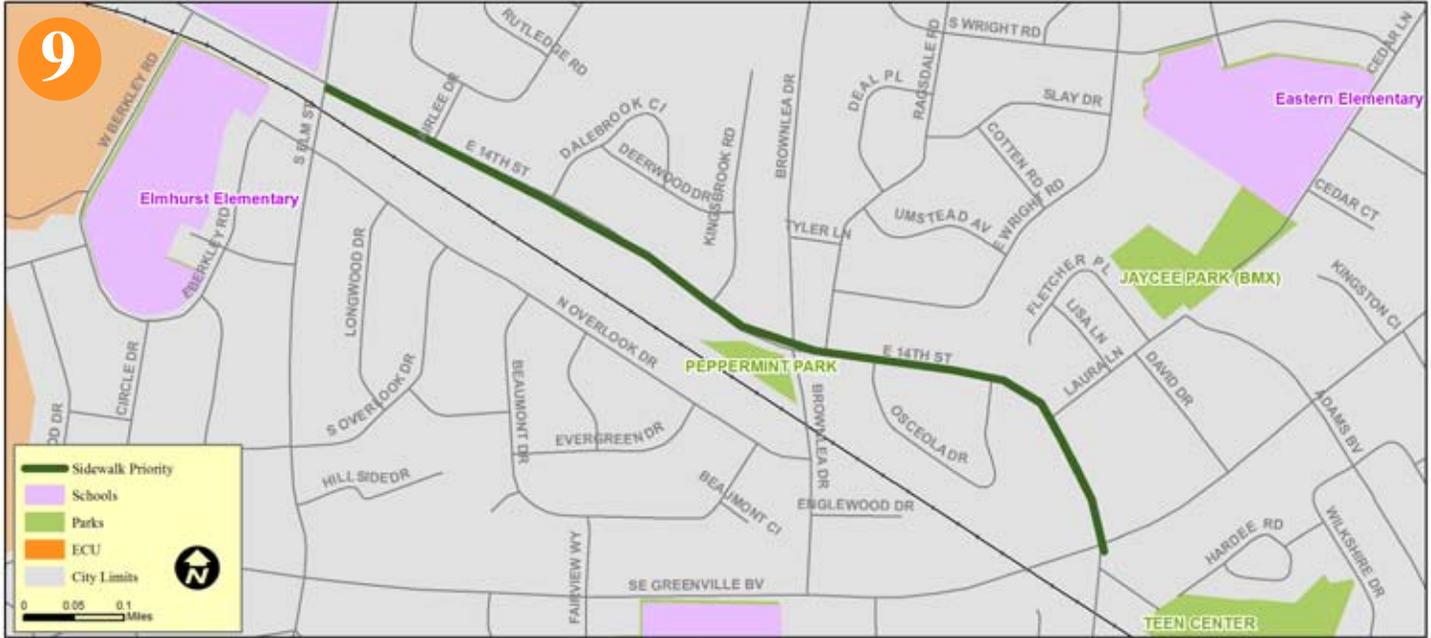
CITY OF GREENVILLE
PEDESTRIAN PROJECT #9: E 14TH STREET

From/To: S Elm Street to SE Greenville Blvd

Distance: 5,007 feet (0.95 miles)

of sides: 2

Cost: \$437,600 (\$38/foot, 15% contingency)



CITY OF GREENVILLE
PEDESTRIAN PROJECT #10: 14TH AVE/STREET

From/To: Fleming Street to Broad Street

Distance: 2,433 feet (0.46 miles)

of sides: 1

Cost: \$106,320 (\$38/foot, 15% contingency)





City of Greenville Key Intersections

GREENVILLE AND CHARLES

Part of sidewalk priority projects #2 and #3

#1 Most Requested on Comment Form

Project Description

- New sidewalks are proposed in the southeast and southwest quadrants of the intersection. The new sidewalks will require the construction of curb ramps.
- High visibility crosswalks are proposed for all four approaches. The addition of these crosswalks will require restriping the existing stop bars.
- The median island in the northwest quadrant of the intersection will need to be modified in order to accommodate the proposed crosswalk.
- Pedestrian countdown signal heads are proposed for all approaches.
- High-visibility pedestrian warning signs are proposed in advance of the intersection on all approaches. In order to call attention to the presence of pedestrians, it may be desirable to install a “Yield to Pedestrians in Crosswalk” sign in advance of the southbound free-flow right turn lane. An alternate method of highlighting this crosswalk is the installation of a pedestrian activated warning beacon on the high-visibility warning sign.

Engineering/Implementation Guidance

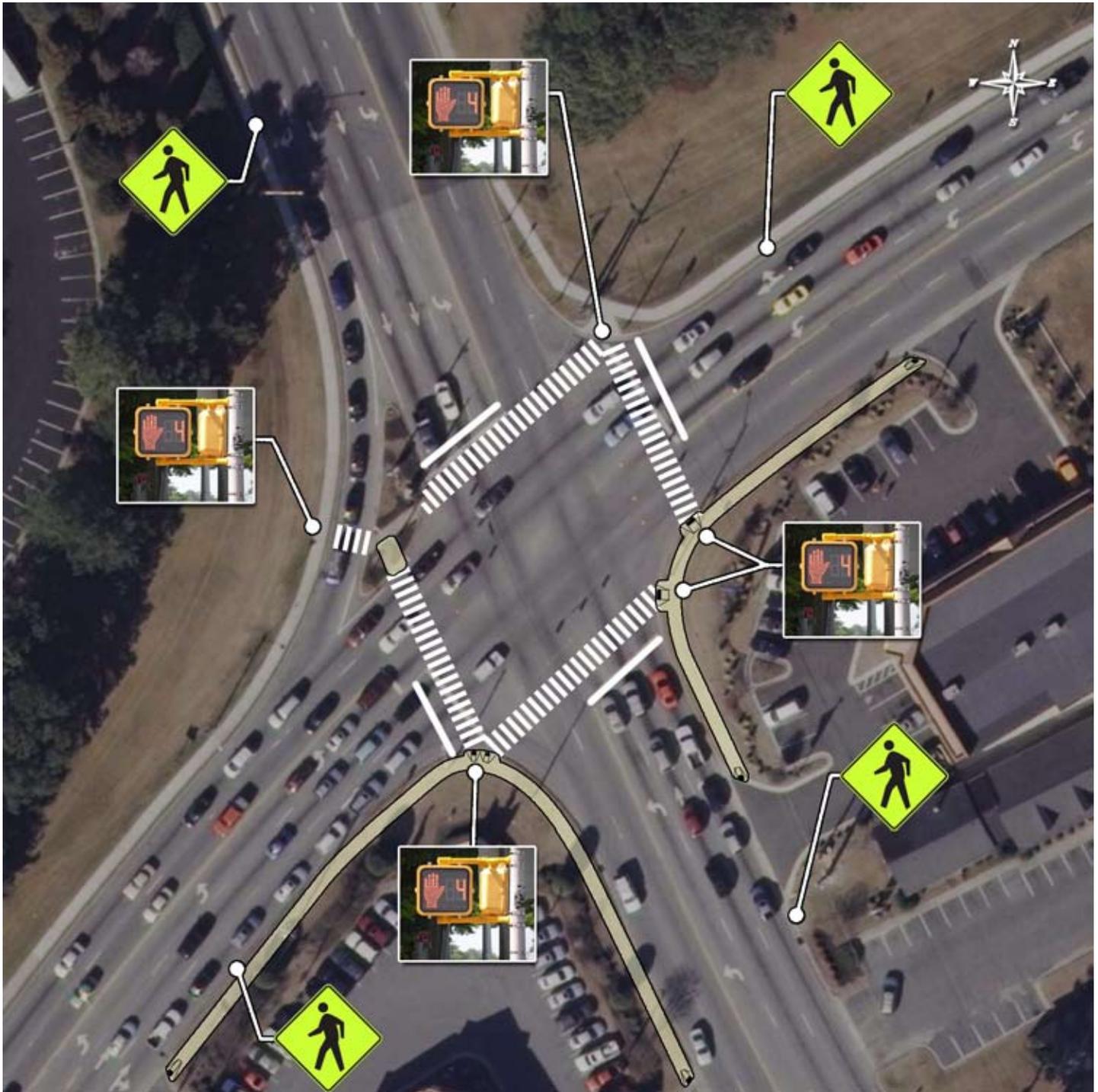
- One of the constraints of this intersection is the channelization island located in the northwest quadrant of the intersection between the southbound right turn lane and the southbound through lanes. This island will have to be modified in order for the proposed crosswalk across the eastbound approach to be built. However, the island will provide a refuge for pedestrians crossing the southbound and westbound approaches. In order to act as a pedestrian refuge, the island will need to have wheelchair ramps installed or have paths cut into the island that are at grade.
- Nearby destination points have the potential to generate a large amount of pedestrian traffic. As such, improvements in this area should be considered a high priority.
- Cost Estimate: \$17,500 (excluding sidewalks)

Right: Existing Conditions at Greenville & Charles; Below, a photo visualization of proposed improvements.





Below: Greenville & Charles Intersection Improvements (see page 5-14 for text description)





10TH AND GREENVILLE

Part of sidewalk priority project #8

#3 Most Requested on Comment Form

Project Description

- New sidewalks are proposed in the southeast and southwest quadrants of the intersection. The new sidewalks will require the construction of curb ramps.
- High visibility crosswalks are proposed for all four approaches. These crosswalks will replace the existing crosswalks.
- The median island in the southeast quadrant of the intersection will need to be modified in order to accommodate the proposed crosswalk.
- Pedestrian countdown signal heads are proposed for all approaches.
- High-visibility pedestrian warning signs are proposed in advance of the intersection on all approaches. In order to call attention to the presence of pedestrians, it may be desirable to install a “Yield to Pedestrians in Crosswalk” sign in advance of the northbound free-flow right turn lane. An alternate method of highlighting this crosswalk is the installation of a pedestrian activated warning beacon on the high-visibility warning sign.

Engineering/Implementation Guidance

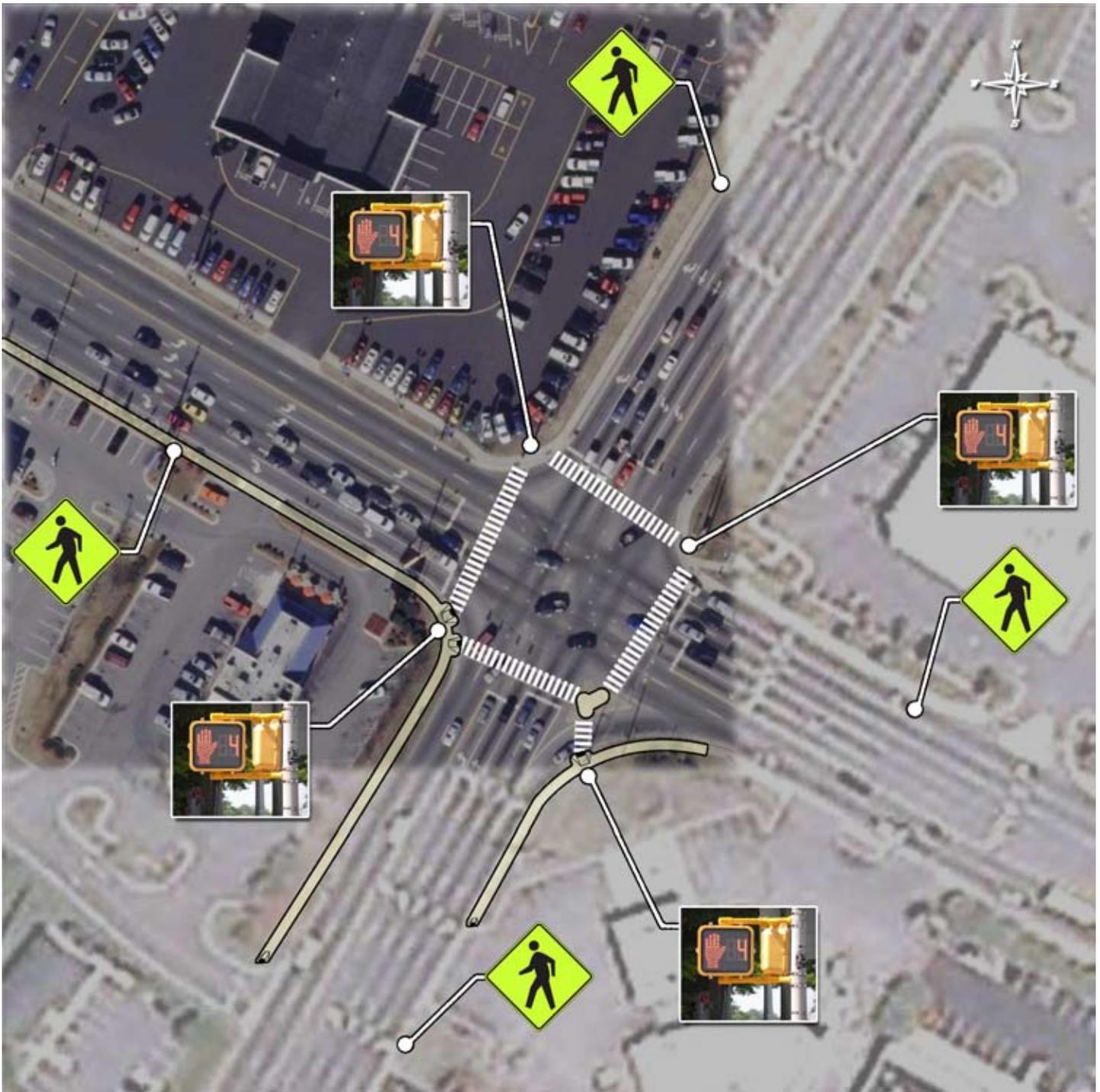
- The existing concrete island in the southwest quadrant of the intersection provides an opportunity for a pedestrian refuge for the crosswalks across the northbound and eastbound approaches. In order to act as a pedestrian refuge, the island will need to have wheelchair ramps installed or have paths cut into the refuge that are at grade.
- These improvements could be phased in two steps. Step one would be constructing all of the improvements except for the sidewalk in the southwest quadrant of the intersection (including crosswalks, pedestrian countdown heads, and high-visibility pedestrian warning signs). Step two would be the construction of the sidewalk in the southwest quadrant of the intersection.
- Cost Estimate: \$30,000 (excluding sidewalks)

Right: Existing Conditions at 10th & Greenville; Below, a photo visualization of proposed improvements.





Below: 10th & Greenville Intersection Improvements (see page 5-16 for text description)





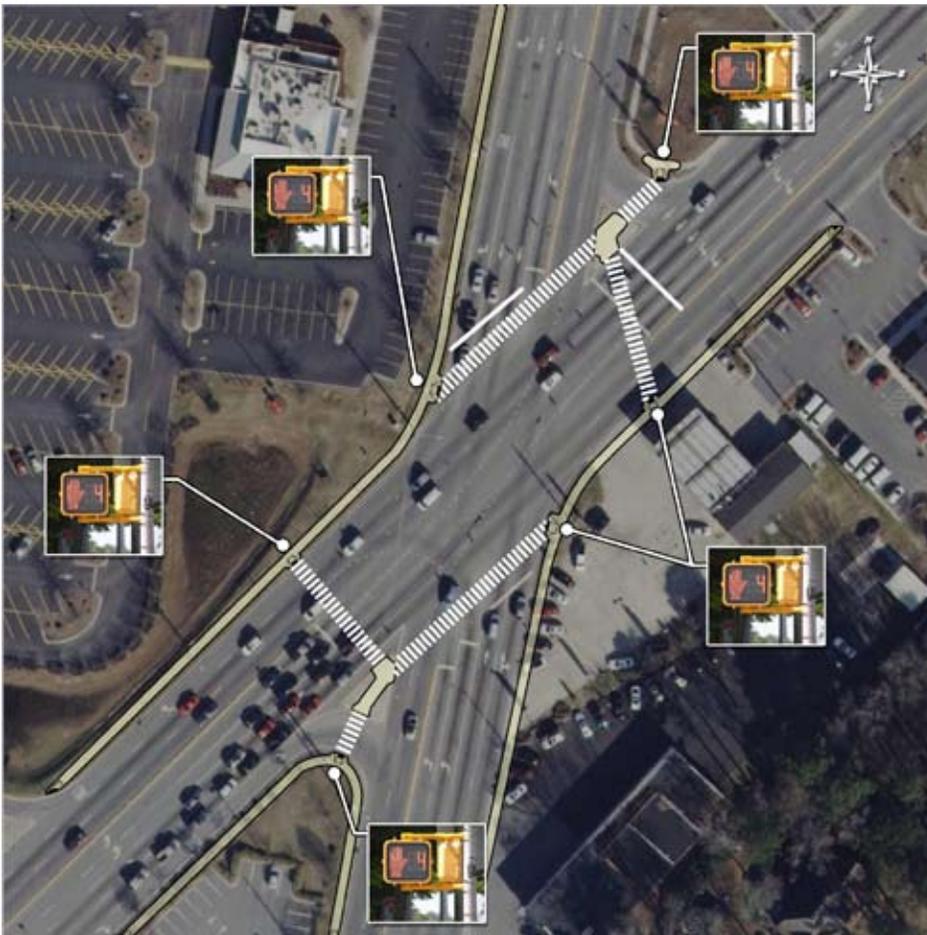
GREENVILLE AND EVANS *2nd Most Requested on Comment Form*

Project Description

- New sidewalks are proposed in the northwest, southeast, and southwest quadrants of the intersection. The new sidewalks will require the construction of curb ramps. A new curb ramp is also proposed for the existing sidewalk in the northeast quadrant of the intersection.
- High visibility crosswalks are proposed for all four approaches. The addition of these crosswalks will require restriping the existing stop bars on the southbound and westbound approaches.
- The median islands in the northeast and southwest quadrants of the intersection will need to be modified to accommodate the proposed crosswalks.
- Pedestrian countdown signal heads are proposed for all approaches.

Engineering/Implementation Guidance

- A major constraint of this intersection is the severe skew. This skew presents challenges in trying to safely move pedestrians around and through the intersection. In order to try to increase pedestrian safety, the crosswalks across the eastbound and westbound approaches are close to perpendicular instead of being skewed. Also both of these crosswalks connect to existing channelization islands which can be converted to pedestrian refuges. In order to act as a pedestrian refuge, the islands will need to have wheelchair ramps installed or have paths cut into the refuges that are at grade.
- A second constraint at this intersection is the parcel with three driveways in the southeast quadrant of the intersection. At least one, possibly two of these driveways could be closed in order to improve pedestrian safety without severely compromising site access.
- If phasing is desired at this intersection, it would be possible to build the northern improvements before the southern improvements. This would address some of the safety concerns that exist because of the skewed intersection.
- Cost Estimate: \$40,000 (excluding sidewalks)



*Left: Greenville & Evans
Intersection Improvements*



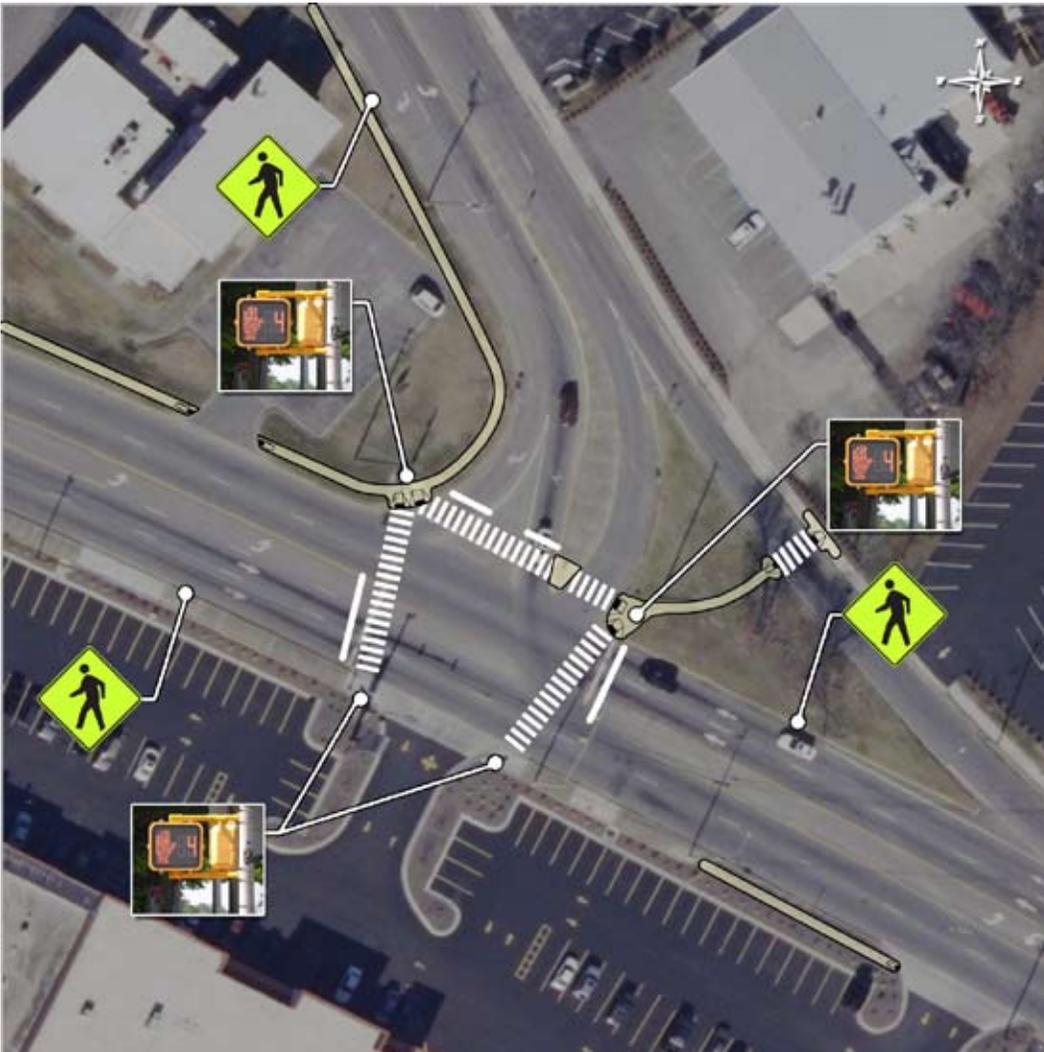
5TH & 10TH *Part of sidewalk priority project #6*

Project Description

- New sidewalks are proposed in the northeast and northwest quadrants of the intersection. The new sidewalks will require the construction of curb ramps. Additionally, a sidewalk extension is proposed along the property frontage in the southeast quadrant of the intersection.
- High visibility crosswalks are proposed for the southbound, eastbound, and westbound approaches. The addition of these crosswalks will require restriping the existing stop bars on these approaches.
- Pedestrian countdown signal heads are proposed for all approaches.
- High-visibility pedestrian warning signs are proposed in advance of the intersection on all approaches. In order to call attention to the presence of pedestrians, it may be desirable to install a “Yield to Pedestrians in Crosswalk” sign in advance of the westbound free-flow right turn lane. An alternate method of highlighting this crosswalk is the installation of a pedestrian activated warning beacon on the high-visibility warning sign.

Engineering/Implementation Guidance

- One constraint at this intersection is the grass median in the northeast quadrant of the intersection. This complicates pedestrian travel through the intersection from the north and the east. In order to improve pedestrian access around this median, a high visibility crosswalk is proposed across the free-flow westbound right turn lane. This will allow pedestrians from the north or the east to safely navigate the intersection.
- A final constraint at this intersection is the median on the southbound approach. However, this median provides an opportunity to install a pedestrian refuge.
- Cost Estimate: \$15,000 (excluding sidewalks)



*Left: 5th & 10th
Intersection Improvements*



GREENVILLE AND ARLINGTON 4th Most Requested on Comment Form

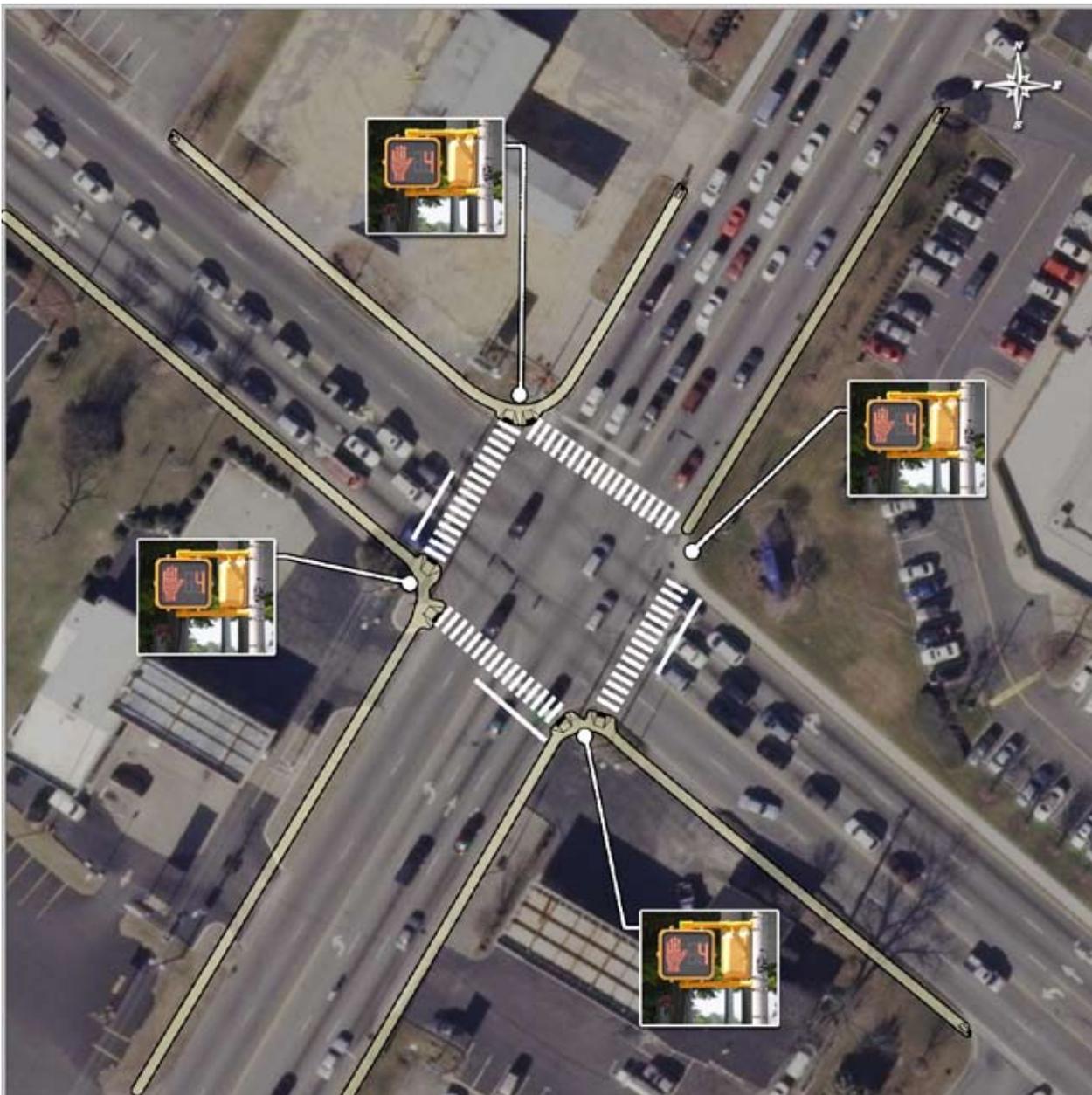
Project Description

- New sidewalks are proposed in all quadrants of the intersection. The new sidewalks will require the construction of curb ramps in the northwest, southeast, and southwest quadrants of the intersection.
- High visibility crosswalks are proposed for all four approaches. The addition of these crosswalks will require restriping the existing stop bars for the northbound, eastbound, and westbound approaches.
- Pedestrian countdown signal heads are proposed for all approaches.

Engineering/Implementation Guidance

- The biggest constraint at this intersection is the presence of multiple driveways for the parcels adjacent to the intersection. Some of these driveways could be consolidated. Although this would restrict site access, it would improve pedestrian safety at this intersection. Other options for addressing pedestrian safety at the driveways is the striping of crosswalks across the driveways or installing raised crosswalks through the driveways. These options would improve safety while still maintaining vehicular access.
- Cost Estimate: \$15,000 (excluding sidewalks)

Below: *Greenville & Arlington Intersection Improvements*





Priority Greenways

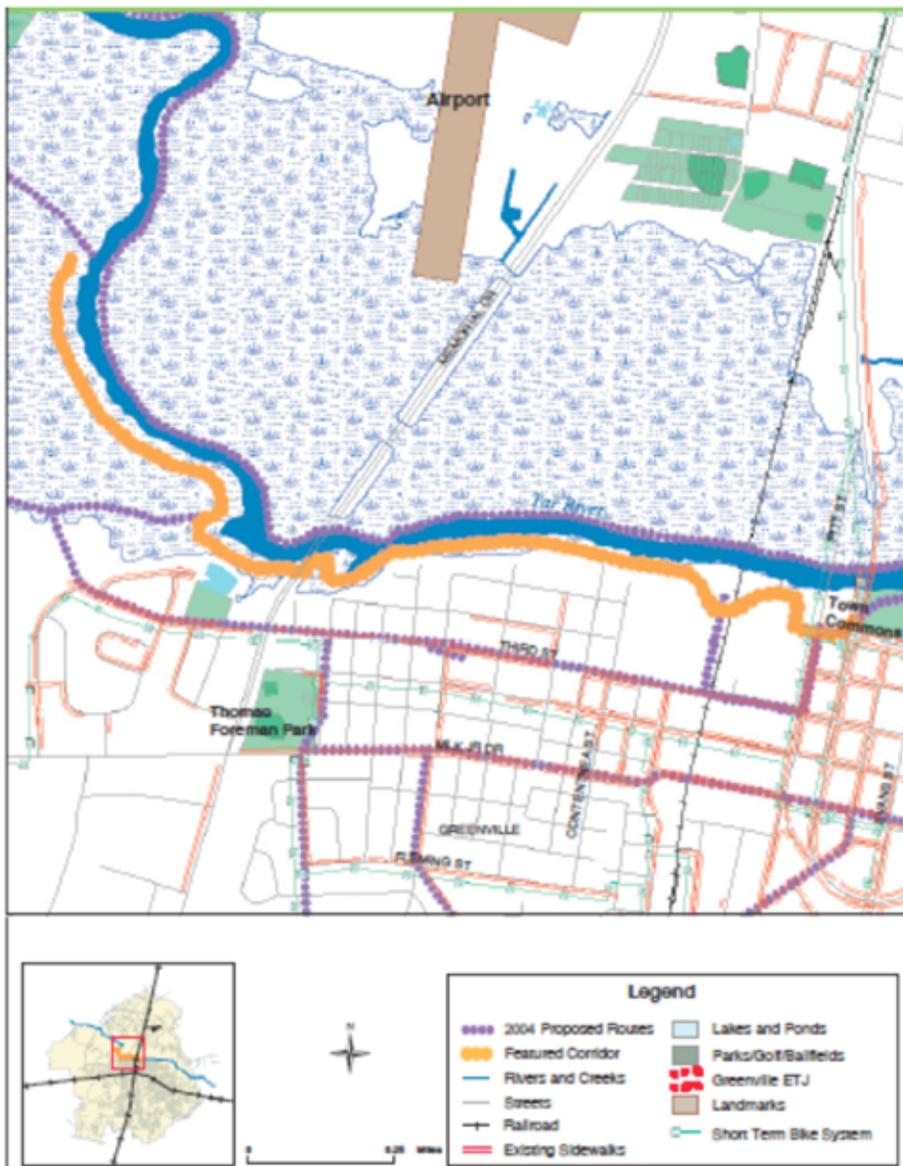
The Friends of Greenville Greenways (FROGGS) determined the following top priority greenways, which were adopted by City Council.

PRIORITY GREENWAY #1

40. South Tar River Phase III

Description: Phase III runs from the western edge of the Town Common along the river to Harris Mill Run.

Justification: This 2-mile greenway will connect the existing greenway at the Town Common to the neighborhoods of West Greenville and provide easy access to ECU and downtown. It is an essential connector that will eventually be linked to the Pitt County Memorial Hospital complex via the Schoolhouse Branch Greenway. This greenway will also expand the recreational potential of the South Tar River Greenway. This greenway should be the top priority because it connects two major employers and destinations in Greenville: ECU’s Main Campus and the Pitt County Memorial Hospital/ECU West Campus. As such, with the Schoolhouse Branch Greenway (Priority 2, below), it will be the backbone of the greenway network for transit. It also brings the benefits of greenway development to the neighborhoods of West Greenville.



MAP 5.3 PRIORITY GREENWAY #1

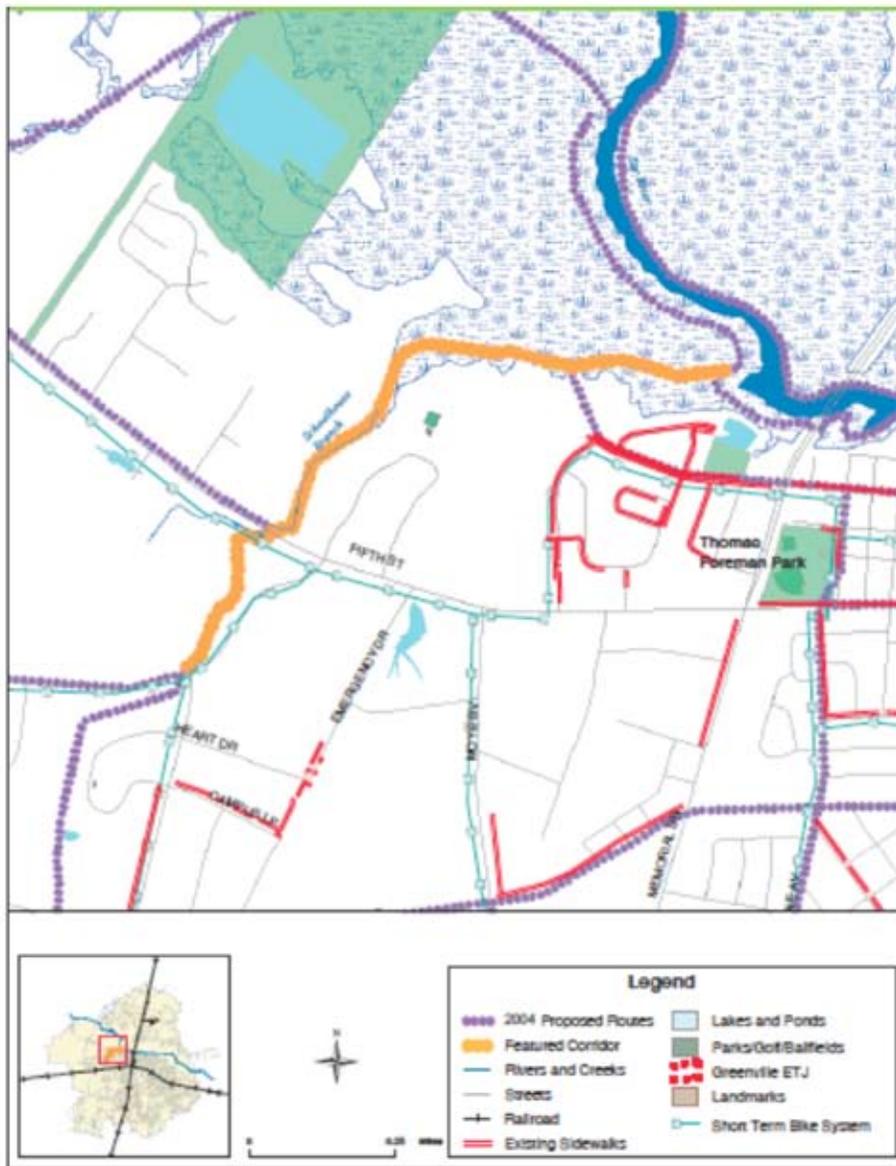


PRIORITY GREENWAY #2

12. Schoolhouse Branch

Description: Schoolhouse Branch is a side trail from the river that leads across Fifth Street to the Pitt County Memorial Hospital complex.

Justification: This 1.3-mile greenway will connect Phase III of the South Tar River Greenway (Priority 1, above) to the Pitt County Memorial Hospital/ECU Health Sciences Campus. This connection to a major employment center and destination in Greenville and Pitt County will make the entire greenway system more viable for transportation. This is the second priority, as without Phase III (Priority 1), this trail does not serve its connective purpose.



MAP 5.4 PRIORITY GREENWAY #2

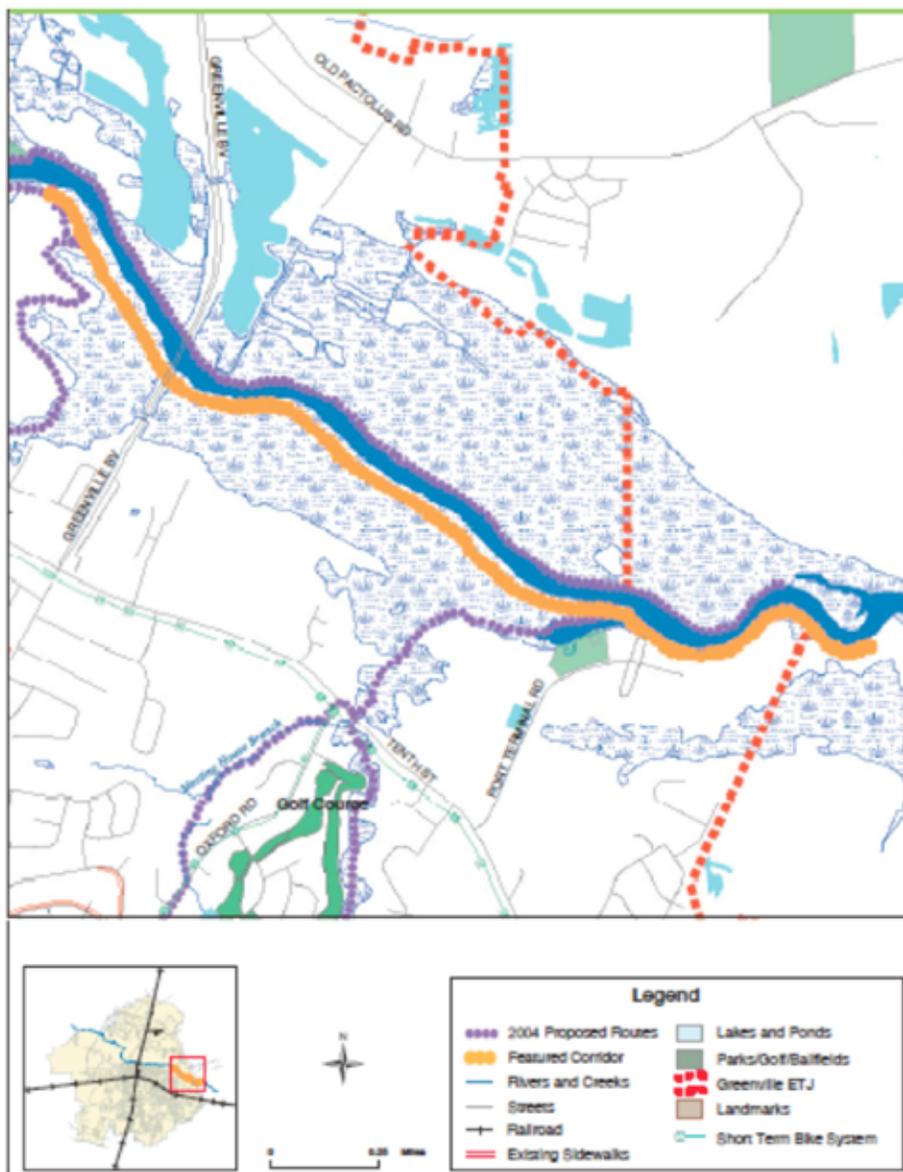


PRIORITY GREENWAY #3

21. South Tar River Phase II

Description: Phase II connects the South Tar River Greenway Phase I to the new city parkland on Highway 33.

Justification: This 2.4-mile greenway will connect neighborhoods in the eastern part of the city, including student residential developments, to ECU, downtown, and the Pitt County Memorial Hospital/ECU Health Sciences Campus. If Priority 1 represents the backbone of the system, this is an essential artery. It will also expand the recreational potential of the South Tar River Greenway by extending it and linking it to a new park. With the completion of this greenway, users can enjoy a greenway of close to 8 miles along the river. A greenway of this length will be a major amenity in the city. This is a lower priority than the greenway to the west (Phase III, Priority 1) because a greenway link to the hospital is needed before this greenway can reach its full potential. Moreover, the costs and engineering challenges associated with this project are potentially double those of Phase III (Priority 1), according to the very rough cost estimates provided in the 2004 master plan.



MAP 5.5 PRIORITY GREENWAY #3

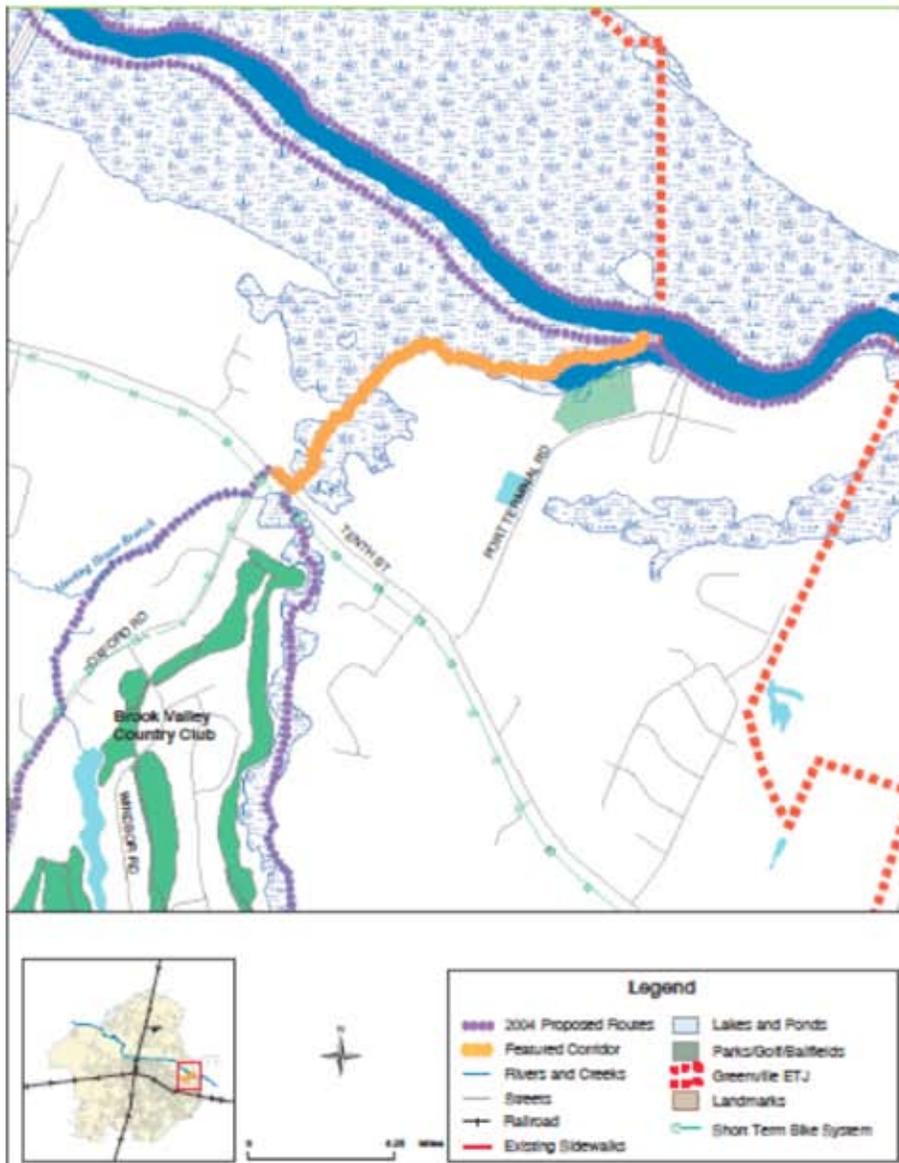


PRIORITY GREENWAY #4

15. Tar River to Hardee Creek

Description: Tar River to Hardee Creek is a side trail leading from the South Tar River Greenway Phase II to Tenth Street at Oxford Road, linking neighborhoods on the north side of Tenth Street to the South Tar River Greenway.

Justification: This .8-mile greenway provides an essential link between neighborhoods on the north side of Tenth Street and the rest of the greenway network along the river. It will make it much easier for residents of these neighborhoods to use the greenway for transportation and recreation. This is the fourth priority, as without Phase II (Priority 3), this trail does not serve its connective purpose.

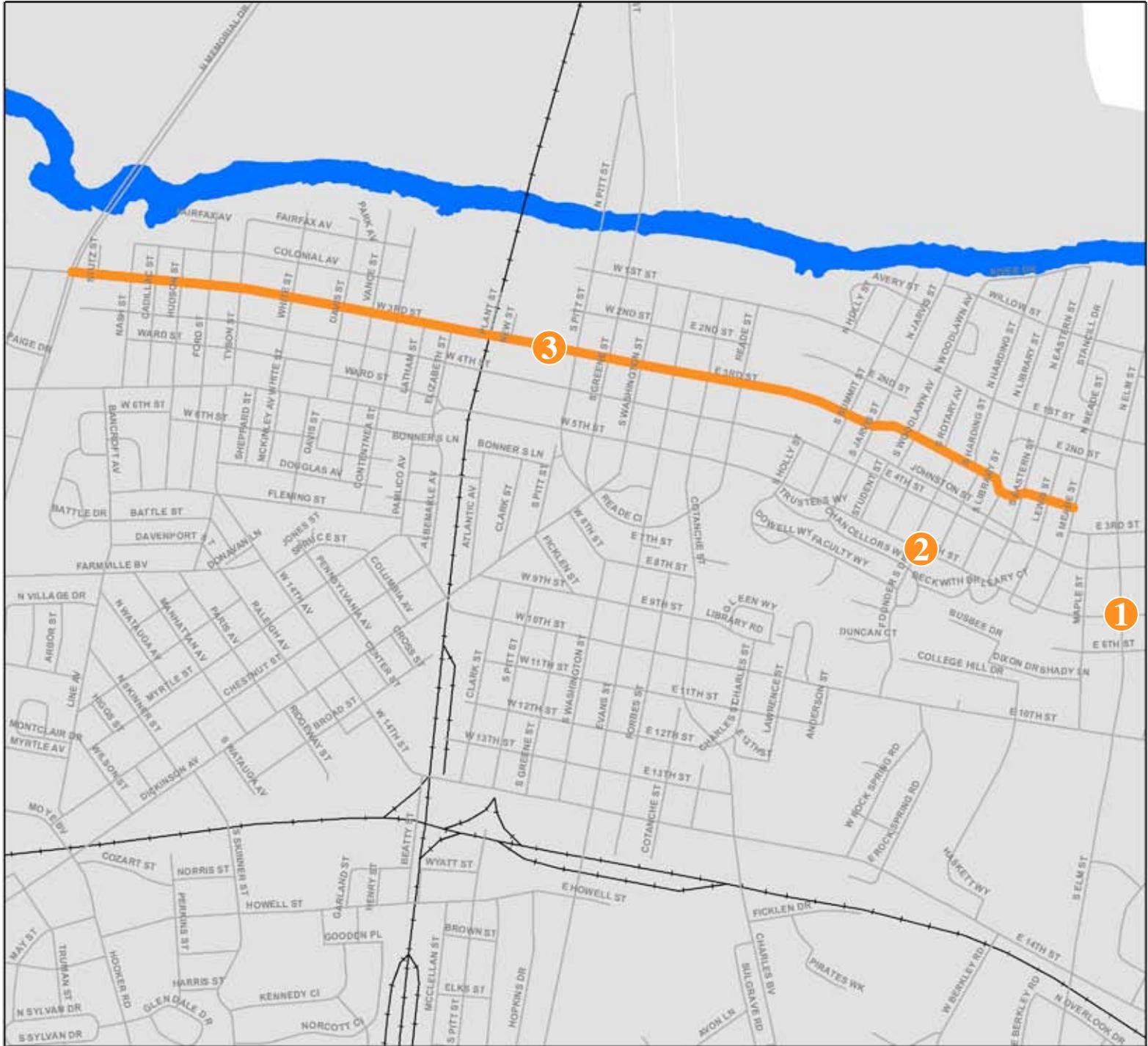


MAP 5.6 PRIORITY GREENWAY #4:



PILOT PROJECTS

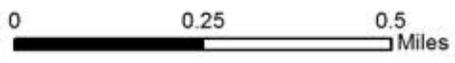
Pilot projects are discussed in Chapter 3 and select examples are described below.



MAP 5.7 PILOT PROJECTS
- OVERVIEW MAP

Pilot Projects

- ① Pegga-tracking at 5th St. & Elm St.
- ② Bike Detector Signal on 5th St. & Founders St.
- ③ Bike Boulevard on 3rd Street



— Streets
 River
 City Limits



1

PILOT PROJECT #1 PEGGA-TRACKING. 5TH STREET AND ELM STREET.

A common request by participants during this planning process is to continue bike lane pavement markings/treatments through intersections. Pegga-tracking treatments provide a clear message to motorists and bicyclists.

Right: Existing Conditions at 5th Street and Elm Street; Below, a photo visualization of proposed improvements.





2

PILOT PROJECT #2
BIKE DETECTOR SIGNAL. 5TH STREET AND FOUNDERS STREET.

Project Description

- A bike detectable signal is proposed at this location. There is significant bicycle traffic on Founders. Increasing the sensitivity of the inductive loops in the pavement (possibly by replacing them) will aid in bicycle detection. Also, indicating where cyclists should stop on the loop will increase detection of bicycles.

Engineering/Implementation Guidance

- This project has a low implementation cost and should be considered as a near-term priority.



5th St. & Founders St..

Below: 5th St. & Founders St. Intersection Improvements





3

PILOT PROJECT #3 3RD STREET BIKE BOULEVARD

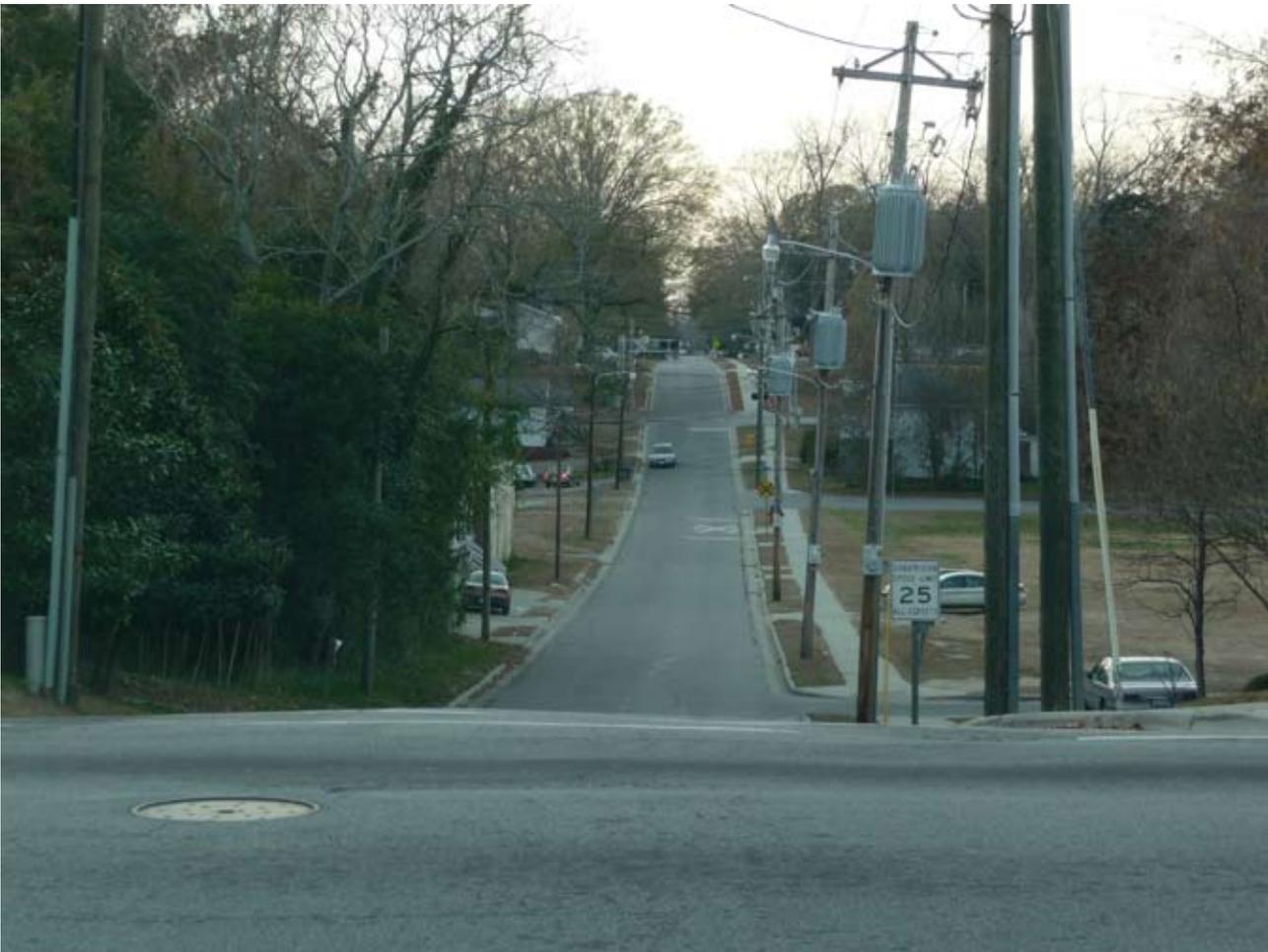
(from N. Memorial to Meade St. where it would become sharrow in Downtown)

Project Description

- This project proposes to create a bike boulevard along Third Street from N. Memorial Drive to Meade Street. This will create an east-west route for bicyclists looking to travel through downtown Greenville.

Engineering/Implementation Guidance

- Existing (2006) and projected (2035) model traffic volumes are low along Third Street. With v/c ratios ranging from .03 to .31, the section of Third Street from Memorial Drive to Meade Street is level of service A.
- Because of the low volumes on this road, diverters are not necessary to reduce through traffic. However, mini traffic circles at strategic intersections along the corridor could effectively reduce vehicle speed and contribute to the character of a bike boulevard. Creating a bike boulevard along this corridor should have little impact to local traffic flow.
- In order to further enhance the appeal of this corridor to cyclists, lowering the speed limit to 20 or 25 mph is suggested. This should reduce vehicle speed which will allow bicycle and vehicle speeds to be more compatible.





Town of Winterville Priority Projects

The following pages show the top priority bicycle and pedestrian projects in the Town of Winterville. This plan does not supersede and is intended to compliment recommendations of the 2008 Winterville Comprehensive Pedestrian Plan (shown in Appendix G). These five projects were determined from staff and public meetings during the planning process.



MAP 5.8 TOWN OF WINTERVILLE
PRIORITY PROJECTS
- OVERVIEW MAP

- Streets
- Hydrology
- Schools
- Parks
- Winterville



1 TOWN OF WINTERVILLE PRIORITY PROJECT #1: BIKE LANE/SHARROW ON MAIN STREET (From Chapman Street to East Street)

- Provide bike lanes (by simple striping) from Chapman Street to Mill Street. The cross section of the road is 2 lanes, ranging from 34'-46' allowing adequate space for addition of bike lanes.
- Provide sharrows where on-street parking begins through the Downtown core to near Academy Street.
- Provide bike lanes (by simple striping) to East Street. The cross section of the road is 2 lanes, near 34' in width allowing adequate space for addition of bike lanes.
- Cost Estimate \$5,862.24

Below: Plenty of width on Main St. for striping bicycle lanes.



2 TOWN OF WINTERVILLE PRIORITY PROJECT #2: BIKE LANE ON COOPER STREET (From Railroad Street to Ange Street)

- Provide bike lanes (by simple striping) from Railroad Street to Ange Street. The cross section of the road is 2 lanes, with adequate space for addition of bike lanes.
- Cost Estimate: \$3,648.26

Below: Plenty of width on Cooper St. for striping bicycle lanes.





3 TOWN OF WINTERVILLE PRIORITY PROJECT #3: BIKE LANE/SHARROW ON CHURCH STREET (From Cooper Street to Linden Lane)

- Provide bike lanes (by simple striping) from Cooper Street to Blount Street. The cross section of the road is 2 lanes, with adequate space for addition of bike lanes.
- Provide sharrows where school on-street parking begins from Blount Street to Sylvania Street.
- Provide bike lanes (by simple striping) from Sylvania Street to Linden Lane. The cross section of the road is 2 lanes, with adequate space for addition of bike lanes.
- Cost Estimate: \$5,422.25

Below: This section of Church Street would be more appropriate for Sharrows.



4 TOWN OF WINTERVILLE PRIORITY PROJECT #4 MAIN STREET AND OLD TAR ROAD

(Intersection Improvement)

- This intersection features no stoplight or crossing treatments. A stop sign exists for traffic on Main Street turning onto Old Tar Road. Creating a safe pedestrian crossing is essential for residents crossing Old Tar to get into Downtown Winterville. First, sidewalk is also needed along Old Tar Road. With future widening of Old Tar Road expected, this intersection should be improved to include sidewalks, high-visibility marked crosswalks, and signage. Ideally, a stoplight would provide a means for slowing and stopping traffic for pedestrian crossing. Further analysis is needed.
- Cost Estimate: TBD (part of future NCDOT project)

**5****TOWN OF WINTERVILLE PRIORITY PROJECT #5
ANGE STREET CROSSING NEAR WINTERVILLE TOWN PARK**

(Crossing Improvement)

- Numerous pedestrians cross Ange Street from neighborhoods to the east to access A.G. Cox Middle School, Robinson Elementary, and Town Park. Sidewalks are needed along Ange Street. A safe crossing should be provided at Sylvania Street to include:
 - High-visibility marked crosswalks
 - Pedestrian signage
 - Flashing lights should be considered.
 - A crossing guard should be considered.
- Cost Estimate: \$7,500

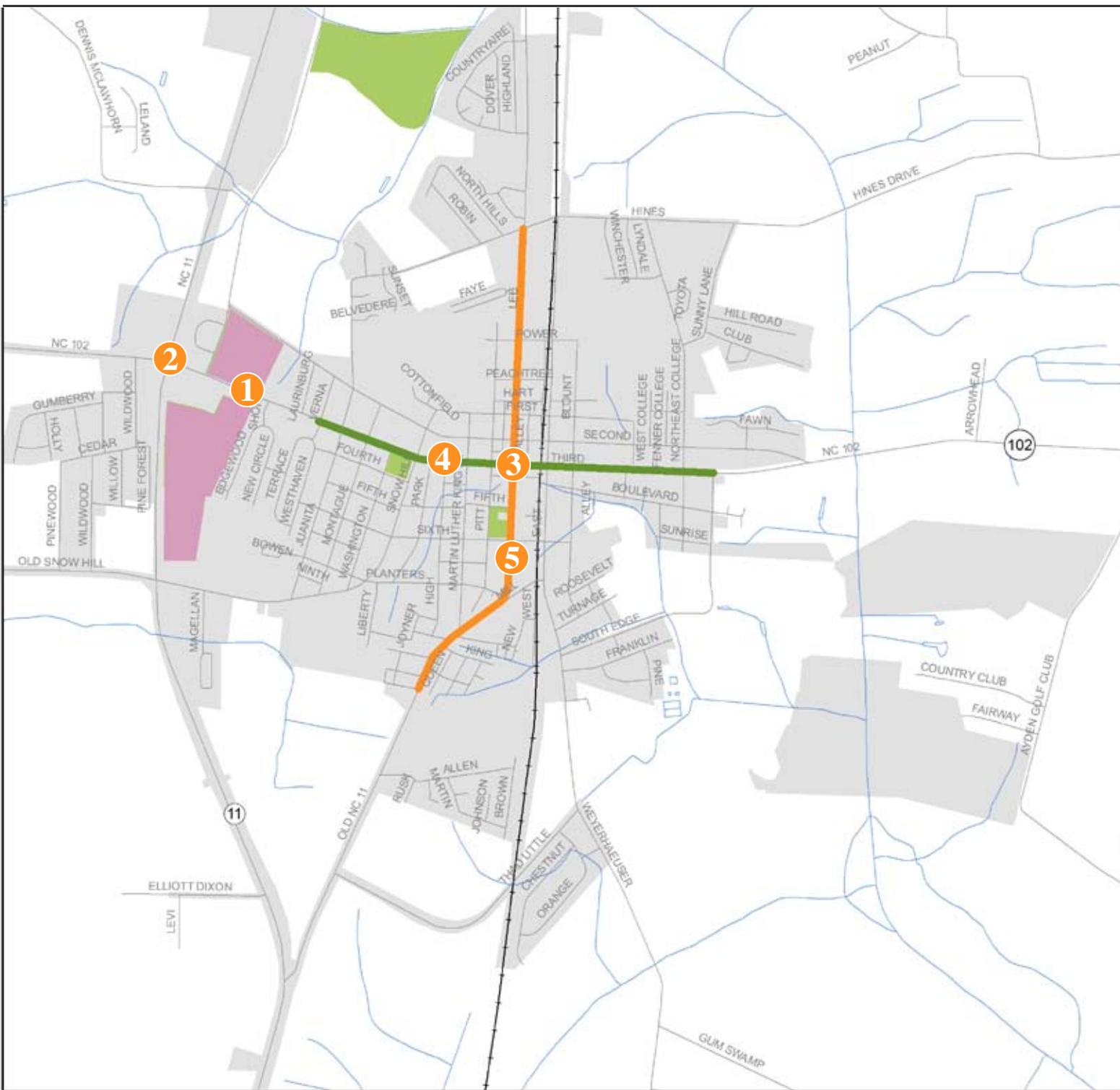
Below: Lack of sidewalk and crossing facilities on Ange St. & Sylvania.





Town of Ayden Priority Projects

The following pages show the top priority bicycle and pedestrian projects in the Town of Ayden. This plan does not supersede and is intended to compliment recommendations of the 2009 Town of Ayden Comprehensive Sidewalk Plan (shown in Appendix G). However, these five projects were selected as priorities for the Town during this planning process.



MAP 5.9 TOWN OF AYDEN
PRIORITY PROJECTS
- OVERVIEW MAP

- Streets
- Hydrology
- Schools
- Parks
- Ayden



1

TOWN OF AYDEN PRIORITY PROJECT #1: THIRD STREET CROSSING AT SCHOOLS

(Ayden Elementary and Ayden Middle)

Ayden Elementary and Ayden Middle Schools (and associated parks) are separated by Third Street. The following enhancements to this crossing are strongly recommended.

- Construct new curb ramps across Third Street and across the Ayden Middle School driveway.
- Restripe the existing crosswalk across Third Street with a high visibility crosswalk.
- Provide high-visibility pedestrian warning signs in advance of the crossing on Third Street.
- Provide a HAWK pedestrian signal.
- A crossing guard should be present at this location during school starting and ending times.
- Cost Estimate: \$55,000

Below: Proposed crossing improvements at Ayden & Third.





2

TOWN OF AYDEN PRIORITY PROJECT #2 THIRD STREET SIDEWALK AND THIRD STREET/NC 11 CROSSING

(Crossing Improvement)

Sidewalk should be added from where existing sidewalk ends at the schools westward to the NC 11 intersection. The intersection needs significant pedestrian enhancements including the following:

- High-visibility marked crosswalks
- Advanced stop lines
- Median refuge island
- Pedestrian countdown signals
- Curb radius reduction
- Consideration of pedestrian overpass in future if warranted
- Cost Estimate: \$15,000

3

TOWN OF AYDEN PRIORITY PROJECT #3 THIRD STREET AND LEE STREET

(Crossing Improvement)

This intersection features exemplary pedestrian crossing treatments. However, the following should also be added:

- Curb extensions (with on-street parking present)
- Pedestrian countdown signals
- Pedestrian crossing signage
- Driveway access management needed at SE corner
- Cost Estimate: \$22,000

Below: Existing conditions at Third & Lee St.





4 TOWN OF AYDEN PRIORITY PROJECT #4: BIKE LANE/SHARROW ON THIRD STREET

(From North Edge Road to Verna Avenue)

- Provide bike lanes (by simple striping) from Verna Avenue to Martin Luther King Junior Street. The cross section of the road is 2 lanes, ranging from 30' -40' allowing adequate space for addition of bike lanes.
- Provide sharrows where on-street parking begins through the Downtown core to near McCary Street.
- Provide bike lanes (by simple striping) to North Edge Road. The cross section of the road is 2 lanes, near 30' in width (pavement flat to curb with no gutter for portions) allowing adequate space for addition of bike lanes.
- Cost Estimate: \$10,368.63



Above: Plenty of width on Third St. for striping bicycle lanes (looking towards downtown from Snowhill).

Right: Existing Conditions at 3rd Street; Below, a photo visualization of proposed improvements.



**5****TOWN OF AYDEN PRIORITY PROJECT #5: BIKE LANE/SHARROW ON LEE STREET**

(From Hines Drive to Jackson Street)

- Provide bike lanes (by simple striping) from Hines Drive to First Street. The cross section of the road is 2 lanes, ranging from 34'-40' allowing adequate space for addition of bike lanes.
- Provide sharrows where on-street parking begins through the Downtown core to near Sixth Street.
- Provide bike lanes (by simple striping) to Jackson Street. The cross section of the road is 2 lanes, near 40' in width allowing adequate space for addition of bike lanes. Some on-street parking was occurring so this should be taken into consideration.
- Cost Estimate: \$13,067.22

Below: Lee and 2nd, with adequate space for bike lanes leading into sharrows in the Downtown



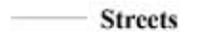
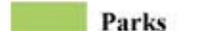


Village of Simpson Priority Projects

The following pages show the top priority bicycle and pedestrian projects in the Village of Simpson.



MAP 5.10 VILLAGE OF SIMPSON PRIORITY PROJECTS - OVERVIEW MAP

-  Streets
-  River
-  Parks
-  Simpson



0 0.25 0.5
 Miles



1

VILLAGE OF SIMPSON PRIORITY PROJECT #1: DOWNTOWN LOOP

Telfaire Street/Queen Street/Virginia Street/Simpson Street

Provide sidewalks along this loop that would create walking trail and connection to local Simpson Community Park and Simpson Post Office. Cost Estimate: \$152,000



2

VILLAGE OF SIMPSON PRIORITY PROJECT #2: MCDONALD STREET IMPROVEMENTS

NCDOT has developed a plan for improving and widening this roadway section in Simpson near the intersection of McDonald Street and Simpson Street. Part of the plan includes sidewalk on the south side of this segment.

- As part of the future NCDOT reconstruction, sidewalk, crosswalk enhancements (at McDonald/Simpson), and bike lanes should be provided along McDonald Street.
- Cost Estimate: TBD (part of future NCDOT project)



3

VILLAGE OF SIMPSON PRIORITY PROJECT #3: BLACK JACK-SIMPSON GATEWAY

- Improve Black Jack-Simpson gateway into the Village of Simpson through landscaping and aesthetic improvements.
- This should serve as a traffic calming device as well, making it safer for pedestrians and bicyclists.
- Cost Estimate: \$10,000

4

VILLAGE OF SIMPSON PRIORITY PROJECT #4: SIMPSON STREET/TUCKER STREET

One of the main roads through Simpson, Simpson Street/Tucker Street is a two-lane road that connects multiple subdivisions.

- Paved shoulders and sidewalks should be provided in the long-term connecting residents to the core of Simpson.
- Cost Estimate: \$500,000

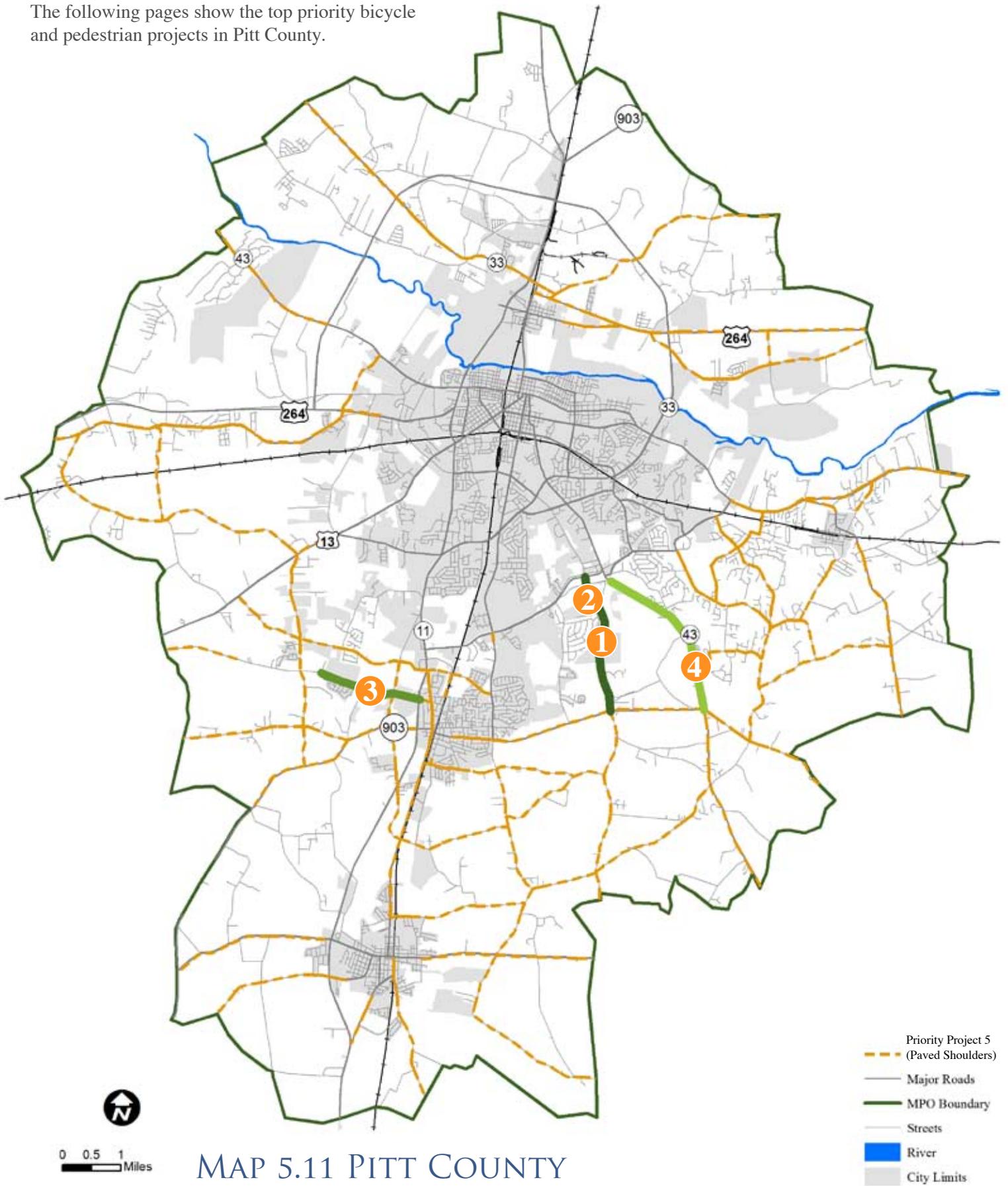
Below: Existing conditions on Simpson Street.





Pitt County Priority Projects

The following pages show the top priority bicycle and pedestrian projects in Pitt County.



MAP 5.11 PITT COUNTY PRIORITY PROJECTS - OVERVIEW MAP



1 PITT COUNTY PRIORITY PROJECT #1: MIDBLOCK CROSSING OF COUNTY HOME

(Crossing Improvement with HAWK Signal)

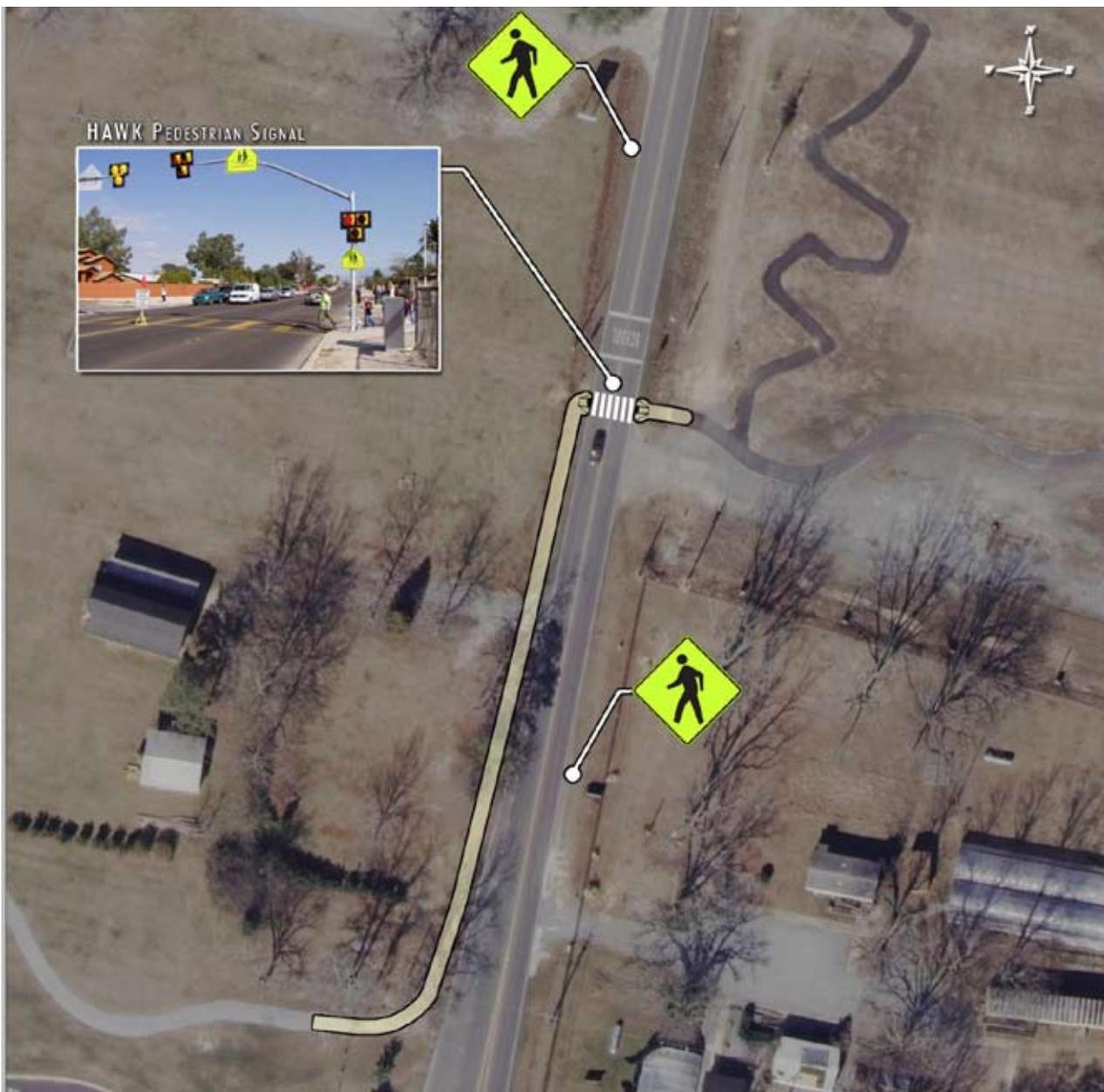
Connecting Pitt County Recreation Center, Wintergreen Primary School, Wintergreen Intermediate School, existing trails, senior center, and community garden. The crossing should include:

- A high visibility crosswalk across County Home Road just north of the community gardens.
- High-visibility pedestrian warning signs in advance of the crossing on County Home Road.
- A HAWK pedestrian signal for this crossing.

Additional Engineering/Implementation Guidance:

One constraint at this location is the speed limit of the road (currently 55mph). In order to improve pedestrian safety at the crossing, it may be necessary to reduce the speed limit in advance of the crossing. A second option to increase driver awareness of the crossing is to install a flashing beacon on the high-visibility pedestrian warning signs. These beacons would help to alert approaching motorists of the presence of the crossing. Cost Estimate: \$75,000

Below: Proposed crossing improvements on County Home Rd, connecting two existing trails that serve destinations listed above.





2

PITT COUNTY PRIORITY PROJECT #2: COUNTY HOME SIDEWALK

(From Firetower Road to Worthington Rd.)

- Provide sidewalk on both sides of County Home Road from Firetower Road to the park/school area and on at least one side south to Worthington Rd.
- As development occurs in the future, sidewalk should be developed on both sides for improved safety and connectivity.
- Cost Estimate: \$500,000

Below: Existing conditions on County Home Rd.



3

PITT COUNTY PRIORITY PROJECT #3: FORLINES ROAD SIDEWALK

(From NC11 to Mayfield Road)

- Provide sidewalk on both sides of Forlines Road from NC 11 to Mayfield Road, connecting residential communities to South Central High School and Creekside Elementary School.
- This project is one of the Top 20 highway improvements in the GUAMPO 2009-2010 Transportation Improvement Priorities list.
- As development occurs in the future, sidewalk should be developed on both sides for improved safety and connectivity.
- Cost Estimate: \$350,000

Below: Existing conditions on Forlines Rd. (school at left)





4

PITT COUNTY PRIORITY PROJECT #4: CHARLES BLVD./NC 43 SIDEWALK & BIKE LANES

(From Bells Fork Road to Worthington Road)

- Provide sidewalk and bike lanes along Charles Blvd./NC 43.
- This project is one of the Top 20 highway improvements in the GUAMPO 2009-2010 Transportation Improvement Priorities list.
- Cost Estimate: TBD (part of future NCDOT project)

Below: Existing conditions on Charles Blvd./NC 43



5

PITT COUNTY PRIORITY PROJECT #5: RECOMMENDED PAVED SHOULDERS THROUGHOUT COUNTY

- Paved shoulders are recommended on arterials and some collectors throughout rural portions of Pitt County. As roadways are widened or reconstructed, paved shoulders should be provided to create separated spaces for bicyclists who ride for transportation and recreation.
- If development occurs leading to curb and gutter additions to a roadway in which paved shoulders are recommended, bike lanes should be added.
- Cost Estimate: TBD (to be part of future roadway resurfacing and reconstruction projects)



6 POLICIES

Chapter Contents

Overview

Complete Streets

Review of Local Policies

*Federal and State
Policies*

Overview

This chapter provides a reference point for local, state, and federal policies that relate to bicycle and pedestrian transportation. First, a draft resolution for a ‘Complete Streets’ is provided for consideration. Second, a table of existing local policies is provided, featuring recommendations for enhancing certain policies. Third, key state and federal policies that support bicycle and pedestrian infrastructure is provided.

Complete Streets

There is a growing national trend towards integrating bicycling, walking and transit as a routine element in highway and transit projects. This movement has developed under the name of “Complete Streets,” which is defined by the *Complete the Streets Coalition* as follows:

“Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.”

Pages 6-2 and 6-3 outline a draft Complete Streets resolution for consideration by the City of Greenville (while the example text provided is for Greenville, the text could also be adapted for use in Ayden, Winterville, Simpson, and/or Pitt County). The text for this draft was developed based on information collected during public workshops and committee meetings. By adopting a “Complete Streets” policy, municipalities commit to developing new roadways and reconstructing existing roadways to accommodate all users.

See page 6-18 or www.nccompletestreets.org for information on NCDOT’s Complete Streets Policy.



DRAFT COMPLETE STREETS RESOLUTION

RESOLUTION NO. _____

A Resolution of the City of Greenville Expressing Support for the Complete Streets Concept and Requesting that a Complete Streets Ordinance be drafted as a component of the Code of Ordinances Title 6 Chapter 2.

WHEREAS, the “Complete Streets” concept promotes streets that are safe and convenient for all users including pedestrians, bicyclists, and transit riders;

WHEREAS, the North Carolina Board of Transportation adopted a “Complete Streets Policy” for the state;

WHEREAS, streets constitute a large portion of the public space and should be corridors for all modes of transportation including pedestrians, bicyclists, and transit riders;

WHEREAS, Streets that support and invite multiple uses that include safe, active and ample space for pedestrians, bicycles, and transit are more conducive to the efficient movement of people than streets designed primarily to move automobiles and trucks;

WHEREAS, the City of Greenville Bicycle and Pedestrian Commission works to advance Greenville as a bicycle and pedestrian friendly community and encourages bicycling and walking among its citizens and visitors;

WHEREAS, trends in public health, energy and transportation costs, and air quality necessitate a more comprehensive approach to mobility within communities to offer a greater variety of mobility choices that are not strictly automobile based;

WHEREAS, there are practical limits to roadway expansion as a response to traffic congestion;

WHEREAS, promoting pedestrian, bicycle and transit travel as an alternative to automobiles promotes healthy living, is less costly to the commuter, may delay the need to widen some streets, and reduces negative environmental impacts;

WHEREAS, the development of a more complete transportation network or “Complete Streets” can improve pedestrian safety, facilitate improvements in public health, increase the transportation network’s capacity, and reduce climate change effects;

WHEREAS, the Federal Highway Administration has confirmed that designing streets with pedestrians in mind significantly reduces pedestrian risk. About one-third of Americans do not drive, including low-wealth Americans who cannot afford cars, school-age children, and an increasing number of older adults. Whether they walk or bicycle directly to their destinations, or to public transportation, these individuals require safe access to get to work, school, shops and medical visits, and to take part in social, civic and volunteer activities. Over the past decade, 289 motor vehicle crashes involving bicyclists or pedestrians were reported in the Greenville Metropolitan Planning Organization study area.

WHEREAS, obesity threatens the healthy future of one-third of all American children. For the first time in American history, our children’s life expectancy may be shorter than their parents;

The text used in this draft resolution could also be adapted for use in Ayden, Winterville, Simpson, and/or Pitt County.



WHEREAS, forty percent of American adults age fifty and older reported inadequate sidewalks in their neighborhoods. Nearly fifty percent reported they cannot cross main roads close to their home safely. Half of those who reported such problems said they would walk, bicycle, or take the bus more according to a 2008 American Association of Retired Persons (AARP) study;

WHEREAS, transportation expenses can be reduced if local infrastructure encourages active transportation, which helps families replace car trips with bicycling, walking, or taking public transit. When roads are re-designed and maintained to attract pedestrians, the local economy improves and diversifies from increased buyers, which creates job growth and increased investment in the area, including surrounding property values;

WHEREAS, studies have found that providing more travel options, including public transportation, bicycling and walking facilities, is an important element in reducing congestion. When roads are better designed for bicycling, walking, and taking transit, more people do so;

WHEREAS, the construction of “Complete Streets” can be an essential component in reducing automobile trips since nearly fifty percent of all trips in metropolitan areas are three miles or less and twenty-eight percent are one mile or less – distances easily covered by foot or bicycle. Sixty-five percent of trips under one mile are now made by automobile, in part because of incomplete streets that make it dangerous or unpleasant to walk, bicycle, or take transit;

WHEREAS, other jurisdictions and agencies nationwide have adopted “Complete Streets” legislation, including the United States Department of Transportation, numerous state transportation agencies including North Carolina, regions including the Capitol Area (Austin) Metropolitan Planning Organization (MPO) and the San Antonio-Bexar County MPO, and cities such as North Little Rock, Miami, Chicago, San Diego, and Seattle;

WHEREAS, the “Complete Streets” concept is supported by the Institute of Traffic Engineers, American Planning Association and the National Association of Local Boards of Health many other transportation, planning and public health professionals; and

NOW, THEREFORE, BE IT RESOLVED by the Greenville City Council that the Council requests that staff partner with community organizations and assess current street standards and land use and transportation plans, policies and programs with regard to the “Complete Streets” concept; identify relevant elements within the town’s existing plans, regulations and operational standards that support the implementation of “Complete Streets” within the town; and identify the gaps and opportunities to supplement and fund said plans, regulations and standards in order to achieve the implementation of “Complete Streets” throughout the town and provide council with guidance towards the creation of a complete streets ordinance.

ADOPTED BY THE CITY COUNCIL ON _____, 2011.

City Clerk

Approved as to form:

City Attorney



Review of Local Policies

The table below features current local policies related to bicycling and walking, and in some cases offers recommended changes or additions. The recommended changes are provided here for consideration by policy-makers. In some cases, policy-makers may wish to use the recommended text as a starting point for developing their own policy changes that enhance conditions for bicycle and pedestrian transportation and safety.

| Source | Reference | Existing Text | Recommended Change |
|-------------------------------|--|--|--|
| Greenville Code of Ordinances | Entire Code of Ordinance Definitions Section | Any street definition | [Add]: Regardless of classification, the design and construction of streets and intersections in the City of Greenville should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Greenville Code of Ordinances | Title 6 Chapter 2 Streets and Sidewalks SEC. 6-2-12 REQUIREMENTS FOR CONCRETE SIDEWALK LAID BY PROPERTY OWNER. | (A) Any person desiring to lay a concrete sidewalk abutting his or her property shall have it laid with the inside of the sidewalk touching his or her property line. The sidewalk shall be constructed in accordance with uniform standards and specifications prescribed by the City Engineer. | [Revise]: Residential sidewalks shall be a minimum of 5 ft in width. Sidewalks serving mixed use and commercial areas shall be a minimum of 10 ft in width (12–15 feet is required in front of retail storefronts). |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | Add]: Crosswalks: Shall mean a right-of-way, publicly owned, six (6) feet or more in width, which cuts across a block for the purpose of improving pedestrian access to adjacent streets or properties. School-related crosswalks should be 10 to 15 feet wide or wider at crossings with high numbers of students. |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | [Add]: Streets: Regardless of classification, the design and construction of streets and intersections in the City of Greenville should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | [Add New Definition]: Pedestrian Easements or Multi-Use Trail Easements: In such cases and at such locations as the Planning Board deems advisable, easements alongside or near lot lines not exceeding twenty (20) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other places that may attract or generate such traffic. |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | [Add New Definition] Greenway: A linear park network left in its natural state, except for the introduction of trails to be used by pedestrians and bicyclists. |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | [Add New Definition] Traffic: Pedestrians and vehicles including bicycles, automobiles and other conveyances either singly or together while using streets for the purposes of travel. |
| Greenville Code of Ordinances | Code of Ordinance Definitions Section | | [Add New Definition]: Bicycle: Bicycle means every device propelled solely by human power upon which a person or persons may ride, having two tandem wheels either of which is sixteen or more inches in diameter, or three wheels, any one of which is more than twenty inches in diameter. |



| Source | Reference | Existing Text | Recommended Change |
|-------------------------------|--|--|--|
| Greenville Code of Ordinances | Title 9 | Buffer Yard Requirements in all zoning districts (Note: Recommendations may conflict with current policies or regulations, please take into consideration before changing ordinance) | <p>Consider tailoring bufferyard requirements to the land use context. Buffers may be appropriate in certain land use contexts, especially auto-oriented areas. They are designed to mitigate the effects of large parking lots, and unattractive buildings. However, in compact, mixed-used, pedestrian-oriented development (the CBD, for example), buffers are not appropriate and can actually make uses unnecessarily far apart and difficult to navigate between, especially for pedestrians. Other design standards, such as requiring parking to be behind buildings, will work to better effect in these areas.</p> <p>Consider eliminating bufferyard requirements between abutting office and commercial use and between abutting light and heavy industrial uses.</p> <p>Also consider eliminating the bufferyard requirements for abutting office/institutional multi-family/special residential and multifamily in pedestrian-oriented districts and under certain conditions.</p> |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning ARTICLE F. SEC. 9-4-106 RELATIONSHIP TO GREENWAY PLAN. | If any portion of the area proposed for development lies within an area designated in the officially adopted Greenway Master Plan as a greenway corridor, the area so designated shall be dedicated and/or reserved to the public at the option of the city. | [No Change] |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning ARTICLE F: SEC. 9-4-120 STANDARDS. (H) Encroachments. (3) | <p>(3) General (public/customer) pedestrian access walkways shall be subject to compliance with all of the following requirements:</p> <p>(a) Such walkways shall be designed to provide direct access to and from adjacent public and/or private streets, designated common property, public access easements and lot lines;</p> <p>(b) Encroachment zone. Walkways are allowed to cross individual or abutting bufferyards within an area equal in width to the minimum bufferyard as measured perpendicular to the property line;</p> <p>(c) Maximum width of each individual walkway shall not exceed six feet; and</p> <p>(d) Within the minimum bufferyard area two or more walkways providing access to a lot along any single property line shall be separated by not less than 50 feet as measured from center of walkway to center of walkway.</p> | [Revise part c]: Residential sidewalks shall be a minimum of 5 ft in width. Sidewalks serving mixed use and commercial areas shall be a minimum of 10 ft in width (12–15 feet is required in front of retail storefronts). |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning SEC. 9-4-144 OPEN SPACE. | (E) If any portion of the area proposed for a multi-family development lies within an area designated in the officially adopted Greenway Master Plan as a greenway corridor, the area so designated shall be included as part of the area set aside to satisfy the open space requirements of this section. The area within the greenway corridor shall be dedicated and/or reserved to the public at the option of the city. | [No Change] |



| Source | Reference | Existing Text | Recommended Change |
|-------------------------------|---|---|--|
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning Article J. Master Plan Community (F) Dedication of open space, park lands and greenways. | (1) If any portion of the area proposed for a master plan community lies within an area designated in the officially adopted greenway master plan as a greenway corridor, the area so designated shall be included as part of the area set aside to satisfy the open space requirements of this section. The area within such greenway corridor shall be dedicated and/or reserved to the public at the option of the city. (2) Where land is dedicated to and accepted by the city for open space, park and recreation purposes and/or greenways, such lands may be included as part of the gross acreage, open space and/or recreation space requirement of this article. | [No Change] |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning Article J. Master Plan Community (J) Residential density bonus provisions and standards | (2) Bike paths/greenway systems. The provision of a constructed system of bike paths/pedestrian greenways that form a logical, safe and convenient system of access to all dwelling units, interior project facilities or principal off-site pedestrian destinations shall qualify for a density bonus. Such facilities shall be appropriately located, designed and constructed with existing topography, land form, and vegetation in accordance with the Greenway Master Plan requirements and other amenities associated with the master plan community. The density bonus allowed under this provision shall be 25% - (one total unit per gross acre) - above the base density of a master plan community. | [Add] In accordance with the Greenville MPO Bicycle and Pedestrian Master Plan |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning Article J. Master Plan Community SEC. 9-4-167 SITE DESIGN CRITERIA; GENERAL. | (3) Pedestrian circulation. A pedestrian circulation system is encouraged in such development. Walkways for pedestrian use shall form a logical, safe and convenient system of access to all dwelling units, project facilities and principal off-site pedestrian destinations. Walkways to be used by substantial numbers of children as routes to schools, play areas or other destinations shall be so located and safeguarded as to minimize contact with normal automobile traffic. Street crossings shall be held to a minimum. Such walkways, where appropriately located, designed and constructed, may be combined with other easements and used by emergency or public service vehicles, but not be used by other automobile traffic. In addition, bike paths may be incorporated into the pedestrian circulation system and are to be encouraged in such developments. | [Add] In accordance with the Greenville MPO Bicycle and Pedestrian Master Plan |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning Article J. Master Plan Community SEC. 9-4-167 SITE DESIGN CRITERIA; GENERAL. | (4) Open spaces. Common open space shall be proportionally distributed throughout the master plan community and shall be accessible to all the residents via a coordinated system of streets, sidewalks, improved greenways and pedestrian and bicycle paths. | [Add] In accordance with the Greenville MPO Bicycle and Pedestrian Master Plan |



| Source | Reference | Existing Text | Recommended Change |
|-------------------------------|---|---|---|
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning ARTICLE O. PARKING | (14) All off-street parking areas shall be separated from walkways, sidewalks, bikeways, streets or any dedicated right-of-way, to prevent vehicles from driving across these areas, except at an approved driveway approach, and to prevent parked or maneuvering vehicles from overhanging upon such areas. There shall be a six-inch raised curb or stop bar constructed between such areas and the parking area; | [Revise]: Parking lots shall be designed to allow pedestrians to safely move from their vehicles to the building. Providing adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. On small lots (36 spaces or less), this may be achieved by providing a sidewalk at the perimeter of the lot. On larger lots, corridors within the parking area should channel pedestrians from the car to the perimeter of the lot or to the building. These corridors are delineated by a paving material that differs from that of vehicular areas and are planted to provide shade. Small posts or bollards may be included. |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning ARTICLE O. PARKING SEC. 9-4-252 SCHEDULE OF REQUIRED PARKING SPACES. | Parking Space Requirements | [Add]: Bicycle Parking Requirements: The City of Greenville requires bicycle parking in all new multi-family residential (greater than 4 units/ building), commercial, institutional, and public use developments. Parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Greenville Code of Ordinances | Title 9 Chapter 4 Zoning ARTICLE O. PARKING SEC. 9-4-252 SCHEDULE OF REQUIRED PARKING SPACES. | Parking Space Requirements | Reduce number of off-street parking spaces required; provide maximum standards also. Tie parking standards to transect/land use context. For example, fewer spaces may be required in CBD and other pedestrian oriented areas. Parking maximums only should be considered in such districts. Allow on-street parking to count towards requirements in appropriate contexts. Add parking maximums to prevent overbuilt parking lots. |
| Greenville Code of Ordinances | Title 9 Chapter 5 Subdivisions ARTICLE C. DESIGN STANDARDS FOR SUBDIVISION PLATS 9-5-81 STREET DESIGN STANDARDS | (I) Street right-of-way and/or easement and paving widths shall be based upon the volume of traffic generated by the area served by such street and the future traffic circulation pattern of the surrounding area and city as a whole. | [Add]: ...and city as a whole, taking into account bicycle and pedestrian facilities. |
| Greenville Code of Ordinances | Title 9 Chapter 5 Subdivisions SEC. 9-5-96 PEDESTRIAN CROSSWALKS WITHIN BLOCKS. | Where orientation or length of blocks or other considerations justify such action, the Planning and Zoning Commission may require pedestrian circulation and provide access to schools, playgrounds, shopping centers, transportation and other facilities. Where such crosswalks are provided, they shall be located, dimensioned, fenced, screened or otherwise improved by the subdivider in such a manner as to provide security, tranquility and privacy for occupants of adjoining property, and safe use. Such pedestrian ways, if suitably improved, may be used by emergency vehicles but shall not be used by other motor vehicles. | [Revise]: Pedestrian and bicycle circulation is required in all subdivisions. They must provide access to schools, playgrounds, shopping centers, and transportation facilities associated with or near the subdivision. Crosswalks, ADA compliant curb ramps, and pedestrian signage shall be provided at roadway crossings. These facilities shall be in accordance with the Greenville MPO Bicycle and Pedestrian Master Plan. Regardless of classification, the design and construction of streets and intersections in the City of Greenville should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Greenville Code of Ordinances | Title 9 Chapter 5 Subdivisions SEC. 9-5-106 SAME; RELATION TO BIKEWAY PLAN. | Arrangement, character, extent, width, grade and location of the bikeway system for Greenville shall conform to the bikeway plan of the city and elements thereof officially adopted. | [Revise]: These facilities shall be in accordance with the Greenville MPO Bicycle and Pedestrian Master Plan. |



| Source | Reference | Existing Text | Recommended Change |
|-------------------------------|---|---|--|
| Greenville Code of Ordinances | Title 9 Chapter 5 Subdivisions SEC. 9-5-123 SIDEWALKS; WHERE TO BE INSTALLED. | <p>Sidewalks shall be provided by the subdivider in accordance with the following:</p> <p>(A) Sidewalks shall be provided in conjunction with public street extensions pursuant to section 9-5-81 of this chapter.</p> <p>(B) The location of proposed sidewalks required pursuant to this section shall be in accordance with the Manual of Standard Designs and Details.</p> <p>(C) Sidewalks shall be provided along both sides of all minor and major thoroughfare streets as shown on the official Thoroughfare Plan.</p> <p>(D) Sidewalks shall be provided along one side of all collector, standard residential and planned industrial streets.</p> <p>(E) Sidewalks shall be provided along one side of all minor residential streets which are in excess of 500 feet in length in the case of a cul-de-sac/terminal street or 1,000 feet in length in the case of a loop/connecting street.</p> <p>(F) The arrangement of sidewalks in new subdivisions shall make provision for the continuation of existing sidewalks in adjoining areas.</p> | <p>[Revise]: Upon all new development, streets shall be bordered by sidewalks on both sides except on alleys, service drives, and principle arterials. Streets should provide adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. The appropriate governing board may grant exceptions upon recommendation by the Planning Director if it is shown that local pedestrian traffic warrants their location on one side only. Residential sidewalks shall be a minimum of 5 ft in width. Sidewalks serving mixed use and commercial areas shall be a minimum of 10 ft in width (12–15 feet is required in front of retail storefronts). The design standards for all pedestrian facilities in the Greenville MPO Bicycle and Pedestrian Master Plan shall be adhered to for new streets and modifications to existing streets. Streets shall be designed with street trees planted in a manner appropriate to their function. Commercial streets shall have trees which compliment the face of the buildings and which shade the sidewalk. Residential streets shall provide for an appropriate canopy, which shades both the street and sidewalk. Street trees should allow the free movement of emergency vehicles.</p> |
| Greenville Code of Ordinances | Title 10 Chapter 2 Traffic Regulations Article J SEC. 10-2-101 PEDESTRIANS' RIGHT-OF-WAY IN CROSSWALK. | <p>(A) When traffic-control signals are not in place or not in operation the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger, but no pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle, which is so close that it is impossible for the driver to yield. A pedestrian's right-of-way in a crosswalk is modified under the condition.</p> <p>(B) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.</p> | [No Change] |
| Greenville Code of Ordinances | Title 10 Chapter 2 Traffic Regulations Article J SEC. 10-2-102 CROSSING AT RIGHT ANGLES. | No pedestrian shall cross a roadway at any place other than by a route at right angles to the curb or by the shortest route to the opposite curb except in a crosswalk. | [No Change] |
| Greenville Code of Ordinances | Title 10 Chapter 2 Traffic Regulations SEC. 10-2-116 BICYCLE RIDING ON DESIGNATED MALLS, SIDEWALKS AND WALKWAYS PROHIBITED. | <p>(A) No person shall ride any bicycle upon any public mall, sidewalk or walkway; provided that the tricycles and bicycles having wheels no more than 16 inches in diameter per wheel may be ridden on sidewalks or walkways in the residential districts of the city.</p> <p>(B) This section shall not apply to certified law enforcement officers who, in the course of their duties, shall be required to ride bicycles to patrol on the public malls, sidewalks and walkways of the city.</p> | <p>[No Change] <i>Note for consideration:</i> For children and older residents, riding on the sidewalk is generally viewed as acceptable in many communities, so long as they do so safely (i.e., ride slowly, yield to pedestrians, cross streets and driveways cautiously, and dismount in congested areas). Conversely, bicycle sidewalk riding is generally discouraged for non-senior adult bicyclists, especially where on-street bicycle facilities are provided as a safe alternative.</p> |



| Source | Reference | Existing Text | Recommended Change |
|---|---|--|--|
| Greenville Code of Ordinances | Title 10 Chapter 2 Traffic Regulations ARTICLE K. BICYCLES AND BIKEWAYS SEC. 10-2-111 PURPOSE OF BICYCLE AND BIKEWAYS PROVISIONS. | New Section | [Add Section]: HARRASSMENT AND PASSING OF A BICYCLIST. A person commits the offense of harassment of a bicyclist if the person: (1) knowingly throws an object at or in the direction of any person riding a bicycle; or (2) threatens any person riding a bicycle for the purpose of frightening or disturbing the person riding the bicycle; or (3) sounds a horn, shouts or otherwise directs sound toward any person riding a bicycle for the purpose of frightening or disturbing the person riding the bicycle; or (4) knowingly engages in conduct that creates a risk of death or serious physical injury to the person riding a bicycle. (5) Any motor vehicle passing a bicyclist must allow a clearance of 3 feet from the farthest extent of the vehicle to the bicycle on all roadways. |
| Greenville Code of Ordinances | Title 10 Chapter 2 Traffic Regulations | New Sections | Consider adding a new sections that cover bike lights “front & back policy”, “unsafe passing of person operating bicycle”, and policy wording for “vulnerable users of the public way” with regards to vehicular assault. For examples, please refer to: http://www.oregon.gov/ODOT/HWY/BIKEPED/docs/bike_ped_statutes_2008.pdf |
| City of Greenville MANUAL OF STANDARD DESIGNS AND DETAILS (MSDD) | Street Standards | Entire Street Standards Section | Consider a thorough update of this section (originally produced in 1997) to include guidance for on-street bicycle facilities. However, even without an update, it should be noted that note 12 on 35.18 says to adhere to the latest Manual for Uniform Traffic Control Devices, which takes into account bicycle facilities. |
| Pitt County Subdivision Ordinance | | Entire Ordinance | [Add]: Need to add pedestrian and bicycle transportation language and guidelines throughout the entire Subdivision Ordinance. These modes and facilities need to be stressed as equally if not more important than automobile provisions and facilities. Sidewalks, bicycle lanes, pedestrian facilities, and bicycle racks need to be required with all new development and should follow the recommendations and design guidelines set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 3. Design and Improvement Standards Sec. 11-141. Streets. | Residential subdivision streets shall be arranged to provide for a coordinated road and street network, to ensure appropriate extension of existing streets and development of new streets and highways, to discourage through traffic, to avoid hazardous situations, and to allow for adequate access to adjoining property. Where a tract of land is subdivided in phases, or is subdivided into large parcels or lots, adequate provisions should be made to allow for the development of future streets and logical resubdivisions. | [Add]: Regardless of classification, the design and construction of streets and intersections in Pitt County should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. [Consider the following language for encouraging interconnectivity vs. discouraging through traffic]: This Code encourages the development of a network of interconnecting streets that work to disperse traffic while connecting and integrating neighborhoods with the existing fabric of development. Equally as important, the Code encourages the development of a network of sidewalks and bicycle lanes that provide an accessible and safe mode of travel for pedestrians and cyclists. |



| Source | Reference | Existing Text | Recommended Change |
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| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 3. Design and Improvement Standards Sec. 11-141. Streets. | | [Add]: Upon all new development, streets shall be bordered by sidewalks on both sides except on alleys, service drives, and principle arterials. Streets should provide adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. The appropriate governing board may grant exceptions upon recommendation by the Planning Director if it is shown that local pedestrian traffic warrants their location on one side only. Residential side-walks shall be a minimum of 5 ft in width. Sidewalks serving mixed use and commercial areas shall be a minimum of 8 ft in width (12–15 feet is required in front of retail storefronts). The design standards for all pedestrian facilities in the Greenville MPO Bicycle and Pedestrian Master Plan shall be adhered to for new streets and modifications to existing streets. Streets shall be designed with street trees planted in a manner appropriate to their function. Commercial streets shall have trees which compliment the face of the buildings and which shade the sidewalk. Residential streets shall provide for an appropriate canopy, which shades both the street and sidewalk. Street trees should allow the free |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 3. Design and Improvement Standards Sec. 11-141. Streets. (4) General street standards: | Cul-de-sacs: Every permanent dead-end street shall be developed as a cul-de-sac and shall not exceed one thousand eight hundred (1,800) feet in length, measured from the centerline of the nearest intersecting street to the center of the turnaround, except where the shape of the tract of land being subdivided makes this requirement impractical. Temporary cul-de-sacs, constructed to state department of transportation base standards, but not necessarily paved, may be required by the technical review committee or subdivision administrator. | [Street interconnectivity is critical to successful bike/ped networks. Consider replacing 'Cul-de-sac' paragraph with]: Cul-de-sacs may be permitted only where topographic conditions and/or exterior lot line configurations offer no practical alternatives for connection or through traffic. Culs-de-sac, if permitted, shall not exceed 250 ft in length from the nearest intersection with a street providing through access (not a cul-de-sac). A close is preferred over a cul-de-sac. Cul-de-sacs shall have pedestrian and bicycle neighborhood access trails at the ends to connect to adjacent streets. (For similar language from an award-winning planning ordinance, see the Town of Davidson, NC, Planning Ordinance) |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add]: Crosswalks: Shall mean a right-of-way, publicly owned, six (6) feet or more in width, which cuts across a block for the purpose of improving pedestrian access to adjacent streets or properties. School-related crosswalks should be 10 to 15 feet wide or wider at crossings with high numbers of students. |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add]: Streets: Regardless of classification, the design and construction of streets and intersections in Pitt County should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add New Definition] Pedestrian Easements or Multi-Use Trail Easements: In such cases and at such locations as the Planning Board deems advisable, easements alongside or near lot lines not exceeding twenty (20) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other places that may attract or generate such traffic. |



| Source | Reference | Existing Text | Recommended Change |
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| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add New Definition] Greenway: A linear park network left in its natural state, except for the introduction of trails to be used by pedestrians and bicyclists. |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add New Definition] Traffic: Pedestrians and vehicles including bicycles, automobiles and other conveyances either singly or together while using streets for the purposes of travel. |
| Pitt County Subdivision Ordinance | Article III Subdivisions: Division 6. Definitions and Interpretations | | [Add New Definition]: Bicycle: Bicycle means every device propelled solely by human power upon which a person or persons may ride, having two tandem wheels either of which is sixteen or more inches in diameter, or three wheels, any one of which is more than twenty inches in diameter. |
| Pitt County Zoning Ordinance | | Entire Ordinance | [Add]: Need to add pedestrian and bicycle transportation language and guidelines throughout the entire Zoning Ordinance. These modes and facilities need to be stressed as equally if not more important than automobile provisions and facilities. Sidewalks, bicycle lanes, pedestrian facilities, and bicycle racks need to be required with all new development and should follow the recommendations and design guidelines set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Pitt County Zoning Ordinance | 6.0 DENSITY AND DIMENSIONAL REQUIREMENTS 6.4.2 Road Access Requirements. | | Include language on pedestrian and bicycle connections such as providing adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Pitt County Zoning Ordinance | 10.0 OFF-STREET PARKING, STACKING, AND LOADING AREAS 10.3 Number of Parking and Stacking Spaces Required | | [Add]: Bicycle Parking Requirements: Pitt County requires bicycle parking in all new multi-family residential (greater than 4 units/building), commercial, institutional, and public use developments. Parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Pitt County Zoning Ordinance | 10.0 OFF-STREET PARKING, STACKING, AND LOADING AREAS 10.4 Design Standards for Parking, Stacking and Loading Areas | | [Add]: Add requirements for pedestrian circulation in parking lots. Automobile, pedestrian, and bicycle circulation within, to, and from the site, including proposed points of access and egress and proposed pattern of internal circulation. Providing adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. Parking lots shall be designed to allow pedestrians to safely move from their vehicles to the building. On small lots (36 spaces or less), this may be achieved by providing a sidewalk at the perimeter of the lot. On larger lots, corridors within the parking area should channel pedestrians from the car to the perimeter of the lot or to the building. These corridors are delineated by a paving material that differs from that of vehicular areas and are planted to provide shade. Small posts or bollards may be included. |



| Source | Reference | Existing Text | Recommended Change |
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| Pitt County Zoning Ordinance | 10.0 OFF-STREET PARKING, STACKING, AND LOADING AREAS 10.4 Design Standards for Parking, Stacking and Loading Areas, 10.4.3 Improvements | Parking lots shall be designed and constructed such that walkways shall maintain a minimum unobstructed width of four feet (vehicle encroachment is calculated as two feet beyond curb). | [Revise]: Sidewalks are required to be a minimum of 5 feet unobstructed. |
| Pitt County Zoning Ordinance | 15.4 Definitions | | [Add]: Streets: Regardless of classification, the design and construction of streets and intersections in Pitt County should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Pitt County Zoning Ordinance | 15.4 Definitions | | [Add New Definition] Pedestrian Easements or Multi-Use Trail Easements: In such cases and at such locations as the Planning Board deems advisable, easements alongside or near lot lines not exceeding twenty (20) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other places that may attract or generate such traffic. |
| Pitt County Zoning Ordinance | 15.4 Definitions | | [Add New Definition] Greenway: A linear park network left in its natural state, except for the introduction of trails to be used by pedestrians and bicyclists. |
| Pitt County Zoning Ordinance | 15.4 Definitions | | [Add New Definition] Traffic: Pedestrians and vehicles including bicycles, automobiles and other conveyances either singly or together while using streets for the purposes of travel. |
| Pitt County Zoning Ordinance | 15.4 Definitions | | [Add New Definition]: Bicycle: Bicycle means every device propelled solely by human power upon which a person or persons may ride, having two tandem wheels either of which is sixteen or more inches in diameter, or three wheels, any one of which is more than twenty inches in diameter. |
| Winterville Code of Ordinances | Ch 73: Bicycles, Coasters, and Roller Skates | | [Add Section]: Bicycle Parking Requirements: Winterville requires bicycle parking in all new multi-family residential (greater than 4 units/ building), commercial, institutional, and public use developments. Parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |



| Source | Reference | Existing Text | Recommended Change |
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| Winterville Code of Ordinances | Ch 73: Bicycles, Coasters, and Roller Skates | | <p>[Add Section]: HARRASSMENT AND PASSING OF A BICYCLIST.</p> <p>A person commits the offense of harassment of a bicyclist if the person:</p> <p>(1) knowingly throws an object at or in the direction of any person riding a bicycle; or</p> <p>(2) threatens any person riding a bicycle for the purpose of frightening or disturbing the person riding the bicycle; or</p> <p>(3) sounds a horn, shouts or otherwise directs sound toward any person riding a bicycle for the purpose of frightening or disturbing the person riding the bicycle; or</p> <p>(4) knowingly engages in conduct that creates a risk of death or serious physical injury to the person riding a bicycle.</p> <p>(5) any motor vehicle passing a bicyclist must allow a clearance of 3 feet from the farthest extent of the vehicle to the bicycle on all roadways.</p> |
| Winterville Subdivision Ordinance | Section 154.21 Connectivity and Appropriateness to Adjoining Property and Land Uses | | <p>Include language on pedestrian and bicycle connections such as providing adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young.</p> |
| Winterville Subdivision Ordinance | Section 154.21 Connectivity and Appropriateness to Adjoining Property and Land Uses | Street Classifications | <p>[Add]: Streets: Regardless of classification, the design and construction of streets and intersections in the Town of Winterville should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young.</p> |
| Winterville Subdivision Ordinance | Section 154.35 Sidewalks | <p>1. Sidewalks shall be provided with public street extensions. 2. Location of proposed sidewalks required shall be in compliance with Town Standards. 3. Sidewalks shall be along both sides of all minor and major thoroughfares as shown on the Thoroughfare Plan. 4. Sidewalks shall be along one side of all local streets. 5. Sidewalks shall be along one side of cul-de-sac streets with the sidewalk terminating where the cul-de-sac turnaround begins. 6. Arrangement of sidewalks in new subdivisions shall make provision for the continuation of existing sidewalks in adjoining areas.</p> | <p>[Revise]: All new streets within Winterville should be Complete Streets with amenities for pedestrians, bicyclists, and motorists. Thus, sidewalks should be placed all both sides of all streets to provide connectivity and improve pedestrian safety. Cul-de-sacs should have a pedestrian and bicycle access points at the end to adjoin with abutting streets.</p> |



| Source | Reference | Existing Text | Recommended Change |
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| Winterville Subdivision Ordinance | Suggested policy updates from the Town of Winterville Pedestrian Plan | <p>1) Modifications to Winterville's Subdivision Ordinance should be made to specify that new subdivisions with any portion of the area proposed for subdivision lies within an area designated as a greenway corridor should be dedicated and/or reserved to the public at the option of the Town to protect or preserve a greenway.</p> <p>2) Where residential developments have cul-de-sacs or dead-end streets, such streets shall be connected to the closest local or collector street or to cul-de-sacs in adjoining subdivisions via a sidewalk or multi-use path, except where deemed impractical by the Planning Director.</p> <p>3) Incorporate the numerous street design recommendations and guidelines, as provided in Section 5 [of the Winterville Pedestrian Plan].</p> <p>4) Mixed use and Planned Unit Developments centered on pedestrian-friendly communities should be encouraged instead of separated uses.</p> <p>5) All new streets within Winterville should be Complete Streets with amenities for pedestrians, bicyclists, and motorists. Thus, sidewalks should be placed all both sides of all streets to provide connectivity and improve pedestrian safety.</p> | Follow Winterville Pedestrian Plan's recommend changes. |
| Winterville Zoning Ordinance | | Entire Ordinance | [Add]: Need to add pedestrian and bicycle, transportation language and guidelines throughout the entire Zoning Ordinance. These modes and facilities need to be stressed as equally if not more important than automobile provisions and facilities. Sidewalks, bicycle lanes, pedestrian facilities, and bicycle racks need to be required with all new development and should follow the recommendations and design guidelines set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Winterville Zoning Ordinance | Article VIII Off Street Parking and Loading | | [Add Section]: Bicycle Parking Requirements: Winterville requires bicycle parking in all new multi-family residential (greater than 4 units/ building), commercial, institutional, and public use developments. Parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Winterville Zoning Ordinance | Article VIII Off Street Parking and Loading | | [Add]: Add requirements for pedestrian circulation in parking lots. Automobile, pedestrian, and bicycle circulation within, to, and from the site, including proposed points of access and egress and proposed pattern of internal circulation. Providing adequate facilities for all types of traffic, including motorists, pedestrians, bicyclists, and transit users, and including of all levels of ability, such as those in wheelchairs, the elderly and the young. Parking lots shall be designed to allow pedestrians to safely move from their vehicles to the building. On small lots (36 spaces or less), this may be achieved by providing a sidewalk at the perimeter of the lot. On larger lots, corridors within the parking area should channel pedestrians from the car to the perimeter of the lot or to the building. These corridors are delineated by a paving material that differs from that of vehicular areas and are planted to provide shade. Small posts or bollards may be included. |



| Source | Reference | Existing Text | Recommended Change |
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| Winterville Zoning Ordinance | 15.4 Definitions | | [Add]: Streets: Regardless of classification, the design and construction of streets and intersections in the Town of Winterville should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Winterville Zoning Ordinance | 15.4 Definitions | | [[Add New Definition] Pedestrian Easements or Multi-Use Trail Easements: In such cases and at such locations as the Planning Board deems advisable, easements alongside or near lot lines not exceeding twenty (20) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other places that may attract or generate such traffic. |
| Winterville Zoning Ordinance | 15.4 Definitions | | [Add New Definition] Greenway: A linear park network left in its natural state, except for the introduction of trails to be used by pedestrians and bicyclists. |
| Winterville Zoning Ordinance | 15.4 Definitions | | [Add New Definition] Traffic: Pedestrians and vehicles including bicycles, automobiles and other conveyances either singly or together while using streets for the purposes of travel. |
| Winterville Zoning Ordinance | 15.4 Definitions | | [Add New Definition]: Bicycle: Bicycle means every device propelled solely by human power upon which a person or persons may ride, having two tandem wheels either of which is sixteen or more inches in diameter, or three wheels, any one of which is more than twenty inches in diameter. |
| Winterville Zoning Ordinance | Suggested policy updates from the Town of Winterville Pedestrian Plan | <p>1) Any portion of an area proposed for any type of development that lies within a designated greenway corridor, must be included as part of the area set aside to satisfy the open space requirement, and that the area within a greenway corridor shall be dedicated and/or reserved to the public at the option of the Town.</p> <p>2) Commercial development sites shall incorporate pedestrian-friendly accommodations such as pedestrian refuge islands, pedestrian channels through parking lots to commercial establishments, landscaping to provide shade and a sense of place within parking lots, and traffic calming techniques to reduce vehicular speeds.</p> <p>3) Parking requirements should be modified to place a maximum amount of parking allowed and not a minimum, thus letting the market dictate the amount of parking that is created for a development and require shared parking spaces amongst adjoining or adjacent uses.</p> <p>4) Ensure and allow mixed-uses within existing neighborhoods instead of separating uses as a use-by-right. By creating livable neighborhoods walking will become a more attractive mode of transportation.</p> <p>5) Reduce the number of driveways and driveway design into a development. Reducing the number uncontrolled access points into a development will in turn reduce potential pedestrian-vehicle accident areas. The location and slope of the driveway will also ensure accessibility and safety for pedestrians.</p> | [No Change: Follow Winterville Pedestrian Plan's recommend changes] |



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| Winterville Zoning Ordinance | Suggested policy updates from the Town of Winterville Pedestrian Plan [Continued] | <p>6) Change the current street design standards with the ones identified in Section 5, to ensure all future road development are pedestrian-friendly.</p> <p>7) Mixed use and pedestrian-friendly developments should be encouraged, if not required, for all future developments.</p> <p>8) All new streets within Winterville should be Complete Streets with amenities for pedestrians, bicyclists, and motorists.</p> | [No change: Follow Winterville Pedestrian Plan's recommend changes] |
| Village of Simpson Land Use Plan | Goals and Objectives; 1. Growth and Development; Objective 2: Improve the transportation network in and around Simpson | <p>Implementation Strategies:</p> <ul style="list-style-type: none"> - Lobby for the improvement of Black Jack-Simpson Road/McDonald Street to Avon Road in the Transportation Improvement Program through the local Metropolitan Planning Organization. - Research traffic control measures at the intersection of McDonald Street and Simpson Street. - Pursue options for a connector through Simpson's western jurisdiction to NC Highway 33. - Continue to budget for the regular maintenance of the Village's streets. - Strive to make the Village more pedestrian-friendly. | <p>[Revise 'Objective 2' statement]: Improve the transportation network in and around Simpson by designing and constructing streets and intersections to serve all types of users (including pedestrians, bicyclists, and motorists), and making them inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young.</p> <p>[Revise last bullet]: Strive to make the Village more bicycle and pedestrian-friendly by following recommendations from the Greenville MPO Bicycle and Pedestrian Master Plan.</p> |
| Town of Ayden Zoning Ordinance | ARTICLE 2: Basic Definitions and Interpretations | Street. A dedicated and accepted public right-of-way for vehicular and pedestrian traffic which affords the principal means of access to abutting property. | [Add or Revise]: Regardless of classification, the design and construction of streets and intersections in the Town of Ayden should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young. |
| Town of Ayden Zoning Ordinance | ARTICLE 6. Commercial Corridor Overlay District.* Section 6-4: Development Standards. | <p>(6) Pedestrian Access and Circulation.</p> <p>(a) All developments shall provide a sidewalk adjacent to any street that abuts the development site.</p> <p>(b) When a parking lot includes over one-hundred and fifty (150) parking spaces, one or more sidewalks shall be provided within landscape islands that provide for safe pedestrian movement from the building entrance to the outlying portions of the parking lot.</p> <p>(c) Adequate pedestrian connections shall be provided within the development and to adjacent properties. Such connections shall include marked and signed street crossings.</p> | <p>[Revise]: (6) Pedestrian and Bicycle Access and Circulation.</p> <p>[Revise]: (a) All developments shall provide a minimum 5' sidewalk adjacent to any street that abuts the development site (8–15 feet is required in front of retail storefronts).</p> <p>[Add]: (d) All developments shall provide bicycle parking that is located near main entrances. Bicycle parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan.</p> |
| Town of Ayden Zoning Ordinance | ARTICLE 7. Planned Building Group Regulations; Section 7-4: Business Planned Building Group Regulations | Circulation: Proposed points of access and egress and proposed pattern of internal automobile and pedestrian circulation. Curb cuts at a maximum combined width of twenty-five (25) feet shall be allowed for each eighty (80) feet of lot frontage or portion thereof. The locations of all points of ingress and egress shall be approved by the Town of Ayden Planning Board. | [Add]: Adjacent businesses should combine and share curb cuts whenever possible to reduce conflict points between pedestrians and automobiles. |



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| Town of Ayden Zoning Ordinance | ARTICLE 7. Planned Building Group Regulations; (G) Planned Building Group Site Development Plan. | The location and dimensions of all rights-of-way, utility or other easements, riding trails, natural buffers, pedestrian or bicycle paths and areas to be dedicated to public or property owner’s use with a statement of the purpose of each; | [No Change] |
| Town of Ayden Zoning Ordinance | ARTICLE 8. Planned Unit Development (PUD) Section 8-6: Procedure | (C) Site Plan. All applications for approval of a planned unit development conditional use permit shall.... include but not be limited to the following: | [Add]: (14) Circulation for pedestrians and bicyclists; |
| Town of Ayden Zoning Ordinance | ARTICLE 9 | Off-Street Parking, Driveways and Off-Street Loading Requirements | [Add]: Section 9-12: Bicycle Parking Requirements: The Town of Ayden requires bicycle parking in all new multi-family residential (greater than 4 units/ building), commercial, institutional, and public use developments. Parking consists of either standard U Racks or covered bicycle storage facilities as set forth in the Greenville MPO Bicycle and Pedestrian Master Plan. |
| Town of Ayden Zoning Ordinance | ARTICLE 21. Subdivision Regulations; Section 21-15 | Information to be Contained in or Depicted on Major Preliminary and All Final Plats. [In the table]: The following data concerning streets: | [Add]: - Proposed sidewalks and on-street bicycle facilities [note that this is different from ‘Pedestrian or bicycle paths,’ already shown later in the table, which refers to off-street trails] |
| Town of Ayden Zoning Ordinance | ARTICLE 21. Subdivision Regulations; Section 21-21: Streets | (B) Street Connectivity Requirements. (1) The Board of Commissioners hereby finds and determines that an interconnected street system is necessary in order to protect the public health, safety, and welfare in order to ensure that streets will function in an interdependent manner, to provide adequate access for emergency and service vehicles, <i>to enhance nonvehicular travel such as pedestrians and bicycles</i> , and to provide continuous and comprehensible traffic routes. [Italics added] | [No Change] |
| Town of Ayden Zoning Ordinance | ARTICLE 21. Subdivision Regulations; Section 21-21: Streets | (W) PUD Streets....PUDs should have a high proportion of interconnected streets, sidewalks, and paths. Streets and rights-of-ways are shared between vehicles (moving and parked), bicycles, and pedestrians. | [No Change] |
| Town of Ayden Zoning Ordinance | ARTICLE 21. Subdivision Regulations; Section 21-21: Streets | (R) (1) Length. Block lengths shall not exceed one thousand (1,000) feet nor be less than four hundred (400) feet. Where deemed necessary by the Planning Board, a pedestrian crosswalk of at least four (4) feet minimum in width shall be provided. | [Revise]: ...a pedestrian crosswalk of at least six (6) feet minimum in width shall be provided; school-related crosswalks should be 10 to 15 feet wide or wider at crossings with high numbers of students. |
| Village of Simpson Zoning Compliance Form for County Planning Dept. | (Document is a single page) | This form shall be...submitted to the Pitt County Planning Department with any preliminary plat application package to be reviewed under the Pitt County Subdivision Ordinance. | [No Change] - See Pitt County Subdivision Ordinance |



Federal and State Policies

US DOT POLICY STATEMENT INTEGRATING BICYCLING AND WALKING INTO TRANSPORTATION INFRASTRUCTURE

A United States Department of Transportation (US DOT) policy statement regarding the integration of bicycling and walking into transportation infrastructure recommends that, “bicycling and walking facilities will be incorporated into all transportation projects” unless exceptional circumstances exist. The Policy Statement was drafted by the U.S. Department of Transportation in response to Section 1202 (b) of the Transportation Equity Act for the 21st Century (TEA-21) with the input and assistance of public agencies, professional associations and advocacy groups. USDOT hopes that public agencies, professional associations, advocacy groups, and others adopt this approach as a way of committing themselves to integrating bicycling and walking into the transportation mainstream. The full policy can be found here:

www.fhwa.dot.gov/environment/bikeped/design.htm

US DOT POLICY STATEMENT ON BICYCLE AND PEDESTRIAN ACCOMMODATION REGULATIONS AND RECOMMENDATIONS

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes. The full policy can be found here: www.fhwa.dot.gov/environment/bikeped/policy_accom.htm

NCDOT COMPLETE STREETS POLICY

In 2009, NCDOT unveiled its efforts to routinely provide for all users of the roads - pedestrians, bicyclists, public transportation users, and motorists of all ages and abilities. The new document:

- Explains the scope and applicability of the policy (“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.

The full policy can be found here: www.ncdot.org/bikeped/lawspolicies/policies/

NCDOT is developing guidelines to implement this policy. The guidelines will include basic Complete Street typologies for various road types within various contexts. More information about these guidelines can be found at the project website: www.nccompletestreets.org

NCDOT POLICY ON STREET AND DRIVEWAY ACCESS TO NC HIGHWAYS

Refer to the NCDOT policy on ‘Street and Driveway Access to North Carolina Highways’ for examples on how to reduce conflict points between motor vehicles and pedestrians and bicyclists. Consider access management for both future development and retrofits to existing development:

www.ncdot.org/doh/preconstruct/altern/value/manuals/pos.pdf



NCDOT BOARD OF TRANSPORTATION RESOLUTION: BICYCLING AND WALKING IN NORTH CAROLINA: A CRITICAL PART OF THE TRANSPORTATION SYSTEM

The North Carolina Board of Transportation strongly reaffirms its commitment to improving conditions for bicycling and walking, and recognizes nonmotorized modes of transportation as critical elements of the local, regional, and national transportation system.

WHEREAS, increasing bicycling and walking offers the potential for cleaner air, healthier people, reduced congestion, more liveable communities, and more efficient use of road space and resources; and

WHEREAS, crashes involving bicyclists and pedestrians represent more than 14 percent of the nation's traffic fatalities; and

WHEREAS, the Federal Highway Administration (FHWA) in its policy statement "Guidance on the Bicycle and Pedestrian Provisions of the Federal-Aid Program" urges states to include bicycle and pedestrian accommodations in its programmed highway projects; and

WHEREAS, bicycle and pedestrian projects and programs are eligible for funding from almost all of the major Federal-aid funding programs; and

WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;

NOW, THEREFORE, BE IT RESOLVED, the North Carolina Board of Transportation concurs that bicycling and walking accommodations shall be a routine part of the North Carolina Department of Transportation's planning, design, construction, and operations activities and supports the Department's study and consideration of methods of improving the inclusion of these modes into the everyday operations of North Carolina's transportation system; and

BE IT FURTHER RESOLVED, North Carolina cities and towns are encouraged to make bicycling and pedestrian improvements an integral part of their transportation planning and programming. (Adopted by the Board of Transportation on September 8, 2000)

NCDOT ADMINISTRATIVE ACTION TO INCLUDE LOCAL ADOPTED GREENWAYS PLANS IN THE NCDOT HIGHWAY PLANNING PROCESS AND DESIGN GUIDELINES

In 1994 the NCDOT adopted administrative guidelines to consider greenways and greenway crossings during the highway planning process. This policy was incorporated so that critical corridors which have been adopted by localities for future greenways will not be severed by highway construction. The text for the Greenway Policy and Guidelines for implementing it can be found here:

www.ncdot.org/bikeped/lawspolicies/policies/

NCDOT'S TRADITIONAL NEIGHBORHOOD DEVELOPMENT STREET DESIGN GUIDELINES

These guidelines are available for proposed TND developments and permits localities and developers to design certain roadways according to TND guidelines rather than the conventional subdivision street standards. The guidelines recognize that in TND developments, mixed uses are encouraged and pedestrians and bicyclists are accommodated on multi-mode/shared streets. The guidelines can be found here:

www.ncdot.org/doh/preconstruct/altern/value/manuals/tnd.pdf



NCDOT BICYCLE POLICY

General: Pursuant to the Bicycle and Bikeways Act of 1974, the Board of Transportation finds that bicycling is a bonafide highway purpose subject to the same rights and responsibilities and eligible for the same considerations as other highway purposes, as elaborated below.

1. The Board of Transportation endorses the concept that bicycle transportation is an integral part of the comprehensive transportation system in North Carolina.
2. The Board of Transportation endorses the concept of providing bicycle transportation facilities within the rights-of-way of highways deemed appropriated by the Board.
3. The Board of Transportation will adopt Design Guidelines for Bicycle Facilities. These guidelines will include criteria for selecting cost-effective and safety-effective bicycle facility types and a procedure for prioritizing bicycle facility improvements.
4. Bicycle compatibility shall be a goal for state highways, except on fully controlled access highways where bicycles are prohibited, in order to provide reasonably safe bicycle use.
5. All bicycle transportation facilities approved by the Board of Transportation shall conform with the adopted "Design Guidelines for Bicycle Facilities" on state-funded projects, and also with guidelines published by the American Association of State Highway and Transportation Officials (AASHTO) on federal aid projects.

Planning and Design: It is the policy of the Board of Transportation that bicycle facility planning be included in the state thoroughfare and project planning process.

1. The intent to include planning for bicycle facilities within new highway construction and improvement projects is to be noted in the Transportation Improvement Program.
2. During the thoroughfare planning process, bicycle usage shall be presumed to exist along certain corridors (e.g., between residential developments, schools, businesses and recreational areas). Within the project planning process, each project shall have a documented finding with regard to existing or future bicycling needs. In order to use available funds efficiently, each finding shall include measures of cost-effectiveness and safety-effectiveness of any proposed bicycle facility.
3. If bicycle usage is shown likely to be significant, and it is not prohibited, and there are positive cost-effective and safety-effective findings; then, plans for and designs of highway construction projects along new corridors, and for improvement projects along existing highways, shall include provisions for bicycle facilities (e.g., bike routes, bike lanes, bike paths, paved shoulders, wide outside lanes, bike trails) and secondary bicycle facilities (traffic control, parking, information devices, etc.).
4. Federally funded new bridges, grade separated interchanges, tunnels, and viaducts, and their improvements, shall be designed to provide safe access to bicycles, pursuant to the policies of the Federal Highway Administration.
5. Barriers to existing bicycling shall be avoided in the planning and design of highway projects.
6. Although separate bicycle facilities (e.g., bike paths, bike trails) are useful under some conditions and can have great value for exclusively recreational purposes, incorporation of on road bicycle facilities (e.g., bicycle lanes, paved shoulders) in highway projects are preferred for safety reasons over separate bicycle facilities parallel to major roadways. Secondary complementary bicycle facilities (e.g., traffic control, parking, information devices, etc.) should be designed to be within highway rights-of-way.



7. Technical assistance shall be provided in the planning and design of alternative transportation uses, including bicycling, for abandoned railroad rights-of way. This assistance would be pursuant to the National Trails act Amendment of 1983, and the resultant national Rails to Trails program, as will the Railway Revitalization Act of 1975.
8. Wherever appropriate, bicycle facilities shall be integrated into the study, planning, design, and implementation of state funded transportation projects involving air, rail, and marine transportation, and public parking facilities.
9. The development of new and improved bicycle control and information signs is encouraged for the increased safety of all highway users.
10. The development of bicycle demonstration projects which foster innovations in planning, design, construction, and maintenance is encouraged.
11. Paved shoulders shall be encouraged as appropriate along highways for the safety of all highway users, and should be designed to accommodate bicycle traffic.
12. Environmental Documents/Planning Studies for transportation projects shall evaluate the potential use of the facility by bicyclists and determine whether special bicycle facility design is appropriate.
13. Local input and advice shall be sought, to the degree practicable, during the planning stage and in advance of the final design of roadway improvements to ensure appropriate consideration of bicycling needs, if significant.
14. On highways where bicycle facilities exist, (bike paths, bike lanes, bike routes, paved shoulders, wide curb lanes, etc.), new highway improvements shall be planned and implemented to maintain the level of existing safety for bicyclists.
15. Any new or improved highway project designed and constructed within a public-use transportation corridor with private funding shall include the same bicycle facility considerations as if the project had been funded with public funds. In private transportation projects (including parking facilities), where state funding or Department approval is not involved, the same guidelines and standards for providing bicycle facilities should be encouraged.

Construction: It is the policy of the Board of Transportation that all state and federally funded highway projects incorporating bicycle facility improvements shall be constructed in accordance with approved state and federal guidelines and standards.

1. Bicycle facilities shall be constructed, and bicycle compatibility shall be provided for, in accordance with adopted Design Guidelines for Bicycle Facilities and with guidelines of the American Association of State Highway and Transportation Officials.
2. Rumble strips (raised traffic bars), asphalt concrete dikes, reflectors, and other such surface alterations, where installed, shall be placed in a manner as not to present hazards to bicyclists where bicycle use exists or is likely to exist. Rumble strips shall not be extended across shoulder or other areas intended for bicycle travel.
3. During restriping operations, motor vehicle traffic lanes may be narrowed to allow for wider curb lanes.



Maintenance: It is the policy of the Board of Transportation that the state highway system, including state-funded bicycle facilities, shall be maintained in a manner conducive to bicycle safety.

1. State and federally funded and built bicycle facilities within the state right-of-way are to be maintained to the same degree as the state highway system.
2. In the maintenance, repair, and resurfacing of highways, bridges, and other transportation facilities, and in the installation of utilities or other structures, nothing shall be done to diminish existing bicycle compatibility.
3. Rough road surfaces which are acceptable to motor vehicle traffic may be unsuitable for bicycle traffic, and special consideration may be necessary for highways with significant bicycle usage.
4. For any state-funded bicycle project not constructed on state right-of-way, a maintenance agreement stating that maintenance shall be the total responsibility of the local government sponsor shall be negotiated between the Department and the local government sponsor.
5. Pot-holes, edge erosion, debris, etc., are special problems for bicyclists, and their elimination should be a part of each Division's maintenance program. On identified bicycle facilities, the bike lanes and paths should be routinely swept and cleared of grass intrusion, undertaken within the discretion and capabilities of Division forces.

Operations: It is the policy of the Board of Transportation that operations and activities on the state highway system and bicycle facilities shall be conducted in a manner conducive to bicycle safety.

1. A bicyclist has the right to travel at a speed less than that of the normal motor vehicle traffic. In exercising this right, the bicyclist shall also be responsible to drive his/her vehicle safely, with due consideration to the rights of the other motor vehicle operators and bicyclists and in compliance with the motor vehicle laws of North Carolina.
2. On a case by case basis, the paved shoulders of those portions of the state's fully controlled access highways may be studied and considered as an exception for usage by bicyclists where adjacent highways do not exist or are more dangerous for bicycling. Pursuant to federal highway policy, usage by bicyclists must receive prior approval by the Board of Transportation for each specific segment for which such usage is deemed appropriate, and those segments shall be appropriately signed for that usage.
3. State, county, and local law enforcement agencies are encouraged to provide specific training for law enforcement personnel with regard to bicycling.
4. The use of approved safety helmets by all bicyclists is encouraged.

Education: It is the policy of the Board of Transportation that education of both motorists and bicyclists, regarding the rights and responsibilities of bicycle riders, shall be an integral part of the Department's Bicycle Program. School systems are encouraged to conduct bicycle safety education programs as a part of and in addition to the driver's education program, to the maximum extent practicable, and in conjunction with safety efforts through the Governor's Highway Safety Program. The Division of Motor Vehicles is also urged to include bicycle safety and user information in its motor vehicle safety publications.

Parking: It is the policy of the Board of Transportation that secure and adequate bicycle parking facilities shall be provided wherever practicable and warranted in the design and construction of all state-funded buildings, parks, and recreational facilities.

This policy can also be found at: www.ncdot.org/bikeped/download/bikeped_laws_Bicycle_Policy.pdf



BICYCLE LAWS OF NORTH CAROLINA

In North Carolina, **the bicycle has the legal status of a vehicle**. This means that bicyclists have full rights and responsibilities on the roadway and are subject to the regulations governing the operation of a motor vehicle.

Bicyclists' rights:

- The bicyclist has a right to ride on any state maintained road, except roads of the Interstate Highway system and other fully-controlled access highways.
- While a bicyclist should ride as far to the right as practicable, a bicyclist may ride well out into the traffic lane under the following conditions:
 1. if he or she can maintain the same speed as other vehicles on the roadway;
 2. if the right-hand edge of the roadway is in poor condition or is littered with debris.
- A bicyclist is not required to ride on the shoulder, since the shoulder is not legally defined as part of the roadway.
- A bicyclist may choose to make a left turn from the appropriate lane, like a vehicle, or may dismount and walk the bicycle across the intersection, like a pedestrian.

North Carolina traffic laws require bicyclists to:

- Ride on the right in the same direction as other traffic
- Obey all traffic signs and signals
- Use hand signals to communicate intended movements
- Equip their bicycles with a front lamp visible from 300 feet and a rear reflector that is visible from a distance of 200 feet when riding at night. (*Note: Rear lights are more effective than a rear reflectors*)
- Wear a bicycle helmet on public roads, public paths and public rights-of-way if the bicyclists is under 16 years old
- Secure child passengers in a child seat or bicycle trailer if under 40 pounds or 40 inches

Although the law does not require adult bicyclists to wear helmets, they are strongly encouraged to do so. Some localities within the state have enacted ordinances requiring cyclists to wear helmets.

Laws pertaining to the operation of a bicycle vary from state to state. Below are three issues of bicycling that North Carolina law currently does not clarify.

- Bicycling on Interstate or fully controlled limited access highways, such as beltlines, is prohibited by policy, unless otherwise specified by action of the Board of Transportation. Currently, the only exception to the policy is the US 17 bridge over the Chowan River between Chowan and Bertie Counties.
- There is no law that requires bicyclists to ride single file, nor is there a law that gives cyclists the right to ride two or more abreast. It is important to ride responsibly and courteously, so that cars may pass safely.
- There is no law that prohibits wearing headphones when riding a bicycle; however, it is not recommended. It is important to use all your senses to ensure your safety when riding in traffic.

This text presents only some parts of the North Carolina Motor Vehicle Code that relate to bicycle travel. These laws are subject to change, so please check the North Carolina General Statutes website for new laws and proposed legislation affecting bicyclists: www.ncga.state.nc.us/Statutes/Statutes.html or the NCDOT Bicycle and Pedestrian Division website:

www.ncdot.gov/bikeped/lawspolicies/laws/

http://www.ncdot.org/bikeped/download/bikeped_safety_materials_handout_RightsNResp.pdf



PEDESTRIAN LAWS OF NORTH CAROLINA

Pedestrians' Right-of-Way at Crosswalks:

- Where traffic-control signals are not in place or in operation the driver of a vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at or near an intersection.
- Whenever any vehicle is stopped at a crosswalk at an intersection to permit a pedestrian to cross, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.
- Pedestrians have the right-of-way when approaching an alley, building entrance, private road, or driveway, from any sidewalk or walkway.

Other Crossings and Along the Highway:

- Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.
- Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.
- Between adjacent intersections at which traffic-control signals are in operation pedestrians shall not cross at any place except in a marked crosswalk.
- Where sidewalks are provided, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway. Where sidewalks are not provided, any pedestrian walking along and upon a highway shall, when practicable, walk only on the extreme left of the roadway or its shoulder facing traffic which may approach from the opposite direction. Such pedestrian shall yield the right-of-way to approaching traffic.
- Notwithstanding the provisions of this section, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian upon any roadway, and shall give warning by sounding the horn when necessary, and shall exercise proper precaution upon observing any child or any confused or incapacitated person upon a roadway.

This text presents only some parts of the North Carolina Motor Vehicle Code that relate to pedestrian travel. These laws are subject to change, so please check the North Carolina General Statutes website for new laws and proposed legislation affecting pedestrians: www.ncga.state.nc.us/Statutes/Statutes.html or the NCDOT Bicycle and Pedestrian Division website: www.ncdot.gov/bikeped/lawspolicies/laws/



7 PROGRAMS

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Overview

Meeting the goals of the Greenville Bicycle and Pedestrian Plan will require more than construction and installation of recommended bicycle facilities. It will also require the continued support and further development of bicycle and pedestrian related programs from local officials, local residents, and community organizations.

This chapter features current programs and programming recommendations. The current bicycle and pedestrian programs in the Greenville area could serve as a model for other North Carolina communities. The momentum generated by these existing programs (many of which were spearheaded by the Eastern Carolina Injury Prevention Program) will facilitate the implementation of new program recommendations.

Current Programs & Program Resources

GREENVILLE BICYCLE AND PEDESTRIAN COMMISSION (BPAC)

The City of Greenville BPAC was created for the primary purpose of advancing Greenville as a bicycle and pedestrian friendly community and for encouraging bicycling and walking among its citizens and visitors. With this mission, BPAC is well positioned to partner with existing program advocates on many of the recommend programs outlined in the following section of this chapter. Two current BPAC members are also League Certified Instructors (LCI) for bicycling education and skills training, through the League of American Bicyclists (LAB). The Greenville BPAC should be transformed to be an MPO BPAC (GUABPAC) with representation from each of the local jurisdictions of the MPO.

EASTERN CAROLINA INJURY PREVENTION PROGRAM (ECIPP)

The Eastern Carolina Injury Prevention Program (ECIPP) was established in 1995. It is a joint effort of University Health Systems of Eastern Carolina and the Brody School of Medicine at East Carolina University. The ECIPP vision is that citizens of eastern North Carolina will be safe and injury free on roadways, at work and school, at home and play and safe from violence at all times. The ECIPP mission is accomplished by facilitating community projects, some of which are described below.

SAFE COMMUNITIES COALITION OF PITT COUNTY

The Safe Communities Coalition concept was developed by the National Highway Traffic Safety Administration (NHTSA). It is a program that promotes injury prevention activities at the local level to solve local highway and traffic safety and other injury problems. Safe Communities Coalition of Pitt County was initially funded by NHTSA in 1996, and became a nonprofit in 2000. The goals of the Coalition are to identify problems, develop, implement and evaluate interventions to make travel safer in Pitt County. The Coalition is a comprehensive and community-based group with representation from citizens, law enforcement, public health, medical, injury prevention, education, business, civic and



service groups, public work offices, and traffic safety advocates. These members provide program input, direction, and involvement to develop solid support for the Coalition's life saving injury prevention strategies. Their website, www.pittsafecommunities.org, describes the following current programs directly related to bicycling and walking, many of which include involvement or management by the ECIPP:

- *Audible Indicators* - In 2001 Safe Communities collaborated with several community agencies to aid the blind population in Greenville to be more independent and mobile. This project allowed for the installation of audible indicators at designated intersections to enable visual impaired persons to cross streets in the City more safely.
- *Bicycle Safety Initiative in Pitt County Schools*- This is a collaboration with Pitt County Schools to promote bicycle safety in fourth grade physical education classes. Physical education teachers implement the Basic of Bicycling curriculum to teach bicycle safety. This includes classroom instruction and "on the bike experience." The Coalition assisted the school in obtaining funding to purchase and equip two trailers that include bicycles and signs to set up a practice course. The Coalition provides a helmet and proper helmet fitting for each student. Approximately nine schools participated annually with the distribution of about 1,000 helmets and over 100 volunteers assisted with helmet fittings.
- *Helmet Distribution* - The Coalition also sponsors a helmet distribution program in conjunction with Greenville Fire Rescue. Any family who is unable to purchase a helmet due to limited income may contact Greenville Fire Rescue and make an appointment to go in to be fitted for a helmet. With all the programs and events, the Coalition provides over 1,100 helmets to Pitt County residents each year.
- *PEDAL* - One of the first interventions of Safe Communities has been a bicycle safety initiative named PEDAL. The goal of PEDAL was to increase the awareness of bicycle safety and to decrease bicycle injuries and fatalities. The specific goals of the initiative relate to the program title:

P - Parent involvement in bicycle safety

E - Education of safe riding practices

D - Distribution of helmets

A - Access to safe ride ways

L - Legislation to require helmet use

Through this project The Coalition provided bicycle safety education, distributed helmets and advocated for local bicycle helmet ordinances as well as supported the North Carolina State Bicycle Helmet Legislation.

- *A Safety Video for Pedestrians and Motorists* - This is an instructional video that was developed and produced locally by Safe Communities. It is shown at City events, drivers education classes, high school drivers classes, and to school groups.

SAFE KIDS PITT COUNTY

In 2007, the ECIPP received a \$10,000 grant from Safe Kids Worldwide (SKW) and Fed Ex to implement a pedestrian safety education program at a local middle school after the death of a student pedestrian. Speed display boards were installed and law enforcement has noticed a sharp decline in the number of citations issued at this school. In fall 2008, Safe Kids Pitt County was awarded \$2,000 from SKW for a Distracted Driver Research project at Eppes Middle. This two-phase project observed drivers' distractions during



school zone hours, educated parents and students and installed a MUTCD approved sign on campus to encourage drivers to minimize distractions and focus completely on driving. Safe Kids Pitt County was also awarded a photojournalism project grant of \$1,000 from SKW in April 2008 in which 17 6th-grade students photographed unsafe pedestrian safety scenarios on campus.

The Safe Kids Pitt County Pedestrian Task Force work plan is framed around environment, education, enforcement, and evaluation:

- Environment Activity/Task for 2011: Completing sidewalk additions, crosswalk improvements, signage, and addition of edge lines.
- Education Activity/Task for 2011: Conduct pedestrian and bicycle safety education (4th grade) with students, staff, and parents. Provide pedestrian and safe driving behaviors education to drivers and community through PSAs, ped safety DVD, and other outlets.
- Enforcement Activity/Task for 2011: Pre and post speed studies in school zones will be conducted. Strengthen local ordinances to support and enforce pedestrian safety initiatives.
- Evaluation Activity/Task for 2011: Conduct facility assessment of infrastructure at both schools to include sidewalks, crosswalks, and signage. Pre and post assessment of number of walkers and bicyclists. Conduct follow up travel tallies to determine change in mode of transportation. Utilize CRASH (mapping of crashes of fatalities and severe injuries) data and Pitt County Memorial Hospital trauma registry data to evaluate success. Track and review crash data annually to determine program effectiveness.

Recent programs and accomplishments by Safe Kids:

- Safe Kids was awarded a \$25,000 grant for 2011 to sponsor a pedestrian safety and design workshop hosted by UNC that will look at a focus area and design counter-measures to improve pedestrian safety.
- Safe Kids works with Safe Communities Coalition of Pitt County at Halloween to promote pedestrian safety through 1-2 schools annually through goodie bags, walking tips, glow sticks, and incentives.
- Safe Kids provided funding for mounted speed boards and high visibility crosswalks at E. B. Aycock Middle school. This school also received SRTS funding for a sidewalk.
- Safe Kids also supports International Walk to School Day annually at two schools and is involved with Safe Routes to School (SRTS).

SAFE ROUTES TO SCHOOL (SRTS)

The ECIPP also has taken the lead helping the community develop a Safe Routes to School (SRTS) program. The N.C. Department of Transportation awarded the ECIPP with a \$20,000 SRTS grant to incorporate non-infrastructure programs and activities at C.M. Eppes Middle School. Through this grant, the ECIPP has targeted the school's students, parents, and neighbors with various educational, enforcement and encouragement strategies.



The Pitt County Community Schools and Recreation Department has worked with the ECIPP to develop additional encouragement programs such as “A Walk Across North Carolina Contest,” mileage clubs, and a pedestrian safety brochure. The principal has been very supportive of the Walk To School Day events and pedestrian safety education programs. Eppes Middle has presented a pedestrian education component in physical education and health classes, and 261 students have participated.

Improvements to make routes safer including improved crosswalks, signage, sidewalk repair, and mounted speed boards were completed in early 2010 at Eppes, and incentives such as pedometers, reflective armbands and zipper pulls, and pedestrian safety booklets and bookmarks have been provided to students who walk or bicycle to school. In addition to the Eppes Middle project, the ECIPP has been awarded a \$24,750 SRTS grant to enhance pedestrian safety at an additional elementary school in 2010-2011.

THE FRIENDS OF GREENVILLE GREENWAYS (FROGGS)

FROGGS works to promote greenway construction and awareness in Greenville. Accomplishments and activities include:

- Greenway Fun Day - For the past seven years FROGGS has hosted the Annual Greenway Fun Day, featuring free family events including a scavenger hunt on the greenway, games, races, exhibits, bike safety info, kayak and backpacking demos, and free bike adjustments.
- The FROGGS Capital Campaign is raising \$30,000 to build amenities along the South Tar River Greenway and Fork Swamp Greenways. FROGGS recognizes donors of trash receptacle (\$250), benches (\$625), or picnic tables (\$1000) on commemorative bricks.
- FROGGS recently raised over \$7000 to install benches, picnic tables, and trash cans along the South Tar River Greenway.

LOCAL CLUBS AND BUSINESSES

There are many organizations and businesses in the Greenville area that support programs for pedestrians and cyclists. Examples include, but are not limited to:

- East Carolina Road Racing (www.ecrun.org), which helps to organize and promote running and multi-sport events in Eastern North Carolina
- East Carolina Velo Cycling Club (www.ecvelo.org), whose members organize and lead recreational rides and training rides to promote all aspects of cycling, serve on local task forces and commissions to plan for the future of cycling, lobby elected officials, build bike facilities and support Bike to Work day.
- ProTown BMX, in Winterville, NC, is a team of BMX Freestyle Riders that encourage, educate and help progress riders and individuals new to the sport.
- Extreme Park is a lighted facility that provides a cutting edge facility for skateboards and BMX bikes. In addition to a wide variety of ramps, the park provides an inline hockey rink for team play. This facility has been instrumental in making Greenville the center for world class BMX professionals. Many of these highly ranked professionals frequent extreme park.



- The Bicycle Post is a local bicycle shop that provides a forum called ‘BikeSpeak!’ for local cyclists to share bicycle-related education and encouragement, such as commuting tips, beginners discussions, senior riders, women’s cycling, and networking. The Bicycle Post website also has information about local trails, rides, events, and bicycle safety.

Programming Recommendations

While hundreds of successful programs can be found throughout the United States, the following list should be top priorities for the Greenville area to build strategically upon existing efforts. Implementation of these programs will be a joint effort among private, public, and non-profit agencies and organizations. Principally, this includes BPAC, ECIPP, the Safe Communities Coalition, Safe Kids, FROGGS, and representatives from Pitt County, Greenville, Winterville, Ayden, and Simpson.

1. OBTAIN BICYCLE-FRIENDLY COMMUNITY DESIGNATION BY SUMMER 2012

This is a top priority for the BPAC, less for the designation itself, and more for the many community improvements that would be achieved prior to designation. The Bicycle Friendly Community Campaign is an awards program that recognizes municipalities that actively support bicycling. A Bicycle Friendly Community provides safe accommodation for cycling and encourages its residents to bike for transportation and recreation. The League of American Bicyclists (LAB) administers the Bicycle Friendly Community Campaign and represents the interests of the nation’s 57 million cyclists.

A committee of the LAB reviews and scores the BFC application and consults with local cyclists in the community. An award of platinum, gold, silver or bronze status is designated for a period of four years. The LAB and technical assistance staff continue to work with awardees and those communities that do not yet meet the criteria to encourage continual improvements. The LAB recognizes newly designated Bicycle Friendly Communities with an awards ceremony, a Bicycle-Friendly Community road sign, and a formal press announcement.

The development and implementation of this Plan is an essential first step in eventually becoming a Bicycle Friendly Community. In North Carolina, several communities are designated as “bicycle friendly,” including Cary, Carrboro, Greensboro, Davidson, and Charlotte. Greenville, Winterville, Ayden, and Simpson should each make progress in accomplishing the goals of this Plan, and then apply for BFC status.

2. OBTAIN WALK-FRIENDLY COMMUNITY DESIGNATION BY SUMMER 2012

This is also a top priority for the BPAC, for similar reasons. Walk Friendly Communities is a national recognition program developed to encourage towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments. The WFC program will recognize communities that are working to improve a wide range of conditions related to walking, including safety, mobility, access, and comfort. Communities can apply to the Pedestrian & Bicycle Information Center to receive recognition in the form of a Bronze, Silver, Gold, or Platinum designation.

As with the BFC, the development and implementation of this Plan is an important first step in becoming a WFC. Aside from the initial pilot round of communities, the first set of designations has not yet been made. Greenville, Winterville, Ayden, and Simpson should each make progress in accomplishing the goals of this Plan, and then apply for WFC status.



3. CONTINUE SAFE ROUTES TO SCHOOL (SRTS) PROGRAMS

The ECIPP has had great success with SRTS programs, particularly with Ridgewood Elementary School. For example, Ridgewood has a model ‘Walking School Bus’ program that could be emulated by other schools in the Greenville area. In 2011, W.H. Robinson Elementary and A.G. Cox Middle in Winterville will be the focus of SRTS efforts.

Based on SRTS programs across the country, a highly successful approach has been to select two goals from each of the three ‘E’s: Education, Encouragement, and Enforcement. The most effective two goals for each category are listed below, and fortunately, most of these are already underway, or have been previously implemented in Pitt County. These include:

- *Education:* 1) Teach bicycle and pedestrian education in the classroom; 2) Launch a community media campaign for driver safety around schools.
- *Encouragement:* 1) Organize a ‘walking school bus’ with parents and kids who walk as a group to school along a specific route; 2) Set up a contest at the beginning of the year to measure total distances walked and biked to school by each participant - the prize should be substantial enough to actually encourage walking and biking.
- *Enforcement:* 1) Establish crossing guards at critical intersections; 2) Enforce lawful behavior of motorists around schools during arrival and dismissal times, especially speeding.

4. DEVELOP A HIKE AND BIKE MAP AND WEBSITE

One of the most common requests of citizens interested in biking and walking is an informational hike/bike map and website. Currently, there is no official map for the Greenville area that clearly shows the best routes for bicycling, trails, and destinations within the current existing environment. Many residents are not aware of existing facilities and trails. User-friendly brochure maps can have a significant impact by providing legible, informational mapping, wayfinding, and education.

A foldable hardcopy and online map should be developed and distributed through local area government agencies, schools, advocacy groups, and other community organizations. Maps should be made available at parks and recreation centers, libraries, municipal buildings, transit facilities, bike shops, and tourism information centers. The map should be updated annually to reflect the bicycle and greenway improvements that will be implemented through this Plan. This map and website are also opportunities for the Greenville area to provide basic information on safety, commuting, trail etiquette, and local resources.

5. AWARENESS DAYS AND EVENTS

A specific day of the year can be devoted to bicycle and pedestrian awareness and celebrate issues relating to that theme. A greenway and its amenities can serve as a venue for events that will put the greenway on display for the community. Major holidays, such as July 4th, and popular local events serve as excellent opportunities to distribute bicycling information. A good local example is the Greenway Fun Day by FROGGS.

- *Bike-to-Work Day* - This an annual event is held on the third Friday of May across the United States to promote bicycling as an option for commuting to work. Greenville held its first Bike to Work Day in May 2010. Leading up to Bike-to-Work Day,



national, regional, and local bicycle advocacy groups encourage people to try bicycle commuting as a healthy and safe alternative to driving by providing route information and tips for new bicycle commuters. On Bike-to-Work Day, these groups often organize bicycle-related events, and in some areas, pit stops along bicycle routes with snacks. Other ideas for Bike-to-Work month, week, and day include a bicyclists breakfast, commuter contests, and worksite events. This type of event can have a significant impact on bicycling in a community.

- *Walk-to-Work Day* - Although not as popular as Bike-to-Work-Day, this event is typically held during the first Friday of April and is an excellent promotion for walking in a community.

6. ENCOURAGEMENT PROGRAMS

Encouragement programs are critical for promoting and increasing walking and bicycling. These programs should address all ages and user groups from school children, to working adults, to the elderly and also address recreation and transportation users. Top priority encouragement programs are described below and were chosen based on the success and impact of these programs in other communities. Each of the three programs types described below would also serve as excellent opportunities to promote training workshops offered by League Certified Instructors (LCI) for bicycling education.

- *Employer Programs* - To encourage bicycling and walking to work, employers can provide programs and incentives. When these alternative forms of transportation are encouraged, employers benefit from improved employee health and morale. They are also often positively perceived as protecting the environment and caring for their local community. Promotions could include organizing a Bike to Work Day or a morning Pit-Stop where employees can receive free refreshments. Employers can provide educational workshops, bicycle parking options, and employee incentives. Incentives may include prize drawings, t-shirts, and free tune-ups at a local bicycle shop.
- *Community Programs* - The Smart Commute Challenge is a great example in the Raleigh-Durham area of North Carolina. Actively supported and encouraged in the Triangle area by Triangle Transit and CAMPO, it is an excellent means of having residents pledge to commute to work by bicycle. Prizes are available and educational information on commuting to work is provided at www.smartcommutechallenge.org
- *Bike-sharing and Bike-repair Programs* - Bicycle sharing and bike-repair programs encourage use by providing convenient access and empowerment to make more trips by bicycle. Many programs have also served to teach bike safety, maintenance, and on-road skills and have encouraged more people to bicycle for exercise, transportation, and leisure. In addition, these programs have increased the visibility of bicycling in communities. With a bike-sharing program, bicycles are made available for shared use by individuals who do not own bicycles. Smart bike-sharing programs are implemented by municipalities or through public-private partnerships (see www.altabicycleshare.com as an example). Community bike-sharing programs and bike-repair programs take different forms, but typically are run by local community groups (see www.durhambikecoop.org as an example). These groups acquire and are donated used bicycles that are then repaired by and for lower-income residents, who are offered training for the repairs and an option to volunteer for earn-a-bike programs.



7. TARGETED ENFORCEMENT

State of North Carolina bicycle laws and policies are reviewed at the end of Chapter 6, and can be found here: www.ncdot.gov/bikeped/lawspolicies. Enforcement is critical to ensure that motorists, bicyclists, and pedestrians are obeying common laws. It serves as a means to educate and protect all users. The goal of enforcement is for bicyclists, pedestrians, and motorists to recognize and respect each other's rights on the roadway.

In many cases, officers and citizens do not fully understand state and local laws for motorists, bicyclists, and pedestrians. The first step in effective enforcement is the education of law officers, both vehicular and bicycle officers. This type of training can lead to additional education and enforcement programs that promote safety. Law enforcement should also be provided with a legible, handheld rules and regulations card for public distribution.

Key issues to enforce for motorists are speeding, yielding to pedestrians in a crosswalk, and sharing the road with bicyclists. Key issues to enforce for pedestrians are crossing roads at the marked crosswalk, and obeying countdown signals. Key issues to enforce for bicyclists are following the same rules of the road as a motorist (obeying traffic lights and stop signs), riding on the correct side of the road, using lights when cycling at night, and sharing sidewalks and trails safely with pedestrians.

The following five rules were adapted from 'commutebybike.com' These rules could help in establishing rules for cycling behavior on sidewalks, and possibly help reduce the chances of injury (see page 6-25 for a related discussion on sidewalk bicycling policy):

1. *Ride slowly* - This is the most important rule for riding on the sidewalk. Bicyclists on the sidewalk should never ride faster than a relaxed jog.
2. *Yield to pedestrians* - If you come up behind people walking, be very polite and wait for a good time to ask them to let you pass. Never come up behind them yelling, ringing a bell or anything else that could startle or scare them. You are trespassing on their terrain so be courteous.
3. *Check every cross street and driveway* - This is the dangerous part! Drivers are used to pulling all the way up to the road before coming to a stop and turning onto the street you're following. Make sure when coming up to a driveway or cross street that you slow down and check to make sure a car is not coming. They aren't looking for fast moving vehicles to be coming off the sidewalk, so you have to be watching for them!
4. *Only cross the street at crosswalks* - A good way to get hit by a car is to come darting off the sidewalk into the street randomly. Again, remember that drivers aren't looking for people to jump off the sidewalks into traffic randomly. If you need to cross the street, wait until you get to a cross walk and do it there.
5. *Be willing to walk your bike* - If you regularly ride on the sidewalk, there are going to be lots of times where the best decision is to get off your bike and walk for a bit. This is usually due to congestion. When there are just too many people around that you risk hitting one of them, it's time to walk.



8. INTERNAL TRAINING

‘Internal’ education refers to the training of all staff who are involved in the implementation of the Bicycle and Pedestrian Master Plan. Internal training is essential to institutionalizing bicycle and pedestrian issues into the everyday operations of public works, transportation, planning, and parks departments. In addition to relevant local government staff, NCDOT staff should also be included in training sessions whenever possible. This training should cover all aspects of the transportation and development process, including planning, design, development review, construction, and maintenance. This type of ‘in-reach’ can be in the form of brown bag lunches, professional certification programs, and special sessions or conferences. Even simple meetings to go over the Plan and communicate its strategies and objectives can prove useful for staff and elected officials that may not have otherwise learned about the Plan. Bicycle and pedestrian planning and design issues are complex, and state-of-the-art research and guidelines continue to evolve. Therefore, training information should be updated frequently and offered on a regular basis.

Below are several training course examples:

www.michaelronkin.com/courses

www.pps.org/training/custom-tailored-training/

www.fhwa.dot.gov/context/trainingguide/ExistingClasses.htm

9. COORDINATED CAMPAIGNS

Through cooperation with NCDOT, local municipalities and organizations should provide strong education, encouragement, and enforcement campaigns whenever a major bicycle and/or pedestrian improvement occurs. When a major improvement is made, the roadway environment changes and proper interaction between all users is critical for overall safety. This type of outreach could take place through the local media outlets, on-site, or at special events.

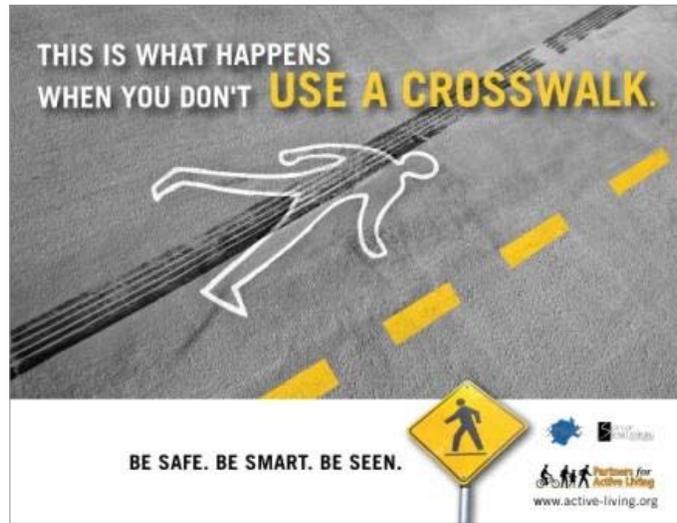
10. ADULT EDUCATION

Providing bicycle and pedestrian educational opportunities is critical for bicycle and pedestrian safety. Education should span all age groups. In addition to ongoing efforts, local agencies should partner and consider adding or expanding the following educational program/event offerings:

- Bicycle commuter and parent courses
- Walkability workshops
- Crossing guard programs
- LCI (League Cycling Instructor) program
- Bicycle ambassador programs
- Brown bag events and clinics
- Motorist education
- Educational devices (campaigns, billboards, postcards, local television)



Example educational campaign posters.



11. WEBLINKS & RESOURCES

The NCDOT Division of Bicycle and Pedestrian Transportation has an extensive selection of how-to manuals, informative guidebooks, and kits that provide comprehensive information on a variety of topics. These educational materials may be used by the general public, event organizers, teachers, or others. All are downloadable in PDF version. Manuals and guidebooks that are available in hard copy may be requested through the Safety Materials Order Form: www.ncdot.gov/bikeped/safetyeducation/manuals/

For more information and program examples, visit the following websites:

www.ncdot.gov/bikeped/safetyeducation (NCDOT DBPT)
www.pedbikeinfo.org (Pedestrian and Bicycle Information Center)
www.bicyclinginfo.org (Pedestrian and Bicycle Information Center)
www.bikecollectives.org (Bike Collective Network)
www.bikewalk.org/workshops (National Center for Bicycling and Walking)
www.saferoutesinfo.org (Safe Routes to School)
www.americantrails.org/resources (American Trails)
www.bikesbelong.org (Bikes Belong)
www.activelivingresources.org/stories_directory.php (Active Living Resource Center)
www.active-living.org (Spartanburg, SC - Partners for Active Living).
www.campo-nc.us/BPSG/BPSG_Home.htm (Capital Area MPO)
www.smartcommutechallenge.org (Triangle Area - Smart Commute Challenge)
www.bikeleague.org/programs (LAB programs)
www.bikeleague.org/resources/better/commuters.php (LAB Commuter Program)
www.usa.safekids.org (Safe Kids Worldwide)
www.eatsmartmovemorenc.com (Eat Smart, Move More)
www.worldcarfree.net (Worldcarfree)
www.1304bikes.org (Example Bicycle Coop in Raleigh, NC)
www.durhambikecoop.org (Example Bicycle Coop in Durham, NC)
www.recyclery.org (Example Bicycle Coop in Carrboro, NC)
www.bikeiowa.com/asp/bike/EmployerGuide.asp (BikeIowa)
www.bicyclingambassadors.org (Chicago, IL)
www.massbike.org/projectsnew/law-officer-training/ (NHTSA - MassBike)
www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html
 (National Highway Traffic Safety Administration: Resource Guide on Laws Related to Pedestrian and Bicycle Safety)



Overview

Chapter Contents

Overview

Key Action Steps Table

Facility Development

It is the goal of the Greenville Urban Area to become a bicycle and pedestrian friendly community. The action steps table in this chapter provides guidance on how the Greenville Urban Area can turn this vision into reality. The strategy for doing so involves some physical changes to the roadway environment and other landscapes, as well as new local government policies and programs. Successful implementation will also require the dedication of local governments, the support of the Bicycle and Pedestrian Advisory Commission (BPAC), and of local bicycle and pedestrian advocates. This chapter will serve as a simple guide, tying all the components of the Plan together with 1) a key action steps table that addresses the adoption process, infrastructure, programs, policies, coordination, further studies, staffing, and evaluation procedures and 2) methods of bicycle and pedestrian facility development.

Key Action Steps Table

| Task | Lead Agency | Support | Details | Phase |
|--|--|---------------------------|---|-------------------------|
| Presentations and Adoptions | | | | |
| Present Plan to City of Greenville Council | GUAMPO | Project Consultant | Presentation to City Council - Early 2011. | Short Term (Early 2011) |
| Approve and adopt this Plan - City | City of Greenville | GUAMPO/Project Consultant | Official letter of approval expected by Early 2011. Through adoption, the Plan becomes a legitimate planning document of the City. Adoption shows that the city has been part of a successful, supported planning process and are partners in implementation. It is key to securing funding from NCDOT and other state and federal agencies. | Short Term (Early 2011) |
| Approve and adopt this Plan - County | Pitt County | GUAMPO | Official letter of approval expected by Early 2011. Through adoption, the Plan becomes a legitimate planning document of the County. Adoption shows that the County has been part of a successful, supported planning process and are partners in implementation. It is key to securing funding from NCDOT and other state and federal agencies. | Short Term (Early 2011) |
| Approve and adopt this Plan - Towns | Town of Winterville, Town of Ayden, Village of Simpson | GUAMPO | Official letter of approval expected by Early 2011. Through adoption, the Plan becomes a legitimate planning document of the MPO municipalities. Adoption shows that the municipalities have been part of a successful, supported planning process and are partners in implementation. It is key to securing funding from NCDOT and other state and federal agencies. | Short Term (Early 2011) |



| Task | Lead Agency | Support | Details | Phase |
|---|---|--|--|-------------------------|
| Involve media to spread word to public and elected officials. | GUAMPO | BPAC, City of Greenville | GUAMPO should utilize the media to announce the adoption of the bicycle and pedestrian plan. Media would include all local newspapers, websites, and local television. When significant trails and facilities are constructed, the media should be notified in order to spread the word to the public. This will help build upon successes. | Short Term (Early 2011) |
| Infrastructure Improvements | | | | |
| Identify and secure specific funding sources for Top Priority Projects implementation | GUAMPO | NCDOT, City of Greenville, Pitt County, Town of Winterville, Town of Ayden, Village of Simpson | Multiple funding sources should be sought. Appendix D contains funding opportunities. Also, GUAMPO should work with NCDOT to ensure that upcoming roadway reconstruction projects, including TIP projects, incorporate bicycle and pedestrian improvements recommended in this Plan. | Short Term (2011-2012) |
| Complete Top Priority Projects in City of Greenville | GUAMPO, City of Greenville, NCDOT | BPAC | The prioritization of bicycle and pedestrian facility development provides a list of the most important projects in the City of Greenville to improve connectivity and safety. Immediate attention to these Top Priority Projects will instantly have a large impact on bicycling and walking conditions in Greenville. Consider a bond referendum for greenways and roadway improvements for bicycle transportation. First phase work that can be done at a low cost includes crossing improvements and the simple bicycle lane/sharrow paint projects. The intersection recommendations are very critical because of safety concerns and because these projects are more affordable. Finally, the top priority list should be regularly evaluated. | Short Term (2011-2012) |
| Complete Top Priority Projects in Winterville, Ayden, and Simpson and Pitt County | GUAMPO, NCDOT, Town of Winterville, Town of Ayden, Village of Simpson and Pitt County | | Top priorities for each municipality are identified in Chapter 5. These should be completed first as they address key needs. | Short Term (2011-2012) |
| Consider speed limit reductions throughout the Greenville Urban Area MPO. | GUAMPO, NCDOT | City of Greenville, Pitt County, Town of Winterville, Town of Ayden, Village of Simpson | Speed was a common concern of the public during this planning process. Speed limit reduction should be considered, especially in areas of heavy bicycle and pedestrian use. As bike lanes are installed on major arterials and collectors, speed limit reduction should be strongly considered. | Continuous/Ongoing |



| Task | Lead Agency | Support | Details | Phase |
|--|--|---|---|------------------------|
| Implement pilot projects. | GUAMPO, City of Greenville | NCDOT, municipalities, Pitt County | Pilot projects identified in Chapters 3 and 4 include bike boulevards, bike detector loops, bike intersection treatments, and a HAWK signal. These advanced type of treatments should be tested in a pilot setting and also be used as an educational tool. The pilot projects identified were high priorities for the public during this process. | Short Term (2011-2012) |
| Develop a long term funding strategy | GUAMPO, City of Greenville | NCDOT, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County, BPAC, East Carolina Injury Prevention Program | To allow continued development of the overall system, capital funds for bicycle and pedestrian facility construction should be set aside every year, even if only for a small amount (small amounts of local funding can be matched to outside funding sources). Funding for an ongoing maintenance program should also be included in the county and town operating budgets. Multiple funding sources should be sought from federal, state, and health sources. | Short Term (2011-2012) |
| Use updated AASHTO bicycle design guide | GUAMPO, NCDOT, Municipalities | | Obtain new published AASHTO bicycle guidelines when published in late 2010/2011. Consider utilization of these new guidelines for facilities recommended in this Plan. | Short Term (2011-2012) |
| Be open to creative solutions. | GUAMPO, NCDOT, City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson | Pitt County | In many cases, the most ideal bicycle and pedestrian scenario (such as a complete street of bicycle lanes and sidewalks) will not be achievable because of ROW issues, homeowners issues, etc. Consider alternative, creative means such as traffic calming techniques (speed humps, chicanes, bulb-outs, and speed limit reductions). | Continuous/Ongoing |
| Maintain on-road and off-road bicycle and pedestrian facilities. | NCDOT, City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County | GUAMPO, BPAC + General Public (for reporting maintenance needs) | NCDOT, Pitt County, and all municipalities should make immediate repairs to any on-road and off-road bicycle and pedestrian facilities that are damaged or have hazardous conditions. This includes floodplain trails that are covered in sand and debris after heavy rains (especially the Green Mill Run greenway). The local governments should make commitment to regular sweeping of bicycle lanes, repair of cracking, uneven sidewalks, and repainting of faded marked crosswalks. | Continuous/Ongoing |
| Re-evaluate to determine and complete "Phase 2" projects | GUAMPO | City of Greenville, BPAC, Pitt County, Town of Winterville, Town of Ayden, Village of Simpson | In 2012, reevaluate priorities based on what has been completed thus far by creating a new agenda of "Phase 2" projects. Consider including priority projects that were not completed and consider updating certain aspects of the plan's design standards, programs, and policies based on innovations and new ideas since 2010. | Mid Term (2012-2014) |



| Task | Lead Agency | Support | Details | Phase |
|--|--|---|---|-----------------------|
| Re-evaluate to determine and complete "Phase 3" projects | GUAMPO | City of Greenville, BPAC, Pitt County, Town of Winterville, Town of Ayden, Village of Simpson | In 2015, reassess projects and reevaluate priorities and phases. Consider updating the entire plan. | Long Term (2015-2019) |
| Local and Regional Coordination | | | | |
| Expand efforts of City of Greenville Bicycle and Pedestrian Advisory Commission (BPAC) and incorporate MPO-wide input. | BPAC | City of Greenville, GUAMPO, Town of Winterville, Town of Ayden, Village of Simpson | BPAC will be instrumental in promoting bicycling/walking and championing implementation of this plan. The group plays a strong role in determining priorities and establishing programs and activities. The group can be divided into meaningful subcommittees such as policy, program, implementation, and evaluation groups. BPAC members should be responsible for reading the Bicycle and Pedestrian Plan and becoming familiar with the content. Finally, the Greenville BPAC should be transformed to be an MPO BPAC (GUABPAC) with representation from each of the local jurisdictions of the MPO. | Short Term (2011-) |
| Begin semiannual project development meeting with project partners | GUAMPO, BPAC, City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson | NCDOT; municipality planning/public works officials | These meetings will help establish a process of incorporating bicycle and pedestrian improvements into upcoming roadway projects. Many bicycle and pedestrian projects recommended in this Plan could be developed as part of a roadway reconstruction, widening, or resurfacing project. Coordination between all appropriate government agencies, especially NCDOT, especially regarding TIP projects, will ensure that recommendations in this Plan are implemented. It will also provide a level of accountability | Short Term (2011-) |
| Continue to make regional bicycle and pedestrian connections | City of Greenville, GUAMPO, Town of Winterville, Town of Ayden, Village of Simpson | Surrounding counties and towns, NCDOT | Work with surrounding counties and towns to ensure bicycle and pedestrian connectivity. Focus on regional trail systems. | Continuous/Ongoing |
| Empower municipalities to develop projects. | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | With this plan adopted and complete, municipalities across the Greenville MPO should seek their own funding sources to implement projects. Having a plan in place will provide them greater opportunity to receive funds. | Continuous/Ongoing |
| Ensure planning efforts are integrated regionally | GUAMPO, Pitt County, NCDOT, City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson | BPAC | Combining resources and efforts with surrounding municipalities, regional entities, and stakeholders is mutually beneficial. Coordinate on regional greenway corridor projects; partner for joint-funding opportunities. After adoption, this document should also be recognized in the LRTP. | Continuous/Ongoing |



| Task | Lead Agency | Support | Details | Phase |
|---|--|--|--|----------------------|
| Programs | | | | |
| Continue and expand Safe Routes to School programs | GUAMPO, Eastern Carolina Injury Prevention Program | Local schools, BPAC, SRTS Program | Apply for Safe Routes to School funding for planning and implementation. Establish 'bike-to-school' groups, walking school buses, and regular bicycling activities for children through the Safe Routes to School Programs through 2012. | Continuous/Ongoing |
| Apply for "Bicycle Friendly Community" designation by League of American Bicyclists. | GUAMPO, City of Greenville | BPAC, Project Consultant | Complete the application for the Bicycle Friendly Community designation. | Short Term (2011-) |
| Begin enforcement campaign. | Pitt County, City of Greenville, and other municipality Police Departments | General Public (for reporting enforcement issues/violation incidents) | Target and enforce all illegal motorist, pedestrian, and bicyclist behavior that may jeopardize public safety and the success of the Bicycle and Pedestrian Network. | Short Term (2011-) |
| Begin coordinated campaign and pilot programming efforts | GUAMPO, BPAC | City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Eastern Carolina Injury Prevention Program, other groups | As described in Chapter 5, begin pilot education/encouragement/enforcement campaign immediately following the completion of a major bicycle and/or pedestrian project. | Short Term (2011-) |
| Apply for "Walk Friendly Community" designation by League of American Bicyclists. | GUAMPO, City of Greenville | BPAC | Complete the application for the new Walk Friendly Community designation. | Mid-Term (2011-2013) |
| Apply for "Bicycle Friendly University" designation by League of American Bicyclists. | ECU | GUAMPO, ECU, BPAC | Complete the application for the new Bicycle Friendly University designation (for East Carolina University). | Mid-Term (2011-2013) |
| Install bike racks on all buses | City of Greenville, ECU | GUAMPO | All GREAT buses should have bike racks, and should support similar options if and when light-rail or similar transit options become available in the future. ECU should also progress towards adding bike racks on all buses. | Mid-Term (2011-2013) |



| Task | Lead Agency | Support | Details | Phase |
|--|---|--|--|------------------------|
| Educate internal staff on bicycle and pedestrian-related issues. | GUAMPO, City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County | BPAC | Trail relevant local government staff who play roles in implementation, design, construction, enforcement, and maintenance. Local staff should have an understanding of the Bicycle and Pedestrian Master Plan. | Mid-Term (2011-2013) |
| Develop Greenville MPO bicycle/walking map | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | A hardcopy and online map will display bicycle and pedestrian facilities, destinations, and educational materials. A map or series of maps would be developed for the cities and towns of the Greenville MPO. These maps should be updated every 3-5 years. | Mid-Term (2011-2013) |
| Celebrate and promote awareness days and events such as Bike to Work Day and Walk to Work Day. | BPAC, GUAMPO | City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Eastern Carolina Injury Prevention Program, other groups | Awareness days provide an opportunity to encourage new bicyclists and walkers in a group setting with entertainment, prizes, and media attention. Continue to promote and expand Bike to Work Month and Bike to Work Day. | Continuous/ Ongoing |
| Begin encouragement programs | GUAMPO, BPAC, City of Greenville | Town of Winterville, Town of Ayden, Village of Simpson, local employers | Develop programs and incentives for employers to bicycle to work, bike-sharing, bike-repair, and other community programs. Work with local employers and businesses to accomplish this goal. | Mid-Term (2011-2013) |
| Policies | | | | |
| Incorporate this Bicycle and Pedestrian Master Plan into regional planning documents such as the LRTP and local comprehensive plans. | GUAMPO | NCDOT, municipalities | The Greenville MPO Bicycle and Pedestrian Master Plan should become a component of the LRTP and local comprehensive plans. This step will make clear the importance of these documents working together in future development and transportation decisions. | Short Term (2011-) |
| Revise City of Greenville Code of Ordinances. | City of Greenville | GUAMPO | Revisions and additions to the Greenville Code of Ordinances: The changes suggested in Chapter 6 serve as recommendations for the ordinance, reflecting the findings and recommendations of this Bicycle and Pedestrian Plan, and clarify some basic policy positions regarding future development and the provision of bicycle and pedestrian facilities. Some edits are also suggested for consistency in terminology. | Short Term (2011-) |



| Task | Lead Agency | Support | Details | Phase |
|---|--|--|--|----------------------|
| Revise Pitt County subdivision and zoning ordinances. | Pitt County | GUAMPO | Revisions and additions to the Pitt County Zoning Ordinance and Subdivision Ordinances: The changes suggested in Chapter 6 serve as recommendations for the ordinance, reflecting the findings and recommendations of this Bicycle and Pedestrian Plan, and clarify some basic policy positions regarding future development and the provision of bicycle and pedestrian facilities. Some edits are also suggested for consistency in terminology. | Short Term (2011-) |
| Revise Town of Winterville Code of Ordinances, Subdivision Ordinance, and Zoning Ordinance | Town of Winterville | GUAMPO | Revisions and additions to the Winterville Code of Ordinances, Zoning Ordinance and Subdivision Ordinances: The changes suggested in Chapter 6 serve as recommendations for the ordinance, reflecting the findings and recommendations of this Bicycle and Pedestrian Plan, and clarify some basic policy positions regarding future development and the provision of bicycle and pedestrian facilities. Some edits are also suggested for consistency in terminology. | Short Term (2011-) |
| Revise Town of Ayden Zoning Ordinance | Town of Ayden | GUAMPO | Revisions and additions to the Ayden Zoning Ordinance: The changes suggested in Chapter 6 serve as recommendations for the ordinance, reflecting the findings and recommendations of this Bicycle and Pedestrian Plan, and clarify some basic policy positions regarding future development and the provision of bicycle and pedestrian facilities. Some edits are also suggested for consistency in terminology. | Short Term (2011-) |
| Revise Village of Simpson Land Use Plan | Village of Simpson | GUAMPO | Revisions and additions to the Simpson Land Use Plan: The changes suggested in Chapter 6 serve as recommendations for the ordinance, reflecting the findings and recommendations of this Bicycle and Pedestrian Plan, and clarify some basic policy positions regarding future development and the provision of bicycle and pedestrian facilities. Some edits are also suggested for consistency in terminology. | Short Term (2011-) |
| Consider Complete Streets Policy | City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson | GUAMPO | The municipalities of the GUAMPO should consider Complete Streets policy guidance language to ensure commitment to developing roadways that accommodate all users. | Mid-Term (2011-2013) |
| Further Studies | | | | |
| Conduct a bicycle parking study and provide bicycle parking in key locations throughout City of Greenville and municipalities throughout the MPO. | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County, local businesses and developers | Make specific recommendations for the location of new bicycle parking facilities (in addition to those listed in Chapter 3). A phase priority listing should be developed for implementation. Then, provide bicycle services such as bicycle racks, covered parking, bicycle stations, showers at employment centers, and bicycle rentals. Work with downtown groups and BPAC to determine other key locations for future parking facilities. Ask local businesses to pay for and sponsor racks that can also serve to advertise their services. | Short Term (2011-) |



| Task | Lead Agency | Support | Details | Phase |
|--|---|---|---|----------------------|
| Apply for bicycle parking/locker grant applications. | East Carolina Injury Prevention Program, BPAC | FROGGS, GUAMPO, City of Greenville | Apply for grant funding to provide enhanced bicycle parking and lockers. | Short Term (2011-) |
| Perform bus stop access improvement study. | GUAMPO, City of Greenville | NCDOT | Assess the need for and recommend sidewalk connections and safe crossings in the vicinity of bus stops. Additionally, comfortable facilities (e.g., shelters, benches, etc.) for people waiting for the bus should also be recommended. | Short Term (2011-) |
| Conduct a study of all roadway railroad crossings and examine for pedestrian safety and ADA accessibility. | GUAMPO, City of Greenville, BPAC | Town of Winterville, Town of Ayden, Village of Simpson, Pitt County | As discussed in Chapter 2, many pedestrian crossings of railroad tracks throughout the study area are not safe or accessible. An examination of these crossings and priority improvements should be developed as part of this study. | Short Term (2011-) |
| Incorporate results of the Traffic Separation Study | GUAMPO | NCDOT Rail Division | Incorporate results of the Traffic Separation Study by NCDOT's Rail Division into future bicycle and pedestrian planning. | Short Term (2011-) |
| Conduct a study on traffic calming needs and opportunities on local roads. | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | Traffic calming is critical to create safe walking and biking environments. In many cases, where sidewalk isn't feasible, treatments such as speed humps can still improve safety by slowing traffic. Roadways should be identified and prioritized for improvements. This study should also identify storm grates that present hazards to bicyclists, so that they may be replaced (see Design Guidelines) | Mid-Term (2012-2013) |
| Conduct a study on existing driveway access issues such as high frequency and large sizes. | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | As discussed in Chapter 2, some roadways feature an excess of driveway entrances (such as Dickinson and 10th Street near Downtown Greenville). An examination of driveways should be conducted with the end-goal of retrofitting improvements to create safer separated spaces for pedestrians. | Mid-Term (2012-2013) |
| Perform bicycle detection and traffic signal timing analyses. | GUAMPO, NCDOT | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County | Work with NCDOT and local municipalities to investigate bicycle detection at intersections and traffic signal timing. Upon completion of evaluation, specific improvement recommendations should be made. | Mid-Term (2012-2013) |
| Update City of Greenville Greenways Master Plan | City of Greenville, FROGGS | BPAC | The greenway master plan addresses dozens of miles of trail recommendations. An updated plan would prioritize trail segments and update recommendations based on changes in land use, development, and new constraints. | Mid-Term (2012-2013) |



| Task | Lead Agency | Support | Details | Phase |
|---|---|---|---|----------------------|
| Staffing | | | | |
| Hire fulltime Bicycle and Pedestrian Coordinator | GUAMPO | Pitt County, City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | Currently, the Transportation Planner handles all MPO responsibilities, including bicycle and pedestrian issues. A fulltime position is needed to handle all multi-modal concerns. The “keeping” of this Plan would be the Coordinator’s primary responsibility, including working closely with NCDOT, Pitt County, and municipalities to ensure its implementation, review, and regular update. The Coordinator would also serve as “staff” to the BPAC and report BPAC progress as appropriate to the Technical and Policy Committees of the MPO. | Short Term (2011-) |
| Designate staff member to be local bicycle and pedestrian coordinator; include multi-jurisdictional education opportunities/training for bicycle and pedestrian inclusion | City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, and Pitt County | GUAMPO | Each local government within the MPO should designate a staff member to “wear the hat” of local bicycle and pedestrian coordinator. These will likely not be fulltime positions; rather, each municipality would assign an existing staff member to dedicate specified level of time (10-15%) to bicycle and pedestrian issues. These coordinators would coordinate with the fulltime MPO Bicycle and Pedestrian Coordinator. | Short Term (2011-) |
| Evaluation and Databases | | | | |
| Update bicycle and pedestrian database and establish central holding place for data. | GUAMPO, City of Greenville | Town of Winterville, Town of Ayden, Village of Simpson | Continuous updating of bicycle and pedestrian GIS database as new facilities come online and new crash data is published. GUAMPO should lead this effort, but the City of Greenville and other municipalities must coordinate as improvements are made. | Continuous/Ongoing |
| Publish Annual Performance Report | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | Publish an annual report to provide an update on progress made during that year to advance bicycle and pedestrian modes. GUAMPO should lead this effort, but the City of Greenville and other municipalities must coordinate. This report will provide an objective measurement of progress. | Annually |
| Develop bicycle and pedestrian count program to occur at least annually. | GUAMPO, City of Greenville | BPAC, Town of Winterville, Town of Ayden, Village of Simpson | A key method to evaluate bicycle and pedestrian use and needs is to conduct professional counts. This will serve as a baseline each year and would be a key part of an annual performance report. | Annually |
| Continually support and evaluate implementation of this plan | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | The different county and city departments and boards and BPAC representatives should meet quarterly to assess implementation and evaluate progress. | Continuous/Ongoing |
| Online form for bicycle/pedestrian facility request | GUAMPO | City of Greenville, BPAC, Town of Winterville, Town of Ayden, Village of Simpson | Provide a web-based service that allows residents to request bicycle and pedestrian facilities. | Mid-Term (2012-2013) |



Facility Development

This section describes types of transportation facility construction and maintenance projects that can be used to create new bicycle and pedestrian facilities. Note that roadway re-construction projects offer excellent opportunities to incorporate facility improvements for bicyclists and pedestrians. It is much more cost-effective to provide a bicycle facility when these road projects are implemented than to initiate the improvement as a “retrofit.”

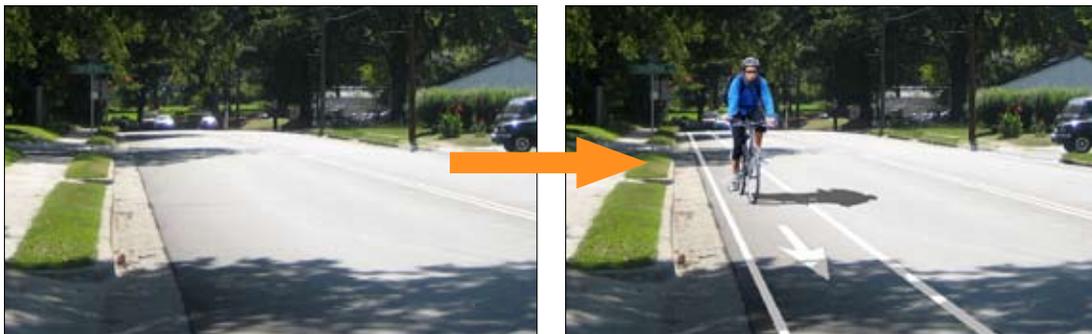
In order to take advantage of upcoming opportunities to incorporate bicycle and pedestrian facilities into routine transportation projects, Pitt County and its municipalities should continue to track repaving schedules, and other lists of projects. Additionally, the NCDOT’s district office should be encouraged to use this Plan as a ready reference when maintenance projects are being programmed. As recommended in this chapter, a semiannual meeting with project partners will ensure this critical communication. As the long-range transportation plan is updated in future years, bicycle and pedestrian improvements should be included in appropriately programmed projects.

Bicycle Project Implementation

Below: A photo rendering of bicycle lanes on W. 5th Street. This Priority Project only requires striping the new lanes.

RESTRIPING

The simplest type of restriping project is the addition of bicycle lanes, edgelines, or shoulder stripes to streets without making any other changes to the roadway (example at right).



Bicycle lanes, edgelines, and shoulder stripes can also be added by narrowing the existing travel lanes or removing one or more travel lanes. In some locations where the existing lanes are 12- or 13-foot wide, it may be possible to narrow them to 11 feet, especially where medians are present. This requires changing the configuration of the roadway during a re-surfacing project. This type of downsizing represents an opportunity for adding bicycle and pedestrian facilities while working within the construct of an existing right-of-way width.

RESEARCH ON BICYCLE LANE DEVELOPMENT THROUGH TRAVEL LANE NARROWING (RESTRIPING)

Narrowing roadways for traffic calming purposes and bicycle facilities are common occurrences now since planners and engineers are trying to not only accommodate vehicles but bicyclists and pedestrians as well. Narrowing roadways to allow for bicycle lanes or other bicycle facilities is needed in some instances where current roadway widths and traffic volume do not allow for a simple “stripe” to paint in a bicycle lane.

One means of developing bicycle lanes is through restriping or travel lane narrowing. In laying out the bicycle network facility recommendations and methods, it was determined that 11’ travel lanes were acceptable in order to fit bicycle lanes into the existing roadway environment. This methodology used in developing recommendations is supported by research in both automobile traffic safety and bicycle level of service improvements.



*Sources for Bicycle Lane
Development & Travel Lane
Narrowing:*

1) *American Association
of State Highway and
Transportation Officials, A
Policy on Geometric Design
of Highways and Streets,
Washington, DC 2004.*

2) *Relationship of Lane
Width to Safety for Urban
and Suburban Arterials,
Ingrid B. Potts, Harwood,
D., Richard, K, TRB 2007
Annual Meeting*

Current AASHTO literature, research, and precedent examples (including some found in Greenville) support the notion of reducing 12' travel lanes to as narrow as 10' lanes. The 2004 AASHTO Green Book states that travel lanes between 10 and 12 feet are adequate for urban collectors and urban arterials. (1) "On interrupted- flow operating conditions at low speeds (45 mph or less), narrow lane widths are normally adequate and have some advantages." At the 2007 TRB Annual Meeting, a research paper using advanced statistical analysis, supported the AASHTO Green Book in providing flexibility for use of lane widths narrower than 12 feet on urban and suburban arterials. The paper indicates there is no difference in safety on streets with lanes ranging from 10 to 12 feet. "The research found no general indication that the use of lanes narrower than 12 feet on urban and suburban arterials increases crash frequencies. This finding suggests that geometric design policies should provide substantial flexibility for use of lane widths narrower than 12 feet." The research paper goes on to say "There are situations in which use of narrower lanes may provide benefits in traffic operations, pedestrian safety, and/or reduced interference with surrounding development, and may provide space for geometric features that enhance safety such as medians or turn lanes. The analysis results indicate narrow lanes can generally be used to obtain these benefits without compromising safety." and "Use of narrower lanes in appropriate locations can provide other benefits to users and the surrounding community including shorter pedestrian crossing distances and space for additional through lanes, auxiliary and turning lanes, bicycle lanes, buffer areas between travel lanes and sidewalks, and placement of roadside hardware." (2)

Precedent examples also show the large number of communities around the United States that have narrowed travel lanes to enable the development of bicycle lanes. The Missoula Institute for Sustainable Transportation accumulated a list of these communities through information provided by members of the Association of Pedestrian and Bicycle Professionals. The webpage titled "Accommodating Bike Lanes in Constrained Rights-of-Way (<http://www.strans.org/travellanessurvey.htm>) lists the community, their methods, and contact information. Cities such as Arlington, VA, Cincinnati, OH, Charlotte, NC, Houston, TX, and Portland, OR have regularly narrowed travel lanes to 10' or even commonly use them in new roadway development. Arlington, VA has been installing bicycle lanes on streets when they are repaved and have a number of streets with 10' lanes and bicycle lanes that have been functioning well without operational issues and complaints. Cincinnati, OH uses a policy that 10 foot lanes on collectors and arterials are always permitted. New installations of 10 foot travel lanes with bicycle lanes require a speed limit of 35mph or under. By restriping 12 foot lanes to 10 feet, the City of Houston, TX has converted 30 miles of arterial streets.

Lane narrowing and the addition of bicycle lanes will require consultation with NCDOT and further analysis beyond this planning effort. Changing the roadway design may also require a reduction in speed limit and consideration of traffic calming designs such as median islands. For roadways with higher speed limits and traffic volumes, wider vehicular and bicycle lanes may be warranted. Further analysis of bicycle lane restriping projects is warranted to determine appropriateness of lane narrowing, bicycle lane widths, and speed limits that impact both motorists and bicyclists.



REMOVING PARKING

Some neighborhood collector roadways are wide enough to stripe with bike lanes, but they are used by residents for on-street parking, especially in the evening. In locations like this, removing parking is likely to create considerable controversy and is not recommended unless there is no other solution (unless the parking is never used). In the rare case that removing parking is being considered, the parking should not be removed unless there is a great deal of public support for the bike lanes on that particular roadway, and a full public involvement process with adjacent residents and businesses is undertaken prior to removing parking.

If it is not practical to add a bike lane, edgelines and shared lane markings may be considered. On roads where the outside lane and parking area combined are more than 17-foot-wide, 10-foot-wide travel lanes can be striped with an edgeline, leaving the rest of the space on either side for parking. The stripe would help slow motor vehicles and provide extra comfort for bicyclists, especially during the daytime when fewer cars would be parked along the curb. On roads with outside lane and parking areas that are narrower than 17-foot-wide, shared lane markings can be provided every 100 to 200 meters on the right side of the motor vehicle travel lane to increase the visibility of the bike route.

REPAVING

Repaving projects provide a clean slate for revising pavement markings. When a road is repaved, the roadway should be restriped to create narrower lanes and provide space for bike lanes and shoulders, where feasible. In addition, if the spaces on the sides of non-curb and gutter streets have relatively level grades and few obstructions, the total pavement width can be widened to include paved shoulders.

INSTALLING SHARED LANE MARKINGS

The Greenville Urban Area should adopt the use of shared lane markings, or “sharrows” as one of its bicycle facility types. Shared lane markings have been newly incorporated into the MUTCD. They take the place of traditional bicycle lanes where lanes are too narrow for striping, where speeds do not exceed 35 mph, and/or where there is on-street parking. The intent of the shared lane marking is threefold: 1) they draw attention to the fact that the roadway is accommodating bicycle use and traffic; 2) they clearly define direction of travel for both bicyclists and motorists; and 3) with proper placement, they remind bicyclists to bike further from parked cars to prevent “dooring” collisions. While shared-lane markings are not typically recommended or needed on local, residential streets, they are sometimes used along such streets when part of a signed route or bicycle boulevard.

ROADWAY CONSTRUCTION AND RECONSTRUCTION

Bicyclists should be accommodated any time a new road is constructed or an existing road is reconstructed. In the long-term, all roadways should have on-road bicycle facilities. However, sidepaths can be an acceptable solution when a road has few driveways and high-speed, high-volume traffic.

BRIDGE REPLACEMENT

All new or replacement bridges should accommodate bicycles with on-road facilities on both sides of the bridge. If the bridge is in a developed area or an area that may experience development in the future, it should also have wide sidewalks on both sides to accommodate all types of bicyclists and pedestrians.



Federal law, as established in the Transportation Equity Act for the 21st Century (TEA-21), makes the following statement with respect to bridges:

“In any case where a highway bridge deck is being replaced or rehabilitated with Federal financial participation, and bicyclists are permitted on facilities at or near each end of such bridge, and the safe accommodation of bicyclists can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations.” (23 U.S.C. Section 217)

Bridge replacement projects on controlled access freeways where pedestrians and bicyclists are prohibited by law should not include facilities to accommodate bicyclists and pedestrians. In cases, however, where a bridge replacement project on a controlled access freeway impacts a non-controlled access roadway (i.e., a new overpass over an arterial roadway), the project should include the necessary access for pedestrians and bicyclists on the non-limited access roadway (i.e., paved shoulders, sidewalks, and pedestrian/bicycle crossing improvements). Existing and planned greenway crossings, both at-grade and below new bridges, should be similarly accommodated during bridge replacement projects.

RETROFIT ROADWAYS WITH NEW BICYCLE FACILITIES

There may be critical locations in the Bicycle Network that have bicycle safety issues or are essential links to destinations. In these locations, it may be justifiable to add new bicycle facilities before a roadway is scheduled to be repaved or reconstructed.

In some places, it may be relatively easy to add extra pavement for shoulders, but others may require removing trees, moving landscaping or fences, or regrading ditches or hills. Retrofitting roadways with sidepaths creates similar challenges. Improvements in these locations are typically recommended in the long-term.

Some roads may require a “road diet” solution in order to accommodate bicycle facilities. Road diets involve removing vehicle travel lanes and replacing these lanes with on-road bicycle facilities and sidewalks or sidepaths. These are generally recommended only in situations where the vehicular traffic count can be safely and efficiently accommodated with a reduced number of travel lanes. Further study may be necessary for recommended road diets to ensure that capacity and level-of-service needs are balanced against bicycle level of service needs.

SIGNAGE AND WAYFINDING PROJECTS

Signage along specific routes or in an entire community can be updated to make it easier for people to find destinations. Bicycle route signs are one example of these wayfinding signs, and they should be installed along routes independently of other signage projects or as a part of a more comprehensive wayfinding improvement project.



Pedestrian Project Implementation

RESIDENTIAL AND COMMERCIAL DEVELOPMENT

As detailed in Chapter 6, the construction of sidewalks and safe crosswalks should be required during development. Construction of pedestrian facilities that corresponds with site construction is more cost-effective than retrofitting. In commercial development, emphasis should also be focused on safe pedestrian access into, within, and through large parking lots. This ensures the future growth of the pedestrian network and the development of safe communities. Developers can also provide a fee-in-lieu of sidewalk construction that is equivalent to the specific need for their development.

RETROFIT ROADWAYS WITH NEW PEDESTRIAN FACILITIES

For top priority pedestrian projects, it may be necessary to add new facilities before a roadway is scheduled to be reconstructed. In some places, it may be relatively easy to add sidewalk segments to fill gaps, but other segments may require removing trees, relocating landscaping or fences, re-grading ditches or cut and fill sections, and/or relocating/reconfiguring the drainage system.

Repaving

Repaving and resurfacing projects provide a clean slate for revising pedestrian crosswalk facilities, especially high visibility marked crosswalks, advanced stop lines, and enhanced curb ramps. Depending on the project, sidewalk and refuge islands may be developed as well.



A PUBLIC INVOLVEMENT

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*Outreach
Documentation*

*Letters of Support
(as of January 2011)*

Overview

In order to gain local knowledge and input, a public outreach component was included as an integral part of planning efforts for the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan. Public input was gathered through several different means including the following: Steering Committee meetings, six public workshops, newsletters, and online efforts (Facebook, Twitter, CommunityWalk map, a project website, and an online public comment form). This offered the representatives and residents of the Greenville Urban Area MPO opportunity to contribute to the Plan’s development.

Resident and Staff-based Steering Committee

Steering Committee meetings were held throughout the planning process with representatives from Greenville, Ayden, Winterville, Simpson, NCDOT, and the community. The group established visions and goals for the Plan, identified areas of need in the Greenville Urban Area MPO, and reviewed the Plan. The goals are listed in Chapter 1 and input from the Committee is reflected throughout the recommendations of this planning document. Members of the Committee marked up maps and identified bicycle and pedestrian problem areas and possible solutions.

The Steering Committee also provided comment on the Draft Plan. These comments led to revisions made by the Consultant in the development of the Final Plan.



Project Steering Committee Meeting

Public Workshops

Six public input workshops were conducted during the planning process. The first five opportunities were held in October 2010 and were drop-in style. The meetings were held at each MPO member jurisdiction (Greenville, Ayden, Winterville, Simpson, and Pitt County). These initial public input sessions sought to gather preliminary input from residents to assist in the development of draft recommendations for the plan. Approximately 125 residents attended the meetings.

The sixth public workshop was held in December 2010 and presented draft recommendations and solicited public comment again at the Pitt County Schools and Recreation Center. Preliminary recommendations were presented in map form at this meeting. Residents responded to these draft recommendations by providing feedback and discussion of proposed bicycle and pedestrian facilities.

At all workshop sessions, public input was taken in the form of map markups, written comments, question and answer sessions, and through discussions between residents, consultant staff from Greenways Incorporated and MPO staff. In addition, a hardcopy public comment form was developed and distributed for hand written responses during the first set of meetings. A rolling presentation was given to the general public.



Public Workshops





Online Outreach

Information was provided to the public on a project website, through Facebook, and through Twitter. The project website kept the public updated on the planning process, provided a link to the online comment form and other resources, and provided access to the Draft Plan for review.

The Facebook page drew 129 members. The page also served to update the community on upcoming events. Twitter was used to remind the public of upcoming public workshops.

'Screen Shot' of the Facebook project page.

facebook Search Home Profile

Greenville MPO Bicycle and Pedestrian Master Plan

Wall Info Discussions Photos Video Events

Write something... **Share** Options

Message All Members
Promote Group with an Ad
Edit Group Settings
Edit Members
Invite People to Join
Create Group Event

Visit www.greenways.com/greenvilenc for more information.

Information

Category: Common Interest – Beliefs & Causes

Description: The Greenville Urban Area MPO Bicycle and Pedestrian Plan will guide local governments in creating a lasting bicycle and pedestrian transportation program. The plan will identify opportunities for walking and biking routes.

The planning process began at the end of August with a Steering Committee kick-off meeting. The study area encompasses the Greenville Urban Area MPO which includes the City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, and portions of Pitt County.

Privacy Type: Open: All content is public.

Admins

Matt Hayes It is time for our final public workshop. Draft recommendations will be presented and we need your input! The workshop will be held on Wednesday, December 8, 2010 beginning at 6:00 pm at the Pitt County Community Schools and Recreation Center located at 4561 County Home Road (across from the Farmer's Market). The workshop will end at 8pm.
December 1 at 4:08pm · Like · Comment

Matt Hayes The final tally for the comment form was 718! That is awesome!
November 22 at 5:32pm · Like · Comment

Brad Beggs How does this compare with other NC cities and/or cities are size?
23 hours ago · Like

Matt Hayes The online comment form and Community Walk Input options are now closed! We are summarizing input and incorporating into our Draft Plan. Thanks to all who participated!
November 22 at 5:32pm · Like · Comment

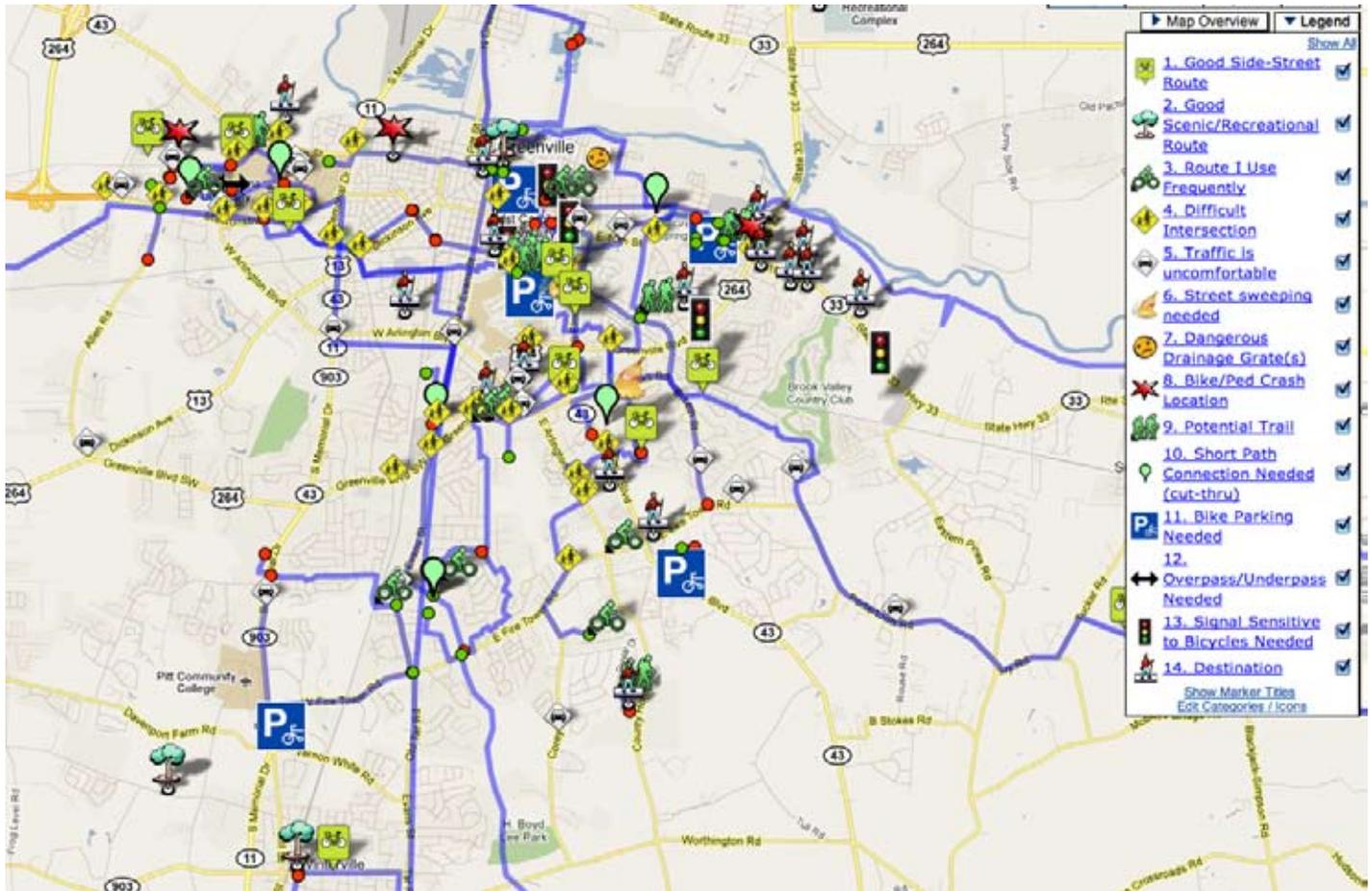
Matt Hayes As of November 12, 636 have completed the comment form. This is the final reminder that we will close the online comment form on November 20th. This is your last chance to help push us to 1,000! Tell your neighbors.....have your social/community groups complete them.....tell your coworkers.....tell your kids...tell your parents!!!! Thanks!
November 12 at 8:53am · Like · Comment

Matt Hayes As of November 3, 561 have completed the comment form. We will close the online comment form on November 20 for result tabulation. PLEASE make an effort to get as many people as possible to complete the form. This will help show support for the Plan and help us understand your needs!

Community Walk Map

A map of the study area was provided through the CommunityWalk website. Web users were able to interactively create points and lines with comments describing such things as: areas of safety concern, ideal routes for trails, and intersections that need improvement. 643 people viewed the map, while 169 individual comments were provided.

'Screen Shot' of the Community Walk project page.



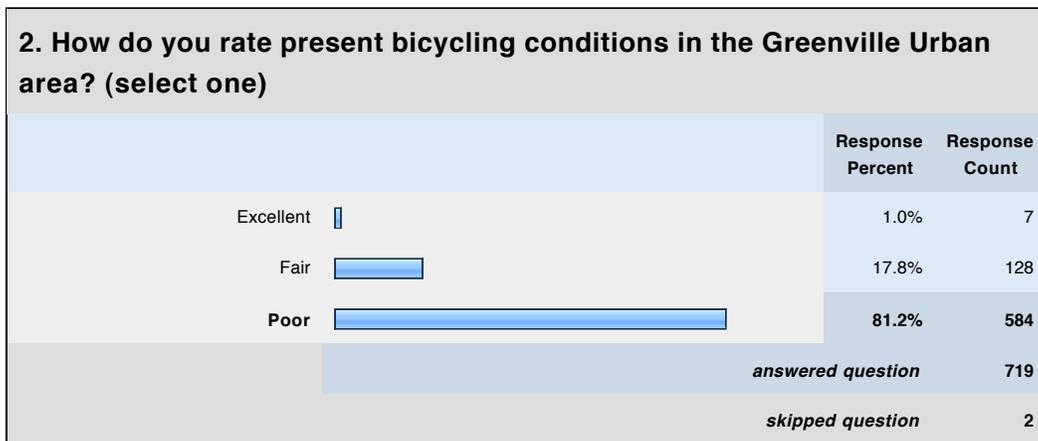
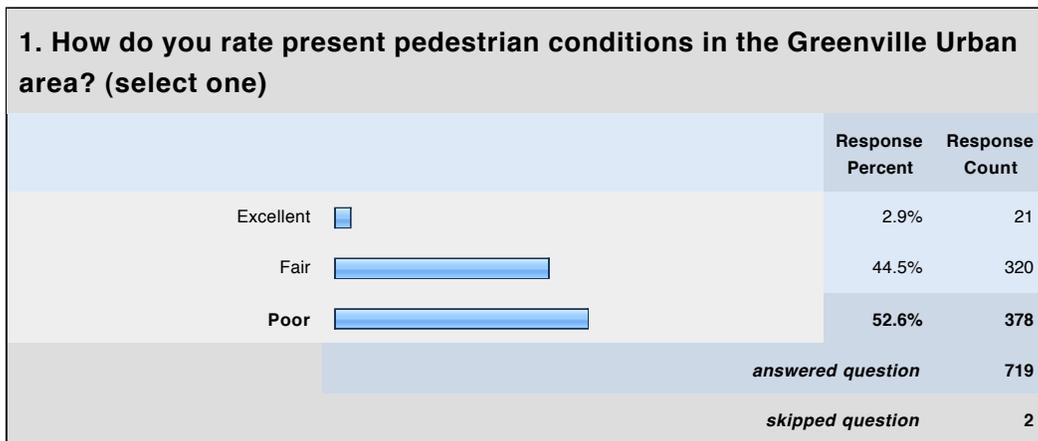


Comment Form

A comment form was developed for the Greenville Urban Area MPO during this process and made available in both hardcopy and online form. The comment form was available online for nearly four months. The comment form was made available in Spanish. To maximize the responses to the online form, the web address was distributed at the public meetings, to local interest groups, in newsletters, in newspaper public service announcements, on the website and project Facebook page, and on flyers throughout the region.

718 persons completed the comment form. This reflects significant interest and support for this planning effort. This number compares well to other cities across the state of North Carolina (Raleigh’s Bicycle Plan received 867 responses; Greensboro’s Bicycle and Pedestrian Plan received 709 responses; Durham’s Bicycle Plan received 633 responses).

The comment form results shown on the following pages have been tabulated to provide insight into local residents’ opinions and values.





3. How important to you is improving walking and biking conditions in the Greenville Urban area? (select one)

| | Response Percent | Response Count |
|--------------------------|------------------|----------------|
| Very important | 88.7% | 638 |
| Somewhat important | 9.5% | 68 |
| Not important | 1.8% | 13 |
| answered question | | 719 |
| skipped question | | 2 |

4. How often do you walk now? (select one)

| | Response Percent | Response Count |
|--------------------------|------------------|----------------|
| never | 7.9% | 56 |
| few times per month | 28.2% | 201 |
| few times per week | 32.7% | 233 |
| 5+ times per week | 31.3% | 223 |
| answered question | | 713 |
| skipped question | | 8 |

5. How often do you bike now? (select one)

| | Response Percent | Response Count |
|--------------------------|------------------|----------------|
| never | 34.7% | 247 |
| few times per month | 26.7% | 190 |
| few times per week | 21.4% | 152 |
| 5+ times per week | 17.2% | 122 |
| answered question | | 711 |
| skipped question | | 10 |

6. Would you walk more often if more sidewalks, trails, and safe roadway crossings were provided for pedestrians?

| | Response Percent | Response Count |
|--------------------------|------------------|----------------|
| Yes | 90.3% | 646 |
| No | 9.7% | 69 |
| answered question | | 715 |
| skipped question | | 6 |



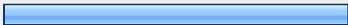
7. Would you bike more often if more bicycle lanes, trails, and safe roadway crossings were provided for bicyclists?

| | Response Percent | Response Count |
|--|------------------|----------------|
| Yes  | 90.2% | 643 |
| No  | 9.8% | 70 |
| <i>answered question</i> | | 713 |
| <i>skipped question</i> | | 8 |

8. Should public funds be used to improve pedestrian and bicyclist options and facilities?

| | Response Percent | Response Count |
|--|------------------|----------------|
| Yes  | 95.8% | 682 |
| No  | 4.2% | 30 |
| <i>answered question</i> | | 712 |
| <i>skipped question</i> | | 9 |

9. What types of funds should be used for pedestrian and/or bicycling infrastructure improvements? (Choose all that apply)

| | Response Percent | Response Count |
|--|------------------|----------------|
| Local foundation or nonprofit  | 71.5% | 504 |
| Capital improvements bond or other financing strategy  | 64.5% | 455 |
| Existing local taxes  | 72.8% | 513 |
| New local taxes  | 36.2% | 255 |
| State and federal grants  | 86.4% | 609 |
| Other (please specify)  | 13.3% | 94 |
| <i>answered question</i> | | 705 |
| <i>skipped question</i> | | 16 |



10. For what purposes do you walk or bike most now and/or would you want to walk for in the future? Select all that apply.

| | Response Percent | Response Count |
|---------------------------------------|------------------|----------------|
| Fitness or recreation | 93.1% | 660 |
| Transportation to some destination | 67.4% | 478 |
| Social visits | 41.0% | 291 |
| Walking the dog | 37.9% | 269 |
| Walking the baby / pushing a stroller | 14.7% | 104 |
| answered question | | 709 |
| skipped question | | 12 |

11. What walking and bicycling destinations would you most like to get to? Select all that apply.

| | Response Percent | Response Count |
|---------------------------------|------------------|----------------|
| Place of work | 55.3% | 388 |
| School | 27.8% | 195 |
| ECU | 58.7% | 412 |
| Pitt Community College | 13.8% | 97 |
| Restaurants | 44.4% | 312 |
| Public Transportation | 16.7% | 117 |
| Shopping | 44.0% | 309 |
| Parks | 73.9% | 519 |
| Entertainment | 40.9% | 287 |
| Trails and greenways | 83.8% | 588 |
| Libraries or recreation centers | 58.7% | 412 |
| answered question | | 702 |
| skipped question | | 19 |



12. What factors discourage walking? Select all that apply.

| | Response Percent | Response Count |
|--|------------------|----------------|
| Lack of sidewalks and trails | 84.4% | 595 |
| Lack of crosswalks at traffic signals | 59.3% | 418 |
| Lack of pedestrian signals at intersections | 50.5% | 356 |
| Automobile traffic and speed | 73.2% | 516 |
| Pedestrian unfriendly streets and land uses | 76.7% | 541 |
| Lack of interest | 4.8% | 34 |
| Lack of time | 10.4% | 73 |
| Aggressive motorist behavior | 60.0% | 423 |
| Sidewalks in need of repair | 24.7% | 174 |
| Lack of nearby destinations | 25.1% | 177 |
| Criminal activity | 34.2% | 241 |
| Level of street lighting | 30.9% | 218 |
| Lack of landscaping and/or buffer between sidewalks and road | 35.6% | 251 |
| Other (please specify) | | 75 |
| answered question | | 705 |
| skipped question | | 16 |

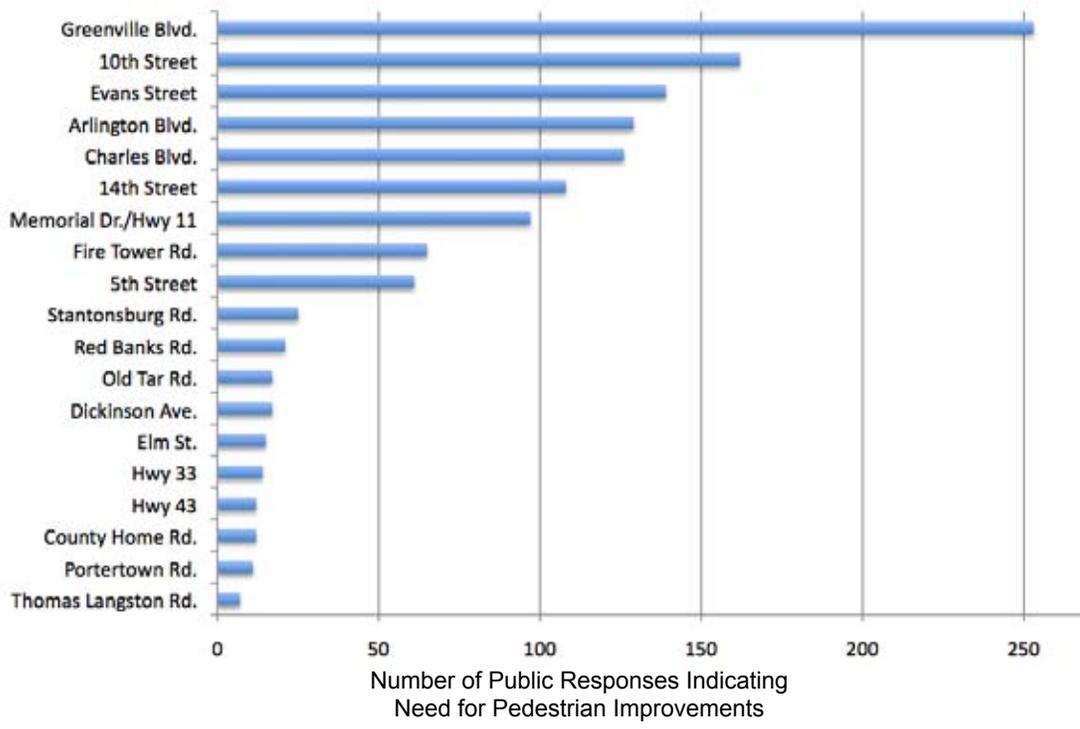


13. What factors discourage biking? Select all that apply.

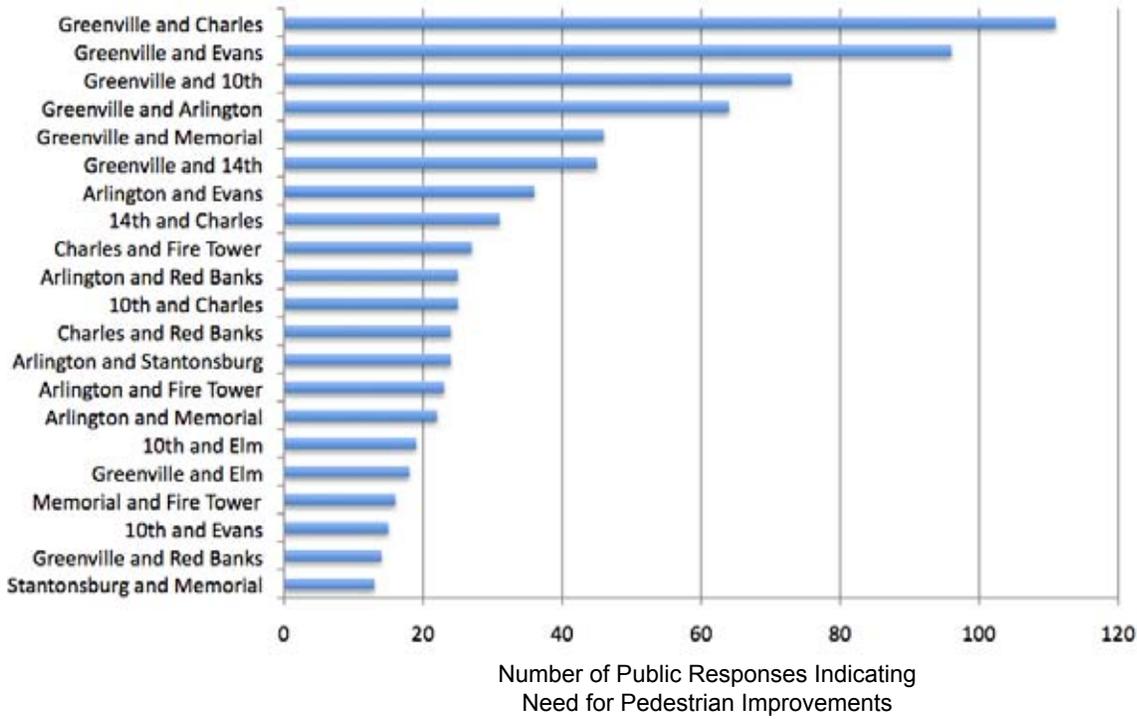
| | Response Percent | Response Count |
|--|------------------|----------------|
| Lack of bicycle lanes, shoulders, or paths | 92.2% | 640 |
| Narrow lanes | 69.5% | 482 |
| High-speed traffic | 78.1% | 542 |
| Traffic volume | 70.3% | 488 |
| Inconsiderate motorists | 76.1% | 528 |
| Lack of bicycle parking | 36.7% | 255 |
| Lack of showers and lockers at workplace | 16.9% | 117 |
| Criminal activity | 22.6% | 157 |
| Loose gravel or potholes | 31.0% | 215 |
| Crossing busy roads | 62.2% | 432 |
| Poor lighting | 26.4% | 183 |
| Drainage grates | 22.3% | 155 |
| Other travel modes are safer or more comfortable | 21.2% | 147 |
| Hills | 2.7% | 19 |
| Physical ability | 5.8% | 40 |
| Travel time or distance | 11.8% | 82 |
| Other (please specify) | | 73 |
| answered question | | 694 |
| skipped question | | 27 |



14. What do you think are the top roadway corridors most needing pedestrian and bicycle improvements?



15. What do you think are the top intersections most needing pedestrian and bicycle improvements? Example: Smith Ave. & Turner St.

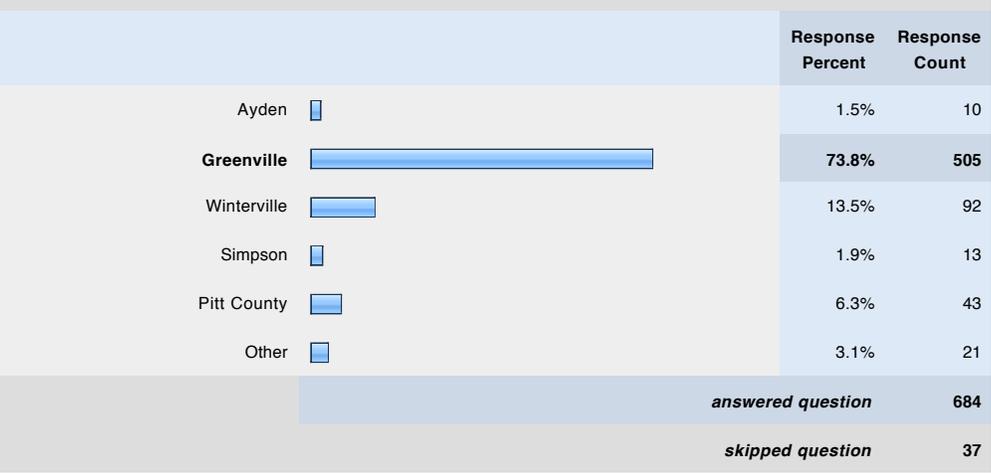




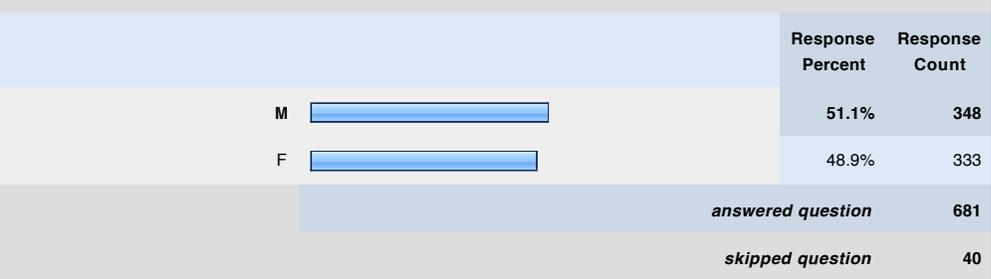
16. What is your zip code?

| Zip Code | Responses |
|----------|-----------|
| 27858 | 362 |
| 27834 | 125 |
| 28590 | 91 |
| 28513 | 11 |
| 27828 | 8 |
| 27837 | 8 |
| Other | 20 |

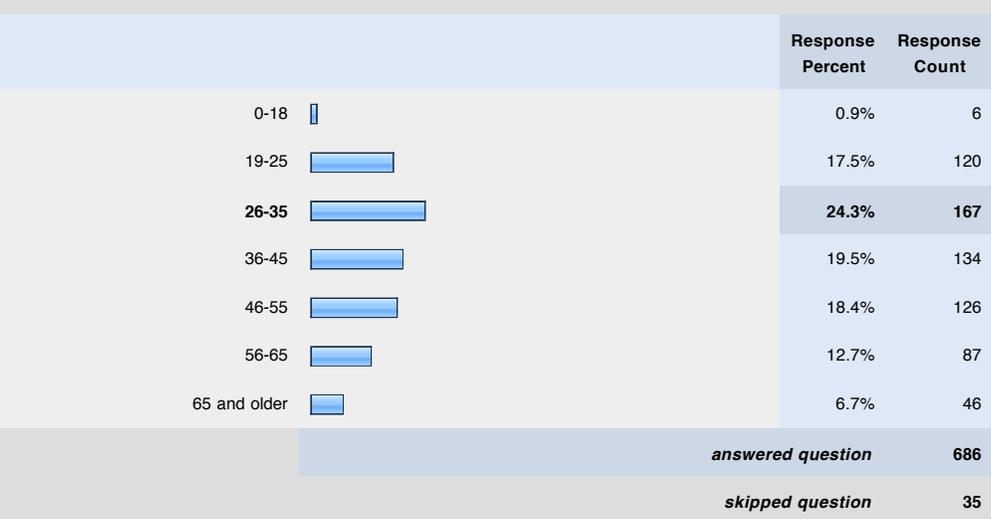
17. Where do you live?



18. What is your gender?



19. What is your age?





Responses to the Question, "Do you have any other further comments or ideas?"

| |
|--|
| 35 MPH everywhere = Less wrecks on Greenville Blvd. |
| A 10k or 5k along the Greenway to raise funds and awareness that the trails exist. |
| A bike path that follows the river to Washington. |
| A campaign to make cyclists, pedestrians, and motorist alike aware of the rules of the road regarding cyclists. For instance, cyclists are considered a vehicle and should travel with traffic on the road, as opposed to on the sidewalk or traveling against traffic. It is important for everyone to be on the same level of understanding regarding the rules of the road in order to have a good coexistence between cyclist, motorists, and pedestrians. |
| A designated day in downtown Greenville with no cars would be great. Let children and adults enjoy the downtown area and town commons free of cars. |
| A flyer at 5th and Harding prompted my response. I do not think that any more crosswalks are needed until more people start respecting crosswalks. Now crosswalks are more dangerous than naked crossings. If a walker has faith that a driver knows what to do at a crosswalk and ventures forth, he will likely get run over. When no one follows the rules, it's safer to do the ol' wait and sprint. |
| a long (rails-to-trails type) bike path would be a huge asset to this community! I love to bike but don't feel safe on the busy roads. Thanks for your work on this. |
| A pedestrian bridge on 5th street near Spaight building would be VERY helpful and a LOT safer for everyone. There is more pedestrian traffic at this one location than anywhere else in Greenville. |
| A safe bike trail to Pitt CC would be most beneficial, right now, it is just too dangerous to ride down Memorial |
| A traffic circle or stoplight desperately needs to be placed at the intersection of Treybrooke Circle & Fifth Street. Also, traffic circles should replace traffic lights at many locations throughout Greenville. |
| After answering the questions I realize I have plenty of streets in my neighborhood to ride and see danger crossing Greenville Blvd. The expense of creating offroad bike paths would be prohibitive. |
| Aggressive and inattentive drivers are the main reason I don't ride my bike |
| Aggressive/Excessive driving speed unsafe for peds/bikes |
| Always have sidewalks. That is where I prefer for my children to ride/walk; crosswalk for greenway over 10th |
| Always require a bike lane for road improvements and when curb & gutter are added |
| Am so happy you are doing this... |
| arlington blvd needs immediate repaving. There are pot holes, patches, uneven manholes, uneven pavement, and crossing evans is worse than a railroad crossing! It is in serious need of repairs/repaving ASAP. |
| As a bicyclist, I feel out of place wherever I go (except trail behind stadium) - we are not equals of autos, despite the law |
| Ban cars on 5th and on 10th. |
| Been wanting something like this for a long time. |
| Being a university town, the lack of cycling is a travesty. ECU should promote bicycle use like some other campuses are doing. Climate and terrain make cycling a no brainer here. The history of poor urban design is partly to blame along with blame falling on the vast majority of people who have been acculturated into viewing the bicycle as a child's toy and not viable as a real means of transport. |
| Bicycle paths/lanes downtown is also needed |
| Bicycle safety and education for all motorists/cyclists. A robust advertising campaign featuring local artists to raise Bicycle awareness/benefits. |
| Bicycle users can be allies of car owners; lowering gas prices for all. |
| Bike Map: http://maps.google.com/maps/ms?hl=en&ie=UTF8&msa=0&msid=107957633298586466886.000488ed2f264a2fa2afa&z=14 |
| Bike paths and sidewalks are reasonable on well lit city streets. I've seen it to be common practice (even without bike paths and sidewalks) where bicyclists are given plenty of room by motorists here. Spending government money on establishing greenways is silly when there are so many important things to address. Working, productive, non-singles do not have time to bike to work, get kids to school, etc. |
| BMX biking brings in people from all over the world to protown-Greenville so why doesn't Greenville make it easier to ride to and from the BMX park? |
| build infrastructure to suit needs of average cyclists/walkers. Shared facilities---wide sidewalks for peds and bikes would be nice. I would like to be able to run/ride a bike from Davenport Farm Rd & Thomas Langston to the Panera's Food store east of Greenville and Red Banks safely. |
| Build sidewalks on Cooper Street in Winterville like Ayden is doing |
| Building and maintaining sidewalks/greenways is a great way to attract people to like and work in Pitt County |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

| |
|---|
| Can the churches have bike racks too? |
| Closer bike trails would be great. Preferably dirt, not asphalt |
| connect all greenways! that was the plan was it not? |
| Connect River Park North to Town Commons by a north river access to Green Street bridge. Lower the speed limit in town to no more than 35mph. People now drive 50-55 at 45mph areas. |
| consider investing in rubber sidewalks! save money long term, very safe, great for environment, durable yet flexible. http://www.rubbersidewalks.com/ |
| consider roundabouts and lowering the speed limits |
| continue to investigate the greenville washington bike path |
| continue to solicit feedback and ideas |
| Continuing to expand the Greenway to give more options for safe/fun/recreational locations to bike, run, and walk would be my highest priority. |
| Create the bike path between Greenville and Washington |
| Crosswalks and lighting improvements are greatly needed. Trees are needed to provide shade for pedestrians and cyclist. |
| crosswalks are desperately needed, especially on 10th St |
| crosswalks, crosswalks, crosswalks and enforce the pedestrian laws! |
| currently our family is looking at other employment because the town/county does not provide safe and available resources for cycling/walking/outdoor activities for promoting health/wellness and transportation. As town is growing the situation is getting much worse. This is not a long term safe enviroment for my children to play- or to teach them how to be 'green' by walking/cycling to school, shops, friend houses. |
| Designated bicycle lanes, pedestrian signals at major intersections, basically "bridges" over the major roads separating the very bikable neighborhoods are needed. |
| develop strategies to improve driver/motorist awareness of pedestrian "rights". while intersections may have "walk lights", the motorists often ignore this and continue through the intersection. |
| do not feel safe to walk anywhere in Gr. or sorrounding areas...even crime in parking lots of businesses |
| Do you have any further comments or ideas? |
| don't try to reinvent the wheel there are many parks that ideas can be glean from such as Town Commons in Colonie NY |
| Drivers in Greenville are the biggest problem. |
| E. 8th st. is dangerous for pedestrians needs either sidewalk or bike path between Forest Hill Circle & connection of greenway behind Wah Coates |
| Eastern NC is the least biking/skating area I have ever lived. The auto drivers do not respect bicycles & the roads have no shoulders. |
| Educate locals on legal/safe cycling habits (laws, proper side of the road, etc) |
| Finally this is happening! Thank you! |
| Find a way to include everyone in this survey. Especially those who rely upon public transportation. Its important that the plans NOT just be something that benefits those who are more economically stable or those who are the most persistent. Its a shame that the city has not put sidewalks in. Pedestrians risk their lives to go to the store or get exercise (I speak from experience). This is unacceptable considering the fact that North Carolina has high levels of obesity. If you make the city more accesible to walkers and cyclists people will walk and cycle. Simple. |
| finish, clean up, and pave the greenway trail |
| fix parking around ECU - it's HORRIBLE for students, faculty, & visitors |
| Fix the crime problem; it's untenable. |
| For intersections, would be nice to have a light that could be triggered by cyclists/pedestrians |
| for some people in Greenville making bike riding safer is a necessity not a choice for we have no cars |
| Gasoline will go up in price eventually, prepare now. |
| Generally supportive, but a group of neighbors join my wife and I in concern over using easements in our backyards when we have low traffic and sidewalks in our neighborhood already. If our backyards are also used for greenways, then we are left with zero privacy and exclusive control of our own property because the city already prohibits closing our front yards. This leaves us only our backyards for a safe enclosure where our children can play! Please do not use our backyards, but consider alternate greenway paths in front of our homes. Thank you. |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| Get ECU to offer incentives to faculty/staff who exercise. They set a bad example by charging faculty who bike commute, to shower at the rec center. We are saving on parking and wear and tear. Join the 20th century and tolerate exercise, and then join the 21st century and encourage it. |
| Get Greenville PD to see the bicyclist's side of an accident |
| Get the people who are in charge of making improvements on a bike and let them ride around Greenville and see it for themselves. |
| Give tickets to motorists who do not yield pedestrians |
| Glad you are doing this! It's good to improve recreational cycling, but commute bicycling is more important to me. |
| Good job Knox!! |
| Good job....thanks for asking the community's opinion |
| great idea didnt know this was important to a lot of people |
| Great job so far I hope to see more people biking and getting healthier |
| Great work, fully support it, we are all TOO FAT because we cannot safely ride or walk every day! |
| Greenville Blvd. needs an overhaul. Too many driveway entrances, very little organization. |
| Greenville had received a awards for their promotion of physical fitness but do not make bicycle trails and pathways around town. Their are all the sidewalks being builded but bicycles are not to ride on them. I have been to Hilton Head, S.C. where pedestrians and bicycles share the same pathways. I wish this could be done in Greenville. |
| Greenville has a good number of residential streets that would work well for bicycling. There just needs to be a way of connecting them so that cyclists feel comfortable crossing the larger and busier streets. |
| Greenville has made some advances with new sidewalks but has much more to go! what has taken so many decades?!! I've been riding my bike to PCMH for 5 yrs M-F on the sidewalk and all the way up Hooker Rd to Moye Blvd. Many at work tell me they would love to ride to work but don't know how they would get there. :(Thanks for your time! |
| Greenville is a terrific city, but there's always room for improvement. Providing better, safer and more pedestrian and bicycling paths/trails would further enhance the quality of life for all of us. Thank you for the work you're doing. |
| Greenville is long overdue for a bicylce/pedestrian path |
| Greenville needs to ahead of this and be building bike lanes and sidewalks now before more growth gets out of hand and we become more addicted to using oil only |
| Greenville's future economy depends on being a pedestrian and cycling friendly place--simply a sign of being a great city! |
| Greenway only helps college students...need work on the east side. |
| GUAB&PMP should coordinate planning with Washington/Chocowinity as well as Winterville/Farmville |
| have already put them on the interactive map! |
| Have an annual "bike-out" day or "leave the car at home" day complete with refreshments |
| have Greenville & ECU police ticket drivers who do not stop for people in cross walks. Even some cops don't stop |
| Having kids walk to school safely every day would help reduce child obesity |
| Having lived here a year, I have only ridden my bike (other than in my own little development) one time. I have not been motivated to cycle locally because of the traffic, lack of bike lanes, motorists' apparent ignorance of law regarding use of road (lane) by cyclists, etc. I did not complete questions 14 & 15 because of that and because I walk primarily on the sidewalks along Firetower Rd. (for exercise), which are better than nothing, but could use shade trees, and the traffic is fast and loud. |
| Having lived in several towns that have excellent bike/pedistrian access I can personally say that it changes the character of the community for the better. There is greater connection between residents, businesses thrive and there is a dynamism that attracts newcomers. The lack of pedestrian and bike access here in Greenville was a HUGE disincentive to us and almost led to us not accepting the jobs we were offered. If Greenville truly wants to be a thriving, dynamic town of ENC that attracts talent then it must create the infrastructure to support that type of culture. The flat terrain and generally good weather make this town an ideal location for a diversified walking and biking master plan. |
| I am an 8 year breast cancer survivor and prior to moving to Greenville, biked alot. I do not bike in Greenville because having survived breast cancer, why get killed on the roads of Pitt County??? |
| I am concerned about people in wheelchairs who have to travel on the streets!! kids should be able to ride their bikes to shopping, ice skating, parks, school without problems |
| I am considering a job offer at ECU and am considering turning it down because 3 realtors have told me it is impossible to bike commute in Greenville. Finally, one realtor put me in touch with you - and I thought I would chime in on how important bike/walking travel is for our environment, our health, and our future. Greenville is a small town in a nice climate - bike friendly commuting should be a high priority! |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| I am new to greenville - my husband and I are physicians and we want to like it here and would like to stay. The BIGGEST negative side to greenville for us is the lack of parks, trails etc to run/bike/walk in and the dangerous nature of the roads without footpaths. Developing more greenareas (esp parks & trails) should be an immediate priority of the city. There is a lot of land that is not being used and some of this land could be used for more greenareas. I also feel that there has been huge development in greenville with regard to real estate and the city should require these developers to include trails/bike paths and park areas in their development AND connect their development to neighbouring developments so that people can walk between developments rather than having to go on the busy and dangerous roads. |
| I am thrilled and hope that there will be more bike paths established in Greenville before I retire!!! |
| I am very excited that Greenville is now focusing on need for and benefit of cycling and pedestrian planning. Would greatly enhance the vitality of our community. |
| I appreciate all the sidewalks put in recently on Charles, Firetower, etc. I really think Portertown Rd needs sidewalks or a bike lane. Thank you for all the work you are putting into this! |
| I can help.....review the American river bike trail system in Sacramento, Calif |
| i could not answer the question about which intersections and/or roadways were in most need of improvement. Now keep in mind I always walk to work and to the grocery and everywhere else I can. it is difficult however. I never bike and am an avid biker. that is because it is terribly bad bike city. I am not that interested in being able to bike to work and grocery but would like a good place to bike long distance for exercise. This would be a greenway and path along the river or something like that. My parents live in Columbus GA. They have a wonderful many miles "River Walk" that has just these things and my father rides often on it. |
| I cycle back and forth to work ,but i have to leave an hour early each day because in order to find safe roads i have to zig zag my way from winterville to Sugg hwy, to my place of work.It would be of great help if there were bicycle lanes on greenville blvd and some of the main connectors leading to the main employers in the greenville area . i have had many people say they would ride to work if the roads were safer. |
| I definitely think there is a need for improvement for both cyclists and pedestrians in Greenville; especially cyclists. I think people are mad that I am not driving a car and on more than one occasion thought I was going to die. Literally! People honk and fly by you and very close range. It is VERY DANGEROUS! I would LOVE to see improvements in this area. |
| I do NOT support preventing people from riding bicycles on sidewalks. |
| I have watched 2 young men be hit and die on 2 of the roads.the are to narrow and congested. |
| i just wish we can get it done! |
| I know that there are not that many people who might use these improvements in the greater Greenville area right away. But without providing these options there is no way to encourage people and future residents to do so! |
| I look forward to the day where I have a safe place to run and bike! |
| I love the new greenway that's being built. I was just in Spokane WA, and their downtown area is thriving and safe, due in part to a 25 year investment in a beautiful greenway and park development in their downtown area. Greenville could learn from Spokane. |
| I moved from a highly bike friendly town in Fort Collins CO and wish we had the same here. It would help traffic, improve health, and be much more green. |
| I realize this is a long process, please keep at it |
| I really do wish Greenville lived up to its name by making greenways. I think it would encourage better community relations and involvement. |
| I see a Bestbuy employee, in a wheelchair going to/from work on Evans, between Firetower and Greenville Blvd. He uses the center turn lane because there's no sidewalk. It's dangerous to him as well as the motorists. I saw another motorist throw a bottle out his window at the poor guy in the wheelchair as he yelled 'get outta the road' to him. How humiliating that must have been. Give this guy a sidewalk so he can go to work . |
| I think active commuting is a lifestyle. In eastern NC this is not a lifestyle that is common and to change our sedentary behaviors active commuting must be made more available/safe. |
| I think better trails would greatly enhance the city |
| I think bike riding opportunities should be expanded in Greenville. Bike riding is a very good way to get around here, but it feels unsafe in certain area. It would be much better if crosswalks for main intersections and bike lanes were put in. |
| I think that Greenville is headed in the right direction and making the urban area a lot nicer to live in. |
| I think this project is a good thing and the residents will take advantage of the trails and additional sidewalk |
| I used to bike, and we have many friends, neighbors and a grandson who would benefit by having walk/bike paths. |
| I would like to see all railways turned to trailways |


Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| I would like to see sidewalks on every street in said areas (Greenville Blvd, 10th, Arlington, etc.) |
| I would like to see signs making motorists more aware and remind them that there are pedestrians and cyclists on the road. |
| I would love for my grandchildren to be able to ride their bikes when they come visit me. |
| I would love to help with any aspect of improving these issues |
| I would love to ride my bike farther out in Greenville, but there are no bike lanes and the drivers are very aggressive on the roads. |
| I would love to see a long biking trail that would be safe enough to go on bike rides with children. Perhaps continue the trail north of Paramore Park northward or even southward along the creek and Greenville Utilities easement. |
| I would most like to see the correct areas marked with bicycle signs connected. If I ride my bike down Elm or Arlington near JH Rose, where am I suppose to go from there? Can we have bicycle lanes that connect to one another? |
| I would think there are two or three geographic areas that could be improved to increase commuting by bicycle: 1) connecting University/downtown with student and other residential areas, 2) Connecting hospital area with other residential areas, and 3) perhaps connecting industrial area on North side of town (DSM etc) to downtown and other residential areas). Is it possible to convert any railroad paths to bicycle/pedestrian paths to help accomplish this? |
| I'm moving to Farmville because of the walking conditions in Greenville. I can walk safely and downtown to stores in Farmville but I don't see that happening anywhere else in Pitt County. |
| I'm very glad biking and walking are raising the attention for action and look forward to seeing our city become pedesrian friendly. Thanks for your work. Also, please contact EC Velo, if you have not. Feedback from bike organizations would be invaluable. http://www.ecvelo.org/ |
| If the roadways in Winterville and Greenville were more accommodating to cyclists then I would do a lot more biking in town. I already do a lot of biking for fitness purposes for much longer distances on the country roads outside of town. I would use the same mode of transportation in town to go to and from work as well as run typical errands. Not only that, but there are a lot of aggressive motorists that don't believe a cyclist has any rights to be on the road. It is quite disturbing. |
| If there is any way to enforce the speed limit on 5th and Elm streets, it would be great. I commute on my bicycle every day to class, and drivers are not considerate, never use their signals, and seem to SPEED UP when they see me in the bike lane, or crossing the streets. I would be amazed to actually see someone get a ticket for speeding or recklessly driving on 5th Street, 10th Street or Elm Street. |
| If we want to change the culture in Pitt County in regards to walking/cycling we have to have safe and visible areas for individuals. |
| If you look at Hilton Head Island's (SC) bicycle/walking paths, they have it done right. Most paths stand alone and are about 5-10 feet from the road. The paths run along nearly allmajor roadways, and probably 50% at least of all other roads. It is hard to find a time, day or night, that there aren't a TON of people riding/walking. Before I went there on vacation, I read that about 80% (I think that is right, maybe even higher) of the people in HHI ride a bike every day for one reason or another. It was so nice not to have to get in the car to go to dinner, go shopping, go see the fireworks, etc. I urge you go check out their plan. Raleigh also has a very good greenway system which allows access to numerous parts of Raleigh. On several occasions I have gone there just to ride, so no set destination. It is so nice to just get away from the traffic and all the people and still be right there in the city. |
| Improvement in biking trail would benefit the image of Greenville. |
| In a recent trip to copenhagen the bike and pedestrian plan was amazing and so user friendly - this city is extremely progressive and a great idea to model after. I think greenville could be a wonderful town if they implemented a signifiant redesign of walking and biking paths/lanes. |
| In the absence of having bike lanes on several major roads in Greenville, I think it would be helpful if more signage was in place to help remind drivers to share the roadways with cyclists. I also think that busy streets like Memorial drive & Evans St. should have sidewalks installed just like the big money areas of Greenville Blvd and 10th St. have. |
| Increase greenspace (Parks, trails, Public use areas, etc). |
| Increasing walking and biking will improve the fitness and wellbeing of our residents as well as decrease exhaust pollution from cars and busses |
| Intersection safety lights are cheap & would help a lot! |
| It is about time that these needs are being addressed |
| It is expensive to accomodate bicycles, but I would like to use the car much less. |
| It would be awesome if Greenville PD could do more to enforce pedestrian crosswalks around the university and downtown (I've noticed a lot of speed traps around town so I know they have the resources to further protect pedestrians through enforcement). Perhaps ECU cops are already doing this? |
| It would be awesome if walking & bicycling were safe! |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| it would be great to see more roads closed or reduced and biking become the primary mode of healthy transportation |
| It's getting better but we still have a LONG way to go! |
| It's great that some GREAT buses have bike racks - I could do a hybrid of bus/bike if the bike paths were better. |
| Keep working on the plan until the majority of bikers and pedestrians are accommodated |
| Let me know how I can help. schneiderp@ecu.edu |
| Let us come up with a plan fast. |
| Let's get it poppin' |
| lets crack down on distracted drivers in Greenville to prevent injury to cyclists and pedestrians |
| Look at cities the size of Greenville that are outside of the US to see what approaches they have taken towards traffic and pedestrians and how they encourage the use of these trails. |
| Look at Portland, OR, Washington, DC, and Minneapolis. Get NC DOT and Public Works thinking about complete streets. TAKE A GOOD LOOK AT THE LAST BICYCLE MASTER PLAN AND ASK WHY ITS RECOMMENDATIONS DIDN'T GET IMPLEMENTED. |
| Look at the plan in Munich, Germany. This is the best co-mingling of car, bike and pedestrian use that I have ever seen. |
| Look to Anne Arundel County Maryland (Annapolis, MD)(my hometown) They've made great strides in this area. |
| Lots of pedestrians walk from the Tar River Neighborhood to the ECU campus but there are few sidewalks. The existing bike lanes on Fifth and First streets are not continuous and cease to exist at busy intersections like at Elm Street. |
| make it rain. |
| making 5th street to 1st street would increase the amount of people walking and biking. It's a charming neighborhood lets keep it that way. |
| making motorists aware of bicycles (& peds) is a huge problem here -- drivers are unaware of non-driving folks and are sometimes disturbingly aggressive |
| Many thanks for developing the Master Plan! |
| maybe |
| more bike lanes in all areas closer to downtown. |
| more natural areas with greenways connecting them, like Austin Texas! |
| More parks are needed in Greenville |
| More parks with walking/biking trails in and around the city. |
| Most cost feasible plan that would have largest cost:benefit ratio would be to designate/paint bike lanes on major roads like Arlington, Evans, Firetower, Charles and Greenville Blvd |
| Most pedestrian activity occurs in neighborhoods or originates from within. All new development should have to include sidewalk and bike facilities for most if not all roadways. |
| Most unsafe small city / college town for walking and bicycling I have ever lived in. The values of the city managers are misplaced and appear to cater to land developers and helping their profits. |
| Motorist have no liability over bicyclist. Meaning if I get hit and there is a 1% chance its my fault I have to pay out of pocket while the driver with no way of getting injured drives home fine. Motorist need more responsibility of bicyclist and pedestrians. |
| My current challenge for biking is the loss of my favorite bike to theft. I've been reluctant to replace it and relying on an older less-love bike, mainly owing to my perception that bike theft is rampant and not well addressed in Greenville. I'll secure my bikes better in the future, but if Greenville is to be truly bike-friendly, we need to address bike theft more effectively. |
| My husband and I are considering a move to Greenville and interviewed there last week. I was very discouraged when I saw the condition of pedestrian and biking in the city. This is a huge part of our lifestyle and could be the reason we turn down jobs in Greenville. |
| My son who lives in Greenville rides his bicycle to work every day. I feel better just to know that you worry about your residents. Thank you! |
| 98145 |
| Need high priority to connect sidewalk along Evans St between Arlington Blvd and Red Banks Rd. Hazardous for walking and bicycling. |
| Need ways to slow traffic down |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| New construction, whether home, business, retail needs to build with the idea of keeping a buffer between pedestrians and bike riders and traffic. This is not only safer, but more pleasing to the eye. |
| Nice job, Daryl. - Jerry Hopfengardner |
| No - thanks for all that you are doing....very needed! |
| no, but happy something is progressing |
| North Elm Street between 1st and 5th Streets is deplorable. Sidewalks have been out in places for months. There is brush and low hanging branches that make the sidewalk unusable in areas, forcing pedestrians into traffic. Street lighting is poor and unsafe. |
| Pedestrian and Bicycle safety and accessibility should be a major priority to improve health and reduce dependance on foreign energy |
| Pedestrian/Bike trail from Town Commons to River Park North |
| Pedestrians and Cyclist need to learn the right way to use sidewalks and roadways, Walk againts, Ride with traffic. When passing on sidewalks, give way to single file. |
| People drive way too fast on 4th street because they know they can get away with it, someone is going to get hurt. |
| People use center turn lanes to walk or bicycle down quite often - this is extremely dangerous. There are no sidewalks or bike paths. |
| Plan now for a future with expensive gasoline. |
| please continue to make walking and biking a priority in Greenville. Our city should contiune to make healthy and free activities available to its residents. We need all the benefits of nature to stay healthy and sane. |
| please finnish the Greenway- -it's wonderful |
| Please get builders Kuhn and Tipton to mow their empty lots on a regular basis. We have complained to the city but to no avail. |
| please improve biking lanes around greenville |
| Please include/consider addressing bus shelters in Master Plan! Or, please direct concern to appropriate county/city agency. Thank you! |
| please install pedestrian crossing lights at all busy intersections asap |
| Please make it required that all businesses and town properties are required to have bike racks as equal parking spaces |
| Please make it safe for us who wish to commute via bike and I'll promise to be one less car congesting the road, polluting, and taking up a parking space |
| please make this a priority. i have lived in places like boulder co where alternate transportation is the norm because it's safe and easy. we have a long way to go here, but i am glad to hear about this project. it also seems that given the extensive railways around here that some could be converted into walking/biking paths analagous to what they have done up in northern virginia. |
| Please mandate bike lanes and racks in all new development and shopping malls |
| Please provide more (and larger) bicycle lanes to raise the quality and quantity of life in Greenville, NC. |
| Please put a crosswalk from Treybrooke to Brody |
| please put a sidewalk on mcgregor downs road between B's B-b-q road and Arlington Blvd. This would provide a connection between the hospital and the communities that surround it. |
| Please share opportunities for advocacy |
| Please share the road! =) |
| Please take this seriously or don't do it. Choosing a few "corridors" or "intersections" is not appropriate. This town has a crime problem- beatings, robbery and shootings in broad daylight and you want me to feel good riding a bicycle? |
| Please work actively NOW to prevent further decay of our commmunity. This community is growing more and more unhealthy for everyone as well as unsightly. We have smart people who live here who know how to improve this dilemma. Do not allow poltical interests to harm residents and decrease our quality of life! Thank you. |
| Please work on connectivity between outlying areas and the center of Greenville, including downtown and ECU |
| Possibly have the city host bicycle races/events to encourage bicycle usage, tourism, or possibly work with ECU for a bicycle team like other universities. |
| preserve and develop park lands |
| Provide bicycle education to motorists who are not aware of byclists rights to be on the road also. |
| pull up the railroad tracks and pave for bike/pedestrian |
| put more bike paths |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| railroad crossing interfere with pedestrian crosswalk signals and that needs to be fixed especially near Eppes for walking families & students |
| Rails to trails in this community |
| Raise gas prices in town to encourage conservation and stop all of the free parking! I am tired of paying for huge pavement projects that just result in greater water runoff |
| Really need traffic cams for motorists who run red lights. It's a serious problem in Greenville. |
| recently visited manhattan and they had a cycling/walking path that completely circled the city. |
| Reducing speed limits on roads for bikes is critical |
| Require motorist to give bikes at least 3 feet when passing. |
| road side trails do not have to be concrete; Maybe offroad trail for mountain bikers in the county |
| rock over london, rock on chicago |
| Seek comments at upcoming community events. |
| share the road promotion at all DMV locations; lower speed limits |
| Share the road signs are nice but not much good without road to share, ex. new sign on 14th near Elm. |
| shoulders on roads and crosswalks that lead somewhere would be most helpful. |
| Sidewalks & bike trails (paths) will be huge factor in attracting people to this area to visit and live as well as a great contribution to the health of our residents. |
| Signs at intersections that inform drivers that bicycles have the right to the entire lane. |
| stricter driver's license exam (include bike&ped awareness) |
| Thank you |
| Thank you for all the sidewalks that are being added - especially in roads around the Hospital. This is good for pedestrians but is not really helping to make cycling easier. To make cycling safer we need separate cycle lanes - physically separated from the road traffic - 'Sharing the Road' is not safe on major routes as not enough room. Could not cycles be officially allowed on sidewalks where road traffic greatest? Thank you for what is being done - better all the time! |
| thank you for doing this |
| THANK YOU for putting forth the effort to improve our city in this important area. |
| Thank you for reaching out to make improvements. |
| Thank you for the opportunity to make comments. |
| Thank you for working to improve conditions for pedestrians and cyclists - very much appreciated!! |
| Thank you for your efforts. |
| thanks |
| Thanks |
| thanks and it is about time. |
| Thanks for making this a city priority |
| thanks for the program initiative... |
| The "green" factor here is integral to promote if Greenville is going to move in that particular direction. I think biking (and mass public transportation) are going to have to take the place(s) of single-passenger car riding. It has to happen...especially with Greenville growing the way it is. |
| the bicyclists/ inhabitants of West 5th Street/ MLK need education (as do the motorists of Greenville) as to what the bicycle laws are. |
| The bike/pedestrian ramps on new Firetower are not aligned with the sidewalk. It's difficult for a bicycle to cross any intersection without having to make 45 degree turn and then back onto the road. Try it.... I ride 2500 miles / year and can't figure out what this is intended to do. |
| The changes to the downtown area have been great and just need to be expanded to other areas in Greenville. |
| The City of Greenville needs more signage to remind motorists we must stop for pedestrians in crosswalks. This is N. C. law. |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

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| The city's poor traffic management, in particular the way traffic lights are programmed, have created a culture of impatience among drivers. As a result, people are in a hurry to turn out onto roads and fail to see pedestrians or cyclists. Cyclists in Greenville often fail to follow traffic laws as well, often riding against the flow of traffic, or at night with no lights wearing dark clothing in the middle of the turn lanes - most frequently on Greenville Blvd. I have already seen one cyclist hit by a vehicle, and a pedestrian nearly hit by a vehicle after only living here 2 1/2 years. |
| The Firetower & Memorial intersection is horrible. With the addition of sidewalks out to PCC all that's been accomplished is leading pedestrians & bikers into a HEAVILY traffcked and dangerous intersection w/ no thought to our safety. |
| The improvement in bike and walking lanes in this community is in great need of revamping. It is really dangerous to ride your bike in many parts of Greenville. it is even more dangerous if you try to ride your bicycle betweebn Greenville and Bradford Creek. If a properly planned out bikcycle plan was developed, it would save Greenville a ton of money in the future. |
| The motorist has to give more respect to the cyclist! |
| The sidewalks also need to be signed that bicycle riders are not allowed on them. Bike lanes need directional arrows and the direction of traffic laws need to be enforced |
| the sidewalks on firetower are great! |
| The skateboard park should be saved. It should be a priority for Recreation & Parks and the City of Greenville. |
| the very concept of this is exciting! |
| There are several cities that have a great biking community because of the infrastructure put in place for the bikers. Many are in the state, but a great city to look out outside of the state is Fort Collins, CO. it is by far the best city I have had the pleasure of riding bike in. |
| There is a huge recreational running population in Pitt County that will benefit a great deal from this. |
| there is need of lots of sidewalk in pitt county |
| There needs to be something done to make it safer for students to walk across 10th street to ECU campus. It is terrible trying to walk across to campus. I have almost been hit numerous times, even once a car ran a red light. There are lots of students that cross 10th especially near Wendy's and the Sunshine factor, and people in cars are not concerned. I would suggest making the entire area a pedestrian walk way, and slow traffic down. |
| This is a great way to attract business and new people to Greenville. The longer you delay this project, the slower it will take for the city of greenville to grow. |
| This is great...just wish Pitt Co would do something similar |
| this is important and needs to be started ASAP. |
| This should be a big priority. Would really improve liveability and quality of life in Greenville. |
| To many to list here. |
| To many to put here |
| Upfit the 14th St RR corridor, connect Simpson, Grimesland, eventually Washington |
| Utilize Fork Swamp Canal for Greenway/Multi-Use Trail as north-south corridor |
| Very interested in this subject. |
| Walking or biking is hard for me since I have osteoarthritis. So I would like to see the people who can do these things to have better conditions for it. |
| We are probably too cheap to actually do this. |
| We just bought a house in Farmville so we can walk downtown to the hardware store, resturants, and grocery. I couldn't walk to any of these when I lived in Greenville. I could only walk within the neighborhood. |
| We need an education/ticketing campaign to convince motorists to change their behavior towards pedestrians etc. Building bike paths is not enough since crossing at intersections is a real problem. The only place where there is a sign stating that State law requires a motorist to stop at pedestrian crossings (for pedestrians) is in front of the police station. Such signs need to be at all pedestrian crossings throughout the State. |



Responses to the Question, "Do you have any other further comments or ideas?" (Cont'd)

| |
|--|
| We need continuous bike lanes and bike trails so that a good 20 miles can be put together. |
| We need fewer parking lots for cars. The best way to get people walking, biking, and taking transit is to increase the hassle of using a car. More generally, we need an urban growth ring, to preserve farmland and promote downtown development. Developers need incentives to rebuild downtown, rather than expanding the sprawl. More immediately and specifically, we need to improve walkability and bikability in the north/south corridors -- especially Evans and Charles. Evans between 14th and Fire Tower is a particular problem. I'd love to see it reduced from five lanes to four, with sidewalks and buffered bike lanes on both sides. |
| we need to connect neighborhoods -- this could be done easily by putting pedestrian/bike bridges over drainage ditches and railroad tracks |
| we need to rethink the buffer requirements, sidewalk widths, and separation from auto traffic that makes walking and biking difficult. |
| Well organized and much needed survey for the Greenville area! |
| While I like the idea of Greenways (who doesn't?), I DO NOT LIKE the idea of plowing through people's backyards as some of the "easements" presently entail. This seems to be simply a "gentler" way of forcing eminent domain on residents. Greenway plans really should stick to neighborhood streets and sidewalks (through beautiful neighborhoods, to be sure), where people are used to seeing traffic, rather than in people's backyards where their privacy is invaded. I know of a number of people who are very concerned about the greenways planned presently along drainage creeks running through their backyards. Legal right or not, is doesn't seem morally or ethically right. |
| While this is a nice idea, we should keep in mind that we are in a recession, and public funds/taxes should not be used for this type of project. |
| why are greenways paved with asphalt? |
| why can't Greenville close off some streets to car traffic every week and make it safe for everyone? |
| Why don't ECU buses have bike racks on them? |
| Why is there no person coordinating this for the city. All other cities have person for this |
| willing to be on a task force if needed |
| would be amazing to have a path along the banks of the tar river |
| Would like to know who will police this area? |
| Would like to see more crosswalks in university area |
| Would love to help in any way possible. |
| Would love to see more attention & funds sent to Greenville Greenways. Also would enjoy access to River Park North via the Greenway System. |
| Would ride my bike daily from Simpson to School of Medicine if it were not for traffic on 10th Str between Lowes and 5th Str. There are too many students/young drivers coming out and going into those apartments (Pirate's Cove/Copper Beach) combined with the commuters coming down Hwy33. I have had too many close calls and been run off the road too many times. Defeats the point of staying fit if you are risking your life to do it! |
| Would use extended length outdoor corridors for hiking/biking etc. There are plenty of corridors cleared for power lines. Why can't they be used for people or something similar created out in the country not just in town. Also, biking in Greenville/Pitt County is very dangerous. The streets are narrow the drivers awful and there is no way I would even attempt it right now. Would be happy to participate in this process but can't make it for any of the meetings. |
| Yes, enforcing traffic to honor bikes and pedestrians in marked crosswalks would help. At present, one must run to get off the road even though one has the right of way!! |
| yes! id love a footbridge between RPN and TC or the S.Tar greenway!! |
| Yes. Bike YIELD at STOP signs. Bike trip light to green? Crossbars on defective grates. Bikes allowed on residential sidewalks but pedestrian right-of-way. County towns, in friendly competition, move to official L.A.B. "bicycle-friendly" status University aim to newly established "bicycle-friendly" status. Publicize hazards of bikes on sidewalks and extreme hazard of bikes on left side unless no driveway or other intersection. Have fun events, sometimes with educational component -- both parties and walks or rides, sometimes fund-raising. Congratulate Bicycle Post on its support for L.A.B. Etc. etc. |



Outreach Documentation

A number of different methods were used to reach out to the public and disseminate information about the planning process. The following is a summary of individual outreach efforts.

- The Greenville-Pitt County Chamber of Commerce posted the following in their ‘ChamberGram’ Community News: *“The Greenville Urban Area Metropolitan Planning Organization is currently seeking input for the new Bicycle and Pedestrian Master Plan. The goals of the planning process include creating a lasting pedestrian and bicycle transportation program, identifying opportunities for bicycle and pedestrian facilities, providing connections between key destinations, and promoting safe bicycling and walking throughout the area. Click here [link to comment form] to give your opinion.”*
- The following information was sent to members of the Greenville Human Relations Council, Greenville Youth Council, and Pitt County Substance Abuse Coalition: *“We Need Your Input! The Greenville Urban Area Metropolitan Planning Organization is currently seeking input for the development of a new Bicycle and Pedestrian Master Plan. We are trying to obtain as much public input as possible and have developed online methods for doing so. The goals of the planning process include creating a lasting pedestrian and bicycle transportation program, identifying opportunities for bicycle and pedestrian facilities, providing connections between key destinations, and promoting safe bicycling and walking throughout the area. In October, there will be a total of 5 public workshops. Please feel free to drop in anytime during the workshop. You can learn about the planning process, view draft project display boards, and write and draw your input on draft maps. If you can’t make it to one of the workshops, you can still provide input by completing the online survey and the online mapping tool [links provided]. More information about the workshops are available from the project’s web site, Online comment form (survey), Online Map input, Facebook page and Twitter page [links provided].”*
- Uptown Greenville sent the following information to their members: *“One of my coworkers with the Engineering Dept. is managing the survey for the city. He is hoping to get 1000 filled out. It doesn’t take long and will be very helpful for improving pedestrian/biking conditions in the city. The survey link is on the right side of the page toward the bottom under the heading “online comment form”. Please pass along to anyone who you think might be interested.”*



- The following outreach was done in Winterville:
 - *An announcement was included in the October Town newsletter which was mailed to approximately 4,200 accounts during the first week of October.*
 - *An announcement has been running on the Town's Website since September 23 (www.wintervillenc.com)*
 - *Promotional posters and flyers are posted in the Winterville Town Hall and other Town facilities.*
 - *Presentations were made at the Planning and Zoning Board on September 20th; the Recreation Commission on September 27th; and the Town Council on October 11th. Flyers were provided to audience members and to the Board members for distribution to the public.*
 - *Announcement was provided to Pitt Community College with a request that it be shared with student population and faculty.*
 - *Copies provided to volunteer boards and commissions with a request that they help inform the public of the event.*
 - *Emails sent to local homeowners association leaders for distribution to their residents.*

- UNC Alumni sent outreach information to 150 alums.

- The Minority Business Roundtable sent the following information to it's network of people: *"We Need Your Input! The Greenville Urban Area Metropolitan Planning Organization is currently seeking input for the new Bicycle and Pedestrian Master Plan. We are trying to obtain as much public input as possible and have developed online methods for doing so. The goals of the planning process include creating a lasting pedestrian and bicycle transportation program, identifying opportunities for bicycle and pedestrian facilities, providing connections between key destinations, and promoting safe bicycling and walking throughout the area. [links provided]"*

- Pitt County Community College President G. Dennis Massey, asked "to see participation by Pitt Community College students and staff in this effort to connect our campus with other parts of our region" in an e-mail to hundreds of students that included information about the planning process.

- The Pitt County Community College Campus Cruiser PSA sent out information about public workshops.

- ECU Off Campus Student Services sent out the following information: *"The Greenville Urban Area Metropolitan Planning Organization is currently seeking input for the new Bicycle and Pedestrian Master Plan. We are trying to obtain as much public input as possible and have developed online methods for doing so. The goals of the planning process include creating a lasting pedestrian and bicycle transportation program, identifying opportunities for bicycle and pedestrian facilities, providing connections between key destinations, and promoting safe bicycling and walking throughout the area. [links provided]"*



- City of Greenville Public TV ran public workshop flyers and project information during the course of the planning process.
- Uptown E-News sent out the following information: *“Come provide input on the Comprehensive Bicycle and Pedestrian Master Plan which includes Greenville, Winterville, Ayden and Simpson. The Open House Public Workshop will be held in Greenville at Sheppard Memorial Library. For more information click here! [link provided] Also please take a moment to complete this survey for the city. It doesn’t take long and will be very helpful for improving pedestrian/biking conditions in Greenville.”*
- The Daily Reflector Editorial read as follows: *“It is wonderful to see that the Greenville Urban Area is working hard to gather public ideas and feedback as it develops its Bicycle and Pedestrian Master Plan. As our area grows in population, it is very wise of our leaders to be so forward thinking and to build the infrastructure so that every current and future person is safe as they move about town to work, home, play, shop, church, recreate, exercise and visit with one another.*

Building a city that has sidewalks and complete streets for trucks, cars, motorcycles and bikes helps everyone walk, run, jog, wheel, ride, drive, stroll and move about safely and effectively, but requires input from us all. I’d like to encourage more people to provide their suggestions and feedback on the survey at the Greenville section of the Greenways.com website.

That building work will take many years to complete. In the meantime we can all drive our cars within the speed limit, not pass within three feet of a bicyclist and keep bikes off the sidewalks while obeying the rules of the road (especially ride with the direction of traffic). This country values self-reliance, freedom, independence and adventurism. What better way is there to get that back, experience our city, socialize, become healthier, reduce our addiction and reliance on foreign oil, and have fun than to ride a bike?

With an international reputation for supporting BMX biking, a growing greenway system, easy access to the river, being a part of the East Coast Greenway planned N.C. spur trail from Maine to Florida, the Greenville area’s future for being a healthy and safe place to bike is a bright one.

Providing input, together we can make it a reality and maybe the rest of Pitt County will follow Greenville’s wise leadership. (Steven Hardy-Braz Farmville)

- EC Velo printed and distributed over 2000 cards, hundreds of emails, posted links on its website, and printed flyers which it posted at major roads and intersections, all promoting participation in the planning process.
- Spanish flyer created (see following page) and sent to the Association of Mexicans in North Carolina.



PLAN MAESTRO PARA PEATONES Y CICLISTAS



Taller Público



Visite cualquier lugar, en cualquier momento durante el taller!

Su opinión es importante. Por favor comparta sus pensamientos para hacer Greenville un lugar en la cual sea seguro y conveniente transportarse tanto a pie como en bicicleta a distintos puntos de la ciudades de Greenville, Winterville, Ayden, and Simpson.

- Ver carteles de proyectos y mapas
- Escribir y dibujar sus ideas en los mapas públicos y llenar formularios de comentarios.
- Hable con sus vecinos y el personal del proyecto acerca de cómo hacer mejor nuestras calles para caminar y andar en bicicleta

1

Winterville

19 de octubre, 3 PM hasta las 6 PM
Winterville Town Hall
2571 Railroad St

2

Greenville

20 de octubre, 3 PM hasta las 6 PM
Sheppard Memorial Library
530 Evans St

3

Simpson

21 de octubre, 3 PM hasta las 5:30 PM
Village of Simpson Town Hall
2768 Thompson St

4

Ayden

26 de octubre, 4 PM hasta las 7 PM
Ayden Community Building
548 Second Street

5

Pitt County

28 de octubre, 3 PM hasta las 6 PM
Pitt County Community Schools
& Recreation Center
4561 County Home Road
(Frente al Mercado de los Agricultores)

www.greenways.com/greenvillenc

En www.greenways.com/greenvillenc encontrará un enlace al formulario online de comentarios y a otros datos del proyecto. Daryl Vreeland con la Greenville Urban Area MPO: 252-329-4476.





- Public outreach information (project flyers, announcements, etc) were distributed to:
 - City of Greenville (City Hall)
 - Minority Business Roundtable Meetings
 - Pitt County Chamber of Commerce
 - Neighborhood Advisory Board
 - Human Relations Council
 - Greenville Bicycle Friendly Task Force
 - Greenville Youth Council
 - Pitt County Substance Abuse Coalition
 - Eastern Carolina Injury Prevention Program
 - Uptown Greenville
 - Friends of Greenville Greenways
 - Greenville Library System
 - Parks and Recreation Facilities
 - Greenville Police Department Public Information Office
 - East Carolina University Off Campus Student Services List-Serv
 - Pitt Community College “Campus Cruiser” PSAs
 - Area business and college student apartment housing complexes.
 - City of Greenville web page (link on front page)

- Letter to the Editor from the 12.12.10 Daily Reflector

I fully support any move to make Greenville a safer and more accessible biking and pedestrian town. Biking improves fitness and reduces carbon emissions, both from less exhaust fumes and comparatively less manufacturing to produce bikes. Safe cycling supports low income households and promotes social justice. It keeps us close to our environment and reduces congestion.

At the moment, cycling in Greenville is perilous. Every time I saddle up I feel like I am taking my own life in my hands. We need generous and continuous cycle lanes, driver awareness campaigns, police who follow up on damaged and stolen bikes, drivers who face penalties for hitting cyclists, subsidies for safety equipment (helmets, lights and reflectors), more places to lock bikes up and school outreach to get our children cycling to school.

Greenville is flat, full of students and car congestion — the perfect place to demonstrate how cycling can transform a town. Learn from other places — Amsterdam, Cambridge, Copenhagen — and invest in a sustainable transport policy with huge potential.

(Sarah Young, Greenville)



- **Bike/Ped Master Plan Article from the 12.10.10 Daily Reflector**
www.reflector.com/news/work-bike-plan-continues-212237

Pitt County may be a community on training wheels when it comes to infrastructure for bicycles and pedestrians, but local officials are hoping to shed those over time.

The development of a Bicycle and Pedestrian Master Plan by the Greenville Area Metropolitan Planning Organization via consultant firm Greenways Inc., began this summer. A final public input workshop was held Wednesday, though comments will be accepted through the end of the month.

Now, the hard work begins.

Greenville City Councilwoman Marion Blackburn termed the act of establishing priorities a “sticky wicket” after she and her peers received a presentation on the draft plan this week. Greenways Senior Project Manager Matt Hayes explained Wednesday they use a matrix of criteria.

Sidewalks, bike lanes, greenways and other routes will be rated based on their proximity to neighborhoods, schools, entities like the university, community college and the hospital, or existing walking and biking infrastructure.

“It’s never built in exactly that order,” Hayes said. “You’ve got to be flexible with it.”

Then, there are other components, from installing adequate bike racks to critical programming and public education requirements. For instance, should bicycles be on a sidewalk? Generally, no, Hayes said. They should go with traffic and on the road, which he noted is something a lot of local people who use biking as their primary mode of transportation aren’t aware of yet.

And the plan incorporates not only Greenville, but also Ayden, Simpson and Winterville. Each municipality underwent assessment by the steering committee and featured public outreach.

Once those priorities are set — likely by March — the final document can be used to guide improvements over the next 30 years.

“Implementation takes time,” Hayes said. “Budgets are limited for everyone. Having a plan in place gets you to those sources of funding.”

Grant money is always a desirable answer. Hayes said these improvements can be seen as having transportation, recreation, air quality, economic, healthy living, and other community-wide benefits. Often, it’s easiest to incorporate bicycle- and pedestrian-friendly components as new projects are underway, he said. When roads are repaved, paint can be added for an outside bike lane.



Hayes described the established Greenville Bicycle and Pedestrian Advisory Commission as “a huge start” for the city. They can keep watch on local projects and ensure bike and pedestrian needs are not forgotten.

The plan itself is broken down into multiple parts that assess what’s there and what could be. Detailed maps lay out every established and imagined route side by side for each municipality. A schedule for implementation is suggested.

The document later lauds the community input which rivaled and even surpassed the interest garnered in larger North Carolina cities during similar projects.

There are two main groups on the roads and sidewalks today, Hayes said. There are serious cyclists who ride with traffic and people who travel those ways because they have no other choice.

A majority of citizens may have a bike tucked away in the garage or feel like walking to work on a sunny day, but aren’t comfortable at busy intersections or on high-speed thoroughfares.

*Hayes and the steering committee want to see them out there, too.
- (Steven Hardy-Braz Farmville)*

- Letter submitted to Mr. Vreeland of the Greenville Urban Area MPO:

Dear Mr. Vreeland,

I am excited about the prospect of having more bike paths and sidewalks so we can safely leave our cars at home. If I am understanding the maps correctly there will be bike paths from B’s Barbeque Rd into town when the new construction is finished. That is most welcome! I would also really like to see bike paths added to 43 when they begin phase two of the construction so that we could bike from our road, Mill Run Rd. into the hospital and into town.

I applaud your vision of making Greenville greener and healthier for everyone who lives there and I hope and pray your vision comes true.

Thank you,

Jane Rose



- Editorial from the 12.10.10 Daily Reflector

www.reflector.com/opinion/editorials/editorial-improving-walking-cycling-access-212222

Expect a drive through Greenville to be an exercise in frustration this weekend as area shoppers descend on the city in advance of the coming Christmas gift-giving. Traffic congestion is an oft-heard complaint here, as getting around is a more exhausting and time-consuming process than appropriate for a community this size.

A comprehensive bicycle and pedestrian master plan now in development by the City Council aims to improve that situation by creating transportation alternatives that are good for health, the environment and ease of movement. Ushering that plan toward completion will take considerable time and resources, but making Greenville a cleaner, greener city is a worthy goal.

At its Monday meeting, the City Council heard a presentation by a representative of Greenways Inc., the firm hired by the city earlier this year to develop a master plan for improving bicycling and pedestrian routes. The draft blueprint covers the Greenville metropolitan area, meaning it includes the communities of Ayden, Simpson and Winterville as well as the city, and attempts to link existing greenways, sidewalks and bike paths to create a web for traveling throughout the area. The final public hearing was held on Wednesday, but the project team will receive comments through the end of the month.

The goal here is simple: Residents will be healthier — and arguably happier — by walking or cycling more frequently, and the community will see less pollution and congestion by encouraging vehicle alternatives. Such travel must be made easily accessible and should be made safe for those who utilize it. That is best achieved by developing a network of pathways near existing development and to include space for bike lanes and sidewalks in any future construction.

It is not easy to do, however. Narrow streets may not accommodate the addition of a bike lane, nor will many homeowners eagerly concede property for new sidewalks or greenway paths. In a community with so long a history, it can be a challenge to find the available space, and oftentimes those areas are where cycling or walking is most desirable.

That task will soon fall to the City Council as the final master plan is expected to be completed and presented in March. Groups advocating for more expansive and safer cycling and walking paths will be key, but it will be the general public that ultimately decides the success of this endeavor. They should lend their enthusiastic support to this effort to make Greenville an easier city in which to travel.

- (Steven Hardy-Braz Farmville)



- Letter submitted to Mr. Vreeland of the Greenville Urban Area MPO:

Dear Mr. Vreeland

As a relatively new resident of Greenville, I've been trying to keep up with the pedestrian/bicycle master plan. I was unable to attend any of the public meetings but am most impressed with the <http://www.greenways.com/greenvillenc.html> website and the information that is on the various links. We went through a similar process in Valdosta Georgia before we moved here with public input on the consultants work for a bus transit system. Greenville is much further along in this process and the pedestrian/bicycle plan looks really excellent and very well researched and thought out. I appreciate the work that has been done on this and support the effort for implementation.

*Jack Fisher
Greenville*

- Letter submitted to Mr. Vreeland of the Greenville Urban Area MPO:

Dear Mr Vreeland,

As representative of the East Carolina University's Brody Women Faculty Group to the Greenville Bicycle Friendly Task, we are pleased to see the release of the Greenville MPO Bicycle and Pedestrian Master Plan. This plan represents a major step forward to meeting the goal of allowing cyclists to use our streets and roads safely. We support the plan, and its implementation to guide future development, infrastructure and all the other pieces that will lead to our desired outcome, a city where walking and biking are encouraged, safe and widely adopted.

While this is just a first step, it is a significant one. Please let us know if there is anything else we can do to support these efforts.

*Marian Swinker, MD, MPH, FACOEM
Director, Office of Prospective Health*

- The following pages contain copies of newspaper articles and notices that ran through the course of the planning process.



The Daily Reflector, Monday, September 20, 2010

B3

FROM PAGE ONE

WALK

Continued from B1

tient therapist and director of substance abuse programs for ReStart Human Services. "We also want to try and break down some of the stigma surrounding recovering addicts."

Recovery is regarded as a prevention tool by the Substance Abuse Coalition, executive director Margaret Blackmon said.

"If parents recover from substance abuse and addiction, their children are less likely to begin," Blackmon said.

One advocate for substance abuse recovery said there is a deficit of treatment services throughout the state.

"It really makes a difference when people who have actually recovered from the disease of addiction and their families to speak out directly about their needs during recovery. Our campaign is a vehicle for doing that," said Donna Cotter, director of Chapel Hill-

based RecoveryNC. One of the obstacles advocates face is that recovering substance abusers tend to prefer to forget about their life before recovery and simply assimilate into normal society, Cotter said.

"We would like to build a statewide network of chapters and join other organizations to increase our efforts for recovery and advocate for more legislative support," she said. "We need the voices of those who know the needed services or we won't get the funding we need from the state."

Mayor Pat Dunn was impressed by the sense of hope she found at the event, she said.

"Those here who are in the recovery process realize there's hope for a better life for them," Dunn said. "That's the most important thing these services provide."

The result of providing a better life for Greenville residents through recovery also means good things for



MICHAEL ABRAMOWITZ/THE DAILY REFLECTOR

PITT COUNTY COMMISSIONER MELVIN MCLAWHORN was joined on stage by members of the Pitt County Coalition on Substance Abuse at the Greenville Town Common on Saturday as he read a proclamation declaring the first "Walk for Recovery."

the city. "Whatever is good for the quality of life for families is good for the entire city," Dunn said. "You only have to talk to the police to see how property crimes and crimes of violence — inside and outside of the

substance abuse." Greenville City Councilwoman Kandie Smith also works for ReStart, one of the event's sponsors, she brought children from her youth group to learn about the dangers of alcohol and drugs and about the importance of helping people

who are trying to turn their lives around without facing ridicule.

"We want this to be the first of many more events like it, because this problem affects so many people from all walks of life," Smith said. "We need to make the recovery process

greater through the support of all the residents of Greenville and Pitt County. We must reach many more, especially young people who might be getting ready to take those first steps toward addiction."

Smith's council colleague Marion Blackburn said she has seen the difficult struggle that people have with substance abuse and knows how important it is for all related agencies to participate in the recovery process.

"This is a great event to raise awareness," Blackburn said. "It's also important that we on the council be aware of the toll that substance abuse takes on our community, especially on young people. Whenever we can, we must give our support aggressively for good activities that catch people before they go over the waterfall of substance abuse."

Contact Michael Abramowitz at mabramowitz@reflector.com or (252) 329-9571.

TEACHERS

Continued from B1

lowing the standard course of study, then they won't have to do anything additional," she said.

Career status teachers, those who gain tenure at their fifth year, will complete their full evaluation when they renew their license every five years with informal observations twice a year. Probationary or beginning teachers will have four observations per

year during their yearly evaluation.

Instead of measuring by below standard, at standard, or above standard like the old model, the new model measures teachers' performance on the required elements as developing, proficient, accomplished or distinguished.

"We hope all our teachers are proficient. We want them to be accomplished, but we reserve distinguished for leaders who excel in the classroom and contribute to the school

and community," said Carolyn McKinney, executive director of the N.C. Professional Teaching Standards Commission.

Under the old model, 95 percent of teachers nationwide were marked above standard, McKinney said, which was not reflected in student achievement. Fewer than one percent of teachers are dismissed based on performance, so the state wanted a method that would help the other 99 percent grow and improve.

"This is a significant change in evaluations," McKinney said. "Everything goes back to the State Board of Education's mission that every student will graduate high school ready for career or further education and prepared for life in the 21st century. The alignment of the new evaluation standards to this mission will help to drive appropriate instruction and leadership in the classroom for better teaching and learning for all students."

Both McKinney and Jackson said universities, including East Carolina, are involved with the new evaluation process and updating teacher education accordingly.

"This is new to everyone in Pitt County, including all of central office staff," Jackson said. "This is a learning year. We will continue to talk about this as long as it is here."

The new teacher evaluation process is explained in a 56-page manual available on the N.C. Department of Public Instruction website — www.publicschools.org — under the professional development department page.

While the evaluation system outlined on the Pitt County Schools website is the previous model, the district will be posting the new evaluation information and materials in the near future, according to Jackson.

Contact Jackie Drake at jdrake@reflector.com or (252) 329-9567.

visit us online: www.greenvillenc.gov

THE GREENVILLE CITY PAGE

WEEK OF SEPTEMBER 20 - SEPTEMBER 26, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

Board and Commission Meetings

Greenville Utilities Commission will meet on Tuesday, September 21, at 5:30 PM in the Greenville Utilities Commission Building, 401 South Greene Street.

Planning and Zoning Commission will meet on Tuesday, September 21, at 6:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Bicycle Friendly Task Force will meet on Wednesday, September 22, at 5:00 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Pitt-Greenville Convention and Visitors Authority will meet on Thursday, September 23, at 7:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Public Safety Task Force will meet on Thursday, September 23, at 5:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Board of Adjustment meeting for September has been cancelled.

City Council Meeting Agenda

Monday, September 20, 2010
6:00 PM
City Council Chambers
200 West Fifth Street

- Horizons: Greenville's Community Plan 2009-2010 Update

Bicycle & Pedestrian Workshops

Are you interested in bicycle and pedestrian recreational and transportation activities, want more sidewalks or bike lanes in your community, or even want to influence the bicycle and pedestrian planning process? If yes is the answer to at least one of these questions, you should visit www.greenvillenc.gov/greenvillenc. Here you will find the latest project information and can provide input via online comment form, Facebook, Twitter, or through an interactive map.

Your input will be a valuable contribution to the development of this plan! At upcoming public workshops, the following information about the Comprehensive Bicycle and Pedestrian Master Plan will be discussed: (1) create an interconnected system of bicycle and pedestrian corridors, (2) increase walking and bicycling throughout the region, (3) develop a bicycle and pedestrian environment that provides confidence and safety to its users, (4) promote walking and bicycling as an alternative transportation mode, and (5) provide bicycle and pedestrian access to underserved areas of the community.

Workshops will be held at:

- Winterville: Oct 19th 3:00 PM – 6:00 PM
Winterville Town Hall
2571 Railroad St.
Winterville, NC 28590
- Greenville: Oct 20th 3:00 PM – 6:00 PM
Sheppard Memorial Library
530 Evans St.
Greenville, NC 27858
- Simpson: Oct 21st 3:00 PM-5:30 PM
Village of Simpson Town Hall
2768 Thompson St.
Simpson, NC 27879
- Ayden: Oct 26th 4:00 PM-7:00 PM
Ayden Community Building
648 Second Street
Ayden, NC 28513
- Pitt County: Oct 28th 3:00 PM – 6:00 PM
Pitt County Community Schools and Recreation Center
4561 County Home Road
Greenville, NC 27858

The Greenville Urban Area MPO invites area residents to attend these workshops and provide input. Participants will be able to view draft project display boards, learn about the planning process and work completed, fill out comment forms, and write and draw their input on draft network maps. Greenville Urban Area MPO Transportation Planner Daryl Vreeland and project consultants will be on-hand to talk with participants about the project.

For more information about the meetings and the Plan, please visit www.greenvillenc.gov/greenvillenc or contact:

Daryl Vreeland, AICP
c/o City of Greenville Public Works Department
1500 Beatty St.
Greenville, NC 27834
Phone: 252-329-4476
Fax: 252-329-4535
D.Vreeland@greenvillenc.gov

Notice of Public Meetings

The Transportation Advisory Committee will meet on Wednesday, September 22, 2010, at 10:00 AM in the Public Works Department Conference Room, 1500 Beatty Street, Greenville, NC.

The following items are on the agenda:

- Amendment to 2009-2015 Metropolitan Transportation Improvement Program (MTIP) for Project # 80-5102
- Review of Draft 2012-2018 STIP

The Citizens Recycling Committee will meet on September 21, 2010, at 5:30 PM at the Public Works Department, located at 1500 Beatty Street.

CDBG Subrecipient Funding

CDBG Subrecipient Funding Notice

The City of Greenville Community Development Department-Housing Division announces the Mandatory FY 2011-2012 Funding Cycle CDBG Subrecipient Workshop for all interested non-profit organizations. This workshop is designed to inform non-profit organizations about the requirements for applying for funds from the City of Greenville as CDBG Subrecipients. It is mandatory that a representative from the non-profit attend one of the scheduled meetings in order for that non-profit to be eligible to apply for funding. The workshops will take place on Wednesday, September 29, 2010 from 12:00 Noon – 2:00 PM and 6:00 PM – 8:00 PM at Sheppard Memorial Library, Meeting Room A, 530 Evans Street, Greenville, North Carolina.

To register, please contact Betty Moseley at 252-329-4481.

Minority Enterprise Development (MED) Celebration 2010

Networking Social & Luncheon

Thursday, September 23

For more information, contact Denisha Harris, at 329-4862 or dharris@greenvillenc.gov

Notice of Public Hearings

Notice is hereby given that the Historic Preservation Commission of the City of Greenville will hold public hearings on the 28th day of September, 2010, at 7 PM in the Council Chambers of City Hall, 200 West Fifth Street, to consider the following staff requests:

- Local Landmark designation priority list update.
- Historic Preservation revolving loan pilot program.

A copy of the applications relating to the said requests are on file in the offices of the Community Development Department located in the Municipal Building, 200 West Fifth Street, and are available for public inspection during normal working hours Monday through Friday.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed. Persons having interest in these matters and desiring to speak either for or against the requests are invited to be present and will be given an opportunity to be heard.

Appreciation for Partners

Greenville - Pitt County, NC

8K Road Race

The City of Greenville and Pitt County governments would like to thank the following businesses and organizations for their support of the inaugural Greenville - Pitt County 8K Road Race:

Suddenlink Communications, EJE Recycling, ECU Student Recreation Center, Hooker & Buchanan, PCS Phosphate, Trade Wilco, Blue Cross Blue Shield, Farror & Sons, Caremaster Clean, Boyette Orthopedics, James Bullock, TriFitness Apparel, Walmart, Minges Bottling, Mojo Sportswear, and Pitt County Community Schools and Recreation.



The Daily Reflector, Monday, October 4, 2010

B3

FROM PAGE ONE

FLOODING

Continued from B1

may not have escaped when it was abandoned Friday in rising water. Law enforcement spoke with the car owner's neighbors who stated they had seen him Saturday and Sunday, which gave Lee peace of mind.

The water was too high for Lee to see the vehicle until Sunday, he said, when the roof and upper part of the windows were revealed. He said he assumed previously that the darkened water was a shadow, but looking back on photos of the road now knows otherwise.

Lee said some roads remained impassable Sunday, but most are clear. A portion of U.S. 264 East between Greenville

and Washington, N.C., closed Friday and did not reopen Sunday, but Lee said the water level was dropping.

The N.C. Department of Transportation said it hopes that might change today if the waters of Tranter's Creek recede. The eastbound lanes of U.S. 264 were clear in places and accessible for repairs, but the westbound lanes were flooded, Lee said.

He doesn't anticipate any additional evacuations like the ones conducted in the Clarks Neck area on Friday. Clarks Neck Road reopened Sunday, but officials continued directing traffic to N.C. 33 in Grimesland, then east to Chocowinity and Washington.

"The biggest thing is getting out and checking on roads and bridges to make sure they're safe," Lee said.

State transportation officials listed the following roads closed in both directions Sunday evening because of last week's rainfall:

Hanrahan Road, near Grifton; Oakley Road, northeast of Greenville; Sheppard Mill Road, near Grimesland; Beargrass Road, northeast of Greenville; Grimesland Bridge Road, near Grimesland; Mobley's Bridge Road, near Grimesland; and Robert Little Road, near Simpson.

A full list of closings is available online at <http://tims.ncdot.gov/tims/>.

The Tar River still was rising Sunday afternoon. The National Weather Service reported the river level at 12.22 feet about 5 p.m. in Greenville. Flood stage is at 13 feet — forecasters estimate the river will peak at about 12.4 feet early Tues-

day. That contrasts to conditions at Simpson's Chicod Creek, another waterway monitored by the National Weather Service. The creek peaked at 17.41 feet Friday — well above its 10-foot flood stage — but dropped to just more than 9 feet by 5 p.m. Sunday.

Weather service forecaster Casey Dail said Sunday's light showers should clear out this morning, leaving behind not only persisting floodwaters but cooler weather. No significant rainfall is expected this week, Dail said. An estimated 16 inches fell on Greenville last week, Dail said. Other parts of Pitt County received close to 19 inches.

Contact Kathryn Kennedy at kkennedy@reflector.com or (252) 329-9566.

SENATE

Continued from B1

"I'm open to look at that," Marshall said. "Corporate execs and the very, very ultra-wealthy need to pay their fair share ... that's an American core value."

Burr said all of the Bush-era tax cuts should be extended because employers and small-business owners, many of whom pay the highest rate, are hesitating about expanding operations and hiring workers.

"In the middle of a recession, it is the worst time to think about raising taxes," said Burr, who served in the U.S. House for 10 years before moving to the Senate in 2004. "It's time for us to look at things we know have a positive impact on economic growth. It's less taxes, it's less regulations,

it's predictable policies." Burr voted against a bill signed into law this fall to provide easier credit and incentives to small businesses because it contained a new \$30 billion federal loan fund that he said would harm the fiscal health of community banks and create more government interference. Marshall supported the bill.

Burr also argues the stimulus package, which he voted against, actually increased unemployment nationwide and would have served the public better had it been converted into direct tax reductions. Marshall said she believes the stimulus package was worth the price because it prevented the nation's economy from getting even worse.

"It saved America from going off the cliff," she said.

TRAINING

Continued from B1

"It's a growing company, and I have a chance to grow with it," Wiggins said.

Derek Reddick was Wiggins' case manager and has worked with 34 different people. Most have found work.

"I have been in that seat

before," said Reddick, a recent graduate of Elizabeth City State University who has been with MCA since October 2009.

Martin Community Action also partnered with East Carolina University's College of Human Ecology, Department of Hospitality Management, to provide a Food and Beverage Training Program. The program

prepared 31 participants to work in commercial restaurants and other food service positions. The 12-week program with two classes a week taught about food preparation and safety.

Joyce Perkins was a participant in the program and now is employed by Pitt County Schools working in nutrition and food service at Farmville Central High

School.

Her case manager, Marcy Moore, worked with 29 people who all found full time work except for two are working part time.

The last program was a Dental Training Program with 10 participants. It was developed with North Carolina Dental U's Greenville location.

The class consisted of

both Dental Assistant 1 Instruction and the Dental Reception Training Program combined into one course. Graduates receive two certificates of completion from the North Carolina State Board of Dental Examiners along with certifications in OSHA, HIPAA, CPR, Dental Office Emergency and Blood borne Pathogens Control

and reception training.

The participants in the program are working to gain more experience in order to find permanent work in the dental field.

"It is an excellent program. It helped a lot and I wish we could extend it," Reddick said.

Contact Lynsey Horn at lhorn@reflector.com.

THE GREENVILLE CITY PAGE

WEEK OF OCTOBER 4 - OCTOBER 10, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

visit us online: www.greenvillenc.gov

Board and Commission Meetings

Human Relations Council will host a "Community Dialogue" based on the documentary "Real Bad Arabs" on Monday, October 4, at 7:00 PM in City Hall Council Chambers, 200 West Fifth Street.

Redevelopment Commission will meet on Tuesday, October 5, at 5:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Community Appearance Commission will meet on Wednesday, October 6, at 5:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Human Relations Council will meet on Wednesday, October 6, at 7:00 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Environmental Advisory Commission will meet on Thursday, October 7, at 5:30 PM in the Conference Room of Public Works Department, 1500 Beatty Street.

Public Notice

Notice is hereby given that the City Council of the City of Greenville will hold public hearings on the 14th day of October, 2010, at 7:00 PM, in the Council Chambers of City Hall, 200 West Fifth Street, in order to consider the adoption of the following:

Ordinance to amend the zoning ordinance

Request by Phoenix Redevelopment, LLC to amend the dining and entertainment establishment criteria to allow dining and entertainment establishments located in the CD (downtown commercial) zoning district to have amplified audio entertainment after 11:00 PM on any Thursday in addition to Friday and Saturday as permitted under the current code.

Request by Alicia Speight Hawk to amend the CH (heavy commercial) and CG (general commercial) zoning districts public street right-of-way building setback from not less than 50 feet to not less than 20 feet.

Ordinance to annex the following described contiguous territories, requested by petition filed pursuant to G. S. 160A-31, as amended:

To Wit: Being all of that certain property as shown on the annexation map entitled "Midgette Investments, LLC" involving 1.810 acres as prepared by Gary S. Miller & Associates, P.A.

Location: Lying and being situated in Greenville Township, Pitt County, North Carolina, located east of Allen Road approximately 200 feet north of its intersection with Dickinson Avenue. This annexation involves 1.810 acres.

To consider:

1. A request by Melvin Lynn Elam, d/b/a Red White & Blue, for a certificate of convenience and necessity to expand an existing taxicab service.
2. A request by Christopher Alan Rupp, d/b/a The Buccaneer Transportation Service, for a certificate of convenience and necessity to establish and operate a bus service.
3. A request by Martin Edward Tanski, d/b/a Peddlin' Pirates, for a certificate of convenience and necessity to establish and operate a taxicab service.
4. A request by Elliott Land, d/b/a Signature Limousine & Transport Service, Inc., for a certificate of convenience and necessity to establish and operate a limousine service.

Copies of all application packets and their related franchise ordinances are on file at the City Clerk's office located at 200 West Fifth Street and are available for public inspection during normal working hours Monday through Friday. All interested citizens are encouraged to attend the public hearing, at which time they will be afforded an opportunity to be heard. For more information, contact Carol Berwick, City Clerk, at (252) 329-4422 or by email at cberwick@greenvillenc.gov.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed. Persons having interest in these matters and desiring to speak either for or against the proposed ordinances are invited to be present and will be given an opportunity to be heard.

A copy of the maps, plans, and ordinances are on file at the City Clerk's office located at 200 West Fifth Street and are available for public inspection during normal working hours Monday through Friday.

October 10: The Greenville Choral Society
ALL SHOWS WILL BE AT 3 PM
IN THE GREENVILLE TOYOTA AMPHITHEATER
AT THE TOWN COMMON | 100 EAST 1ST STREET
FOR MORE INFO, CALL 329-4567

Bicycle & Pedestrian Workshops

Are you interested in bicycle and pedestrian recreational and transportation activities, want more sidewalks or bike lanes in your community, or even want to influence the bicycle and pedestrian planning process? If yes is the answer to at least one of these questions, you should visit www.greenvillenc.gov/greenvillenc. Here you will find the latest project information and can provide input via online comment form, Facebook, Twitter, or through an interactive map.

Your input will be a valuable contribution to the development of this plan! At upcoming public workshops, the following information about the Comprehensive Bicycle and Pedestrian Master Plan will be discussed: (1) create an interconnected system of bicycle and pedestrian corridors, (2) increase walking and bicycling throughout the region, (3) develop a bicycle and pedestrian environment that provides confidence and safety to its users, (4) promote walking and bicycling as an alternative transportation mode, and (5) provide bicycle and pedestrian access to underserved areas of the community.

| | | |
|--|---|---|
| <p>Public workshops will be held as follows:</p> <p>1. Winterville Oct 19 3:00 PM - 6:00 PM Winterville Town Hall 2371 Railroad Street Winterville, NC 28590</p> | <p>2. Greenville Oct 20 3:00 PM - 6:00 PM Sheppard Memorial Library 530 Evans Street Greenville, NC 27858</p> | <p>3. Simpson: Oct 21 3:00 PM-5:30 PM Village of Simpson Town Hall 2768 Thompson Street Simpson, NC 27879</p> |
| <p>4. Ayden Oct 26 4:00 PM - 7:00 PM Ayden Community Building 548 Second Street Ayden, NC 28513</p> | <p>5. Pitt County Oct 28 3:00 PM - 6:00 PM Pitt County Community Schools and Recreation Center 4561 County Home Road Greenville, NC 27858</p> | |

The Greenville Urban Area MPO invites area residents to attend these workshops and provide input. Participants will be able to view draft project display boards, learn about the planning process and work completed, fill out comment forms, and write and draw their input on draft network maps. Greenville Urban Area MPO Transportation Planner Daryl Vreeland and project consultants will be on-hand to talk with participants about the project.

For more information about the meetings and the Plan, please visit www.greenvillenc.gov/greenvillenc or contact:

Daryl Vreeland, AICP
 620 City of Greenville Public Works Department
 1500 Beatty St.
 Greenville, NC 27834
 Phone: 252-329-4476
 Fax: 252-329-4535
DVreeland@greenvillenc.gov

Notice

Notice is hereby given that the City Council of the City of Greenville intends to authorize the lease of real property by the adoption of a resolution at its regular meeting to be held at 7 PM on the 14th day of October, 2010, in the Council Chambers of City Hall, 200 West Fifth Street. The lease will be to the State of North Carolina for a portion of the Intergenerational Center, consisting of the school, for a term of fifteen (15) months, and for an annual rental payment of one dollar. Other provisions of the lease relating to matters including, but not limited to, the responsibility for utilities and repairs and maintenance are set forth in the Lease Agreement. A copy of the Lease Agreement is available for public inspection in the Office of the City Clerk during regular business hours.

APPENDIX A: PUBLIC INVOLVEMENT A-33

WORLD

Trapped Chilean miners so confident of rescue they argue over who's out last

The Associated Press were so giddy with confidence, officials said Sunday, they were arguing over who would be the last to take a twisting 20-minute ride to the surface and embrace those they love. Officials have drawn up a tentative list of the order in which the 33 miners should be rescued, but the Chilean Minister Jaime Manalich said the otherwise cooperative miners were squabbling about it — so sure of the exit plan that they are asking to let their comrades be first to reach the surface, probably on Wednesday. "They were fighting with us yesterday because everyone wanted to be at the end of the line, not the beginning," he told reporters. Manalich said that a few, in private conversations among themselves, have volunteered to go up first. "But no one has done so publicly," he added.



THE GREENVILLE CITY PAGE WEEK OF OCTOBER 11 - OCTOBER 17, 2010

visit us online: www.greenvillenc.gov

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

Board and Commission Meetings

Greenville Climate Protection Partnership will meet on Tuesday, October 12, at 5:30 PM in the Public Works Conference Room, 1500 Beatty Street.

Affordable Housing Loan Committee will meet on Wednesday, October 13, at 3:00 PM in the City Hall Council Chambers, 200 West Fifth Street.

Recreation and Parks Commission will meet on Wednesday, October 13, at 5:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Police Community Relations Commission will meet on Wednesday, October 13, at 7:00 PM in the Eppes Recreational Center, 400 Nash Street.

Pitt-Greenville Airport Authority will meet on Thursday, October 14, at 5:00 PM in the Conference Room of the Airport Terminal Building at the Pitt-Greenville Airport, Airport Road.

Public Hearings

Notice is hereby given that the City Council of the City of Greenville will hold public hearings on the 14th day of October, 2010, at 7:00 PM, in the Council Chambers of City Hall, 200 West Fifth Street, in order to consider the adoption of the following:

Ordinance to amend the zoning ordinance Request by Phoenix Redevelopment, LLC to amend the dining and entertainment establishment criteria to allow dining and entertainment establishments located in the CD (downtown commercial) zoning district to have amplified audio entertainment after 11:00 PM on any Thursday in addition to Friday and Saturday as permitted under the current code.

Request by Alicia Speight Hawk to amend the CH (heavy commercial) and CG (general commercial) zoning districts public street right-of-way building setback from not less than 50 feet to not less than 20 feet.

1. A request by Melvin Lynn Elam, d/b/a Red White & Blue, for a certificate of convenience and necessity to expand an existing taxicab service.
 2. A request by Christopher Alan Rupp, d/b/a The Buccaneer Transportation Service, for a certificate of convenience and necessity to establish and operate a bus service.
 3. A request by Martin Edward Tanski, d/b/a Peddlin' Pirates, for a certificate of convenience and necessity to establish and operate a taxicab service.
 4. A request by Elliott Land, d/b/a Signature Limousine & Transport Service, Inc., for a certificate of convenience and necessity to establish and operate a limousine service.
- For more information, contact Daryll Vreeland, City Clerk, at (252) 329-4422 or by email at cbawick@greenvillenc.gov.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed. Persons having interest in these matters and desiring to speak either for or against the proposed ordinance and requests are invited to be present and will be given an opportunity to be heard. A copy of the maps, plans, applications, and ordinances are on file at the City Clerk's office located at 200 West Fifth Street and are available for public inspection during normal working hours Monday through Friday.

City Council Meeting Agendas

- Monday, October 11, 2010**
6:00 PM
City Council Chambers
200 West Fifth Street
1. Minutes from the August 23, 2010 joint City Council-Greenville Utilities Commission meeting
 2. First reading of an ordinance granting a bus franchise to Christopher Rupp, d/b/a The Buccaneer Transportation Service
 3. First reading of an ordinance granting a limousine franchise to Elliott Land, d/b/a Signature Limousine & Transport Service, Inc.
 4. First reading of an ordinance granting a limousine franchise to Melvin Lynn Elam, d/b/a Red, White & Blue
 5. First reading of an ordinance granting a taxicab franchise to Martin Tanski, d/b/a Peddlin' Pirates
 6. First reading of an ordinance granting a taxicab franchise to Sani Sello, d/b/a Unity Cab Company
 7. First reading of an ordinance granting a taxicab franchise to Valentine Perkins, d/b/a Earlydays Taxicab Company
 8. Agreement for federal lobbying services with The Ferguson Group
 9. Amendment #5 to the contract with Kinley-Horn and Associates, Inc. to perform the survey and data collection portion of the final design phase of the Slatonsburg Road/Fifth Street Connector Project
 10. Resolution declaring police canine Sam as surplus property and authorizing his disposition to Officer Bruce Crocchia
 11. Resolution authorizing the abandonment of utility easements for The Province at Greenville
 12. Findings resolution for Greenville Utilities Commission bond refunding
 13. Budget ordinance amendment #3 to the 2010-2011 City of Greenville budget (Ordinance No. 10-57), amendment to the Convention Center Expansion/Streetscape Capital Project Fund (Ordinance No. 07-139), amendment to the Wayfinding Capital Project Fund (Ordinance No. 06-65), and amendment to the Health Insurance Fund (Ordinance No. 10-18)
 14. Report on bid awarded
 15. Resolution approving an amendment to the Board and Commission Policy relating to nominations to certain boards and commissions
 16. Presentations by boards and commissions
 - a. Historic Preservation Commission
 17. Redevelopment Commission authorization to sell real property located at 814 West Fifth Street
 18. Center City Parking Facility Station Project
 19. Funding to install a pedestrian refuge island where the Green Mill Run Greenway crosses Tenth Street
 20. Amendment to Employee Dental Benefit Program
 21. Downtown security requirements and costs
 22. Ordinance to establish a minimum waiting period between the date a petition to amend the Future Land Use Plan Map is denied and the initiation of a subsequent similar petition
 23. Discussion of Code of Ethics

- Thursday, October 14, 2010**
7:00 PM
City Council Chambers
200 West Fifth Street
1. Appointments to boards and commissions
 2. Ordinance requested by Phoenix Redevelopment, LLC to amend the dining and entertainment establishment criteria to allow dining and entertainment establishments located in the CD (Downtown Commercial) zoning district to have amplified audio entertainment after 11:00 p.m. on any Thursday in addition to Friday and Saturday as permitted under the current City Code
 3. Ordinance requested by Alicia Speight Hawk to amend the CH (Heavy Commercial) and CG (General Commercial) zoning districts public street right-of-way building setback from not less than 50 feet to not less than 20 feet
 4. Ordinance to annex the Midgette Investments, LLC property involving 1,810 acres located east of Allen Road approximately 200 feet north of its intersection with Dickinson Avenue
 5. Second reading and final adoption of an ordinance granting a bus franchise to Christopher Rupp, d/b/a The Buccaneer Transportation Service
 6. Second reading and final adoption of an ordinance granting a limousine franchise to Elliott Land, d/b/a Signature Limousine & Transport Service, Inc.
 7. Second reading and final adoption of an ordinance granting a taxicab franchise to Melvin Lynn Elam, d/b/a Red, White & Blue
 8. Second reading and final adoption of an ordinance granting a taxicab franchise to Martin Tanski, d/b/a Peddlin' Pirates
 9. Presentation on eco/nature based tourism
 10. Progress update on the Greenville Urban Area Metropolitan Planning Organization Bicycle and Pedestrian Master Plan
 11. Resolution approving an agreement with the State of North Carolina to lease the school building at the Lucille W. Gorham Intergenerational Center
 12. Contract award for the development of the Eastside Park Master Plan
 13. Conveyance of City-owned property located at 408 Castille Street by private sale to Streets to Home
 14. Status of the Thomas Langston Road Extension Project

Bicycle & Pedestrian Workshops

Are you interested in bicycle and pedestrian recreational and transportation activities, want more sidewalks or bike lanes in your community, or even want to influence the bicycle and pedestrian planning process? If yes is the answer to at least one of these questions, you should visit www.greenvillenc.gov/greenvillenc. Here you will find the latest project information and can provide input via online comment form, Facebook, Twitter, or through an interactive map.

Your input will be a valuable contribution to the development of this plan! At upcoming public workshops, the following information about the Comprehensive Bicycle and Pedestrian Master Plan will be discussed: (1) create an interconnected system of bicycle and pedestrian corridors, (2) increase walking and bicycling throughout the region, (3) develop a bicycle and pedestrian environment that provides confidence and safety to its users, (4) promote walking and bicycling as an alternative transportation mode, and (5) provide bicycle and pedestrian access to underserved areas of the community.

- Workshops will be held at:
- | | |
|--|---|
| 1. Winterville Oct 19th 3:00 PM – 6:00 PM Winterville Town Hall 2571 Railroad St. Winterville, NC 28590 | 2. Greenville Oct 20th 3:00 PM – 6:00 PM Sheppard Memorial Library 530 Evans St. Greenville, NC 27858 |
| 3. Simpson Oct 21st 3:00 PM-5:30 PM Village of Simpson Town Hall 2768 Thompson St. Simpson, NC 27879 | 4. Ayden Oct 28th 4:00 PM -7:00 PM Ayden Community Building 548 Second Street Ayden, NC 28513 |
| 5. Pitt County Oct 28th 3:00 PM – 6:00 PM Pitt County Community Schools and Recreation Center 4561 County Home Road Greenville, NC 27888 | |

The Greenville Urban Area MPO invites area residents to attend these workshops and provide input. Participants will be able to view draft project display boards, learn about the planning process and work completed, fill out comment forms, and write and draw their own draft network maps. Greenville Urban Area MPO Transportation Planner Daryll Vreeland and project consultants will be on-hand to talk with participants about the project. For more information about the meetings and the Plan, please visit www.greenvillenc.gov/greenvillenc or contact:

Daryll Vreeland, AICP
c/o City of Greenville Public Works Department
1500 Beatty St.
Greenville, NC 27834
Phone: 252-329-4476
Fax: 252-329-4435
DVreeland@greenvillenc.gov



October 17: The Pitt Community College Symphony Orchestra
ALL SHOWS WILL BE AT 3 PM
IN THE GREENVILLE TOYOTA AMPHITHEATER
AT THE TOWN COMMON | 100 EAST 1ST STREET
FOR MORE INFO, CALL 329-4567

Notice of Public Meeting

The Transportation Advisory Committee will meet on Wednesday, October 13, 2010, at 10:00 AM in the Public Works Department Conference Room, 1500 Beatty Street, Greenville, NC.

The following items are on the agenda:

- Develop 2012-2018 MTPP strategies
- Discussion of MPO staffing levels
- Comment on Mobility Fund project criteria

For more information, contact Daryll Vreeland at 329-4476.

Public Hearings

Notice is hereby given that the Historic Preservation Commission of the City of Greenville will hold public hearings on the 26th day of October, 2010, at 7 PM in the Council Chambers of City Hall, 200 West Fifth Street, to consider the following requests:

1. Application by East Carolina University for a Certificate of Appropriateness (COA) to install a wrought iron fence in the front yard located at 605 East Fifth Street, parcel number 28887.
 2. Amendment to Rules of Procedure: Local Landmark Designation Process.
- A copy of the applications relating to the said requests are on file in the offices of the Community Development Department located in the Municipal Building, 201 West Fifth Street and are available for public inspection during normal working hours Monday through Friday.
- On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed. Persons having interest in these matters and desiring to speak either for or against the proposed requests are invited to be present and will be given an opportunity to be heard.

BLOOD DRIVE
Wednesday, October 13,
11:00 AM – 4:00 PM
Greenville Aquatics & Fitness
Center, 921 Stoton Blvd
All blood types are needed, so come on out and donate to help someone in need!



FROM PAGE ONE

SALISBURY

Man threatens officer, killed

A Salisbury police officer shot and killed a man who investigators say beat his father with a bat before threatening the officer.

James Richard Brown, 48, was killed Saturday after police say he ignored Officer J.R. Cable's command to drop his bat and instead went after the officer. Cable is on administrative duty while the shooting is investigated by state police.

Brown's father was taken to a local hospital, but his injuries were not thought to be life-threatening.

Brown has a long criminal history dating back to at least 1982 and including convictions in North Carolina for assault, drunken driving and drug possession. He also has a couple of assault convictions that have him on sex offender registries in North Carolina and Florida.

GREENSBORO

Club loses license after shooting

State alcohol officials suspended the liquor permits of a Greensboro nightclub after police say workers failed to report a shooting and denied it ever happened.

LAX Gentlemen's Club had liquor license suspended after the Nov. 7 shooting that left one man wounded.

Police documents show the shooting happened outside the club after security workers removed several people who were fighting.

Investigators said club workers refused to call 911 and told a friend of the wounded man to take him to the hospital, which reported the shooting.

Officials said the club's manager denied that there was a fight or shooting, but investigators said surveillance video showed that club workers had used bleach to clean up the scene.

NASH COUNTY



ALAN CAMPBELL/ROCKY MOUNT TELEGRAM

DYLAN SKINNER, 4, sits on the lap of his father, Kris Skinner, during the Save the River Rally on Sunday at the intersection of N.C. 97 and Tar River Church Road near the proposed Sanderson Farms poultry processing plant.

STEDMAN

Confederate soldier remembered

A Confederate soldier who died 147 years ago and was buried in a mass grave has been memorialized at the cemetery that holds the remains of the family he left behind to go to war.

The service for Pvt. Edward Cashwell was held Saturday at a small cemetery east of Stedman. The Sons of Confederate Veterans buried a small casket of dirt from the site of the mass grave at the burial site for Cashwell's widow and other family members.

Cashwell's great-grand-son, James Cashwell, attended the service.

Edward Cashwell died of typhoid fever 15 months after enlisting at the age of 29. He left behind a wife and five young children.

From Associated Press reports

CENTER

Continued from B1

quickly is pretty amazing."

The education program began in June 2009, funded by a \$240,000 grant from the N.C. Department of Public Instruction, and is directed by Sutton. It provides supplemental education in math, science, reading and social studies to 115 city and county children in a non-traditional, hands-on teaching style, with an outreach worker and volunteer in each classroom.

"We're not just supporting the children's educational development, but also supporting the school system and the community," Sutton said.

Other on-site activities include chess, music, art, crime prevention classes from the Pitt County Sheriff's Office, physical education and community gardening. Students also take



"Every day I am amazed at the reputation that this center has achieved at the university, in city government and all the different levels of the community. That is very helpful in cultivating the resources that come here."

Kerry Littlewood

Lucille Gorham Intergenerational Community Center executive director

trips to places such as the N.C. Zoo, the N.C. Planetarium and the battleship USS North Carolina.

Throughout the September-May process, the children's progress is evaluated and adjustments are made that target each student's needs, Sutton said.

The 21st Century Community Learning Center also provides the Summer Significance Camp to keep children actively engaged during the school break, Sutton said.

Other programs for youth at the LGICC include the Youth at Work and Youth Apprenticeship Program (Y.A.P.) provided by STRIVE through a grant from the Greenville Police Department, and music appreciation classes with musician and historian Michael Garrett.

But the Lucille Gorham Center is "intergenerational," after all, and programs for other ages arrive via, as well, Moody said.

Health screenings for

neighborhood residents are held, quilting club members gather for social companionship and productive activities, gardening plots are cultivated, and work training and job skills classes are available.

"Every day I am amazed at the reputation that this center has achieved at the university, in city government and all the different levels of the community," Littlewood said.

"That is very helpful in cultivating resources to bring to the

center."

The Lucille Gorham Intergenerational Community Center has become a state and national model for excellence in community service, said Judy Sigawa, dean of the College of Human Ecology at ECU. It all springs from the humble efforts of the staff at the center and the university to follow Bass' lead of offering friendship and encouragement to individuals who wish to better themselves and the community in which they live, Moody said.

"People are still grieving over Leslie's death, but I want them to have some joy, too. Leslie liked to party and enjoy life, so we like to have a great time doing the work we do," Moody said.

Contact Michael Abramowitz at mabramow@reflector.com or (252) 329-9571.

REPORT

Continued from B1

to the county zoning ordinance to include miscellaneous educational services in the list of uses under the heading educational and institutional uses.

Miscellaneous educational services would be defined as "an establishment or facility that provides academic or technical instruction, as well as educational services, and is not otherwise classified as an elementary or secondary school, college, university or technical institute. This definition also includes after-school programs which operate less than four hours per day and are not otherwise classified as a child day care facility."

Contact Ginger Livingston at glivingston@reflector.com or (252) 329-9570.

THE GREENVILLE CITY PAGE

WEEK OF NOVEMBER 15 - NOVEMBER 21, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

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Board and Commission Meetings

Citizens Recycling Committee will meet on Tuesday, November 16, at 5:30 PM in the Public Works Conference Room, 1500 Beatty Street.

Greenville Utilities Commission will meet on Tuesday, November 16, at 5:30 PM in the Greenville Utilities Commission Building, 401 South Greene Street.

Planning and Zoning Commission will meet on Tuesday, November 16, at 6:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Sheppard Memorial Library Board will meet on Wednesday, November 17, at 5:30 PM in the Conference Room at Sheppard Memorial Library, 530 Evans Street.

Bicycle and Pedestrian Commission will meet on Wednesday, November 17, at 6:00 PM in City Hall Council Chambers, 200 West Fifth Street.

Special Task Force on Public Safety will meet on Thursday, November 18, at 5:30 PM in the Greenville Police Department 3rd Floor Conference Room, 500 South Greene Street.

Pitt-Greenville Convention and Visitors Authority will meet on Thursday, November 18, at 5:30 PM in the Convention and Visitors Bureau, 303 SW Greenville Boulevard.

Board of Adjustment will meet on Thursday, November 18 at 7:00 PM in the City Hall Council Chambers, 200 West Fifth Street.

Notice of Public Hearings

Notice is hereby given that the Historic Preservation Commission of the City of Greenville will hold public hearings on the 23rd day of November, 2010, at 7PM in the Council Chambers of City Hall, 200 West Fifth Street, to consider the following request:

1. Application by Sheppard Memorial Library for a Certificate of Appropriateness (COA) for the installation of two awnings at 200 Evans Street, parcel number 29214.

A copy of the application relating to the request is on file in the Community Development Department located in the Municipal Building, 201 West Fifth Street, and is available for public inspection during normal working hours Monday through Friday.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed.

Persons having interest in this matter and desiring to speak either for or against the request are invited to be present and will be given an opportunity to be heard.

The Planning and Zoning Commission will hold a public hearing on November 16, 2010 to receive public comment on an ordinance amending the zoning regulations concerning urban beekeeping. The hearing will be held at 6:30 PM in the City Council Chambers located on the third floor of City Hall, 200 West Fifth Street. Interested persons are encouraged to attend the hearing and will be afforded an opportunity to speak concerning the proposed zoning ordinance amendment and related recommended amendments to the animal control ordinance. Copies of the proposed ordinances are available for public inspection in the Planning Office, Monday through Friday, 8:00 AM to 5:00 PM. For additional information, please call the Community Development Department, Planning Division, at 252-329-4498.

The City of Greenville and the Greenville Urban Area Metropolitan Planning Organization (MPO) invite residents of Pitt County to attend a public meeting on the MPO-wide Comprehensive Bicycle and Pedestrian Master Plan on Wednesday, December 8, 2010 at 6:00 PM at the Pitt County Community Schools and Recreation Center located at 4561 County Home Road (across from the Farmer's Market).

Participants will be able to view draft project display boards, hear a presentation of work completed, fill out comment forms, and write and draw their input on draft network maps. Daryl Vreeland, Greenville Urban Area MPO Transportation Planner and project consultant, Greenways Incorporated, will be on-hand to talk with participants about the project. Public comment is encouraged and welcome.

The meeting will begin promptly at 6:00 PM and will conclude at 8:00 pm. For more information about the meeting and the study, please visit www.greenways.com/greenvilenc.html, connect with the project on Facebook at Greenville MPO Bicycle and Pedestrian Plan, or contact:

Daryl Vreeland, AICP
Transportation Planner
The Greenville Urban Area MPO
c/o City of Greenville Public Works Department
1500 Beatty Street
Greenville, NC 27834
Phone: 252-329-4476
Fax: 252-329-4535
Dvreeland@greenvilenc.gov

Request for Bids

A request for bids for the Gymnasium HVAC for Greenville Aquatics & Fitness Center Project. Sealed proposals for construction of "Gymnasium HVAC for Greenville Aquatics & Fitness Center" will be received until 2:00 PM on December 9, 2010, in the main conference room of the Greenville Recreation and Parks Department at 2000 Cedar Lane, Greenville, NC 27858 at which time and place, bids will be opened and read.

The "City of Greenville Prequalification Form" will be received until 2:00 PM on November 18, 2010, at the front desk of the Greenville Recreation and Parks Department at 2000 Cedar Lane, Greenville, NC 27858.

Submission of this form is mandatory for bidders.

A non-mandatory pre-bid meeting will be held for all interested bidders at 2:00 PM on November 30, 2010, in the gymnasium of the Greenville Aquatics & Fitness Center at 921 Stalon Road in Greenville, NC. The meeting will address project specific questions, issues, bidding procedures and bid forms. Attendance at this meeting is not mandatory.

Complete plans and specifications for this project can be obtained from:

Stanford White, Inc.
1620 Midtown Place
Raleigh, NC 27609
P - 919-832-8118
F - 919-832-8120

during normal office hours after November 8, 2010, upon submitting a plan deposit of \$100.

The City of Greenville reserves the unqualified right to reject any and all proposals.

Public Notices

The City is proposing to restrict truck traffic along First Street and Brownlee Drive between Greene Street and East Fourth Street. Public Works staff has observed frequent use of First Street and Brownlee Drive as a cut-through by trucks. Due to the volume of truck traffic and their associated heavy loads, roadway pavement has been damaged. First Street and Brownlee Drive serve as minor thoroughfares, but are not intended for truck traffic.

This would not restrict local truck traffic in the area.

Please contact Stacey Pigford, Assistant Traffic Engineer, at (252) 329-4678 with any comments or concerns.

Event Notice

Tax Tips for Small Business: US Internal Revenue Service (IRS) Workshop

This MWBE sponsored event will be held at the Lucille W. Gorham Intergenerational Community Center, 1100 Ward Street, on Thursday, November 18 at 5:30 PM.

Selected topics for this workshop include: Record Keeping, Estimated Taxes, New Health Care Requirements, Tax Avoidance Schemes, and Hiring a Tax Professional.

The presenter for this workshop will be Evelyn J. Williamson of the US Internal Revenue Service. For more information, contact Denisha Harris, 252-329-4862 or dharris@greenvilenc.gov

FROM PAGE ONE

DURHAM

Rhodes Scholars selected

Two students at the University of North Carolina at Chapel Hill and one at Duke University have been named Rhodes Scholars for 2011.

The scholarships, announced Sunday, provide all expenses for two or three years of study at Oxford University in England. Their value averages about \$50,000 a year.

UNC's Paul Shorkey Jr. of Charlotte is majoring in psychology and business administration and will work toward a degree in psychology research at Oxford. Laurence Deschamps-Laporte of Repentigny, Quebec, Canada, is majoring in international studies at UNC and will seek a degree in development studies.

Duke's Jared Dunmon of Cincinnati is majoring in mechanical engineering with a minor in economics. He will seek a degree in engineering science at Oxford.

RALEIGH

Aid for students running low

The state fund that provides grants for low-income students to go to North Carolina colleges and universities is running low.

The fund has given students more than \$210 million this year. But only \$34 million in lottery money is guaranteed for next year.

And major increases in tuition for the past 10 years is quickly depleting the primary source of financial aid funding — North Carolina's unclaimed property fund.

State Treasurer Janet Cowell said that fund will run out of money in 2012 if withdrawals continue at the current level.

About 90,000 to 100,000 low- to middle-income students receive state grants that do not have to be repaid. Most of those students also still have to use loans for room, food and books.

ELIZABETH CITY



THOMAS J. TURNER/THE DAILY ADVANCE
SANTA CLAUS gives 4-year-old Sydney Abeyounis a pinch on the cheek as she sits on his lap at Southgate Mall on Saturday.

CONCORD

Speedway opens Christmas lights

Race fans will get a chance to drive the Charlotte Motor Speedway, but they will be driving at looking-at-Christmas-lights speeds.

The speedway opens its 1 million LED holiday display today.

Track officials say they expect more than 60,000 vehicles and a total of 250,000 people to drive by the displays on the track and in the infield during the six-week program.

There will be almost 500 different displays, including a nativity scene with live actors, carriage rides, decorated trees and, of course, Santa.

One display will synchronize lights with holiday music that visitors can tune in on a specified FM radio station.

The display will be open until Jan. 2.

From Associated Press reports

LEADERS

Continued from B1

Now 58, his hair and beard in differing shades of gray, Berger still runs early each morning. Often ready with a witty comment for reporters in Raleigh, Berger also brings his program designed skills to skits at the annual dinner theater at First Presbyterian Church in Eden.

"He's very approachable. He's got a great sense of humor," said Scott Flanagan, who attends First Presbyterian with Berger. "He's just a regular Joe."

Tillis was born in Jacksonville, Fla., and his father's work as a draftsman had his family moving all over the Southeast — Tillis relocated 18 times before he was 20 years old.

That movement didn't stop while an adult. Tillis worked for high-tech companies and consulting firms in places such as Chattanooga, Tenn., Atlanta and northern Virginia. His wife, Susan, and two

GRANTS

Continued from B1

Health Center. Access East, along with Greene County Health Care, operates the Bernstein Center, a full-service, federally qualified health center for a medical home for 3,500 low-income North Carolinians. Access East serves 130,000 people through its community care plan, the largest such network in the state.

Dr. Tom Irons, ECU associate vice chancellor for regional health services, chairs the Access East board. Jim Balus, administrator for regional health plans at University Health Systems of Eastern Carolina, serves as executive director.

Through the grant, Access East will reduce the need for emergency care by providing new access to primary and specialty care, case management, medication assistance and preventive health services for 400 low-income, uninsured Pitt County adults.

In celebration of its 10th anniversary, the BCBSNC Foundation is investing \$1 million in 10 nonprofit organizations across North Carolina. Each organization is a former BCBSNC Foundation grantee and received \$100,000 to continue efforts that positively impact the health of their local residents.

"After 10 successful years, we reflect on the partnerships and relationships that are making strides in access to care, healthy eating, physical activity and enabling nonprofits to do their good work throughout North Carolina," Kathy Higgins, president of the foundation, said.

Coalition formed to stop Titan cement plant gets \$1.13 million

The Associated Press of environmental groups including the North Carolina Coastal Federation and the Sierra Club is working to derail a proposed Titan America LLC cement plant and quarry near Wilmington. Opponents say the plant would worsen pollution in a river already tainted with mercury.

The groups will collect the grant in a two-year span and use the money to spread the network's message and pay for scientific and economic experts, said Mike Giles, a coastal advocate with the N.C. Coastal Federation.

The coalition composed of environmental groups including the North Carolina Coastal Federation and the Sierra Club is working to derail a proposed Titan America LLC cement plant and quarry near Wilmington. Opponents say the plant would worsen pollution in a river already tainted with mercury.

The groups will collect the grant in a two-year span and use the money to spread the network's message and pay for scientific and economic experts, said Mike Giles, a coastal advocate with the N.C. Coastal Federation.

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THE GREENVILLE CITY PAGE
WEEK OF NOVEMBER 22 - NOVEMBER 28, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

City offices will be closed on Thursday, November 25th, and Friday, November 26th, in observance of Thanksgiving.

Board and Commission Meetings

Housing Authority will hold a special meeting Monday, November 22, at 5:30 PM at the Central Housing Authority Office, 1103 Broad Street.

Youth Council will meet on Monday, November 22, at 6:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Historic Preservation Commission will meet on Tuesday, November 23, at 7:00 PM in the Council Chambers of City Hall, 200 West Fifth Street.

Holiday Sanitation Schedule

Monday, November 22 - Regular Schedule
Tuesday, November 23 - Regular Schedule
Wednesday, November 24 - Thursday's & Friday's Garbage, Recycling & Bulky Trash Routes
Thursday, November 25 - NO COLLECTION
Friday, November 26 - NO COLLECTION

Public Notice

The City is proposing to restrict truck traffic along First Street and Brownlee Drive between Greene Street and East Fourth Street. Public Works staff has observed frequent use of First Street and Brownlee Drive as a cut-through by trucks. Due to the volume of truck traffic and their associated heavy loads, roadway pavement has been damaged. First Street and Brownlee Drive serve as minor thoroughfares, but are not intended for truck traffic.

Request for Proposals

The City of Greenville is currently considering utilizing a portion of its federal funds to provide assistance to for-profit and non-profit housing developer(s) that construct affordable multifamily rental housing in the city of Greenville. The City anticipates \$450,000 in HOME Investment Partnership funds will be available on a competitive award basis to provide local government commitments for the 2011 North Carolina Housing Finance Agency Rental Tax Credit program. Applicants will submit proposals and will subsequently be scored and ranked. The proposed developments shall provide long-term, affordable housing to a mix of eligible households, including low- and very low-income. Submission deadline is Friday, December 10, 2010, 2:00 PM (EST).



The Daily Reflector, Monday, September 13, 2010

B3

FROM PAGE ONE

Smithfield Foods to sell its half of Butterball

Butterball, a major name in the turkey world, annually sells 1 billion pounds of turkey — 20 percent of all turkeys produced in the United States.

BY MICHAEL FELDERBAUM
The Associated Press

RICHMOND, Va. — Pork producer Smithfield Foods is selling its stake in the Butterball turkey joint venture, beginning a run in pork production as it continues focusing on its more profitable packaged meat business.

Butterball, a major name in the turkey world, annually sells 1 billion pounds of turkey — 20 percent of all turkeys produced in the United States.

Smithfield said Friday that its partner, Maxwell Farms, will buy the company's 49 percent interest for about \$375 million and then sell a 50 percent

stake in the venture to Southwest Corp. for \$177.5 million in cash, according to a filing with the Securities and Exchange Commission.

"Our minority ownership position in Butterball did not permit us to execute the growth strategy that we believe was necessary to fully develop the company to its potential," Chief Executive G. Larry Pope said.

Smithfield, the nation's largest pork producer, said it will use the cash and proceeds of \$175 million to reduce its debt. The deal is expected to close by year's end.

Shares of Smithfield Foods Inc., based in Smithfield, Va., slipped 10 cents to \$16.82. Smithfield said in June that it wanted either to take control of Butterball LLC or to cash out of the venture. Pope said then that Smithfield had long wanted Maxwell Farms to invest more in Butterball to upgrade its facilities,



SMITHFIELD FOODS said Friday it's selling its stake in Butterball. Butterball is based in Mount Olive, N.C.

business and marketing. Smithfield offered Maxwell Farms \$200 million for its 51 percent stake and set a September deadline for Maxwell Farms to decide whether to sell or to buy out Smithfield.

Smithfield has been trying to make its packaged bacon, ham and other products a household name, like the products of competitors Tyson and Hormel. It has also been trying to lessen its emphasis

on processing hogs, a business that is more closely tied to volatile ingredient costs and price shifts.

The company's packaged meat business, with brands such as Eckrich and Patrick Country, also is more profitable.

Smithfield has been cutting jobs and closing factories, including one in its hometown, for more than a year to focus more on packaged meat.

It has also been shed-

"Our minority ownership position in Butterball did not permit us to execute the growth strategy that we believe was necessary to fully develop the company to its potential."

G. Larry Pope
Smithfield chief executive

ding to beef assets, so the sale of Butterball fits into that strategy.

"Strategically, either you get larger and get 100 percent focused on the business you're in, or you exit them," KeyBank Capital Markets analyst Akshay S. Jagdehi said in an interview with The Associated Press. "Now they are a pure-play pork company. There's really nothing else there."

Maxwell Farms and Butterball are based in North Carolina. Butterball has 5,500 employees at its seven plants and headquarters. Its \$75,000-square-foot

Mount Olive, N.C., is the world's largest turkey plant.

Turkey was the No. 4 protein choice for American consumers last year, with the average person eating 16.5 pounds in 2009, according to the National Turkey Federation. The "backpacking meal staple hasn't recovered from the weak consumer demand as well as other meats because people don't consume enough of it and producers can't spread their costs over always production.

AP Retail Writer Emily Frantz in New York contributed to this report.

CHARTER

Continued from B1

Rise to the Top awards in two rounds of applications scored the highest on a scale of up to 500 points.

They could receive a maximum of 40 points by showing they created successful simulations for "high-performing charter schools and other innovative schools." In the first round ending in March, North Carolina received only 2.3 points from the 117 applications reviewed — the second worst score among the states.

Days before the Round 2 application was due, the state successfully persuaded the Legislature to pass a bill that would give school dis-

tricts four ways to fit more than 130 consistently low-performing schools. One of those options would permit a school to have the same kind of flexibility as charter schools while still remaining under district control.

The state's scoring in the broader innovative schools category rose 62 points. Without them, the state would have fallen behind New Jersey, which failed to fund a grant.

Atkins said the new law helped the state's score but added officials did a better job studying how dozens of schools allow students to get both a high school diploma and community college credits. The state also scored higher on its other in-college student data to track their

success in career.

Sen. Julie Goodall, R-Harris, president of the North Carolina Alliance for Public Charter Schools, said how happy North Carolina lawmakers had the grant but disappointed the state was rewarded for putting in quality charter schools that lack the independence real charter schools receive.

Charter schools have been looked upon with suspicion by many Democratic lawmakers, some school district leaders and teachers over the years. Critics have pointed to studies showing charter school students don't necessarily perform markedly better than those at traditional classrooms, and adding new schools would take per-pupil money away from

traditional schools in the same district.

There are seven suburban charter schools, North Carolina Association of Educators President Sheri Strickland said, but in others "we're not going that far" doing anything particularly better than traditional public schools.

"We do continue to believe that the 100 cap is meeting the need right now in North Carolina," she said. The House passed a bill last year that would have raised the cap to 105, but it was not considered in the Senate. Prospects would improve if Republicans won control of the state next November, but Darden, a Democrat, has said in the past she was opposed to lifting the cap.

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THE GREENVILLE CITY PAGE
WEEK OF SEPTEMBER 13 - SEPTEMBER 19, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, efficient manner, insuring a community of distinction for the future.

Board and Commission Meetings

Greenville Citizens Transportation Committee will meet on Tuesday, September 14, at 8:30 PM in the Conference Room of Public Works Department, 15th Street West.

Public Transportation and Parking Committee will meet on Wednesday, September 15, at 9:15 AM in Conference Room 337 of City Hall, 300 West Fifth Street.

Sheppard Memorial Library Board will meet on Wednesday, September 15, at 5:30 PM in the Conference Room of Sheppard Memorial Library, 530 Myers Street.

Neighborhood Advisory Board will meet on Thursday, September 16, at 6:30 PM in Conference Room 307 of City Hall, 300 West Fifth Street.

Mobile and Pedestrian Commission will meet on Thursday, September 16, at 6:00 PM in City Hall Council Chambers, 300 West Fifth Street.

Notice of Public Meeting

The Transportation Advisory Committee will meet Wednesday, September 22, 2010, 6:00-7:00 PM in the Public Works Department Conference Room, 1500 Peachy Street, Greenville, NC.

The following items are on the agenda:

- Amendment to 2009-2016 Master Plan
- Transportation Improvement Program (TIP) for Project # B-05-107

Review of Draft 2012-2016 STIP

Public Notices

The Currituck Recycling Committee will meet on held Wednesday, September 22, 2010, at 6:30 PM at the Public Works Department, located at 15th Street West.

Are you interested in bicycle and pedestrian recommendations and the position and roles, want more information or like to join our committee, or do you want to help with the bicycle and pedestrian planning process? If you're the answer to it, visit our website, www.greenvillenc.org, or email info@greenvillenc.org. You should visit www.greenvillenc.org and go to the "Bicycle and Pedestrian" page. You will find the most current information including the times and locations of upcoming public meetings. Also, you will find the meeting agenda. If you have any questions about the Bicycle and Pedestrian Plan, please call Dany Violand at 252-733-4111.

Notice of Public Hearings

Notice is hereby given that the City Council of the City of Greenville will hold a public hearing on the 20th day of September, 2010, at 8:00 PM, in the Council Chambers of City Hall, 300 West Fifth Street, in order to consider the adoption of an ordinance that will amend the following: Greenville's Community Plan, by making changes in the Future Land Use Plan and the Transportation and Parking Plan. The following items are on the agenda:

- Amendment to 2009-2016 Master Plan
- Transportation Improvement Program (TIP) for Project # B-05-107

Review of Draft 2012-2016 STIP

Notice is hereby given that the Mobile and Pedestrian Commission of the City of Greenville will hold public hearings on the 28th day of September, 2010, at 7 PM in the Council Chambers of City Hall, 300 West Fifth Street, in order to consider the following items:

- Local Landmark designation priority list update.
- Historic Preservation involving new sign of coverage.

A copy of the application relating to the additional items can be obtained from the City of Greenville's Planning Department located at the Main City Building, 300 West Fifth Street, and are available for public inspection during normal working hours Monday through Friday.

On the date of the hearing, before and after the hearing, changes may be made from what has been proposed. Persons having interest in the matter and desiring to speak, either for or against the proposed ordinance are invited to be present and will be given an opportunity to be heard.



Minority Enterprise Development (MED) Celebration 2010

Networking Social & Luncheon

Thursday, September 23

11:00AM Round G, Michels Center
2335 Honey Lane, Greenville, NC 27834

For more information, contact Deneisha Harris, at 252-416-1111 or charles@greenvillenc.org



Community

Grifton's Christmas candlelight walk

On Friday, December 10, 2010 at 7:00 p.m. Grifton will celebrate the Christmas Season with a candlelight walk along the downtown business district. The program will begin at the Town Commons and end at the Town Christmas Tree beside the Depot. The includes a Christmas message, caroling, lighting of the tree ceremony, and special guest Santa Claus will be on hand to talk to the good little boys and girls.

Collard Committee to elect officers

The Ayden Collard Festival Committee is holding its annual election of new officers Nov. 18 at 7 p.m. in the Ayden Operations Center. The public is welcome to attend.

Public input taken until Nov. 20

There is still time to give your input on the Greenville Urban Area Metropolitan Planning Organization's Bicycle and Pedestrian Master Plan. Public input will be taken until Nov. 20.

Transportation planner and project contact Daryl Vreeland said he is encouraging everyone to complete the brief online survey at www.greenways.com/greenvillenc. You can reach the survey by clicking on the Online Comment Form. The website also provides an online mapping tool that allows residents to see proposed sidewalks and bike paths as well as additional input from other residents.

Upon gathering ideas of Pitt County residents, Greenways Inc. will work with North Carolina Department of Transportation, project steering committees and municipality staff to create a comprehensive bicycle and pedestrian master plan. A large number of responses to the online survey will provide local, state and federal officials a measure of interest the area has in bicycling and pedestrian transportation options.

CREEK

Continued from page A1.

spark. Efforts so far have resulted in the continuing development of the town's grassroots museum near the creek with a growing number of exhibits about the town's past and its inhabitants over the years.

These inhabitants, of course, include the Native Americans, who might have numbered more than 30,000 at times, beginning as far back as 15,000 years ago or more and continuing uninterrupted to the 1700s. This is how I got involved with the group, following a piece I wrote a few weeks ago about the explorer Lawson who was executed at a site along the creek by Tuscarora Indians angry over the treatment they had received from colonists.

Part of this weekend's trip included visits to places historians and local experts believe was the site of Hancock's Town, or the Indian village of Catechna (probably pronounced ka-chen-na), where Lawson, a co-founder of both Bath and New Bern, met his fate.

In addition to the creek excursion, the group went by car caravan Saturday to get a closer look at likely Indian village sites along the banks of the creek.

abandoned boat landings near the site of Coward's Bridge, destroyed during the Civil War. Allen gathered everyone around, then spoke:

"I was about 5 years old and we came down here to swim in the creek. I couldn't swim but I went across the river right over there in an inner tube." He pointed to a sandbar across the water and continued: "I slipped and fell into a deep hole. There was a 16-year-old boy about where we are right now and he saw me and he dove in to pull me out."

Gregarious group

Greenville engineer and well-known artist and boat enthusiast Bob Pittman also was along Friday; his connection to the area strong and unique. His grandfather and namesake piloted steamboats from New Bern all the way to Hookerton in the late 19th and early 20th centuries before he became a Methodist preacher. One of Bob's paintings, showing the steamer L.A. Cobb docked at the landing which today is by the boat ramp on Water Street, now hangs in the Grifton Town Hall.

"I identified more with the boating than with the preaching," Bob told us.

Giob Chancey was there, retired from Pitt County Schools. "I'm here because I have a boat," he laughed.

lins and Sandra Murphy Hardison, one of the leaders of the "Grifton Gang," and George and Tommy Sugg were there, too.

"I remember Grifton when Queen Street was a dirt road," George, 85, said.

From East Carolina University was archeology professor Charles Ewen, who said he came to learn; and there was Wayne Hardee, a local expert on the area's Indian history; and Nancy Liles, who manages the Grifton Museum. Ron Kemp, retired from N.C. State University in Raleigh and working with Bob on steamboat history, was there taking plenty of pictures, as was Mary Grace Bright, outgoing chairwoman of the Pitt County Board of Education; and a 29-year Grifton resident; and also taking part were Mack Odham, Billy Cox and Bette McCotter Koor, all with family ties to Grifton that run deep.

Saturday morning's gathering included two new and much younger faces. Sisters Sarah and Julie Durrett, originally from Shelby, came to meet for the first time the man named after their great-grandfather, Allen J. Barwick — tour organizer: Barwick's great-uncle.

Julie, a history and English teacher in Durham, and Susan, a Harvard educated landscape architect, had found out about the trip while doing Internet

son named after our great-grandfather," she told us. Allen Barwick beamed.

"I can't believe it," he said after their initial meeting.

Countless generations
Soon everyone got in cars for a closer look at possible Indian sites, but as Wayne Hardee and Charles Ewen explained, they literally surrounded us. "I know of at least 60 sites (where significant Indian artifacts have been discovered)," Hardee said. Ewen added that the area simply "was a good place to live" and that Native American civilizations could have occupied these lands around the creek as far back as 30,000 years ago.

It was time for me to peel away from the group. I left them heading to Barwick's Landing on the Lenoir County side of the Corrientes. There Allen would show his newfound cousins the pathway through the old family fields that led down out of the sunlight through the shadowy tangles of brush to that still pristine creekside, rarely seen today, unless sought.

It was another bend in the ancient highway that was leading us, we hoped, toward vanished signposts, our own and those of countless generations of peoples never known and now, sadly, largely forgotten.

Al Clark is executive editor of The Daily Reflector.

The old stories

Local MPO workshop gathers Ayden's input

BY LAUREN COLLINS
Staff Writer

Ayden residents were given an opportunity to voice their opinions during a public input workshop last Tuesday. Greenways Inc. is working with Pitt County residents to create a comprehensive bicycle and pedestrian master plan.

The public input workshop held in the Community Building in Ayden was the fourth of five workshops hosted in Pitt County this month. During the workshop, Ayden officials and residents were presented with a large map of the Pitt County area, including a map of Ayden with existing sidewalks and bike paths. Those attending the workshop physically wrote in where they would like to see sidewalks and bike paths implemented in the future.

Although the workshops are over, residents can still be heard

by going online. Transportation planner and project contact Daryl Vreeland said he is encouraging everyone to complete the brief online survey at www.greenways.com/greenvillenc. You can reach the survey by clicking on the Online Comment Form.

The website also provides an online mapping tool that allows residents to see proposed sidewalks and bike paths as well as additional input from other residents.

Public input will be taken until November 20 and will assist the Greenville Urban Area MPO in developing a bicycle and pedestrian master plan in making the region a safer and more accessible place to bike and walk.

Upon gathering ideas of Pitt County residents, Greenways Inc. will work with North Carolina De-

See **WORKSHOP**, Page A6



LAUREN COLLINS

(L-R) AYDEN ASSISTANT Town Manager Chris Paddgett, transportation planner Daryl Vreeland, Ayden Commissioner Donald Skinner, and Ayden Planning Board Chairman Wayne Harris review potential locations for sidewalks and bikeways in Ayden during a public input workshop held Oct. 26.

CONTACT US

252-524-4376

Email: lcollins@ncweeklies.com

THIS WEEK'S INDEX

| | | | | | |
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| Classifieds | B5 | Opinion | A4 | TV Listings | B4 |
| Community | A3 | Obituaries | B2 | | |

QUOTE OF THE WEEK...

"If I wasn't there, they probably wouldn't make it out."

— Leroy Hart





PUBLIC FORUM 12/8/10

Improve safety to promote bicycling

I would like to write in support of an area bike and pedestrian plan for Greenville. Last week I was knocked off my bicycle by a driver at the top of 14th Street. While I can only guess at how the driver could have ignored my two lights (one bright halogen, and the other a blinking red LED) and four reflectors as they ignored the stop sign on the connecting road and rolled into 14th Street. Their distraction could have been lessened considerably if there had been better lighting and a bike lane along this major thoroughfare.

Luckily I only suffered minor bruising and scratches (my bike did not fare so well). If it hadn't been for a hiatus in

traffic from the other direction, my story would have ended differently (and permanently). Following my advertisement of this incident, nearly a dozen of my friends noted that they have either had the same occur to them or they know of similar incidents in Greenville.

Drivers in this town will not grow accustomed to bicyclists until more people are riding. Until these riders can have some basic protection to encourage pedaled transportation they will be doing so with considerable risk to their lives. It is clear that something must be done.

NATHAN RICHARDS
Greenville

PUBLIC FORUM 12/09/10

City needs dedicated bike lanes

On Monday the City Council heard reports addressing the issue of making our community a better place to live by creating walking and bike paths. This is a long overdue improvement for our town. Too many friends have been hit by cars, had items thrown at them by passengers in vehicles and been harassed by drivers.

I walk to work and am averaging near misses at about two per five-day week. Every city I have lived in, including Chicago and Minneapolis, have dedicated bike lanes that provide physical separation from motorized traffic. It is a necessary improvement for the quality of life in our city and our economic success.

Transportation Secretary Ray LaHood's vision for the country, the creation of a U.S. Bicycle Route System, notes

that these routes "make important cultural and scenic destinations accessible by bicycle... bring dollars back to our communities, help fight obesity and make it easier for Americans to travel without cars... immerse us in our local, living landscapes and recalibrate our daily lives and travel experiences to a more mindful, human, sustainable pace."

My greatest disappointment when I moved to Greenville was the difficulty of traveling by bicycle. My health and quality of life have suffered. I hope we can work together to make our town one that values the safety, health, and viability of its community members.

LISA BETH ROBINSON
Greenville

The Daily Reflector, Wednesday, December 8, 2010

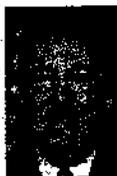
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GREENVILLE & BEYOND

GREENVILLE

Butterfield reappointed to post

North Carolina's 1st Congressional District representative has been reappointed to a key House Democratic leadership post for the upcoming 112th Congress.



BUTTERFIELD

U.S. Rep. G.K. Butterfield will continue as a member of the Democratic Whip team, House Majority Leader Steny H. Hoyer of Maryland announced.

"It's always important to have a seat at the leadership table," Butterfield said. "It ensures a voice for the challenges facing people in eastern North Carolina."

Butterfield was first appointed as a chief deputy whip in January 2007 at the start of 110th Congress. He was the first Democrat from North Carolina to hold

the post.

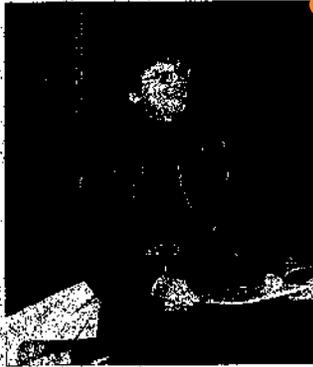
Butterfield will serve as a chief deputy whip alongside U.S. Reps. John Lewis of Georgia, Joe Crowley of New York, Diana DeGette of Colorado, Jim Matheson of Utah, Ed Pastor of Arizona, Jan Schakowsky of Illinois, Debbie Wasserman Schultz of Florida, and Maxine Waters of California. Hoyer has been elected to serve as the minority whip in the upcoming session of Congress.

The chief deputy whips help formulate policy and are responsible for working to unify the party's positions.

The whips also are responsible for mobilizing the party vote on important legislation before they come to the floor to be voted on.

Butterfield explained that the term "whip" is derived from "whipper-in," a British term for the person who was responsible for keeping the foxhounds from leaving the pack during the hunt.

GREENVILLE



SCOTT DAVIS/THE DAILY REFLECTOR

GREENVILLE MAYOR Pat Dunn reads "The Night Before Christmas" on the Jolly Walk in Greenville.

PITT COUNTY

Open house on bicycle plan

Local residents hoping to weigh in on an comprehensive plan for bicycle and pedestrian travel throughout the county have one final opportunity to make their opinions known.

An open house and public workshop will be held from 6-8 p.m. today at the Pitt County Community Schools and Recreation Center, 4561 County Home Road.

The Bicycle & Pedestrian Master Plan is about 90 percent complete, representatives said Monday at an update to the Greenville City Council. A final version is expected early next year after engineers and consultants prioritize infrastructure and education needs.

Visitors to today's workshop will be able to view drafts of the project, learn about the planning process, and write and draw their input on maps.



THE GREENVILLE CITY PAGE

WEEK OF DECEMBER 6 - DECEMBER 12, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

visit us online: www.greenvillenc.gov

Board and Commission Meetings

Housing Authority will meet on Monday, December 6, at 5:30 PM in the Central Housing Authority Office, 1103 Broad Street.

Youth Council will meet on Monday, December 6, at 6:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Redevelopment Commission will meet on Tuesday, December 7, at 5:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Affordable Housing Loan Committee will meet on Wednesday, December 8, at 3:00 PM in the City Hall Council Chambers, 200 West Fifth Street.

Bicycle Friendly Task Force will meet on Wednesday, December 8, at 5:00 PM at the Pitt County Recreation Complex, 4561 County Home Road.

Recreation and Parks Commission will meet on Wednesday, December 8, at 5:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Police Community Relations Committee will meet on Wednesday, December 8, at 7:00 PM in the Police & Fire/Rescue Headquarters, 500 South Greene Street.

Notice of Public Meeting

The City of Greenville Recreation and Parks Department will facilitate a second public workshop on December 9, 2010 at 6:00 PM to discuss the planning and development for renovations and improvements associated with Greenfield Terrace Park. The workshop will be held at the Barnes-Ebron-Taft Building, 120 Park Access Road, Greenville, NC 27834. Please join City staff in discussion about this very exciting project.

For more information, contact Lamarco M. Morrison, Parks Planner, at (252) 329-4242 or by e-mail at lmorrison@greenvillenc.gov.



Notice of Public Hearings

Notice is hereby given that the City Council of the City of Greenville will hold public hearings on the 9th day of December, 2010, at 7:00 PM in the Council Chambers of City Hall, 200 West Fifth Street, in order to consider the following:

1. Ordinance requested by LakeSide Sports, LLC to rezone 74.53 acres located along the southern right-of-way of Old Pactolus Highway, adjacent to Santree Mobile Home Park and north of the Tar River from R6MH (Residential-Mobile Home) to CH (Heavy Commercial).
2. Ordinance requested by Stow Management, Inc. and Vintage Associates, LLC to rezone 9.143 acres located near the northwest corner of the intersection of North Memorial Drive and Staton House Road from IU (Unoffensive Industry) to CH (Heavy Commercial).

Ordinance amending the zoning regulations to include definitions of "backpacker" and "minivan" and

Notice of Public Hearings

Notice is hereby given that the Greenville Board of Adjustment will hold public hearings on the 16th of December, 2010, at 7 PM in the Council Chambers of City Hall, 200 West Fifth Street, to consider the following:

1. A request by Chris Woelkers for a special use permit to continue operating a home occupation bed and breakfast inn pursuant to Appendix A, Use (3)d. of the Greenville City Code. The proposed use is located at 1105 E. Fifth Street. The property is further identified as being tax parcel number 20507.

2. A request by Jackie Parker and Demetrice Wilson for a special use permit to operate a mental health, emotional or physical rehabilitation day program facility pursuant to Appendix A, Use (8)ff.(1) of the Greenville City Code. The proposed use is located at 500 Dexter Street, Suite C. The property is further identified as being tax parcel number 15888.

A copy of the applications relating to said requests are on file at the Community Development Department located at 201 West Fifth Street, and are available for public inspection during normal working hours Monday through Friday.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed.

Persons having interest in these matters and desiring to speak either for or against the requests are invited to be present and will be given an opportunity to be heard.

Notice of Public Input Session

The City of Greenville and the Greenville Urban Area Metropolitan Planning Organization invite residents of Greenville, Ayden, Simpson, Winterville and Pitt County to comment on strategies and recommendations to improve bicycling and walking that are provided in the DRAFT Bicycle and Pedestrian Master Plan beginning on December 8, 2010 and concluding on December 31, 2010. Residents are encouraged to visit the project web site at www.greenways.com/greenvillenc.html and view the DRAFT plan recommendations. Residents can submit thoughts, comments and recommendations to Daryl Vreeland, Transportation Planner with the Greenville Urban Area MPO, via email at DVreeland@greenvillenc.gov. The copy of the draft plan is available for review starting December 8th, at the Greenville Public Works Facility, 1500 Beatty Street. Written comments will be accepted until December 31, 2010, by mail to the Greenville Urban Area MPO, 1500 Beatty Street, Greenville, NC 27834; by fax at (252) 329-4535; or by e-mail at dvreeland@greenvillenc.gov.

For more information about the meeting and the master plan, please visit www.greenways.com/greenvillenc.html, connect with the project on Facebook at Greenville MPO Bicycle and Pedestrian Plan, or contact:

Daryl Vreeland, AICP
Transportation Planner
The Greenville Urban Area MPO
c/o City of Greenville Public Works Department
1500 Beatty St.
Greenville, NC 27834
Phone: 252-329-4476
Fax: 252-329-4535
DVreeland@greenvillenc.gov

City Council Meeting Agendas

Monday, December 6, 2010
6:00 PM
City Council Chambers
200 West Fifth Street

1. Minutes from the September 9, 2010 City Council meeting
2. First reading of an ordinance granting a limousine franchise to Patrick Sean Brown, d/b/a The Jolly Trolley
3. First reading of an ordinance granting a taxicab franchise to Hannah Victoria Capps, d/b/a East Carolina Pedicab
4. First reading of an ordinance granting a taxicab franchise to Leonard Lee Horton, d/b/a Easy Ride Taxi Service
5. Ordinance enacting and adopting Supplement #2010-S2 to the City of Greenville's Code of Ordinances
6. Disclosure of family interest conflict related to the structure at 601 Contentnea Street and exception request to HUD's Conflict of Interest Rule
7. Amendment 1 to Contract for Storm Drainage Improvements; Group A – Skinner/Beatty Street Area
8. Resolution accepting dedication of rights-of-way and easements for Westhaven South, Section 4; Cobblestone, Phase Three, Section Two, Lots 7-15 and 34-40 Brookville Drive; Green Mill Court; and Arbor Hills South, Phases 1 & 2, Cluster Subdivision
9. Change order to the on-call civil engineering services contract with The East Group
10. Resolution authorizing the disposal of surplus computer equipment to Pitt Community College
11. Budget ordinance amendment #5 to the 2010-2011 City of Greenville budget (Ordinance No. 10-57)
12. Ordinance amending Horizons Plan 2009-2010 Update: Planning and Zoning Commission recommended change to the Future Land Use Plan Map, Area of Interest 6 located on SW Greenville Boulevard
13. Presentations by boards and commissions
 - a. Firefighters' Relief Fund Committee
 - b. Investment Advisory Committee
 - c. Greenville Bicycle and Pedestrian Commission
14. Progress update on the Greenville Urban Area Metropolitan Planning Organization Bicycle and Pedestrian Master Plan
15. Erosion of stream banks located on private properties
16. Railroad crossing agreement with CSX Transportation, Inc. for Thomas Langston Road Extension
17. 2010-2011 Capital Reserve Fund calculation and designations

Thursday, December 9, 2010
7:00 PM
City Council Chambers
200 West Fifth Street

1. Appointments to boards and commissions
2. Second reading and final adoption of an ordinance granting a limousine franchise to Patrick Sean Brown, d/b/a The Jolly Trolley
3. Second reading and final adoption of an ordinance granting a taxicab franchise to Hannah Victoria Capps, d/b/a East Carolina Pedicab
4. Second reading and final adoption of an ordinance granting a taxicab franchise to



THE GREENVILLE CITY PAGE

WEEK OF DECEMBER 13 - DECEMBER 19, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

visit us online: www.greenvillenc.gov

Board and Commission Meetings

Greenville Climate Protection Partnership will meet on Tuesday, December 14, at 5:30 PM in the the Public Works Conference Room, 1500 Beatty Street.

Planning and Zoning Commission will meet on Tuesday, December 14, at 6:30 PM in the City Hall Council Chambers, 200 West Fifth Street.

Cable Ad Hoc Committee will meet on Wednesday, December 15, at 6:00 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Keep Greenville Beautiful Board Meeting will be held on Thursday, December 16, at 10:30 AM in the Conference Room of Public Works Department, 1500 Beatty Street.

Pitt-Greenville Airport Authority will meet on Thursday, December 16, at 12:00 PM in the Conference Room of the Airport Terminal Building at the Pitt-Greenville Airport, Airport Road.

Public Safety Task Force will meet on Thursday, December 16, at 5:30 PM in Conference Room 329 of City Hall, 200 West Fifth Street.

Neighborhood Advisory Board will meet on Thursday, December 16, at 5:30 PM in Conference Room 337 of City Hall, 200 West Fifth Street.

Board of Adjustment will meet on Thursday, December 16, at 7:00 PM in the City Hall Council Chambers, 200 West Fifth Street.

Notice to Contractors

The Housing Division of the Community Development Department of the City of Greenville will be accepting bids for the rehabilitation of three single-family dwelling units located in Greenville, Pitt County, North Carolina: at the following addresses.

106 Trent Circle, Greenville, NC
902 Colonial Avenue, Greenville, NC
332 Clairmont Circle, Greenville, NC

This rehabilitation project is assisted by the U.S. Department of Housing and Urban Development and is subject to Davis-Bacon prevailing wage requirements.

Instructions and complete specifications will be available at the mandatory pre-bid meeting (for eligible Contractors currently on the contractors list for the City of Greenville Housing Rehabilitation program only) located at 106 Trent Circle, Greenville, at 9:30 AM on Tuesday, December 28, 2010. Contractors are required to attend the pre-bid meeting in order to submit a bid.

Bid proposals are due by 9:00 AM EST on Monday, January 3, 2011. Submit bids to Housing Division, Community Development Department, 201 West Fifth Street, third floor, Greenville, North Carolina, ATTN: Linda Mims. Bid proposals will be opened and read promptly at 9:15 AM EST on Monday, January 3, 2011 at the Municipal Building, 201 West Fifth Street, third floor, Greenville, North Carolina.

The City of Greenville reserves the right to reject any or all bids submitted. Minority and female-owned businesses are encouraged to participate. For further information, contact Virgil Smith, Housing Rehabilitation Specialist, at (252) 329-4503 or Mike Watson, Housing Rehabilitation Specialist, at (252) 329-4499.

Notice of Public Hearings

Notice is hereby given that the Greenville Board of Adjustment will hold public hearings on the 16th of December, 2010, at 7 PM in the Council Chambers of City Hall, 200 West Fifth Street, to consider the following:

1. A request by Chris Woelkers for a special use permit to continue operating a home occupation bed and breakfast inn pursuant to Appendix A, Use (3)j. of the Greenville City Code. The proposed use is located at 1105 E. Fifth Street. The property is further identified as being tax parcel number 20507.

2. A request by Jackie Parker and Demetrice Wilson for a special use permit to operate a mental health, emotional or physical rehabilitation day program facility pursuant to Appendix A, Use (8)ff.(1) of the Greenville City Code. The proposed use is located at 500 Dexter Street, Suite C. The property is further identified as being tax parcel number 15858.

A copy of the applications relating to said requests are on file at the Community Development Department located at 201 West Fifth Street, and are available for public inspection during normal working hours Monday through Friday.

On the basis of objections, debate and discussion at the hearings, changes may be made from what has been proposed.

Persons having interest in these matters and desiring to speak either for or against the requests are invited to be present and will be given an opportunity to be heard.

District 1 Meeting

Council Member Kandie Smith will host a "State of the District Address" on Wednesday, December 15, from 6:00 to 8:00 PM in the Eppes Recreation Center, 400 Nash Street. There will be presentations on crime and recreational opportunities. Come and share your concerns, issues, and comments. Free haircuts will be offered for boys.

Public Notices

ATTENTION GREENVILLE DISTRICT #2 RESIDENTS

The City of Greenville is seeking volunteers from District #2 to serve on the Police Community Relations Committee, which serves as liaison between the community and police over concerns. It serves as an advocate for programs, ideas, and methods to improve relationships between the community and Police Department. This board meets the second Wednesday of each month excluding July and August at 7:00 PM, and the meeting location is determined by the Committee.

If you are interested in serving, please obtain a Talent Bank form on the City's website at www.greenvillenc.gov or contact Polly Jones at 329-4423 or pjones@greenvillenc.gov.

PARKING LOT CLOSURE

Portions of the Five Points Plaza Parking Lot located at the corner of Evans Street and West Fifth Street will be temporarily closed. This closure is necessitated by a public improvement project that will include the three parking bays nearest to West 5th Street. The parking lot is expected to be available for public parking again in June of 2011.

During this closure, the parking bays nearest to Sheppard Memorial Library will remain open and will be operated under normal parking rules as two-hour, time restricted parking from 8:00 a.m until 5:00 PM, Monday through Friday.

Additional public parking may be found in nearby lots on Evans Street, Reade Street, and Cotanche Street. For further information on available public parking, please call the parking message line at (252) 329-4100.

Public Comment Opportunity

The City of Greenville and the Greenville Urban Area Metropolitan Planning Organization invite residents of Greenville, Ayden, Simpson, Winterville and Pitt County to comment on strategies and recommendations to improve bicycling and walking that are provided in the DRAFT Bicycle and Pedestrian Master Plan beginning on December 8, 2010 and concluding on December 31, 2010. Residents are encouraged to view the project web site at www.greenways.com/greenvillenc.html and view the DRAFT plan recommendations.

The copy of the draft plan is available for review at the Greenville Public Works Facility, 1500 Beatty Street. Written comments will be accepted until December 31, 2010, by mail to the Greenville Urban Area MPO, 1500 Beatty Street, Greenville, NC 27834; by fax at (252) 329-4535; or by e-mail at dvreeland@greenvillenc.gov.

For more information about the master plan, please visit www.greenways.com/greenvillenc.html, connect with the project on Facebook at Greenville MPO Bicycle and Pedestrian Plan, or contact:

Daryl Vreeland, AICP
Transportation Planner
The Greenville Urban Area MPO
c/o City of Greenville Public Works Department
1500 Beatty St.
Greenville, NC 27834
Phone: 252-329-4476
Fax: 252-329-4535
DVreeland@greenvillenc.gov

Holiday Sanitation Schedule

Monday, December 20 - Regular Schedule
Tuesday, December 21 - Regular Schedule
Wednesday, December 22 - Thursday's Routes
Thursday, December 23 - Friday's Routes
Friday, December 24 - NO COLLECTION



THE GREENVILLE CITY PAGE

WEEK OF DECEMBER 20 - DECEMBER 26, 2010

The City of Greenville is dedicated to providing all citizens with quality services in an open, ethical manner, insuring a community of distinction for the future.

City offices will be closed on Friday, December 24th, and Monday, December 27th, in observance of Christmas.

Board and Commission Meetings

Greenville Utilities Commission will meet on Tuesday, December 21, at 12:00 PM in the Board Room of the Greenville Utilities Commission Building, 401 South Greene Street.

Affordable Housing Loan Committee will hold a special meeting on Wednesday, December 22, at 10:00 AM in Conference Room 337 of City Hall, 200 West Fifth Street.

Public Comment Opportunity

The City of Greenville and the Greenville Urban Area Metropolitan Planning Organization invite residents of Greenville, Ayden, Simpson, Winterville and Pitt County to comment on strategies and recommendations to improve bicycling and walking that are provided in the DRAFT Bicycle and Pedestrian Master Plan beginning on December 8, 2010 and concluding on December 31, 2010. Residents are encouraged to visit the project web site at www.greenways.com/greenvillenc.html and view the DRAFT plan recommendations.

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Holiday Sanitation Schedule

Monday, December 20 - Regular Schedule
Tuesday, December 21 - Regular Schedule
Wednesday, December 22 - Thursday's Routes
Thursday, December 23 - Friday's Routes
Friday, December 24 - NO COLLECTION

Monday, December 27 - NO COLLECTION
Tuesday, December 28 - Monday's Garbage & Bulky Trash Routes
Wednesday, December 29 - Tuesday and Thursday's Garbage & Bulky Trash Routes
Thursday, December 30 - Friday's Garbage & Bulky Trash Routes

Friday, December 31 - NO COLLECTION
NO RECYCLING COLLECTION THIS WEEK

Special Meeting

Notice is hereby given that a Special Meeting of the Affordable Housing Loan Committee of the City of Greenville will be held on Wednesday, December 22, 2010, at 10:00 AM in Greenville City Hall, 200 West Fifth Street, Room 337, for the purpose of discussing a recommendation for funding of Multifamily Rental Housing Development project utilizing HOME Investment Partnerships Program funds.

Notice to Contractors

The Housing Division of the Community Development Department of the City of Greenville will be accepting bids for the rehabilitation of three single-family dwelling units located in Greenville, Pitt County, North Carolina at the following addresses:

106 Trent Circle, Greenville, NC
902 Colonial Avenue, Greenville, NC
332 Clairmont Circle, Greenville, NC

This rehabilitation project is assisted by the U.S. Department of Housing and Urban Development and is subject to Davis-Bacon prevailing wage requirements.

Instructions and complete specifications will be available at the mandatory pre-bid meeting (for eligible contractors currently on the contractors list for the City of Greenville Housing Rehabilitation program only) located at 106 Trent Circle, Greenville, at 9:30 AM on Tuesday, December 28, 2010. Contractors are required to attend the pre-bid meeting in order to submit a bid.

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The City of Greenville reserves the right to reject any or all bids submitted. Minority and female-owned businesses are encouraged to participate. For further information, contact Virgil Smith, Housing Rehabilitation Specialist, at (252) 329-4503 or Mike Watson, Housing Rehabilitation Specialist, at (252) 329-4499.

Public Notices

Are You Interested In Transportation Around the Greenville Urban Area ?

Attend one of two Open House Information Sessions and give us your ideas about needed improvements!

Wednesday, January 11 from 3:00 PM - 6:00 PM
Sheppard Memorial Library, 530 Evans St.

Thursday, January 12 from 3:00 PM - 6:00 PM
Winterville Town Hall, 2571 N. Railroad St.

These are informal "open house" style sessions with informative displays about transportation projects and issues. Staff from the City of Greenville, Town of Winterville, Pitt County, and NCDOT will be available to answer questions and listen to your ideas about transportation issues. Your comments and ideas will be used in our Transportation Improvement Priorities update process, for addressing transportation issues, and for conducting and implementing plans and studies.

Written comments and ideas are welcome until February 10 and can be sent to:

Greenville Urban Area MPO
c/o Public Works Department
P.O. Box 7207
Greenville, NC 27835-7207
Fax: 329-4535
email: dvreeland@greenvillenc.gov

Parking Lot Closure

Portions of the Five Points Plaza Parking Lot located at the corner of Evans Street and West Fifth Street are temporarily closed. This closure is necessitated by a public improvement project that will include the three parking bays nearest to West 5th Street. The parking lot is expected to be available for public parking again in June of 2011.

During this closure, the parking bays nearest to Sheppard Memorial Library will remain open and will be operated under normal parking rules as two-hour, time restricted parking from 8:00 a.m. until 5:00 PM, Monday through Friday.

Additional public parking may be found in nearby lots on Evans Street, Reade Street, and Cotanche Street. For further information on available public parking, please call the parking message line at (252) 329-4100.

Electronics Recycling

Beginning January 1, 2011, all discarded electronics will be picked up upon request from citizens on a schedule similar to that of white goods. Please call Public Works to schedule your electronic recycling pick-up. Public Works will now pick-up TV's, Computers, Monitors, or other electronic equipment.

Please remove all personal data on the hard drive of your computer prior to pick-up. Please make sure you contact Public Works at 329-4522 to schedule your pick-up.



Letters of Support *(as of January 2011)*



The Brody School of Medicine
Department of Emergency Medicine
East Carolina University
600 Moye Boulevard • Greenville, NC 27834
252-847-8688 office

Herbert G. Garrison, MD, MPH
Professor of Emergency Medicine

Director, Eastern Carolina Injury
Prevention Program

Associate Director of Medical
Services, North Carolina State
Highway Patrol

January 31, 2011

Daryl Vreeland, AICP
Transportation Planner
Greenville Urban Area MPO
City of Greenville
Department of Public Works
1500 Beatty Street
Greenville, NC 27834

Dear Mr. Vreeland,

The Greenville Bicycle Friendly Task Force voted unanimously on January 26, 2011 in support of the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan. The Task Force has seen great progress on bicycling since the Greenville City Council established the Task Force approximately two years ago.

Our community has strong support and great potential to become a very progressive community for bicycling and walking. The Master Plan provides a good road map to make this potential a reality.

Thank you for your consideration of this endorsement of the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan.

Sincerely,

Herbert G. Garrison, MD, MPH



February 2, 2011

Daryl Vreeland, AICP
Transportation Planner
Greenville Urban Area MPO
City of Greenville
Department of Public Works
1500 Beatty Street
Greenville, NC 27834

Dear Mr. Vreeland,

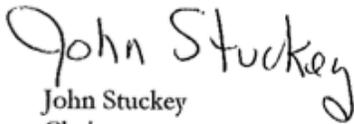
It is with great enthusiasm the Safe Communities Coalition of Pitt County, Inc. supports the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan. Safe Communities is comprised of many community partners with the mission to make Greenville and Pitt County a safer place to live and travel.

Through the years we have implemented projects to make bicycling and walking safer. We have coordinated bicycle safety in the schools with classroom and "on the bike" experience for fourth grade students. We have developed and produced a local video on pedestrian safety focusing on both the motorists and pedestrians' responsibilities. It is seen in many local venues including local cable channels and classroom settings.

With the implementation of the Master Plan, we are committed to continue our efforts to increase walking and cycling and make it safer in our community.

Thank you for your consideration of the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan.

Sincerely,


John Stuckey
Chair



February 1, 2011

Daryl Vreeland, AICP
Transportation Planner
Greenville Urban Area MPO
City of Greenville
Department of Public Works
1500 Beatty Street
Greenville, NC 27834

Dear Mr. Vreeland,

On behalf of Safe Kids Pitt County and the Walk This Way Pedestrian Safety Task Force, we would like to express our support of the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan. We have been instrumental throughout the MPO in coordinating programs to increase biking and walking.

Through Safe Routes to School projects, we have worked with the City of Greenville and the towns of Ayden and Winterville to make the environment around schools safer for walkers and bicyclists. We have also provided education and encouragement programs to students, parents, and staff to promote walking and biking.

The Master Plan will provide great guidance and support for us to continue to pursue our Safe Routes to School efforts. Thank you for your consideration of the Greenville Urban Area Bicycle and Pedestrian Master Plan.

Sincerely,

Ellen M. Walston, MSW, ACSW, LCSW
Safe Kids Pitt County Coalition Coordinator



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double-sided printing)*



B DESIGN TOOLBOX

Design Toolbox Contents

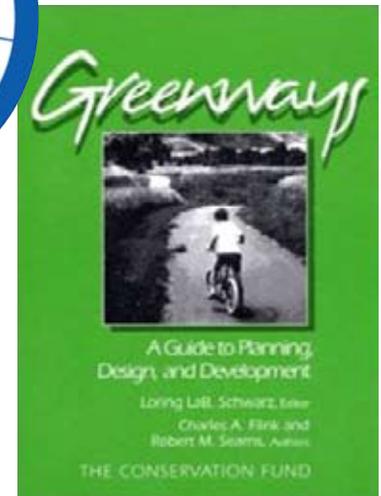
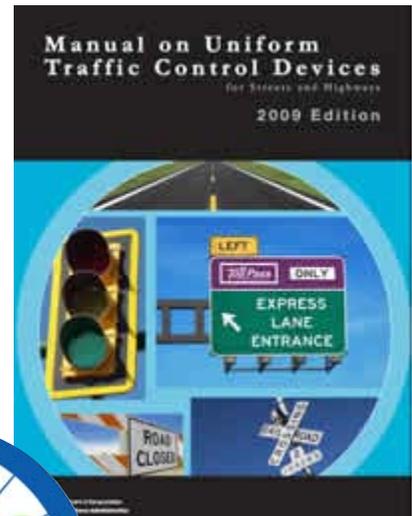
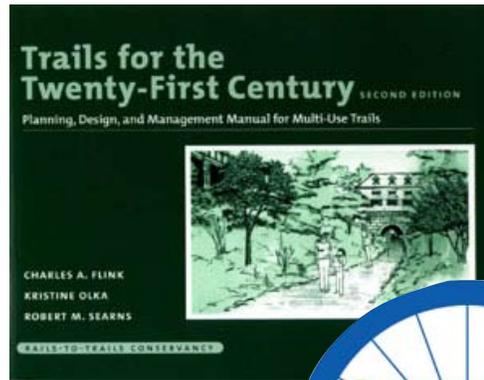
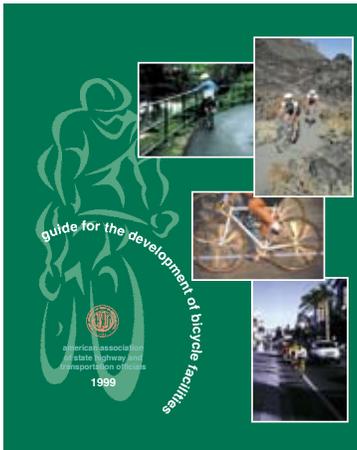
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Overview

This appendix provides design guidelines for bicycle, pedestrian and trail-related facilities that are used in various locations across the United States. The guidelines should be used with the understanding that design adjustments will be necessary in certain situations in order to achieve the best results. Facility installation and improvements should be evaluated on a case-by-case basis, in consultation with local or state bicycle coordinators, and/or a qualified engineer and landscape architect. Some new treatments may require formal applications to the North Carolina Department of Transportation (NCDOT) and the Federal Highway Administration (FHWA) for approval as experimental uses. Should national standards be revised in the future and result in discrepancies with this report, the national standards should prevail for design decisions.

On facilities maintained by NCDOT, the State's design guidelines will apply. Greenville, Winterville, Ayden, Simpson, and Pitt County have the potential to exceed minimum guidelines where conditions warrant (within their jurisdiction).

These resources (and those listed on B-3) can be consulted for more information on design standards.



Pedestrian and Bicycle Information Center



DESIGN RESOURCES:

NCDOT “Typical” Highway Cross Sections

The comprehensive planning and design “typical” highway cross sections have been updated to support the NCDOT’s “Complete Streets” policy that was adopted in 2009 (see Chapter 6 for more on Complete Streets). The guidance in the updated cross sections establishes design elements that emphasize safety, mobility, and accessibility for multiple modes of travel. For more information, contact the State Roadway Design Engineer, or visit: www.nccompletestreets.org

Greenways: A Guide to Planning, Design and Development.
Island Press, 1993. Authors: Charles A. Flink and Robert Searns

Trails for the Twenty-First Century
Island Press, 2nd ed. 2001. Authors: Charles A. Flink, Robert Searns, Kristine Olka

Pedestrian and Bicycle Information Center, 2010
www.walkinginfo.org/engineering/
www.bicyclinginfo.org/engineering/

Bicycle Parking Design Guidelines
www.bicyclinginfo.org/engineering/parking.cfm

*Guide for the Development of Bicycle Facilities**
American Association of State Highway Transportation Officials , 1999
www.transportation.org

Manual on Uniform Traffic Control Devices (MUTCD)
U. S. Department of Transportation, Washington, DC, 2009
<http://mutcd.fhwa.dot.gov>

Policy on Geometric Design of Streets and Highways.
American Association of State Highway Transportation Officials , 2001
<http://transportation.org>

Universal Access to Outdoor Recreation: A Design Guide. PLAE, Inc., Berkeley, CA, 1993.

*Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities:
An ITE Proposed Recommended Practice.*

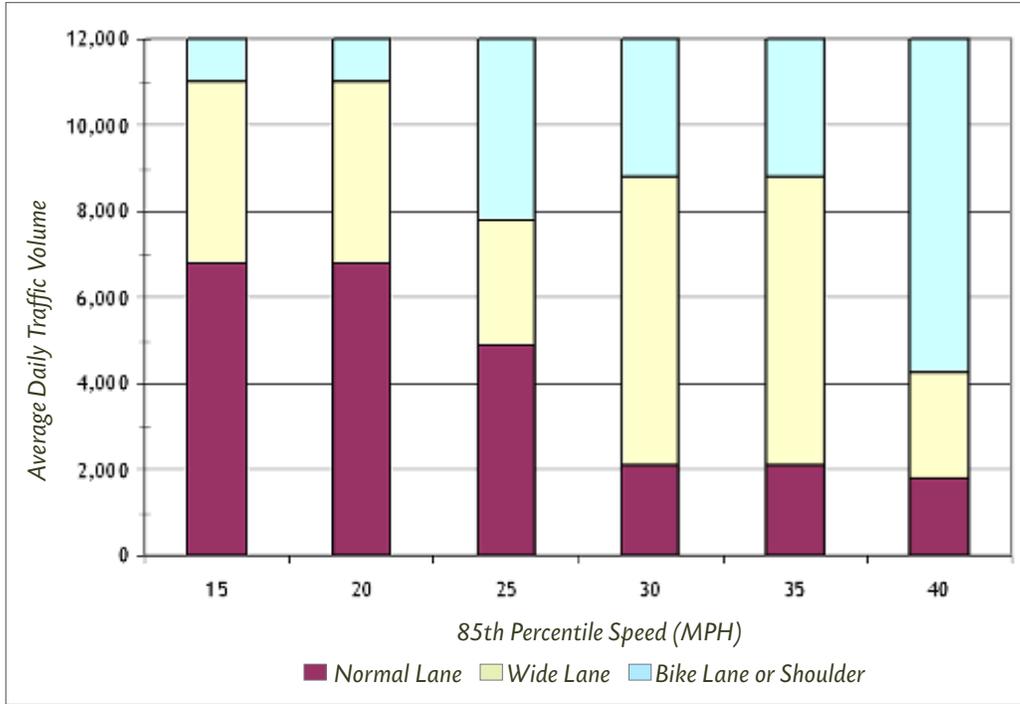
*Once available, the updated AASHTO Bicycling Guide should be used (scheduled for release in 2011).



Bicycle Facilities and Related Streetscape Improvements

A wide variety of on-road bicycle facilities are recommended to meet different transportation needs in different roadway situations. The appropriate bicycle facility for any particular roadway, whether new or existing, should be dictated primarily by vehicle volume and speed of the roadway. The figure below provides a matrix for evaluating bicycle facilities. The speed of the travel lane is shown along the x-axis and total traffic volumes per day are shown along the y-axis. The different colors represent the type of bikeway facility prescribed given the volume and speed of the travel lane. This chart represents a broad guideline, rather than a hard standard.

NORTH AMERICAN SPEED-VOLUME CHART



Source: M. King: *Bicycle Facility Selection: A Comparison of Approaches*

Neighborhood Streets

Many bicyclists can safely share the road with vehicles on low volume (less than 3,000 cars per day), low speed roadways (e.g., a residential or neighborhood street).



Left: Neighborhood street examples.

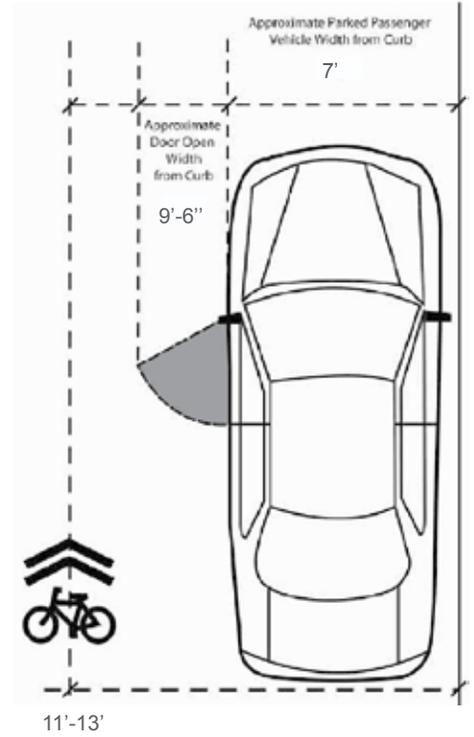


Shared Lane Marking

A bicycle shared lane marking (or ‘sharrow’) can serve a number of purposes, such as making motorists aware of bicycles potentially traveling in their lane, showing bicyclists the appropriate direction of travel, and, with proper placement, reminding bicyclists to bike further from parked cars to prevent “dooring” collisions. The shared lane marking stencil is used:

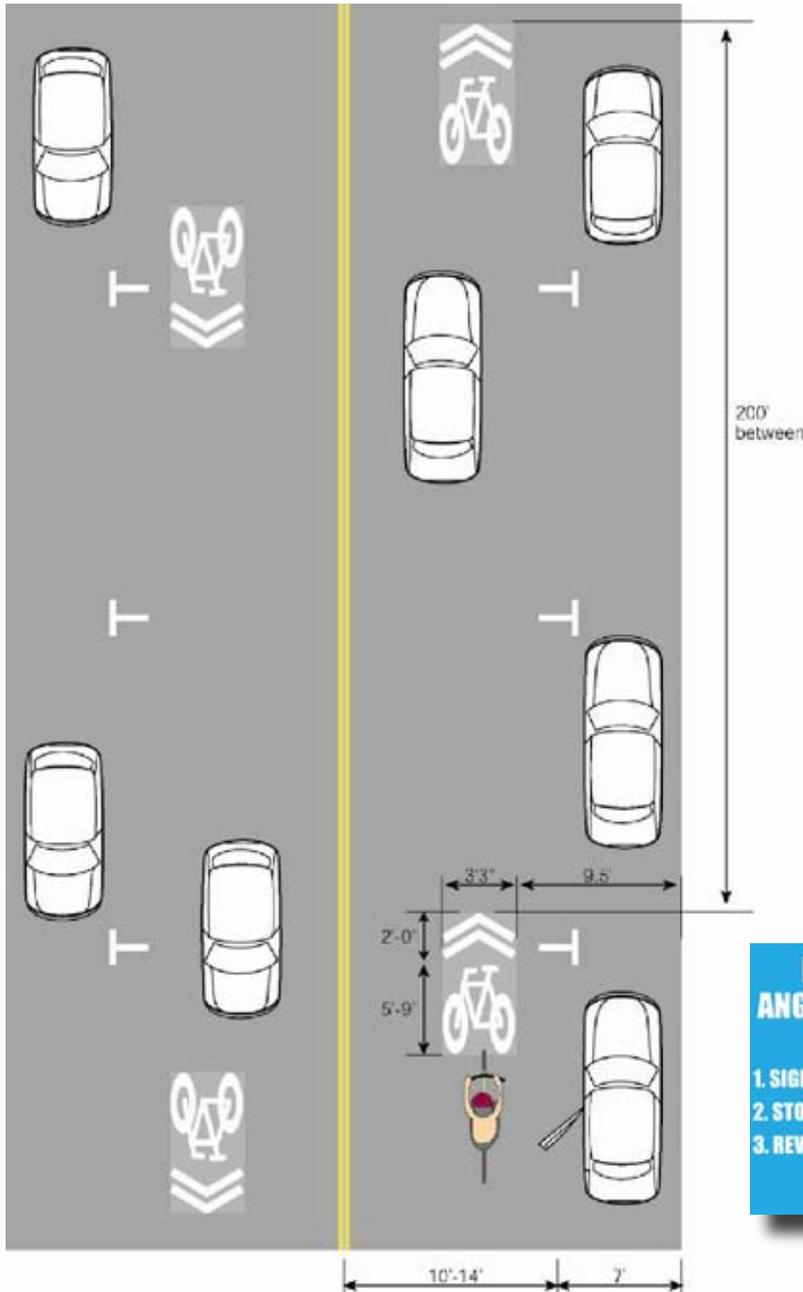
- Where lanes are too narrow for striping bike lanes
- Where the speed limit does not exceed 35 MPH
- With or without on-street parking (with on-street parking, the center of the sharrow should be placed a minimum of 11 feet from the curb face; without on-street parking, the center of the sharrow shall be placed 4 feet from the curb face or edge of pavement)

Cities throughout the United States have effectively used this treatment for many years; it is now officially part of the 2009 Manual for Uniform Traffic Control Devices (MUTCD). Additional guidance will also be available in the update of the AASHTO Bike Guide.



SHARROWS WITH BACK-IN ANGLE PARKING

Back-in/head-out diagonal parking and conventional head-in/back-out diagonal parking have common dimensions, but the back-in/headout is superior for safety reasons due to better visibility when leaving. This is particularly important on busy streets or where drivers find their views blocked by large vehicles, tinted windows, etc. (drivers do not back blindly into an active traffic lane). Furthermore, with back-in/head-out parking, drivers can see bicyclists as they prepare to pull out. See the “Back-in/Head-out Angle Parking” study by Nelson\Nygaard Consulting Associates for more information: www.bicyclinginfo.org/library/details.cfm?id=4413

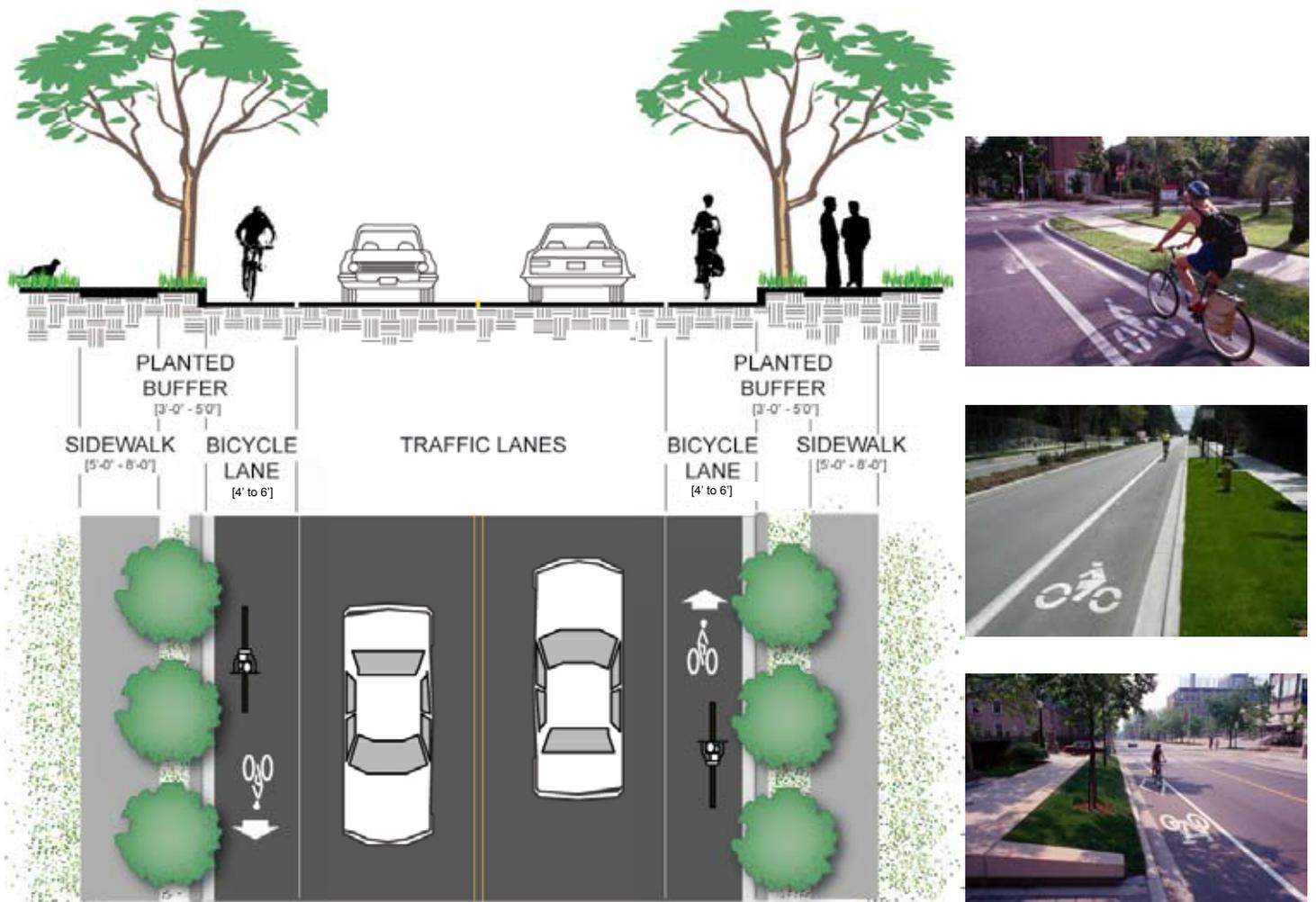




Bicycle Lanes

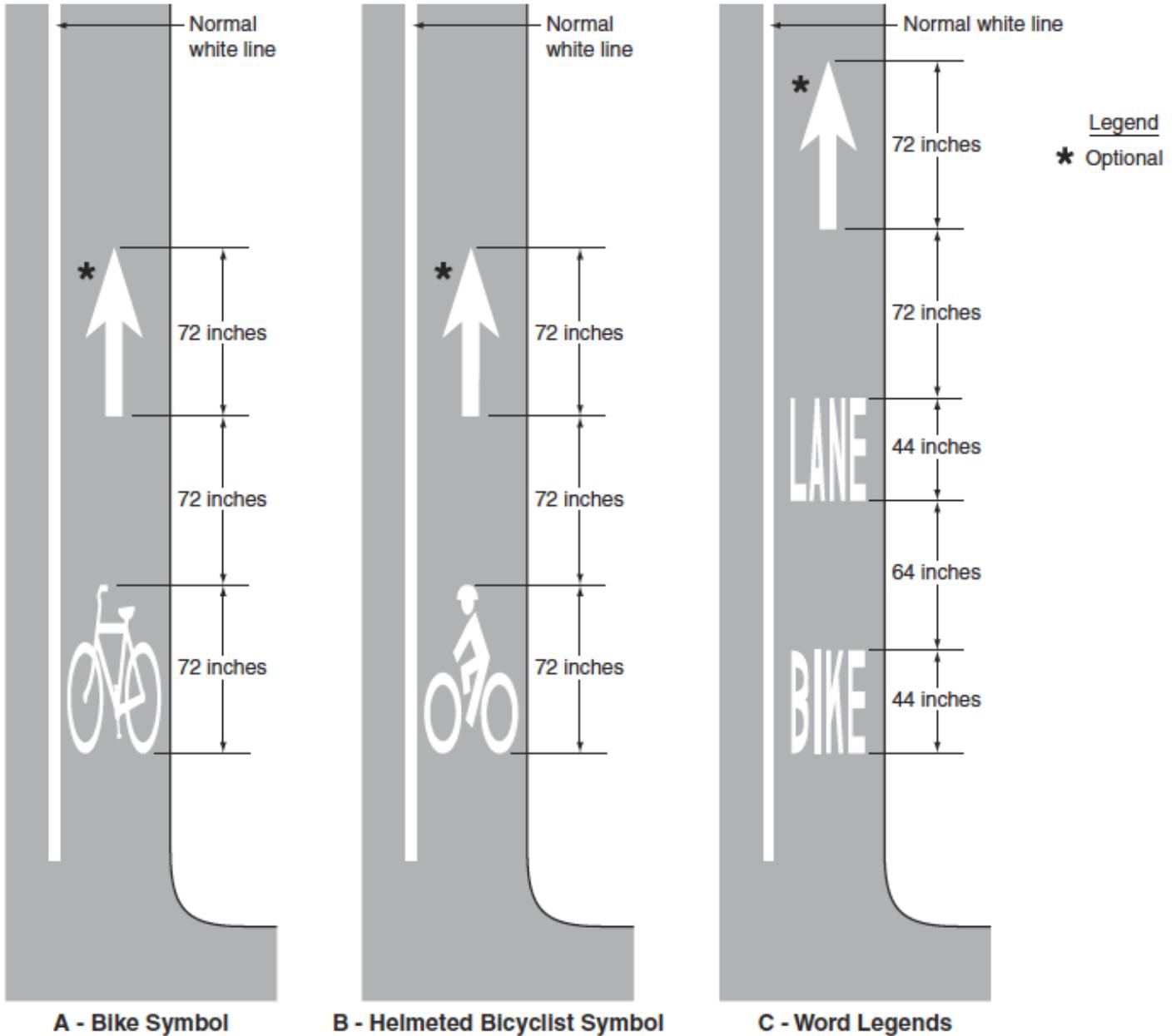
A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are located on both sides of the road, except one way streets, and carry bicyclists in the same direction as adjacent motor vehicle traffic. In some communities, local cyclists may prefer to use striped shoulders as an alternative to bicycle lanes (see guidelines for 'Striped/Paved Shoulders').

- Recommended bicycle lane width: 6' from the curb face when a gutter pan is present (or 4' from the edge of the gutter pan); 4' from the curb face when no gutter pan is present.
- As speed and volume increase, greater width is preferred. Per the AASHTO Guidebook, page 23, a width of 5 feet or greater is preferable and additional widths as desirable where substantive truck traffic is present, or where motor vehicle speeds exceed 50 mph.
- Should be used on roadways with average daily traffic (ADT) counts of 3,000 or more
- Not suitable where there are a high number of commercial driveways
- Suitable for 2-lane facilities and 4-lane divided facilities





Below: 2009 MUTCD examples of word, symbol, and pavement markings for bicycle lanes.



COLORIZED BIKE LANES *(Not part of the 2009 MUTCD)*

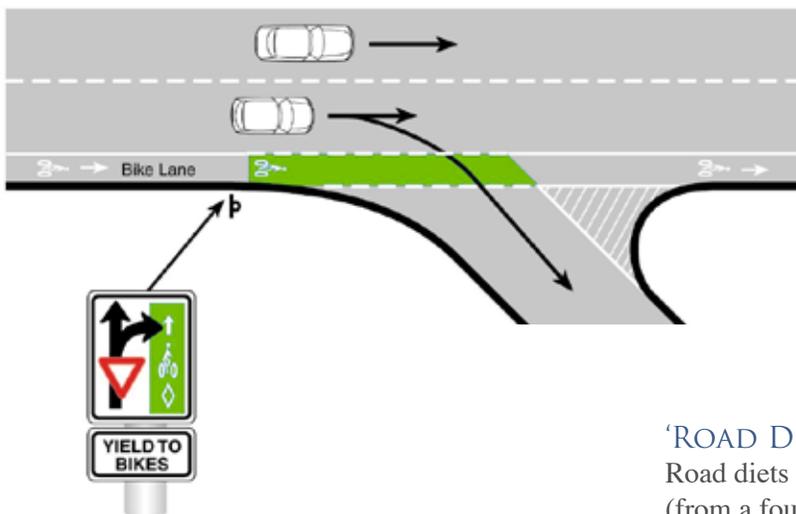
In addition to markings presented in the MUTCD, the following experimental pavement markings may be considered. Colored pavement is used for bicycle lanes in areas that tend to have a higher likelihood for vehicle conflicts. Examples of such locations are freeway on- and off-ramps and where a motorist may cross a bicycle lane to move into a right turn pocket. In the United States, the City of Portland and New York City have colorized bike lanes and supportive signing with favorable results. Studies after implementation showed more motorists slowing or stopping at colored lanes and more motorists using their turn signals near colored lanes. Green is the recommended color (some cities that have used blue are changing to green, since blue is associated with handicapped facilities).

Below: Henry Street in Brooklyn, NY.



Consideration:

- Colorized bike lanes are not currently included in the MUTCD but there are provisions for jurisdictions to request permission to experiment with innovative treatments (and thus with successful application, future inclusion of colorized bike lanes in the MUTCD could occur).



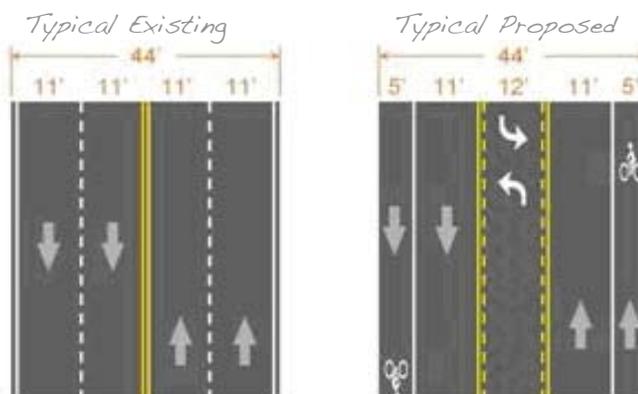
Left: colorized bicycle lane application at a potential conflict area.

BIKE LANES WITH ON-STREET PARKING

Where on-street parking is permitted, and a bike lane is provided, the bike lane must be between parking and the travel lane. Appropriate space must be allocated to allow passing cyclists room to avoid open car doors. The distance between the curb face and the outer marking of the bicycle lane is typically 13 to 15 feet (parking stall of 8 to 10 feet and bike lane of 5 feet).

'ROAD DIETS' FOR BICYCLE LANES

Road diets typically involve reducing the number of travel lanes (from a four-lane road to a two-lane road with center turn lane, for example) allowing adequate space for bicycle lanes. These are generally recommended only in situations where the vehicular traffic count can be safely and efficiently accommodated with a reduced number of travel lanes. Study may be necessary for recommended road diets to ensure that capacity and level-of-service needs are balanced against bicycle level of service needs.





Striped/Paved Shoulder

Paved shoulders are the part of a roadway which is contiguous and on the same level as the regularly traveled portion of the roadway. There is no minimum width for paved shoulders, however a width of at least four feet is preferred. Ideally, paved shoulders should be include in the construction of new roadways and/or the upgrade of existing roadways, especially where there is a need to more safely accommodate bicycles.

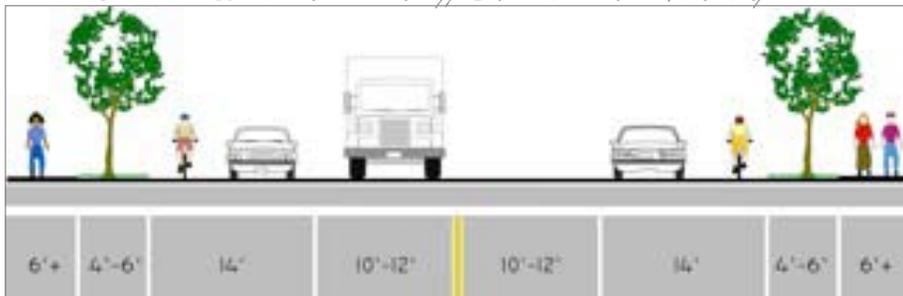
- Most often used in rural environments, although not confined to any particular setting
- Should be delineated by a solid white line, and provided on both sides of the road
- Should be contiguous and on the same level as the regularly traveled portion of the roadway
- 4' minimum width; however, if site conditions are constrained, then the option of a smaller shoulder should be weighed against simply having a wider outside lane.
- For roads with speeds higher than 40 MPH with high ADT, a shoulder width of more than 4' is recommended.
- Rumble strips should be avoided, but if used, then a width of more than 4' is needed.
- Paved shoulders should not be so wide as to be confused with a full automobile travel lane.



Wide Outside Lanes

Even without a bicycle facility or marking, the conditions for bicycling are improved when the outside travel lane in either direction is widened to provide enough roadway space so that bicyclists and motor vehicles can share the roadway without putting either in danger (e.g., higher volume roadways with wide (14') outside lanes). For outside lanes wider than 14', striping a bicycle lane should be considered.

Below: Wide Outside Lane on a Typical Two Lane Roadway



Bicycle Boulevards

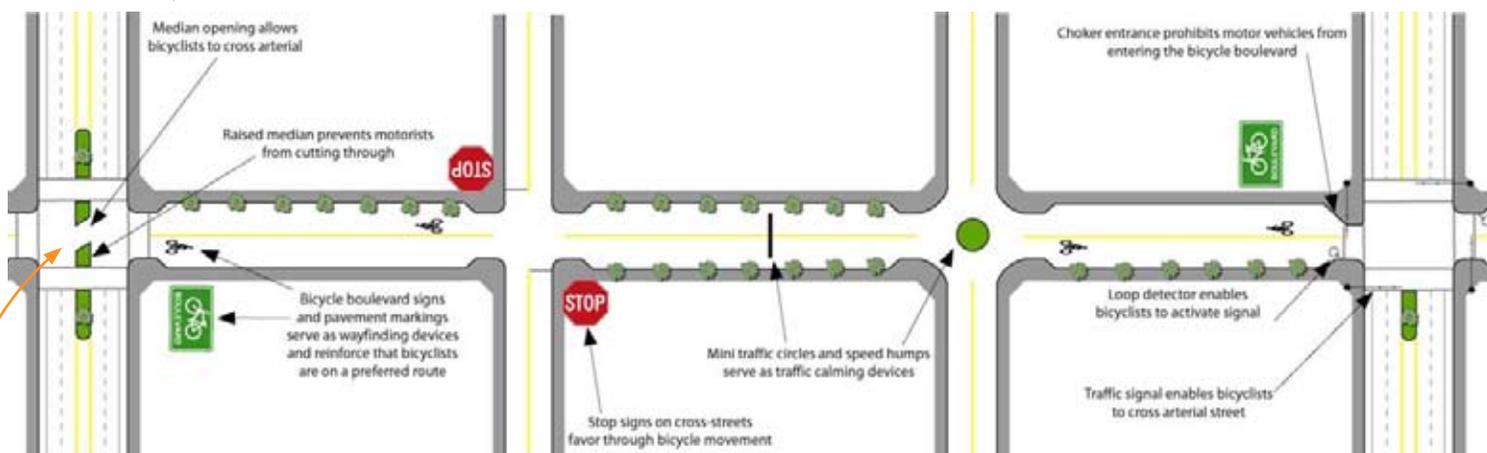
To further identify preferred routes for bicyclists, the operation of lower volume roadways may be modified to function as a through street for bicycles while maintaining local access for automobiles. Traffic calming devices reduce traffic speeds and through trips while limiting conflicts between motorists and bicyclists, as well as give priority to through bicycle movement.

For a complete overview, see www.ibpi.usp.pdx.edu/guidebook.php



Above: Bike boulevard pavement markings and choker entrance.

Below: A bicycle boulevard.



Bikeway planners and engineers may pick and choose the appropriate mix of design elements needed for bicycle boulevard development along a particular corridor. Mix and match design elements to:

- Reduce or maintain low motor vehicle volumes;
- Reduce or maintain low motor vehicle speeds;
- Create a logical, direct, and continuous route;
- Create access to desired destinations ;
- Create comfortable and safe intersection crossings;
- Reduce cyclist delay.

Image and text source: *Fundamentals of Bicycle Boulevard Planning and Design*, www.ibpi.usp.pdx.edu/guidebook.php



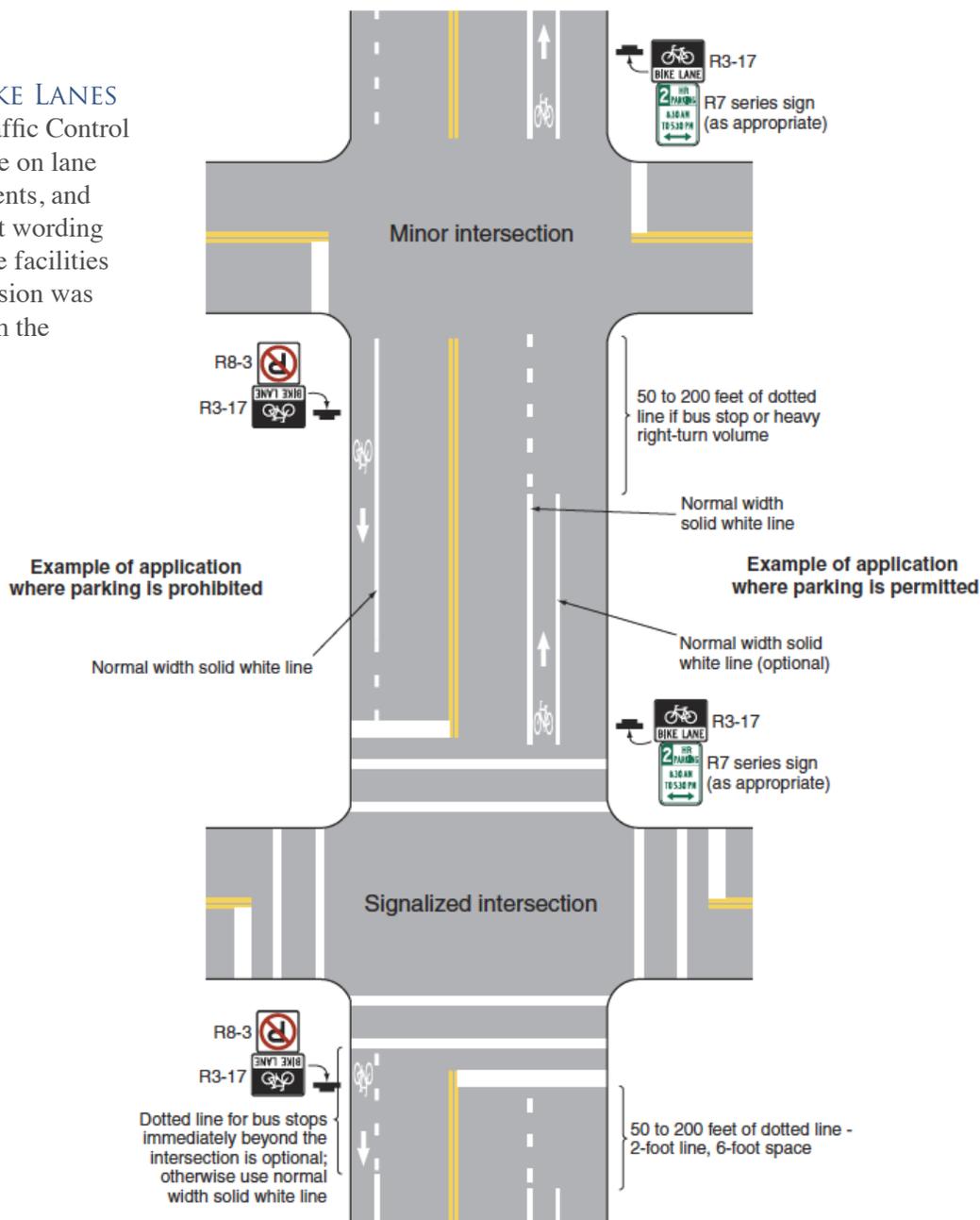
Bicycle Facilities at Intersections

Intersections represent one of the primary collision points for bicyclists, with many factors involved:

- Larger intersections are more difficult for bicyclists to cross.
- On-coming vehicles from multiple directions and increased turning movements make it more difficult for motorists to notice non-motorized travelers.
- Most intersections do not provide a designated place for bicyclists.
- Loop and other traffic signal detectors, such as video, often do not detect bicycles.
- Bicyclists making a left turn must either cross travel lanes to a left-turn lane, or dismount and cross as a pedestrian.
- Bicyclists traveling straight may have difficulty maneuvering from the far right lane, across a right turn lane, to a through lane of travel.

Solutions to some these issues are illustrated below and in the following pages, including intersection configurations for bicycle lanes, pega-tracking, signage, and bicycle-activated detector loops.

TYPICAL INTERSECTION CONFIGURATION FOR BIKE LANES
 See the Manual on Uniform Traffic Control Devices (MUTCD) for guidance on lane delineation, intersection treatments, and general application of pavement wording and symbols for on-road bicycle facilities and off-road paths (updated version was released in 2009); example from the MUTCD at right.





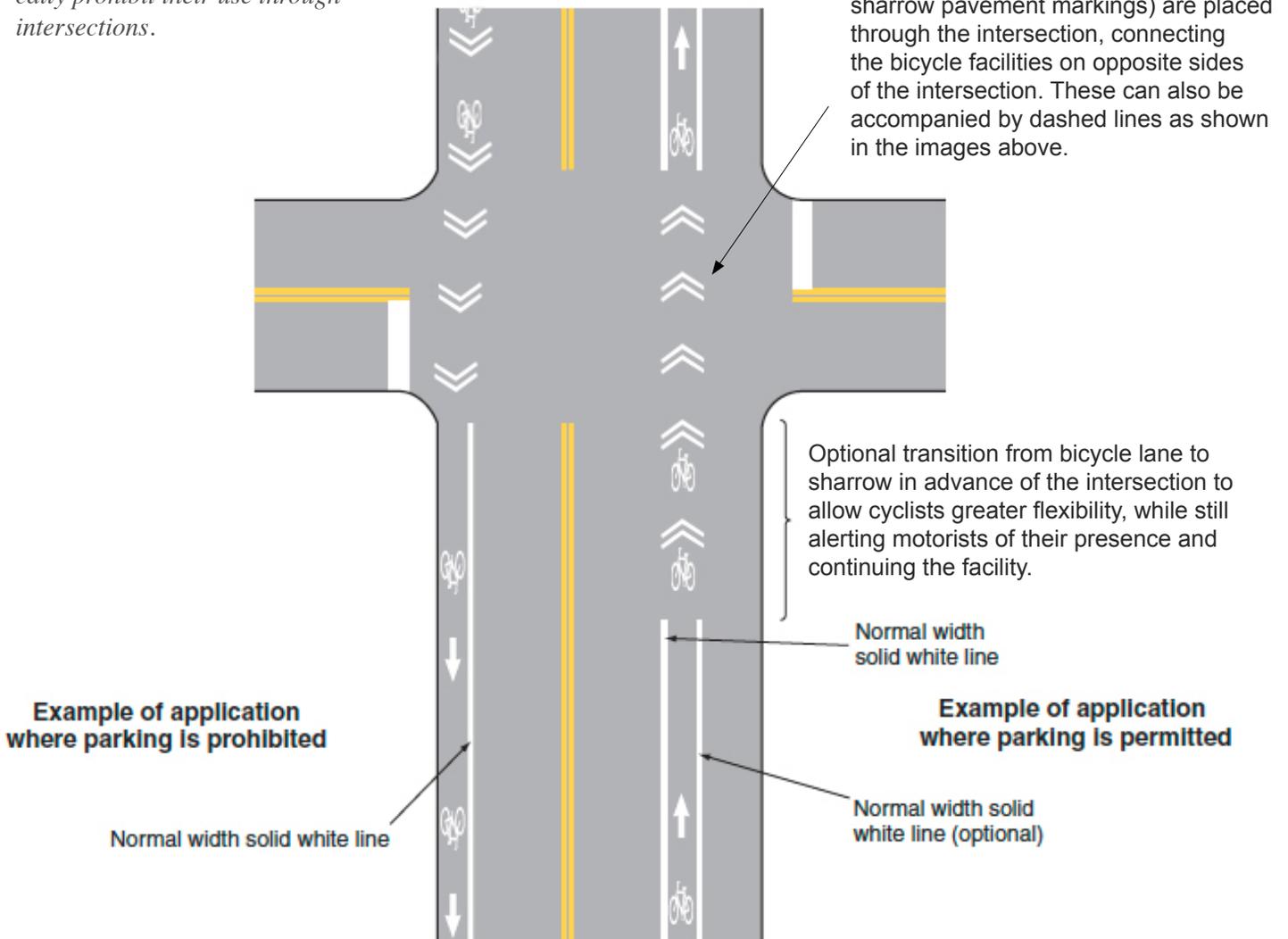
PEGA-TRACKING FOR BIKE LANES & SHARROWS AT INTERSECTIONS

Pega-tracking is a type of pavement marking that connects bicycle facilities on opposite sides of the intersection, placed along the desired path for bicyclists. This use of the sharrow marking carries the bicycle facility through the intersection, rather than entirely ‘dropping’ the facility before the intersection. This treatment is being used in major cities throughout North America.



Sharrows are included in 2009 MUTCD, which does not specifically prohibit their use through intersections.

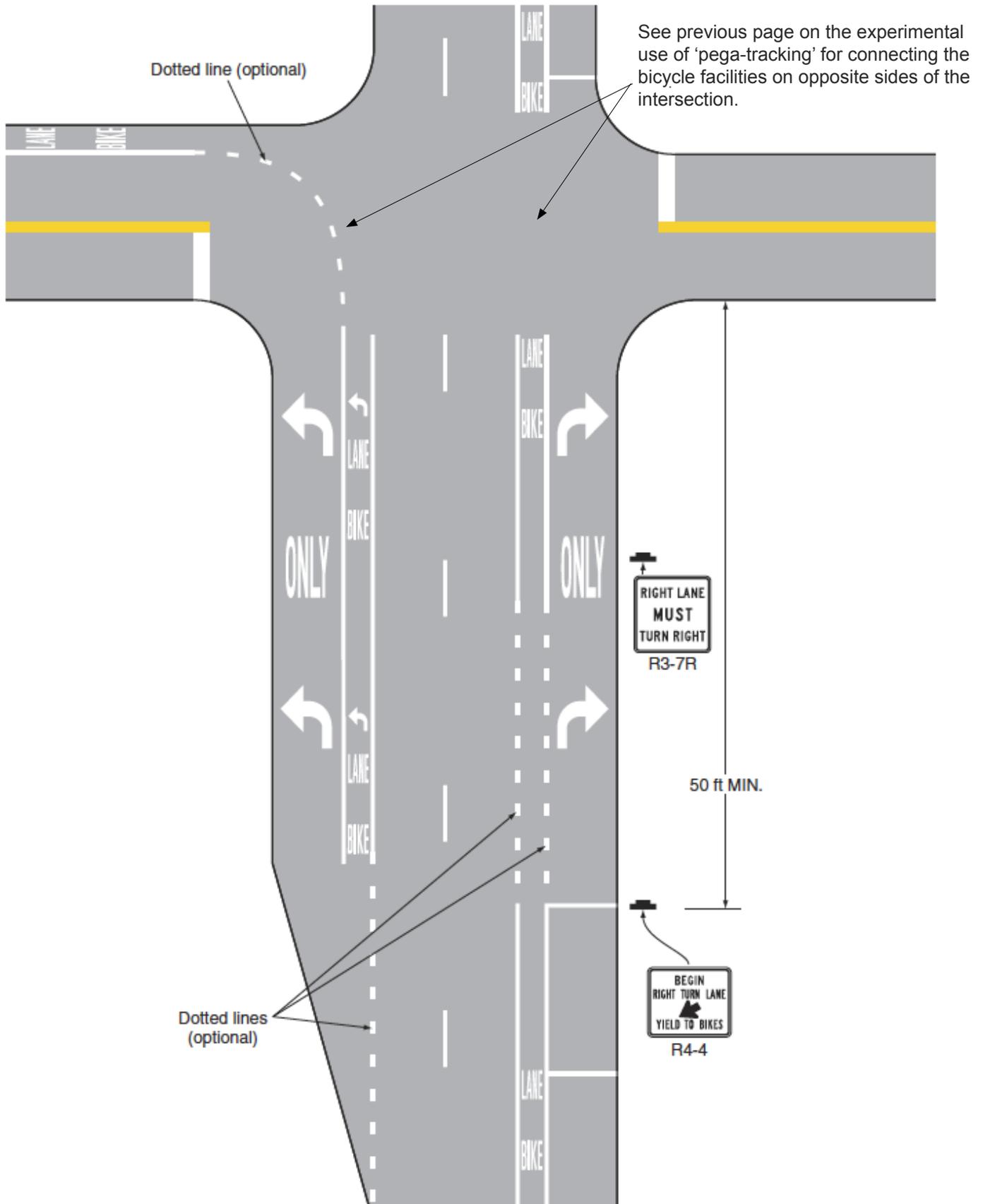
Chevrons (similar to those used in sharrow pavement markings) are placed through the intersection, connecting the bicycle facilities on opposite sides of the intersection. These can also be accompanied by dashed lines as shown in the images above.





EXAMPLE OF INTERSECTION PAVEMENT MARKING - DESIGNATED BICYCLE LANE WITH LEFT-TURN AREA, HEAVY TURN VOLUMES, PARKING, ONE-WAY TRAFFIC, OR DIVIDED HIGHWAY

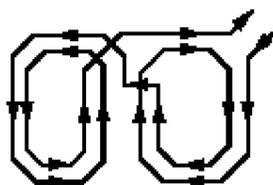
(Image below from the 2009 MUTCD, Figure 9C-1).



BICYCLE-ACTIVATED DETECTOR LOOP

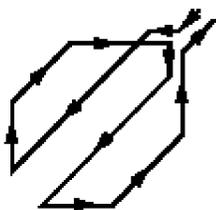
Changing how intersections operate can help make them more “friendly” to bicyclists. Improved traffic signal timing for bicyclists, bicycle-activated loop detectors, and camera detection make it easier and safer for cyclists to cross intersections. Bicycle-activated loop detectors are installed within the roadway to allow the weight of a bicycle to trigger a change in the traffic signal. This allows the cyclist to stay within the lane of travel and avoid maneuvering to the side of the road to trigger a push button, which ultimately provides extra green time before the light turns yellow to make it through the light. Current and future loops that are sensitive enough to detect bicycles should have pavement markings to instruct cyclists on how to trip them. These common loop detector types are recommended:

Use pavement marking to aid bicyclists in locating loop detectors at intersections.



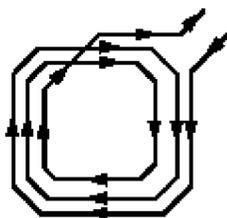
Quadruple Loop
(Recommended for bike lanes)

- Detects most strongly in center
- Sharp cut-off sensitivity



Diagonal Quadruple Loop
(Recommended for shared lanes)

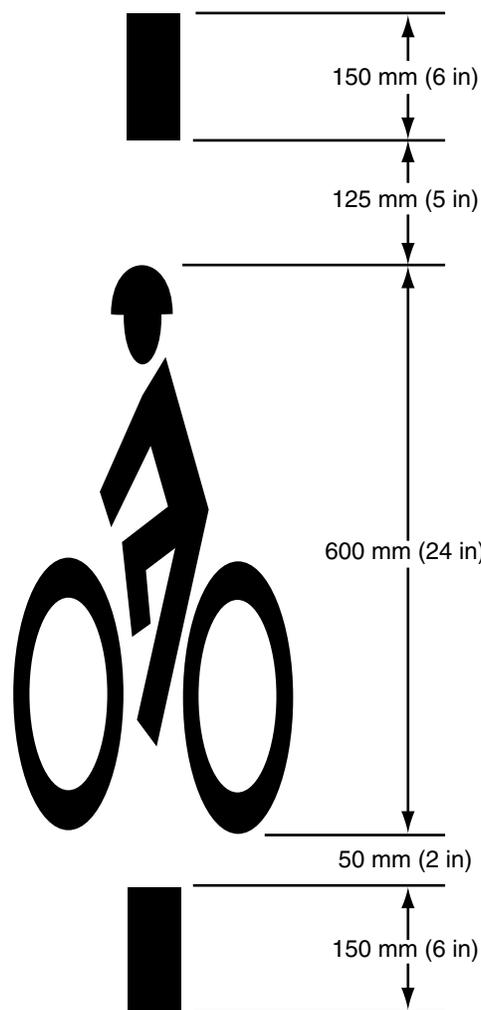
- Sensitive over whole area
- Sharp cut-off sensitivity



Standard Loop
(Recommended for advanced detection)

- Detects most strongly over wires
- Gradual cut-off

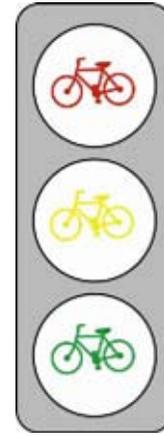
(See: Implementing Bicycle Improvements at the Local Level, FHWA, 1998, p. 70)





BICYCLE SPECIFIC TRAFFIC CONTROL SIGNALS

A bicycle signal is an electrically-powered traffic control device that may only be used in combination with an existing traffic signal. Bicycle signals direct bicyclists to take specific actions and may be used to address an identified safety or operational problem involving bicycles. A separate signal phase for bicycle movement will be used. Alternative means of handling conflicts between bicycles and motor vehicles shall be considered first. When bicycle traffic is controlled, green, yellow or red bicycle symbols are used to direct bicycle movement at a signalized intersection. Bicycle signals shall only be used at locations that meet MUTCD warrants. A bicycle signal may be considered for use only when the volume and collision, or volume and geometric warrants have been met:



1. Volume. When $W = B \times V$ and $W > 50,000$ and $B > 50$.

Where:

W is the volume warrant.

B is the number of bicycles at the peak hour entering the intersection.

V is the number of vehicles at the peak hour entering the intersection.

B and V shall use the same peak hour.

2. Collision. When 2 or more bicycle/vehicle collisions of types susceptible to correction by a bicycle signal have occurred over a 12-month period and the responsible public works official determines that a bicycle signal will reduce the number of collisions.

3. Geometric.

(a) Where a separate bicycle/multi use path intersects a roadway.

(b) At other locations to facilitate a bicycle movement that is not permitted for a motor vehicle.

See: MUTCD 2003 and MUTCD 2003 California Supplement (May 20, 2004), Sections 4C.103 and 4D.104 - www.dot.ca.gov/hq/traffopp/signtech/mutcdsuppl/



Bicycle traffic signal used to bring bicycles leaving the UC Davis campus back into the road network.





BIKE BOX / ADVANCE STOP LINE

(Not part of the 2009 MUTCD)

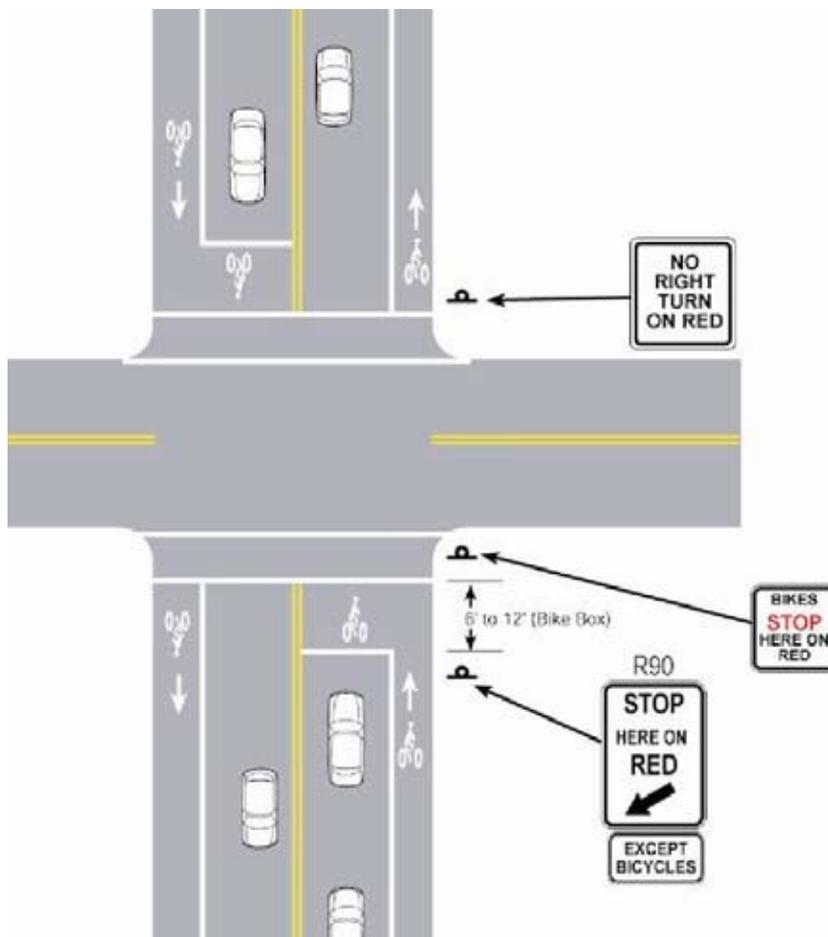
A bike box is a relatively simple innovation to improve turning movements for bicyclists without requiring cyclists to merge into traffic to reach the turn lane or use crosswalks as a pedestrian. The bike box is formed by pulling the stop line for vehicles back from the intersection, and adding a stop line for bicyclists immediately behind the crosswalk. When a traffic signal is red, bicyclists can move into this “box” ahead of the cars to make themselves more visible, or to move into a more comfortable position to make a turn. Bike boxes have been used in Cambridge, MA; Eugene, OR; and European cities.

Potential Applications:

- At intersections with a high volume of bicycles and motor vehicles
- Where there are frequent turning conflict and/or intersections with a high percentage of turning movements by both bicyclists and motorists
- At intersections with no right turn on red (RTOR)
- At intersections with high bicycle crash rates
- On roads with bicycle lanes
- Can be combined with a bicycle signal (optional)

Considerations:

- Bike boxes are not currently included in the MUTCD but there are provisions for jurisdictions to request permission to experiment with innovative treatments (and thus with successful application, future inclusion of bike boxes in the MUTCD could occur).
- If a signal turns green as a cyclist is approaching an intersection, they should not use the bike box.
- Motorists will need to be educated to not encroach into the bike box.



Plan view of a bike box.



Above and below: Bike boxes filled in with color to emphasize allocation of space to bicycle traffic.





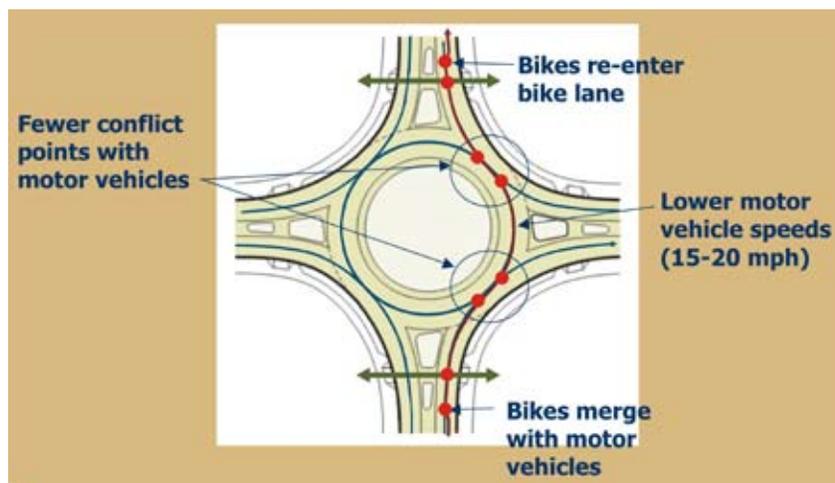
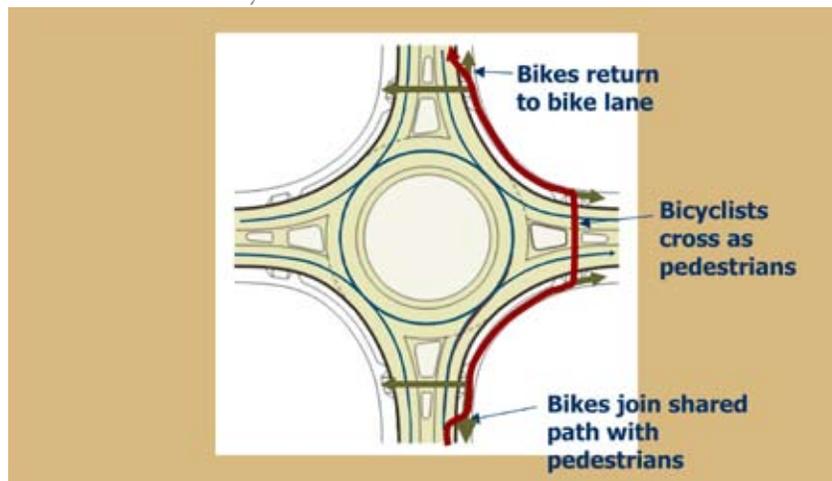
Roundabouts/Traffic Circles

Roundabouts are one-way circular intersections in which traffic flows around a center island without stop signs or signals. Because roundabout traffic enters and exits through right turns only and speeds are reduced, the occurrence of severe crashes is substantially less than in many traditional four-way intersections. The lower speeds within roundabouts also allow entering traffic to access smaller gaps between circulating vehicles, increasing traffic volume and decreasing delays, congestion, fuel consumption and air pollution.

Modern roundabouts greatly reduce the potential for high-speed, right-angle, rear-end and left turn/head-on collisions. In traditional four-way traffic intersections, there are 32 points of conflict in which two vehicles may collide. Modern roundabouts have only eight conflict areas, greatly reducing potential crashes.

- Roundabouts with only one circulating lane are much safer to navigate than are multi-lane roundabouts, especially for bicyclists.
- The diagrams below show two ways for bicyclists to navigate roundabouts, depending on comfort and skill level.

Below: Circulating as a Pedestrian: If a cyclist is uncomfortable riding with traffic, a cyclist can choose to travel instead as a pedestrian.



Above: Circulating as a Vehicle: Bike lanes are not recommended within a roundabout. Instead, cyclists merge with traffic before entering the roundabout, circulate with traffic, and then re-enter the bike lane after exiting.



Bicycle Facilities at Railroad Crossings

Railroad crossings are particularly hazardous to those who rely on wheeled devices for mobility (railroad crossings have flangeway gaps that allow passage of the wheels of the train, but also have the potential to catch wheelchair casters and bicycle tires). In addition, rails or ties that are not embedded in the travel surface create a tripping hazard. Recommendations:

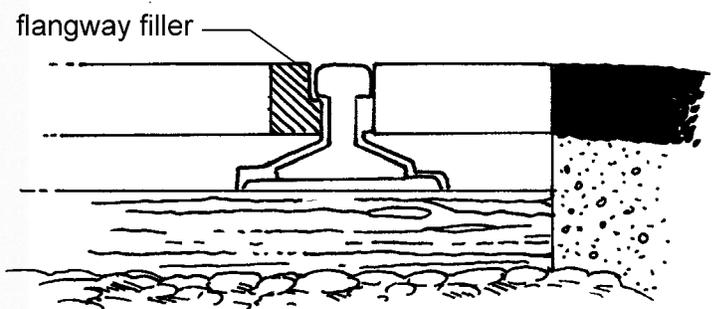
- **Make the Crossing Level:** Raise approaches to the tracks and the area between the tracks to the level of the top of the rail.
- **Bikes Should Cross RR at Right Angle**
- **When bikeways or roadways cross railroad tracks at grade, the roadway should ideally be at a right angle to the rails. When the angle of the roadway to the rails is increasingly severe, the approach recommended by Caltrans (Highway Design Manual, Section 1003.6) and AASHTO (Guide for the Development of Bicycle Facilities, 1999, p.60) is to widen the approach roadway shoulder or bicycle facility, allowing bicycles to cross the tracks at a right angle without veering into the path of passing motor vehicle traffic.**



- **Use Multiple Forms of Warning:** Provide railroad crossing information in multiple formats, including signs, flashing lights, and audible sounds.
- **Clear Debris Regularly:** Perform regular maintenance to clear debris from shoulder areas at railroad crossings.
- **Fill Flangeway with Rubberized Material or Concrete Slab:** Normal use of rail facilities causes buckling of paved-and-timbered rail crossings. Pavement buckling can be reduced or eliminated by filling the flangeway with rubberized material, concrete slab, or other treatments. A beneficial effect of this is a decrease in long-term maintenance costs.



Installing a rubber surface rather than asphalt around railroad flangeways reduces changes in level and other maintenance problems.



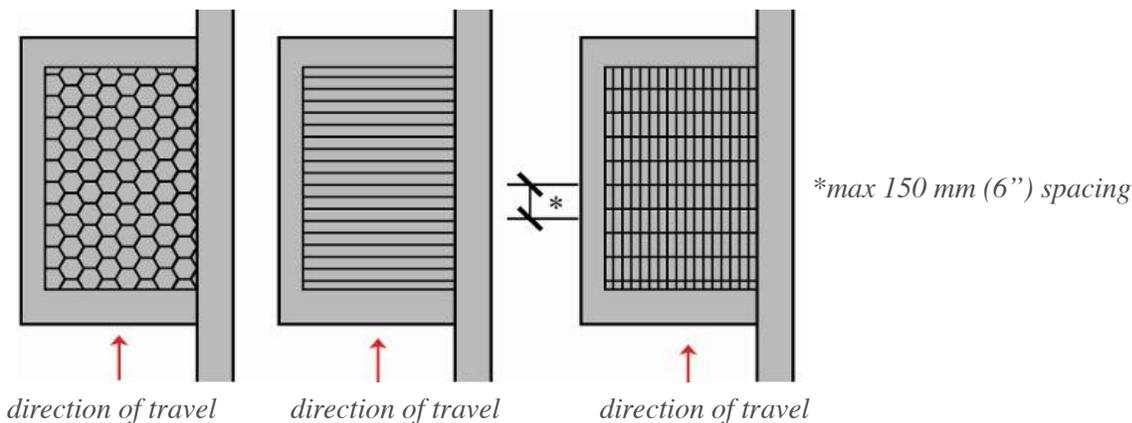
The "flangeway filler" eliminates the gap in the path of travel for pedestrians crossing railroad tracks. The filler, consisting of a rubber insert, will deflect downward with the weight of a train and does not affect railway function.



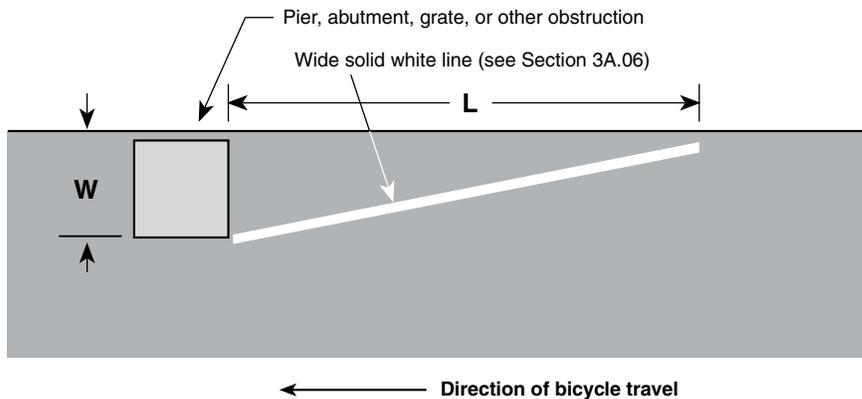
Bicycle Friendly Drainage Grates

Drainage grates usually occupy portions of roadways, such as bicycle lanes, where bicycles frequently travel. Often drainage grates are poorly maintained or are of a design that can damage a bicycle wheel or in severe circumstances, cause a bicyclist to crash. Improper drainage grates create an unfriendly obstacle a cyclist must navigate around, often forcing entrance into a motor vehicle lane in severe cases. Bicycle friendly drainage grates should be installed in all new roadway projects and problem grates should be identified and replaced.

Right: Bicycle Friendly Drainage Grate Designs



Right: MUTCD example of obstruction pavement marking; if dangerous drainage grates (or other obstructions) are not to be fixed in the short term, then this pavement marking should direct cyclists away from the obstruction.



Dangerous Drainage Grate Condition; this example is dangerous due to the grate running parallel to the roadway, creating a trap for bicycle tires.



Dangerous Drainage Grate Condition; this example is dangerous due to the surrounding paving condition (when the road was resurfaced the drainage grate remained at the same height).



Bicycle-Friendly Drainage Grate



Bicycle Parking and Bicycle Stations

BICYCLE PARKING

As more bikeways are constructed and bicycle usage grows, the need for bike parking will climb. Long-term bicycle parking at transit stations and work sites, as well as short-term parking at shopping centers and similar sites, can support bicycling. Bicyclists have a significant need for secure long-term parking because bicycles parked for longer periods are more exposed to weather and theft, although adequate long-term parking rarely meets demand. These bicycle parking standards should also be shared with local colleges.

When choosing bike racks, there are a number of things to keep in mind:

- The rack element (part of the rack that supports the bike) should keep the bike upright by supporting the frame in two places allowing one or both wheels to be secured.
- Install racks so there is enough room between adjacent parked bicycles. If it becomes too difficult for a bicyclist to easily lock their bicycle, they may park it elsewhere and the bicycle capacity is lowered. A row of inverted “U” racks should be installed with 15” minimum between racks.
- Empty racks should not pose a tripping hazard for visually impaired pedestrians. Position racks out of the walkway’s clear zone.
- When possible, racks should be in a covered area protected from the elements. Long-term parking should always be protected.

The table below provides basic guidelines on ideal locations for parking at several key activity centers as well as an optimum number of parking spaces.

BICYCLE PARKING LOCATIONS AND QUANTITIES

| Use Category | Specific Use | Required Long-term Parking Spaces | Required Short-term Parking Spaces |
|-------------------------|--|--|--|
| Residential | Boarding houses | 2, or 1 per ten sleeping rooms | None |
| | Hotels, motels | 2, or 1 per 50 employees | None |
| Commercial / Industrial | Retail sales, service operations * | 2, or 1 per 50,000 square feet of gross floor area | 2, or 1 per 25,000 square feet of gross floor area |
| | Office buildings ** | 2, or 1 per 50,000 square feet of gross floor area | 2, or 1 per 50,000 square feet of gross floor area |
| | Museums, libraries | 2, or 1 per 50 employees | 4, or 1 per 25,000 square feet of gross floor area |
| | Movie theaters | 2, or 1 per 50 employees | 4, or 1 per 50 seats |
| | Restaurants, ice cream shops, coffee shops | 2, or 1 per 50 employees | 4, or 1 per 50 seats |
| | Recreation centers | 2, or 1 per 50 employees | 4, or 1 per 25,000 square feet of gross floor area |
| | Major event entertainment (e.g., stadiums, arenas) | 2, or 1 per 50 employees | 8, or 1 per 500 seats |
| | Manufacturing | 2, or 1 per 50 employees | None |
| | Warehousing | 2, or 1 per 50 employees | None |
| Institutional | Medical centers | 2, or 1 per 50 employees | 2, or 1 per 25,000 square feet of gross floor area |
| | Transit park and ride lots | 1 per 50 daily boardings | None |

* Retail businesses below 3,000 square feet of gross floor area are exempt from bicycle parking requirements

** Office buildings below 10,000 square feet of gross floor area are exempt from bicycle parking requirements



BICYCLE RACK STANDARDS

The rack element should:

- Support the bicycle upright by its frame in two places
- Prevent the wheel of the bicycle from tipping over
- Enable the frame and one or both wheels to be secured
- Support bicycles without a diamond-shaped frame with a horizontal top tube (e.g. a mixte frame)
- Allow front-in parking: a U-lock should be able to lock the front wheel and the down tube of an upright bicycle
- Allow back-in parking: a U-lock should be able to lock the rear wheel and seat tube of the bicycle



Bicycle racks that incorporate advertising can be sponsored by local merchants.

Comb, toast, school-yard, and other wheel-bending racks that provide no support for the bicycle frame are NOT recommended.

The rack element should resist being cut or detached using common hand tools, especially those that can be concealed in a backpack. Such tools include bolt cutters, pipe cutters, wrenches, and pry bars.



INVERTED "U"
One rack element supports two bikes.



"A"
One rack element supports two bikes.



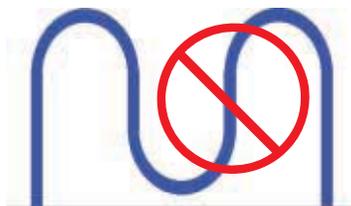
POST AND LOOP
One rack element supports two bikes.



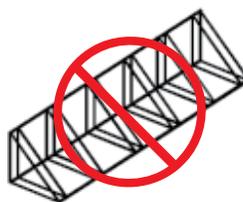
COMB
One rack element is a vertical segment of the rack.



Not recommended



WAVE
One rack element is a vertical segment of the rack.
(see additional discussion on page 3)



TOAST
One rack element holds one wheel of a bike.



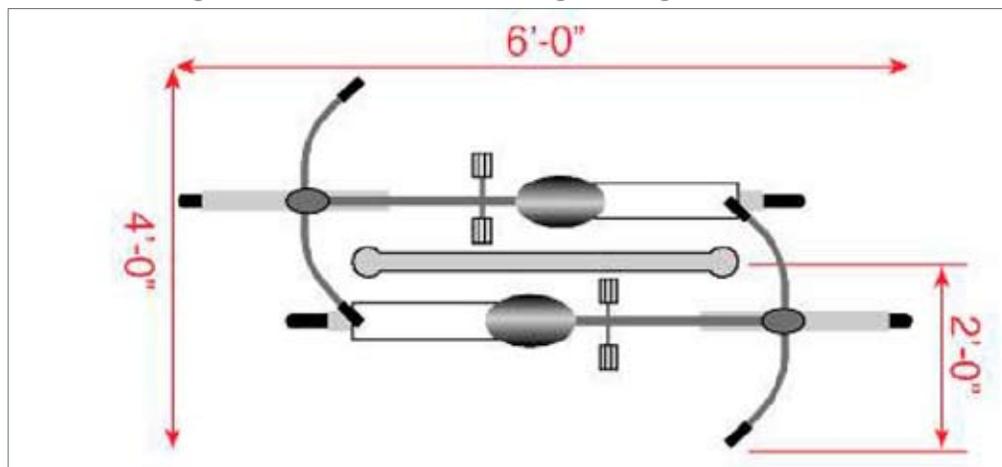
Provision of shelter from rain greatly increases usefulness of this bicycle parking facility during inclement weather.



A single inverted "U" rack can accommodate two bicycles.

Recommended guidelines for bicycle parking from the Association of Pedestrian and Bicycle Professionals, 2002, www.apbp.org.

Recommended guidelines for bicycle parking spacing dimensions.





BICYCLE PARKING AND THE PUBLIC VS. PRIVATE RIGHT-OF-WAY

Bicycle parking can be located either in the public right of way or on private property, depending on the adjacent land uses and streetscape. For example, an office park may provide short-term bicycle parking racks near building entrances, and may also provide secure indoor parking for employees. For on street bike parking, the following example from the Portland, OR offers guidelines for city policy.

EXAMPLE ON-STREET BICYCLE PARKING REQUIREMENTS (City of Portland, OR, Administrative Rule for On-Street Bicycle Parking)

- Sidewalk racks are at capacity on a recurring basis.
- City staff and applicant jointly determine time of day and day of week for highest bicycle use. This assessment must be independent of any special event that may inflate the average daily use.
- City staff visits site to assess bicycle use, based on the formula listed below, and whether or not it can be met by normal sidewalk rack installations. Due to seasonal variations and weather dependence, determination of bicycle use may need to be delayed pending suitable conditions to assess actual needs.
- Formula used to determine supply and demand for the areas:
 1. Bicycles parked within 50 feet of proposed site multiplied by 1.5
 2. Bicycles parked more than 50 feet, but less than 150 feet, of proposed site multiplied by 1.0
 3. Bicycles parked more than 150 feet, but less than 200 feet, of proposed site multiplied by 0.5
- City staff inventories parked bicycles and available bicycle racks within 200 feet of the site, measured using marked and unmarked crosswalks, including street crossing distances. City staff also will assess the possibilities for additional sidewalk racks.
- If sidewalk bicycle parking cannot be installed to meet 80 percent of inventoried, parked bicycles, then a bicycle corral is warranted. City staff will determine this.
- At a minimum there must be 100 percent agreement with adjacent property owners, established through petition.
- A Maintenance Agreement must be signed by the requestors and the City and kept on file with the City.
- If the business owner that originally requested the bicycle parking closes, sells or transfers ownership the new owner must give written approval of the bicycle parking to the City within 30 days of taking ownership.

Below: An example of replacing on-street vehicular parking with a 'bicycle corral' (in Portland, OR).





ATTENDED BIKE PARKING AND BIKE LOCKERS

Attended bike parking is analogous to a coat check – your bike is securely stored in a supervised location. An organization called The Bikestation Coalition is promoting enhanced attended parking at transit stations.

The Bikestation concept is now in use in Palo Alto, Berkeley and San Francisco and Seattle. Bikestations offer secured valet bicycle parking near transit centers. What makes Bikestations distinctive are the other amenities that may be offered at the location – bicycle repair, cafes, showers and changing facilities, bicycle rentals, licensing, etc. Bikestations become a virtual one-stop-shop for bicycle commuters.

Attended bicycle parking can be offered at some special events. For example, the Marin County Bicycle Coalition sponsors valet parking at many festivals in the county, the Sonoma County Bicycle Coalition sponsors valley parking at the downtown Santa Rosa Farmer's Market, and secured bicycle parking is offered at Pac Bell Park in San Francisco.

BIKE SHARING PROGRAMS

Many cities including Washington, DC, Montreal and Louisville are implementing innovative bike-sharing programs using a variety of revenue generating and fee-for service programs. Copenhagen, Denmark, pioneered the concept of providing a fleet of bicycles for free public use throughout the urban center. Paris has made this concept popular with the development of the city-wide Velib system of credit-card operated bike rentals. The Danish free bikes are subsidized by advertising sales on the bicycles, and they require a coin or credit card deposit for use. The bicycles are single speed, durable and suitable only for short trips. Their design makes them less likely to be stolen. They can be picked up and dropped off at a variety of destinations – making them an easy choice for in-town travel by residents and visitors. A variety of similar programs utilize recycled bicycles or bicycles painted in a common color for free public use.

See www.altabicycleshare.com for more information.

BICYCLE STATIONS AND REPAIR STANDS

Bicycle repair stands and bicycle stations are fixtures in highly successful bicycle-friendly communities. Popular locations include farmer's markets or public areas that are centers for activity, easily accessible by foot or bicycle. Local bike shops and local events could provide similar services. The presence of smaller scale operations that primarily provide maintenance and repair functions within semi-permanent structures like the tent and tarp shown below allow for a lower cost operation, thereby passing on savings to the customer in terms of lower repair and maintenance costs.

In North Carolina communities (Durham and Carborro, for example), local, volunteer-run bicycle non-profit organizations offer maintenance training and space for local residents to work on their bikes. The City of Durham, for example, granted funding to their local bicycle co-op for their provision of this important bicycle support facility.



A bicycle station with attended parking in Long Beach, CA.



Bike lockers should be constructed of opaque materials and be clearly labelled as bicycle parking. Parking rates are reasonable at about 3-5 cents per hour (www.bikelink.org).



Louisville's "Freewheelin" bike sharing system is supported by Humana Healthcare. The City is working with public private partnerships to provide a fleet of shared bicycles.



A bicycle maintenance stand at a farmers' market in Durham, NC.



Bicycle Access on Transit

Integrating bicycle facilities with transit modes allows bicyclists to greatly expand the area accessible. Below are examples of commuter trains and bus services with customized facilities allowing for simple and secure storage of bicycles without hindering or impeding other passengers. All GREAT buses should have bike racks, and should support similar options if and when light-rail or similar transit options become available. ECU should also progress towards adding bike racks on all buses.



1. Have your bike ready to load—always approach the bus from the curbside. Remove water bottles or other loose items.

2. Make eye contact with the driver to alert him/her to your presence.

3. If the rack is empty, lift the metal handle and pull the folded bike rack down flat.



4. Load the bike in the space nearest the bus.

If another bike is on the rack, load your bike in the open position. You are responsible for loading and securing your bike on the rack. Drivers are not allowed to load or unload bicycles.



5. Lift the support arm and hook it over the front tire.

Make sure the support arm clamps the tire and not the fender or frame. Your bike now is securely fastened in the rack.



6. Hop on and pay your fare.

7. When you reach your stop, tell the driver before you exit the bus that you'll be removing your bike.

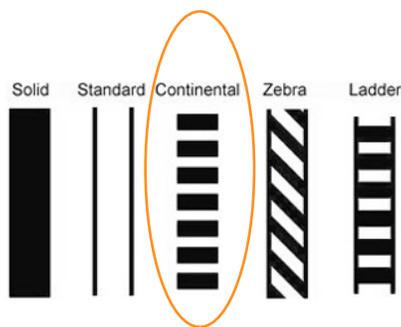
Raise the support arm, lower it into place and lift your bike off the rack.

Fold up the rack if it is empty, and step onto the sidewalk with your bike.

NEVER cross in front of the bus—wait until the bus has left the stop.

If the rack is full, please wait for the next bus.

Instructions on how to load a bicycle onto a bus equipped with a bicycle rack, developed for a bicycle user map by Fremont, CA



A variety of patterns are possible in designating a crosswalk; an example of a 'continental' design is shown above.

Crosswalk Guideline Sources:

American Association of State Highway and Transportation Officials. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. <http://www.oregonmetro.gov>

Marked Crosswalks

A marked crosswalk designates a pedestrian right-of-way across a street. It is often installed at controlled intersections or at key locations along the street (a.k.a. mid-block crossings). Every attempt should be made to install crossings at the specific point at which pedestrians are most likely to cross: a well-designed traffic calming location is not effective if pedestrians are instead using more seemingly convenient and potentially dangerous locations to cross the street. Marked pedestrian crosswalks may be used under the following conditions: 1) At locations with stop signs or traffic signals, 2) At non-signalized street crossing locations in designated school zones, and 3) At non-signalized locations where engineering judgment dictates that the use of specifically designated crosswalks are desirable.

There is a variety of form, pattern, and materials to choose from when creating a marked crosswalk. It is important however to provide crosswalks that are not slippery, are free of tripping hazards, or are otherwise difficult to maneuver by any person including those with physical mobility or vision impairments. Although attractive materials such as inlaid stone or certain types of brick may provide character and aesthetic value, the crosswalk can become slippery. Potential materials can be vetted by requesting case studies from suppliers regarding where the materials have been successfully applied. Also, as some materials degrade from use or if they are improperly installed, they may become a hazard for the mobility or vision impaired.

CROSSWALK GUIDELINES:

- Should not be installed in an uncontrolled environment [at intersections without traffic signals] where speeds exceed 40 mph. (AASHTO, 2004)
- Crosswalks alone may not be enough and should be used in conjunction with other measures to improve pedestrian crossing safety, particularly on roads with average daily traffic (ADT) above 10,000
- Width of marked crosswalk should be at least six feet; ideally ten feet or wider in downtown areas.
- Curb ramps and other sloped areas should be fully contained within the markings.
- Crosswalk markings should extend the full length of the crossings.
- Crosswalk markings should be white per MUTCD.
- Either the 'continental' or 'ladder' patterns are recommended for intersection improvements for aesthetic and visibility purposes. Lines should be one to two feet wide and spaced one to five feet apart.



Sidewalks and Walkways

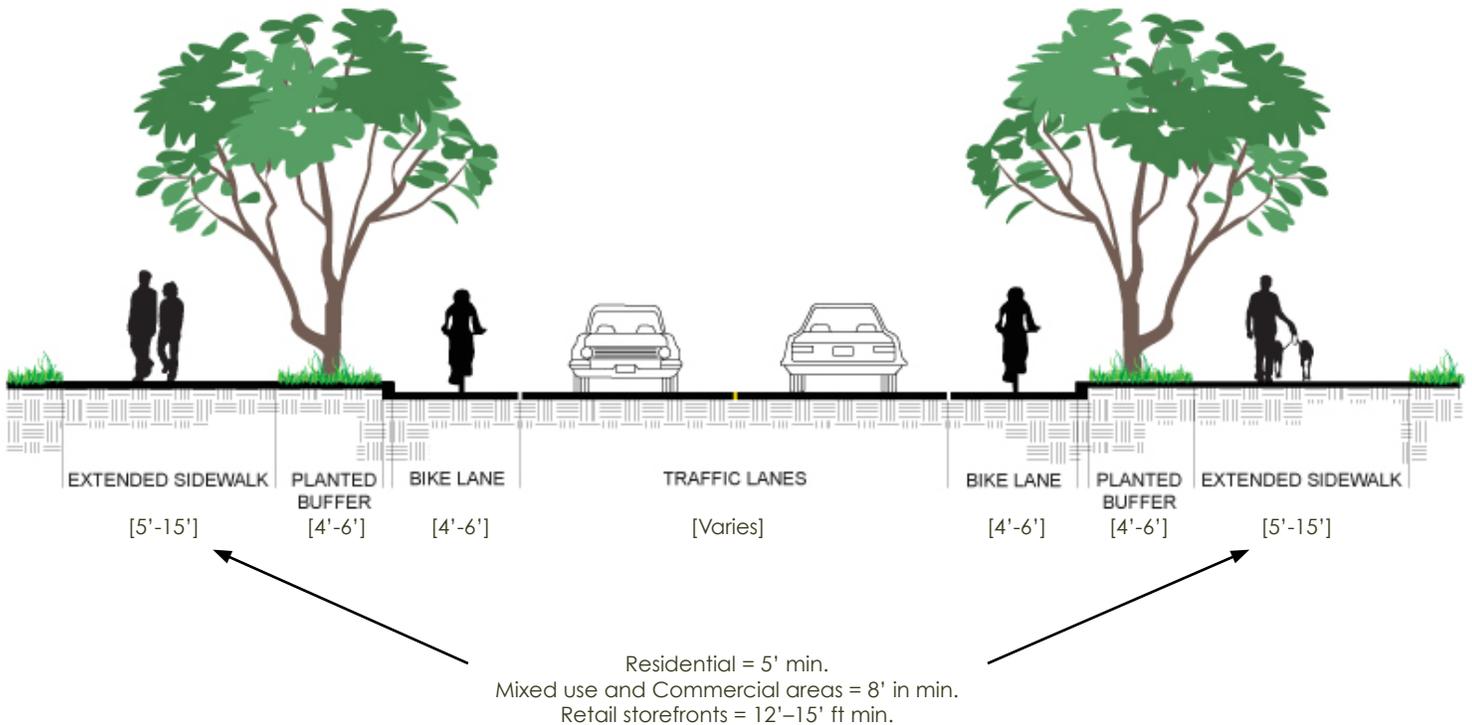
Sidewalks and walkways are extremely important public right-of-way components often times adjacent to, but separate from automobile traffic. In many ways, they act as the seam between private residences, stores, businesses, and the street.

There are a number of options for different settings, for both downtown and more rural and/or suburban areas. From a wide promenade to, in the case of a more rural environment, a simple asphalt or crushed stone path next to a secondary road, walkway form and topography can vary greatly. In general, sidewalks are constructed of concrete although there are some successful examples where other materials such as asphalt, crushed stone, or other slip resistant material have been used. The width of the walkways should correspond to the conditions present in any given location (i.e. level of pedestrian traffic, building setbacks, or other important natural or cultural features). FHWA (Federal Highway Administration) and the Institute of Transportation Engineers both suggest five feet as the minimum width for a sidewalk. This is considered ample room for two people to walk abreast or for two pedestrians to pass each other. Often downtown areas, near schools, transit stops, or other areas of high pedestrian activity call for much wider sidewalks.



Sidewalk with a vegetated buffer zone. Notice the sense of enclosure created by the large canopy street trees. (Image from <http://www.walkinginfo.org>)

Below: Typical street with bike lanes and adjacent sidewalk.





Sidewalk Guideline Sources:

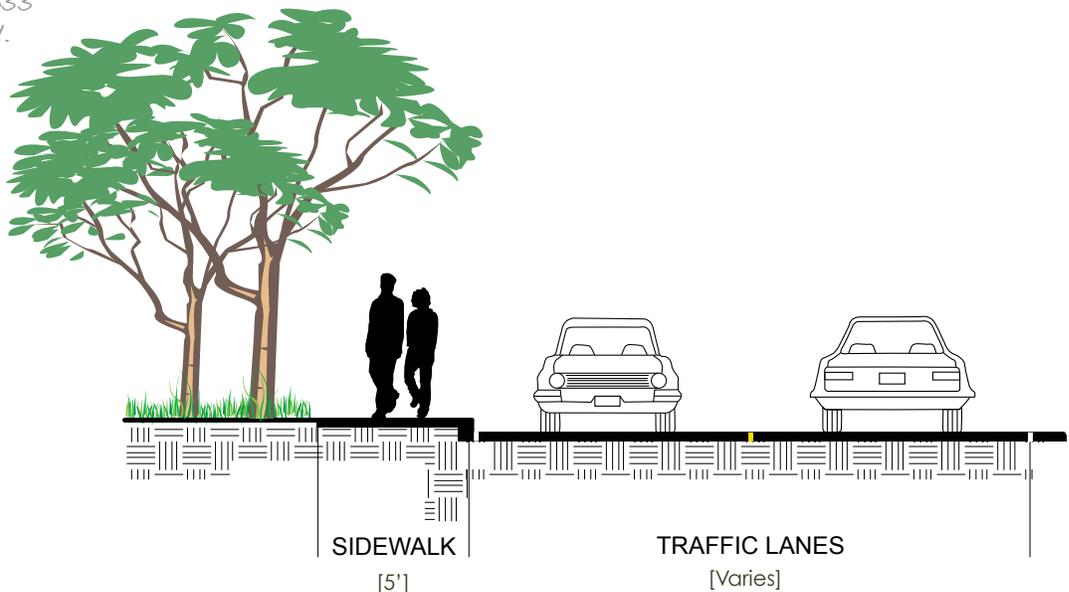
American Association of State Highway and Transportation Officials. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. www.oregonmetro.gov

SIDEWALKS AND WALKWAY GUIDELINES:

- Concrete is preferred surface, providing the longest service life and requiring the least maintenance. Permeable pavement such as porous concrete may be considered to improve water quality.
- Sidewalks should be built as flat as possible to accommodate all pedestrians; they should have a running grade of five percent or less; with a two percent maximum cross-slope.
- Concrete sidewalks should be built to minimum depth of four inches; six inches at driveways.
- Residential sidewalks should be a minimum of 5 ft in width. Sidewalks serving mixed use and commercial areas shall be a minimum of 8 ft in width (12–15 feet is required in front of retail storefronts). The maximum cross-slope should be no more than 2 percent (1:50)*.
- Buffer zone of two to four feet in local or collector streets; five to six feet in arterial or major streets and up to eight feet in busy streets and downtown to provide space for light poles and other street furniture. See the Landscaping section later in this chapter for shade and buffer opportunities of trees and shrubs.
- Motor vehicle access points should be kept to minimum.
- If a sidewalk with buffer on both sides is not feasible due to topography and right-of-way constraints, then a sidewalk on one side is better than no facility. Each site should be examined in detail to determine placement options.

Right: Where space and topography are limiting and a planted buffer is not possible, this cross section may be applied.





Curb Ramps

Curb ramps are critical features that provide access between the sidewalk and roadway for wheelchair users, people using walkers, crutches, or handcars, people pushing bicycles or strollers, and pedestrians with mobility or other physical impairments. In accordance with the 1973 Federal Rehabilitation Act and to comply with the 1990 Federal ADA requirements, curb ramps must be installed at all intersections and mid-block locations where pedestrian crossings exist (Pedestrian and Bicycle Information Center: www.walkinginfo.org/engineering/roadway-ramps.cfm). In addition, these federal regulations require that all new constructed or altered roadways include curb ramps.

Two separate curb ramps should be provided at each intersection (see image below). With only one large curb ramp serving the entire corner, there is not safe connectivity for the pedestrian. Dangerous conditions exist when the single, large curb ramp inadvertently directs a pedestrian into the center of the intersection, or in front of an unsuspecting, turning vehicle.

CURB RAMP GUIDELINES:

- Two separate curb ramps, one for each crosswalk, should be provided at corner of an intersection.
- Curb ramp should have a slope no greater than 1:12 (8.33%). Side flares should not exceed 1:10 (10%); it is recommended that much less steep slopes be used whenever possible.



The use of texture and bright color at curb ramps helps the visually impaired to cross safely.

Curb Ramp Guideline Sources:

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. <http://www.oregonmetro.gov>

Left: The corner shown has two separate ramps leading across the intersection (Image from <http://www.walkinginfo.org>).

For additional information on curb ramps see Accessible Rights-of-Way: A Design Guide, by the U.S. Access Board and the Federal Highway Administration, and Designing Sidewalks and Trails for Access, Parts I and II, by the Federal Highway Administration. Visit: www.access-board.gov for the Access board's right-of-way report.



Curb Extensions/Bulb-Outs

Curb extensions extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street.

CURB EXTENSION/BULB-OUT GUIDELINES *(Source: Bicycle and Pedestrian Information Center).*

- Curb extensions are only appropriate where there is an on-street parking lane.
- Curb extensions must not extend into travel lanes, bicycle lanes, or shoulders (curb extensions should not extend more than 1.8 m (6 ft) from the curb).
- The turning needs of larger vehicles, such as school buses, need to be considered in curb extension design. However, it is important to take into consideration that those vehicles should not be going at high speeds, and most can make a tight turn at slow speeds. In some situations, curb bulbs can actually make it easier for trucks to turn by bringing them out, away from the curb, thereby giving them a better angle to enter the receiving lane.
- It is not necessary for a roadway to be designed so that a vehicle can turn from a curb lane to a curb lane. Vehicles can often encroach into adjacent lanes safely where volumes are low and/or speeds are slow. Speeds should be slower in a pedestrian environment.
- Emergency access is often improved through the use of curb extensions if intersections are kept clear of parked cars. Fire engines and other emergency vehicles can climb a curb where they would not be able to move a parked car. At midblock locations, curb extensions can keep fire hydrants clear of parked cars and make them more accessible.
- Ensure that curb extension design facilitates adequate drainage.





Medians & Crossing Islands

Medians are barriers in the center portion of a street or roadway. When used in conjunction with mid-block or intersection crossings, they can be used as a crossing island to provide a place of refuge for pedestrians. They also provide opportunities for landscaping that in turn can help to slow traffic. A center turn lane can be converted into a raised or lowered median thus increasing motorist safety.

A continuous median can present several problems when used inappropriately. If all left-turn opportunities are removed, there runs a possibility for increased traffic speeds and unsafe U-turns at intersections. Additionally, the space occupied may be taking up room that could be used for bike lanes or other treatments. An alternative to the continuous median is to create a segmented median with left turn opportunities.

Raised or lowered medians are best suited for high-volume, high-speed roads, and they should provide ample cues for people with visual impairments to identify the boundary between the crossing island and the roadway.



Median & Crossing Island Resources:

Bicycle and Pedestrian Information Center

American Association of State Highway and Transportation Officials. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. <http://www.oregonmetro.gov>

CROSSING ISLAND GUIDELINES:

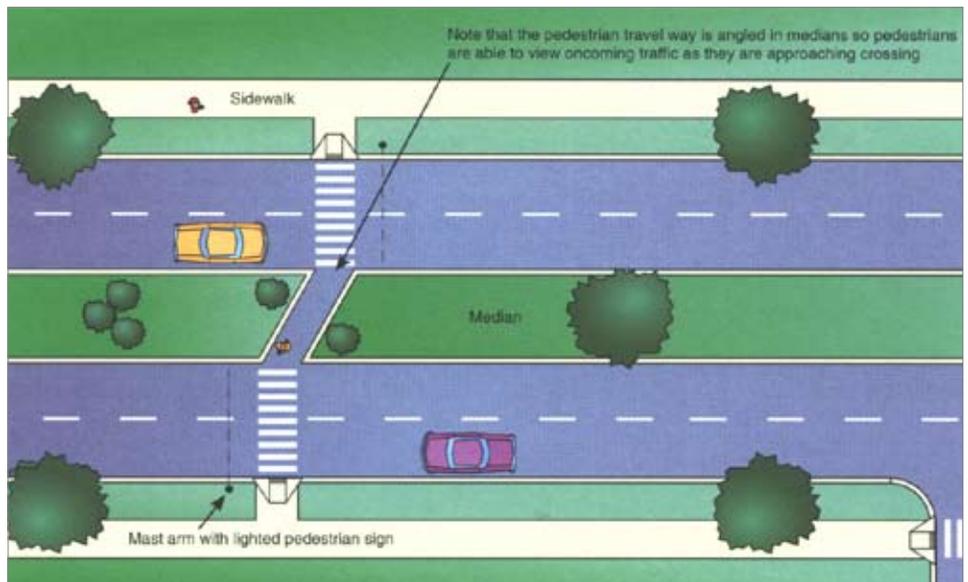
- Where midblock or intersection crosswalks are installed at uncontrolled locations (i.e., where no traffic signals or stop signs exist), crossing islands should be considered as a supplement to the crosswalk.
- Crossing islands are appropriate at signalized crossings though they should never be used to create a two-phased pedestrian crossing at a signalized intersection (don't leave pedestrian stuck on a crossing island between moving lanes of traffic)
- Bicycle lanes (or shoulders, or whatever space is being used for bicycle travel) must not be eliminated or squeezed in order to create the curb extensions or islands.
- Illuminate or highlight islands with street lights, signs, and/or reflectors to ensure that motorists see them.
- Design islands to accommodate pedestrians in wheelchairs.
- Crossing islands at intersections or near driveways may affect left-turn access.
- Medians can incorporate trees and plantings to change the character of the street and reduce motor vehicle speed. However, landscaping should not obstruct the visibility between motorists and pedestrians.
- Median crossings should provide ramps or cut-throughs for ease of accessibility for all pedestrians.
- Median crossings should be at least 6 feet wide in order to accommodate more than one pedestrian, while a width of 8 feet (where feasible) should be provided for bicycles, wheelchairs, and groups of pedestrians.
- Median crossings should possess a minimum of a 4 foot square level landing to provide a rest point for wheelchair users.



Crossing island in Greenville, NC, on Charles Blvd.



A median used in conjunction with mid-block crossing, serving as a refuge for pedestrians. (Image from AASHTO).





Pedestrian Signals

There are a host of traffic signal features and enhancements that can greatly improve the safety and flow of pedestrian traffic. Some include countdown signals, the size of traffic signals, positioning of traffic signals, audible cues, and timing intervals which are discussed below (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).

As of 2008, new federal policy requires all new pedestrian signals to be of the countdown variety. In addition, all existing signals must be updated to countdown within 10 years (updated in MUTCD). Countdown signals have proven to be an effective measure of crash reduction (25% crash reduction in 2007 FHWA study).

Countdown signals are pedestrian signals that show how many seconds the pedestrian has remaining to cross the street. The countdown can begin at the beginning of the WALK phase, perhaps flashing white or yellow, or at the beginning of the clearance, or DON'T WALK phase, flashing yellow as it counts down. Audible cues can also be used to pulse along with a countdown signal.

Signals should be of adequate size, clearly visible, and, in some circumstances, accompanied by an audible pulse or other messages to make crossing safe for all pedestrians. Consideration should be paid to the noise impact on the surrounding neighborhoods when deciding to use audible signals.

The timing of these or other pedestrian signals needs to be adapted to a given situation. In general, shorter cycle lengths and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best. Pedestrian pushbuttons may be installed at locations where pedestrians are expected intermittently. Quick response to the pushbutton or feedback to the pedestrian (e.g. indicator light comes on) should be programmed into the system. When used, pushbuttons should be well-signed and within reach and operable from a flat surface for pedestrians in wheelchairs and with visual disabilities. They should be conveniently placed in the area where pedestrians wait to cross. Section 4E.09 within the MUTCD provides detailed guidance for the placement of pushbuttons to ensure accessibility (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).

There are three types of signal timing generally used: concurrent, exclusive, and leading pedestrian interval (LPI). The strengths and weaknesses of each will be discussed with an emphasis on when they are best employed.

When high-volume turning situations conflict with pedestrian movements, the exclusive pedestrian interval is the preferred solution. The exclusive pedestrian intervals stop traffic in all directions. In order to keep traffic flowing regularly, there is often a greater pedestrian wait time associated with this system. Although it has been shown that pedestrian crashes have been reduced by 50% in some areas by using these intervals, the long wait times can encourage some to cross when there is a lull in traffic (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).



International symbols used in a crosswalk to designate WALK and DON'T WALK (Image from www.walkinginfo.org).



Audible cues can also be used to pulse along with a countdown signal.



An LPI gives pedestrians an advance walk signal before the motorists get a green light, giving the pedestrian several seconds to start in the crosswalk where there is a concurrent signal. This makes pedestrians more visible to motorists and motorists more likely to yield to them. This advance crossing phase approach has been used successfully in several places, such as New York City, for two decades and studies have demonstrated reduced conflicts for pedestrians. The advance pedestrian phase is particularly effective where there is a two-lane turning movement. There are some situations where an exclusive pedestrian phase may be preferable to an LPI, such as where there are high-volume turning movements that conflict with the pedestrians crossing.

The use of infrared or microwave pedestrian detectors has increased in many cities worldwide. These devices replace the traditional push-button system. They appear to be improving pedestrian signal compliance as well as reducing the number of pedestrian and vehicle conflicts. The best use of these devices is when they are employed to extend crossing time for slower moving pedestrians.

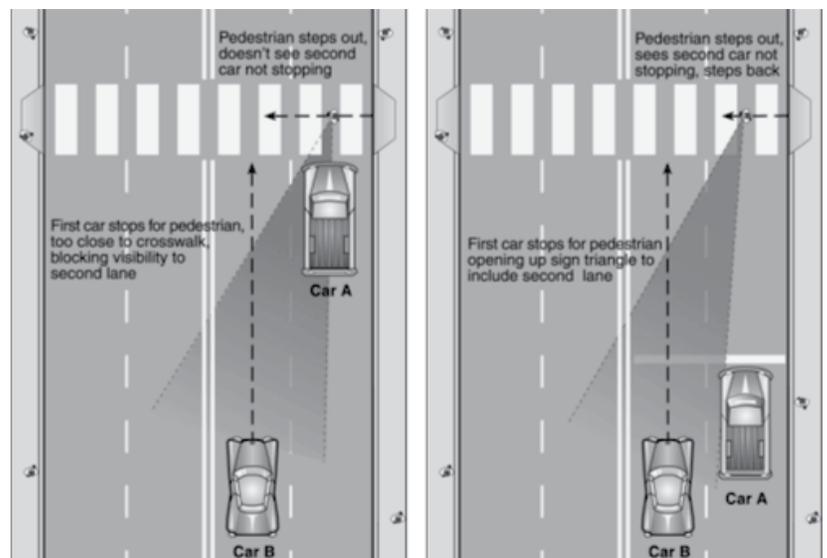
PEDESTRIAN SIGNAL GUIDELINES:

- Pedestrian signals should be placed in locations that are clearly visible to all pedestrians.
- Larger pedestrian signals should be utilized on wider roadways, to ensure readability.
- Pedestrian signal pushbuttons should be well-signed and visible.
- Pedestrian signal pushbuttons should clearly indicate which crossing direction they control.
- Pedestrian signal pushbuttons should be reachable from a flat surface, at a maximum height of 3.5 feet and be located on a level landing to ensure ease of operation by pedestrians in wheelchairs.
- Walk intervals should be provided during every cycle, especially in high pedestrian traffic areas.

Advance Stop Bars

Moving the vehicle stop bar 15–30 feet back from the pedestrian crosswalk at signalized crossings and mid-block crossings increases vehicle and pedestrian visibility. Advance stop bars are 1–2 feet wide and they extend across all approach lanes at intersections. The time and distance created allows a buffer in which the pedestrian and motorist can interpret each other's intentions. Studies have shown that this distance translates directly into increased safety for both motorist and pedestrian. One study in particular claims that by simply adding a “Stop Here for Pedestrians” sign reduced pedestrian motorist conflict by 67%. When this was used in conjunction with advance stop lines, it increased to 90% (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-enhancements.cfm>).

Below: Advance stop bars enhance visibility for pedestrians (Image from www.walkinginfo.org).



High Intensity Activated Crosswalk (HAWK)

The FHWA’s Office of Safety Research recently completed a report on the High Intensity Activated Crosswalk (HAWK)— also known as the Pedestrian Hybrid Signal in the Manual on Uniform Traffic Control Devices (MUTCD). The HAWK is a pedestrian activated beacon located on the roadside and on mast arms over major approaches to an intersection. The HAWK signal head consists of two red lenses over a single yellow lens. It displays a red indication to drivers when activated, which creates a gap for pedestrians to use to cross a major roadway. The HAWK is not illuminated until it is activated by a pedestrian, triggering the warning flashing yellow lens on the major street. From the evaluation that considered data for 21 HAWK sites and 102 unsignalized intersections, the following changes in crashes were found after the HAWK was installed: a 29 percent reduction in total crashes, a 15 percent reduction in severe crashes, and a 69 percent reduction in pedestrian crashes. The HAWK is now an MUTCD approved device, so a request for experimentation is not necessary. For more details, visit this website: <http://mutcd.fhwa.dot.gov/hm/2009/part4/part4f.htm> (Source: FHWA Office of Safety, Pedestrian Forum, Fall 2010)



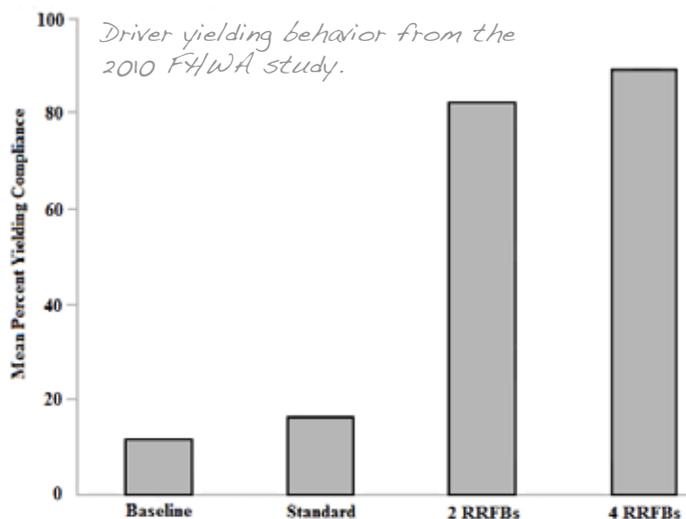
Above: HAWK signal.

Rectangular Rapid Flashing Beacons (RRFB)

The Federal Highway Administration (FHWA) issued an interim approval for the optional use of rectangular rapid flashing beacons (RRFBs, shown below, left) as warning beacons supplementing pedestrian crossing or school crossing warning signs at crossings across uncontrolled approaches. Studies have found them to have much higher levels of effectiveness in making drivers yield at crosswalks than the standard over-head and side-mount round flashing beacons. See the study “Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks” (FHWA, 2010), which showed installation of the two-beacon system increased yielding compliance from 18 to 81 percent, which was statistically significant.



Left: RRFB with two forward-facing LED flashers and a side-mounted LED flasher.



Driver yielding behavior from the 2010 FHWA study.

Right: standard overhead beacon system



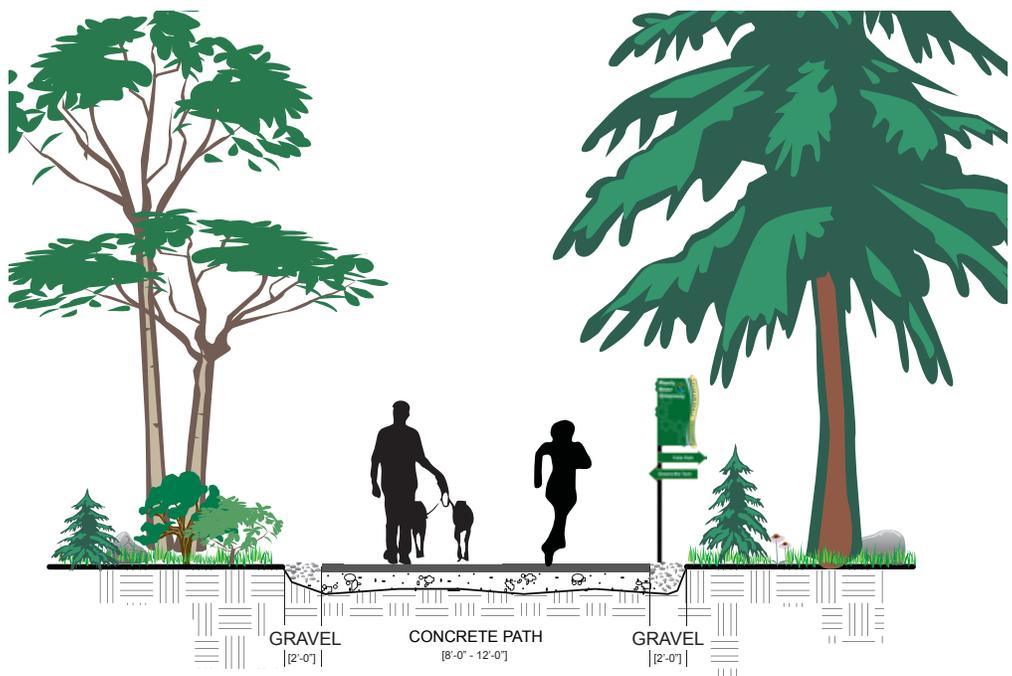


Multi-use Trails / Greenways

PAVED MULTI-USE TRAIL: OVERVIEW

Multi-use paths are completely separated from motorized vehicular traffic and are constructed in their own corridor, often within an open-space area. Multi-use trails typically have a concrete or paved asphalt surface and are capable of being constructed within flood-prone landscapes as well as upland corridors.

- Concrete is the recommended surface treatment. Paved asphalt or permeable paving can be used as alternatives.
 1. It is recommended that concrete be used for its superior durability and lower maintenance requirements—especially in areas prone to frequent flooding, and for intensive urban applications; Consider using high albedo pavement in place of conventional concrete surfaces (it reflects sunlight, reducing radiated heat).
 2. As an alternative to concrete, paved asphalt trails offer substantial durability for the cost of installation and maintenance. As a flexible pavement, asphalt can also be considered for installing a paved trail on slopes.
 3. Consider the following for permeable paving: a) It can be twice the cost of asphalt, b) A maintenance schedule for vacuuming debris is required to retain permeability, and c) Not suitable in the floodplain, or in areas without proper drainage (sheet flow or pooling of water with sediment clogs pours).
- Proper trail foundation will increase the longevity of the trail; two inches surfacing material over four inches (min.) of base course gravel over geotextile fabric is recommended. Soil borings may need to be conducted to determine adequate material depths; it should be designed to withstand the loading requirements of occasional maintenance and emergency vehicles.
- Typically 10' wide, 2% cross slope, with two-foot wide graded shoulders; the shoulders help prevent edges from crumbling and provide an alternate walking and jogging surface.
- Centerline stripes should be considered for trails that generate substantial amounts of traffic, and are particularly useful along curving sections of trail.
- Trail landscaping and maintenance should enhance conditions for wildlife by planting only native species in the trail corridor, removing invasive species when possible, and avoiding harmful pesticides and herbicides. The overall shape of protected natural landscapes along trail corridors also influences wildlife: single, large, contiguous natural areas are more beneficial to wildlife than the same acreage split into smaller segments.





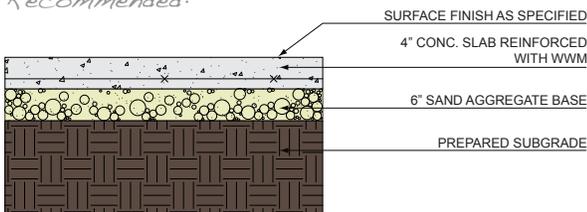
MULTI-USE TRAIL : FLOODPLAIN AREAS

'Paved Multi-use Trail' guidelines apply, with the following considerations and exceptions:

- Typically positioned outside the floodway, within the floodplain; significant vegetative buffer between the stream and trail should be left intact.
- Use existing cleared corridors for trail routing whenever possible, to avoid unnecessary vegetative clearing.
- Subject to occasional flooding, during large storm events.
- Concrete recommended, though an aggregate stone surface may be adequate in some locations.

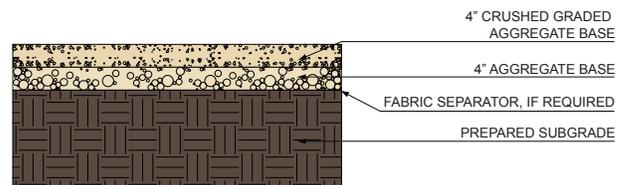


Recommended:



CONCRETE PAVING ON AGGREGATE

Alternative:



GRAVEL PAVING ON AGGREGATE



Sidepaths

Multi-use paths located within the roadway corridor right-of-way, or adjacent to roads, are called ‘Sidepaths’. Sidepaths provides a comfortable walking space for pedestrians and enables children and recreational bicyclists to ride without the discomfort of riding in a busy street.

This configuration works best along roadways with limited driveway crossings and with services primarily located on one side of the roadway, or along a riverfront or other natural feature. **Not recommended in areas with frequent driveways or cross streets.**

- A minimum 10’ width is necessary on sidepaths for bicyclists to pass one another safely (12’ for areas expecting high use)
- A 6’ or greater vegetated buffer between the sidepath and the roadway should be provided where possible.
- Roadway corridors where side paths are recommended should also have adequate on-road bicycle facilities (such as shared lane markings, paved shoulders, or bicycle lanes), so that all levels of bicyclists are accommodated.
- Well-designed transitions from sidepaths to on-road facilities will direct bicyclists to the correct side of the roadway (see guidelines for Trail-Roadway Intersections)





Natural Surface Trails

Sometimes referred to as footpaths or hiking trails, the natural surface trail is used along corridors that are environmentally-sensitive but can support bare earth, wood chip, or boardwalk trails. Natural surface trails are a low-impact solution and found in areas with limited development.

- The trail can vary in width from 18-inches to 6-feet; vertical clearance should be maintained at nine-feet above grade.
- Preparation varies from machine-worked surfaces to those worn only by usage.
- Trail surface can be made of dirt, rock, soil, forest litter, or other native materials. Some trails use crushed stone (a.k.a. “crush and run”) that contains about 4% fines by weight, and compacts with use.
- At the time of this writing, a new, environmentally sound trail surface is being researched in Greenville County, SC. The organic soil stabilizer, called Roadzyme, is non-toxic, made from sugar beet extract.
- Provide positive drainage for trail tread without extensive removal of existing vegetation; maximum slope is five percent (typical).
- Trail erosion control measures include edging along the low side of the trail, steps and terraces to contain surface material, and water bars to direct surface water off the trail; use bedrock surface where possible to reduce erosion.
- Consider implications for accessibility when weighing options for surface treatments.
- For the purposes of this Plan, ‘Natural Surface Trails’ do not include bicycles. See following page for guidelines on mountain bike trails.



Natural surface trails provide options in areas that are environmentally sensitive.

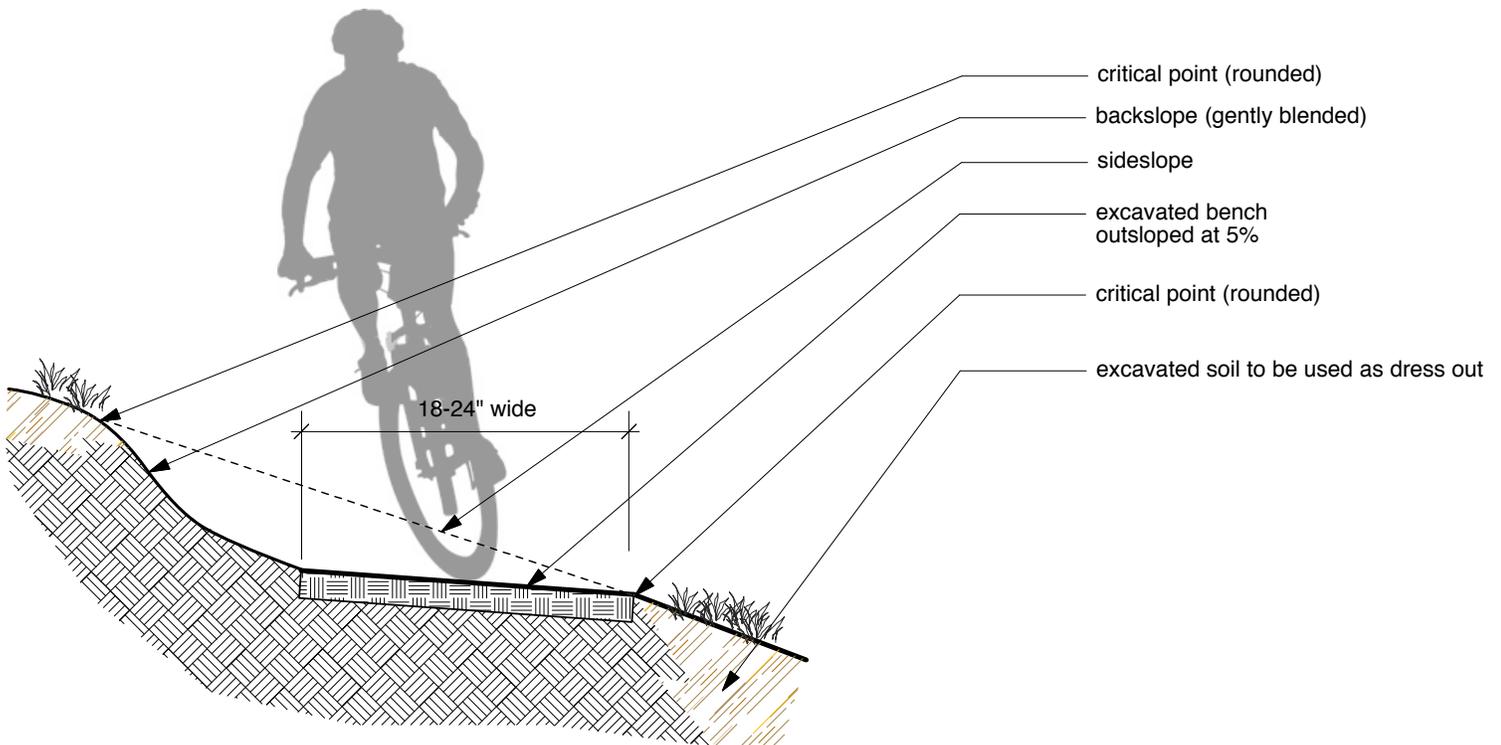




Single-Track Mountain Bike Trails

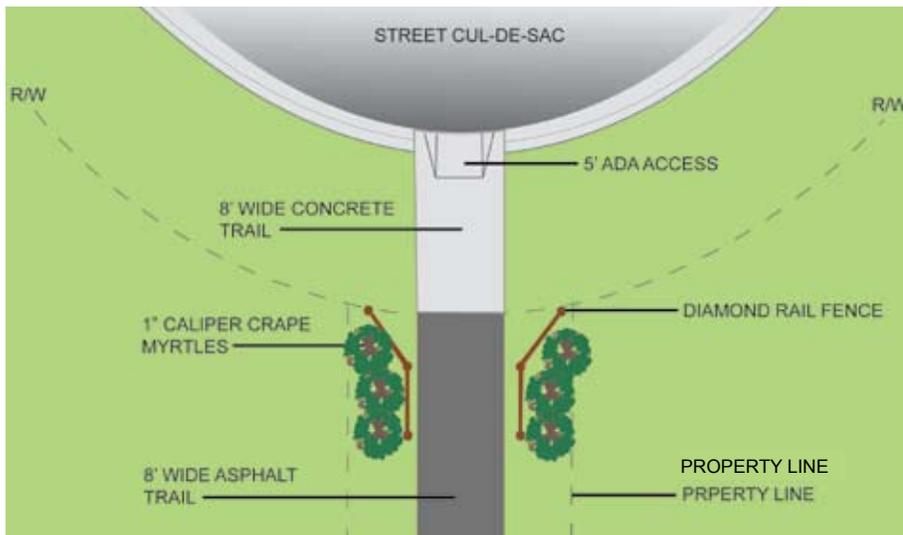
Due to their narrow width and ability to contour with the natural topography, single-track mountain bike trails (or off-road bicycling trails) require the least amount of disturbance and support features of all types of trails.

- Their minimal footprint provides opportunities for localized stormwater management solutions. Localizing the stormwater features at small scales along the network keeps the trails available for use year-round and requires very little long term maintenance.
- If trails remain unused during storm events, and are constructed correctly, they can remain virtually maintenance free.
- Mountain bike trails are typically 18-24 inches wide and have compacted bare earth or leaf litter surfacing.
- Mountain bike trails are constructed using hand tools or low impact machinery such as a mini excavator.
- Refer to the International Mountain Bicycling Association (IMBA) standards for more information.





Neighborhood Spur Trail



Neighborhood entrance trail diagram.

Neighborhood spur trails provide residential areas with direct bicycle and pedestrian access to parks, trails, greenspaces, and other recreational areas. They most often serve as small trail connections to and from the larger trail network, typically having their own rights-of-way and easements. Additionally, these smaller trails can be used to provide bicycle and pedestrian connections between dead-end streets, culs-de-sac, and access to nearby destinations not provided by the overall street network. Neighborhood and homeowner association groups are encouraged to identify locations where such connects would be desirable.

- Neighborhood spur trails should remain open to the public.
- Trail pavement shall be at least 8' wide to accommodate emergency and maintenance vehicles, meet ADA requirements and be considered suitable for multi-use.
- Trail widths should be designed to be less than 8' wide only when necessary to protect large mature native trees over 18" in caliper, wetlands or other ecologically sensitive areas.
- Access trails should meander whenever possible.
- Landscaping shall be included at the street frontage of the access trail based upon input from the residents of the cul-de-sac or dead-end street. If the access is not in a cul-de-sac, the adjacent property owners and property owners directly across from the access trail will be invited to provide landscape design input. See following section related to landscaping.
- Two sections of diamond rail fencing should be included on each side of the trail near the street frontage. Diamond rail will not be included if the respective neighborhood deeds and covenants do not permit it.

Example of a neighborhood entrance trail, featuring landscape signage.





Vegetation Buffer, Landscaping, and Street Trees

Vegetated buffers are used to separate trails not only for floodplain protection and noise from the road, but also, where desired, to screen trail corridors from nearby properties.

- Use native plant species and plants appropriate to the region that are already adapted to the local soil and climate, reducing overall maintenance costs and enhancing local identity. Landscape materials should be installed during the appropriate planting season for the particular species.
- Design the buffer with a combination of evergreen and deciduous plants for year-round interest.
- Plant buffers with a combination of trees and large shrubs, understory plantings, and ground cover.
- Keep the vegetation buffer maintained so that it does not impede views or interfere with trail circulation.
- Avoid vegetation “walls” that box-in trail users.
- Select and place trail vegetation to provide seasonal comfort: shade on trails in the warmer months and warming sunlight on trails in colder months.



Street trees and other plantings provide comfort, a sense of place, and a more natural and inviting setting for pedestrians.

Landscaping used on the Capital Crescent Trail, Washington DC, shows how stormwater treatment can be tied to aesthetically pleasing plantings.

- Street and sidewalk landscaping can be used to provide a separation buffer between pedestrians and motorists (see image at left), reduce the width of a roadway, calm traffic by creating a visual narrowing of the roadway, enhance the street environment, and help to generate a desired aesthetic.
- Growth pattern and space for maturation, particularly with larger tree plantings, are important to avoid cracking sidewalks and other pedestrian obstructions.
- Islands of vegetation can be created to collect and filter stormwater from nearby streets and buildings. These islands are referred to as constructed wetlands, rain gardens, and/or bioswales. When these devices are employed, the benefits listed above are coupled with economic and ecologic benefits of treating stormwater at its source. See Seattle’s Green Streets Program as a model.

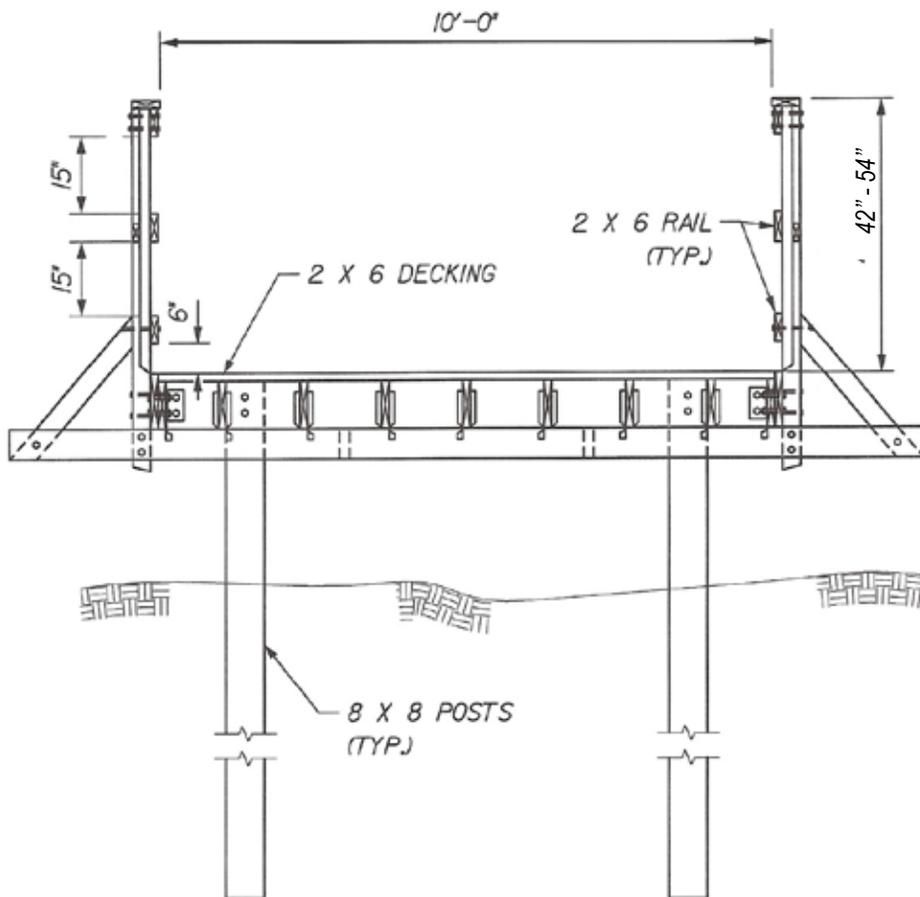
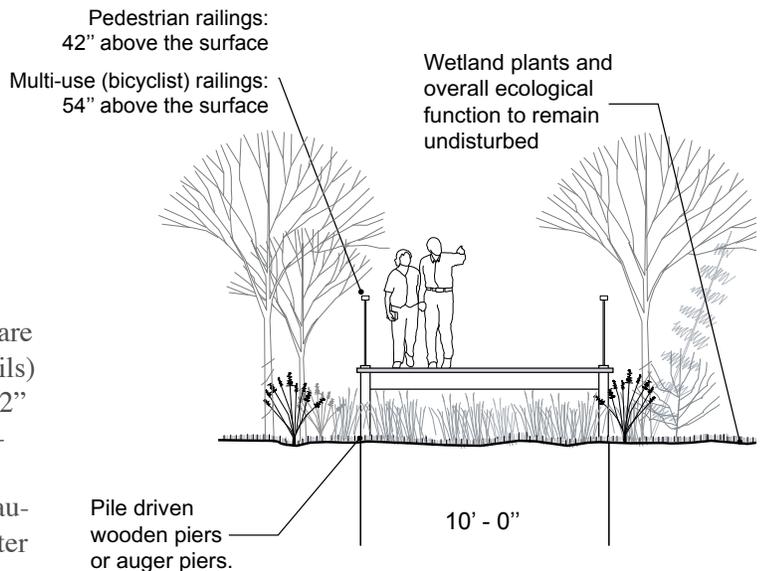




Boardwalk

Boardwalk or wood surface trails are typically required when crossing wetlands or other poorly drained areas. They are constructed of wooden planks or recycled material planks that form the top layer of the boardwalk. The recycled material has gained popularity in recent years since it lasts much longer than wood, especially in wet conditions. A number of low-impact support systems are also available that reduce the disturbance within wetland areas to the greatest extent possible.

- When the height of a boardwalk exceeds 30", railings are required (see section on 'Railings and Fences' for details)
- The thickness of the decking should be a minimum of 2"
- Decking should be either non-toxic treated wood or recycled plastic.
- The foundation normally consists of wooden posts or auger piers (screw anchors). Screw anchors provide greater support and last much longer.
- Opportunities exist to build seating and signage into boardwalks.
- In general, building in wetlands should be avoided.
- Note: muddy bicycle tires may be slick on wood surfaces.



A boardwalk allows for travel through wet areas..



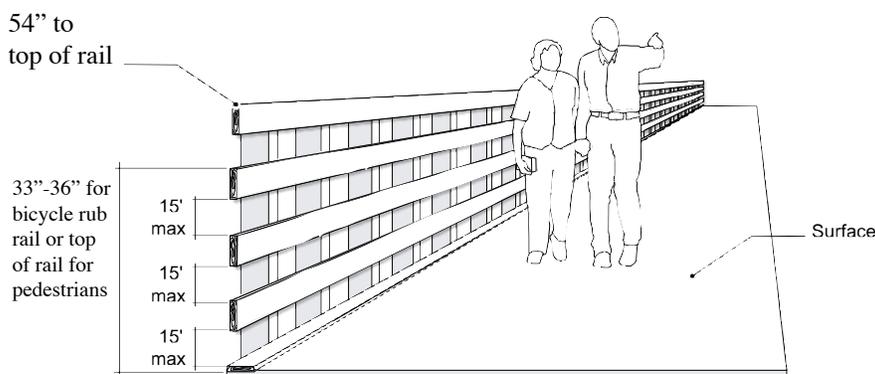
Railings and Fences

Railing and fences are important features on bridges, some boardwalks, or in areas where there may be a hazardous drop-off or hazardous adjacent land uses (such as active rail lines).

- At a minimum, railings and fences should consist of a vertical top, bottom, and middle rail. Picket style fencing should be avoided as it presents a safety hazard for bicyclists.
- A pedestrian railing should be 42-inches above the surface.
- A bicyclist railing should be 54-inches above the surface.
- The middle railing functions as a “rub rail” for bicyclists and should be located 33-and 36-inches above the surface.
- Local, state, and/or federal regulations and building codes should be consulted to determine when it is appropriate to install a railing.



Example image of fence used along a rail with trail (Grand Rounds Parkway).



Innovative Accessways

There are also other innovative ways to provide direct access, particularly in topographically constrained areas (e.g., on steep hills, over waterways, etc.) Stairs, alleyways, bridges, and elevators can provide quick and direct connections throughout the city and can be designed so they are safe, inviting, and accessible to most trail users. For example, stairways can have wheel gutters so that bicyclists can easily roll their bicycles up and down the incline and boardwalks can provide access through sensitive wet areas and across small waterways.



Left and above: Bicycle wheel gutters on stairs.

Below: A boardwalk bridge



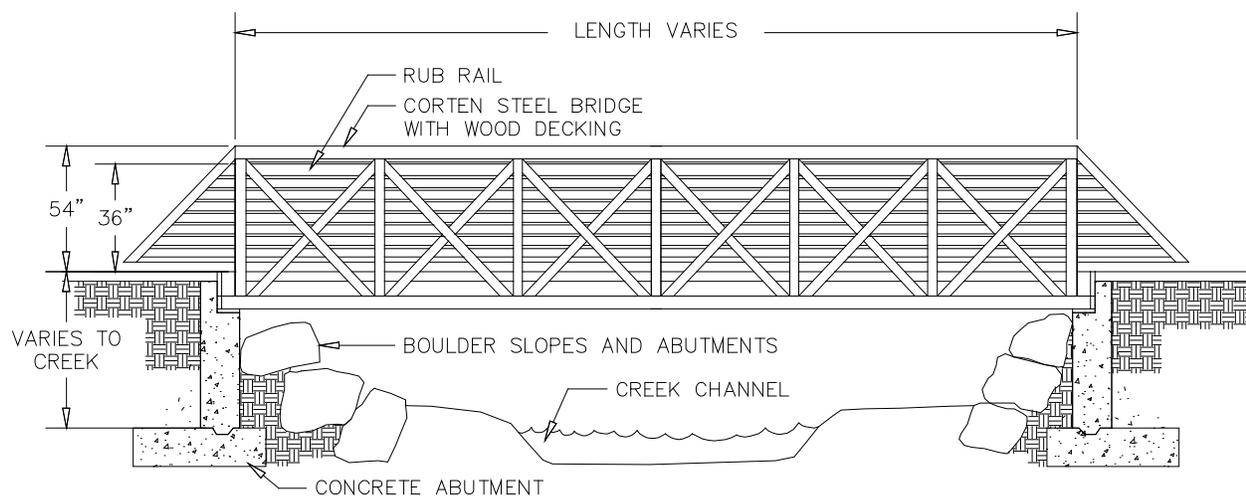


Trail Bridges, Overpasses and Underpasses

TRAIL BRIDGES

Multi-Use Trail bridges (also ‘bicycle/pedestrian bridges’ or ‘footbridges’) are most often used to provide trail access over natural features such as streams and rivers, where a culvert is not an option. The type and size of bridges can vary widely depending on the trail type and specific site requirements. Some bridges often used for multi-use trails include suspension bridges, prefabricated span bridges and simple log bridges. When determining a bridge design for multi-use trails, it is important to consider emergency and maintenance vehicle access.

- If a corridor already contains a bridge such as an abandoned rail bridge, an engineer should be consulted to assess the structural integrity before deciding to remove or reuse it.
- A trail bridge should support 6.25 tons; Information about the load-bearing capacity of bridges can be found in the American Association of State Highways and Transportation Officials (AASHTO) Standard Specifications for Highway Bridges.
- There are many options in terms of high quality, prefabricated pedestrian bridges available. Prefabricated bridges are recommended because of their relative low cost, minimal disturbance to the project site, and usually, simple installation.
- All abutment design should be sealed by a qualified structural engineer and all relevant permits should be filed.





TRAIL OVERPASS

Trail overpasses are most often used to provide trail access over large man-made features such as highways and railroads.

- Overpasses work best when existing topography allows for smooth transitions.
- Safety should be the primary consideration in bridge/overpass design.
- Specific design and construction specifications will vary for each bridge and can be determined only after all site-specific criteria are known.
- Always consult a structural engineer before completing bridge design plans, before making alterations or additions to an existing bridge, and prior to installing a new bridge.
- A ‘signature’ bridge should be considered in areas of high visibility, such as over major roadways. While often more expensive, a more artistic overpass will draw more attention to the trail system in general, and could serve as a regional landmark.
- For shared-use facilities, a minimum width of 14’ is recommended.
- Trail overpasses are prohibitively expensive and should only be placed in areas of substantial need.



“VEHICULAR” BRIDGES AND UNDERPASSES

All new or replacement bridges and tunnels should accommodate pedestrians and bicyclists. Even though bridge replacements do not occur regularly, it is important to consider these in longer-term pedestrian planning.

- Sidewalks should be included on roadway bridges on both sides, minimum 5’ wide, with minimum handrail height of 42"
- Sufficient bridge deck width should be provided on new bridges, including approaches, to accommodate bicyclists
- In roadway underpasses, where vertical clearance allows, the pedestrian walkway should be separated from the roadway by more than a standard curb height.
- On bridges built for controlled access roadways, a separated, multi-use sidepath should be provided, minimum 12 ‘ wide, with connections made to bike/ped facilities on both sides of the bridge.



TRAIL UNDERPASS

- Over and underpasses should be considered only for crossing arterials with greater than 20,000 vehicle trips per day and speeds 35 - 40 mph and over.
- Underpasses work best with favorable topography when they are open and accessible, and exhibit a sense of safety.
- Underpasses should have a daytime illuminance minimum of 10 fc achievable through artificial and/or natural light provided through an open gap to sky between the two sets of highway lanes, and a night time level of 4 foot-candle.
- Typically utilize existing overhead roadway bridges adjacent to streams or culverts under the roadway that are large enough to accommodate trail users
- Vertical clearance of the underpass is ideally at least 10'; minimum clearance is 8'.
- Width of the underpass is ideally at least 12'; minimum width is 10'.
- Proper drainage must be established to avoid pooling of stormwater, however, some underpasses can be designed to flood periodically (after significant rainfall, for instance). See image below, at top right, as an example).

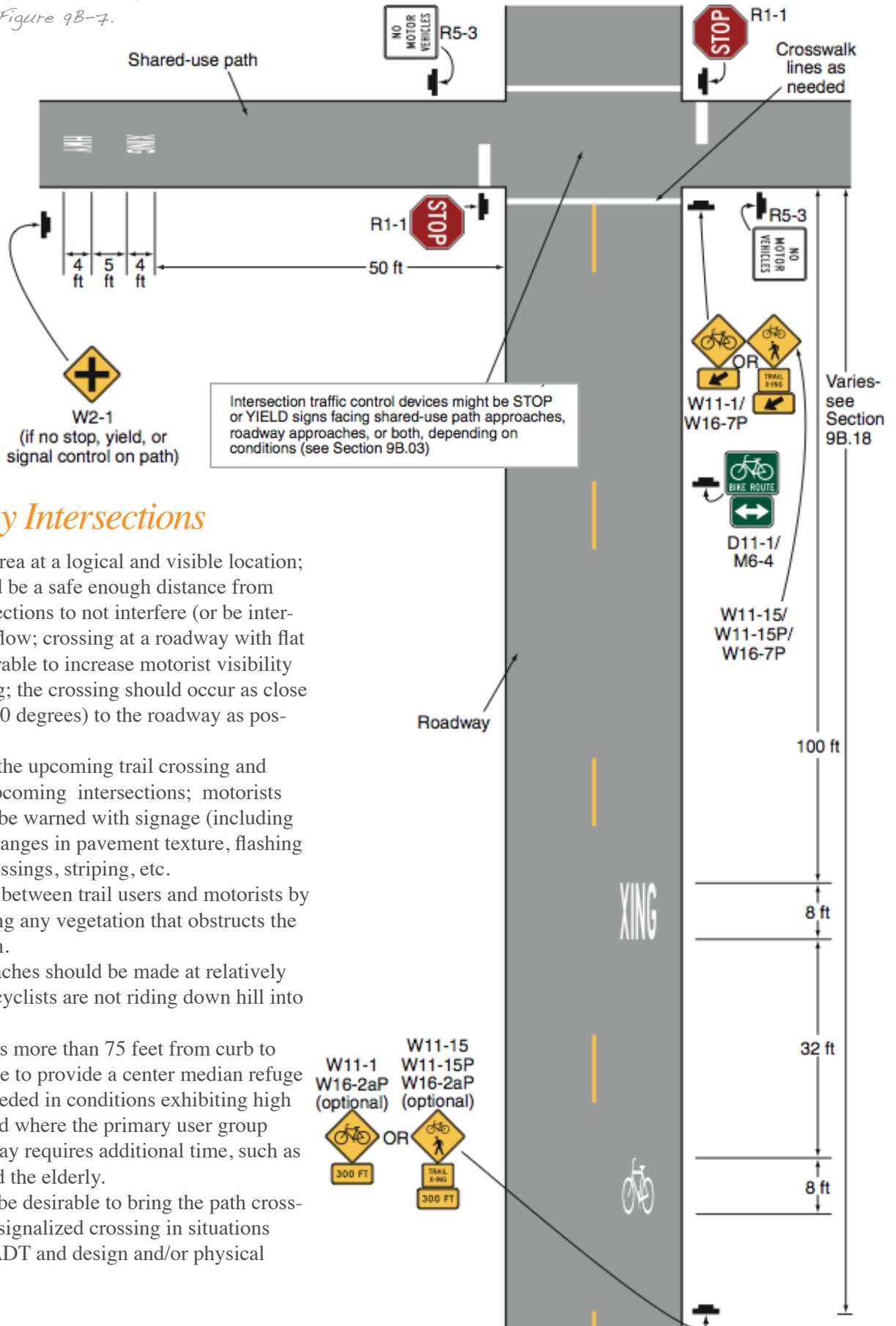


*Curb-cut
used for
drainage.*





The diagram on this page is from the 2009 Manual for Urban Traffic Control Devices (MUTCD), page 803, Figure 9B-7.



Trail-Roadway Intersections

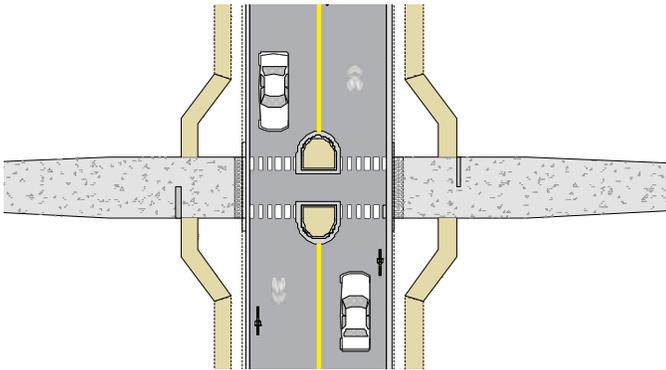
- Site the crossing area at a logical and visible location; the crossing should be a safe enough distance from neighboring intersections to not interfere (or be interfered) with traffic flow; crossing at a roadway with flat topography is desirable to increase motorist visibility of the path crossing; the crossing should occur as close to perpendicular (90 degrees) to the roadway as possible.
- Warn motorists of the upcoming trail crossing and trail users of the upcoming intersections; motorists and trail users can be warned with signage (including trail stop signs), changes in pavement texture, flashing beacons, raised crossings, striping, etc.
- Maintain visibility between trail users and motorists by clearing or trimming any vegetation that obstructs the view between them.
- Intersection approaches should be made at relatively flat grades so that cyclists are not riding down hill into intersections.
- If the intersection is more than 75 feet from curb to curb, it is preferable to provide a center median refuge area; a refuge is needed in conditions exhibiting high volumes/speeds and where the primary user group crossing the roadway requires additional time, such as school children and the elderly.
- 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.



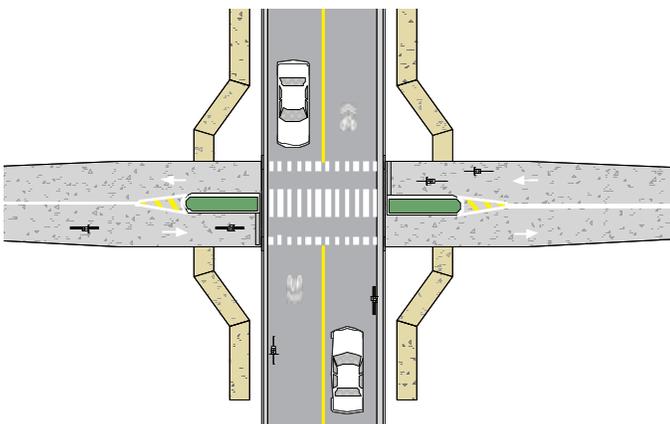
Trail-Roadway Intersections (Continued)

Also see page B-32 for information on High Intensity Activated Crosswalks (HAWK) and Rectangular Rapid Flashing Beacons (RRFB).

Median Refuge
Shared Use Path with Sidewalks



Mid-block Crossing
Shared Use Path with Sidewalks and Medians





Trail Amenities

BENCHES: There are a wide variety of benches to choose from in terms of style and materials. The illustrated bench is a custom design that reflects the industrial feel of the warehouse district it is found in. Material selection should be based on the desired design theme as well as cost.

- Due to a wide range of users, all benches should have a back rest.
- A bench should normally be 16 - 20" above ground with sturdy handrails on either side.
- The seating depth should be 18-20" and the length should vary between 60 - 90".
- Provide wheelchair access alongside benches, at least a 30-by-48-inch area for adequate maneuvering. If benches are next to each other (either side by side or face to face), allow 4 feet between them.



OTHER SEATING: Other more informal seating opportunities may exist along a trail or near a parking area where other furniture like a picnic table may be appropriate.

- This type of furniture can be triangulated with cooking facilities, and a trash receptacle.
- Wheelchair access spacing recommendations, as noted in the preceding section on 'benches,' also applies to other seating.



TRASH RECEPTACLES: Trash receptacles should be constructed of a suitable material to withstand the harsh elements of the outdoor environment. Adequate trash receptacles will combat littering and preserve the natural environment for all trail users.

- Trash receptacles should be placed along the trail and at all trailheads.
- Trash receptacles should ensure that litter is contained securely preventing contamination or spillage into the surrounding environment.





PUBLIC ART ON TRAILS

Explore opportunities to include public art within the overall design of the trail system. Local artists can be commissioned to provide art for the trail system, making it uniquely distinct. Many trail art installations are functional as well as aesthetic, as they may provide places to sit and play on. According to American Trails,

“Art is one of the best ways to strengthen the connection between people and trails. Across America and elsewhere, artists are employing a remarkably wide range of creative strategies to support all phases of trail activities, from design and development to stewardship and interpretation. In particular, art can be an effective tool for telling a trail’s story compellingly and memorably.”

Example art programs for trails can be found at:
www.americantrails.org/resources/art/ArtfulWays.html



TRAIL HEADS

Major access points should be established near commercial developments and transportation nodes, making them highly accessible to the surrounding communities. Minor trailheads should be simple pedestrian and bicycle entrances at locally known spots, such as parks and residential developments.

A minor trailhead could include facilities such as parking, drinking fountains, benches, a bicycle rack, trash receptacles, and an information kiosk and/or signage. Major trailheads could include all of the above plus additional facilities, such as rest rooms, shelters, picnic areas, a fitness course, an emergency telephone, and a larger parking area.

Partnerships could also be sought with owners of existing parking lots near trails. Benefits are three fold: Business benefit from trail-user patronage; trail owners benefit from not having to buy more land and construct a parking facility; and the environment benefits from less development in the watershed.



A major trail head at the Capital Crescent Trail in Maryland, featuring concessions and bicycle, canoe, and kayak rentals.



Air compressor (for bicycle tires).



A water fountain and pet-water fountain.



TRAIL LIGHTING

Lighting for multi-use trails should be considered on a case-by-case basis in areas where 24-hour activity is expected (such as college campuses or downtown areas), with full consideration of the maintenance commitment lighting requires. In general, lighting is not appropriate for off-road trails where there is little to no development.

- A licensed or qualified lighting expert should be consulted before making any lighting design decisions. Doing so can reduce up-front fixed costs as well as long-term energy costs.
- Use full cut-off, energy-efficient lighting that is IDA Approved Dark Sky Friendly to avoid excess light pollution and save costs (See www.darksky.org for more info)
- If a main trail corridor is unlit and closes at dark, extended hours for commuters should be considered, particularly during winter months when trips to and from work are often made before sunrise and after dusk. See the American Tobacco Trail in Durham, NC, as an example, which is unlit and remains open to commuters until 10 PM.
- Consider lighting at the following locations:
 - Entrances and exits of bridges
 - Public gathering areas along the greenway
 - Trail access points
- Only use lighting along a trail if:
 - Night usage is desired or permitted
 - It is acceptable to residents living along or near the trail
 - The area is not a wildlife area

ROADWAY LIGHTING

Proper lighting in terms of quality, placement, and sufficiency can greatly enhance a nighttime urban experience as well as create a safe environment for motorists and pedestrians. Two-thirds of all pedestrian fatalities occur during low-light conditions (AASHTO, 2004: Guide for the Planning, Design, and Operation of Pedestrian Facilities). Attention should be paid to crossings so that there is sufficient ambience for motorists to see pedestrians. To be most effective, lighting should be consistently and adequately spaced.

In commercial or downtown areas and other areas of high pedestrian volumes, lower level, pedestrian-scale lighting with emphasis on crossings and intersections may be employed to generate a desired ambience. Roadway streetlights can range from 20-40 feet in height while pedestrian-scale lighting is typically 10-15 feet. It is important to note that every effort should be made to address and prevent light pollution. Also known as photo pollution, light pollution is 'excess or obtrusive light created by humans'.

- Ensure pedestrian walkways and crossways are sufficiently lit.
- Consider adding pedestrian-level lighting in areas of higher pedestrian volumes, downtown, and at key intersections.
- Install lighting on both sides of streets in commercial districts.
- Use uniform lighting levels
- As also noted above, use full cut-off, energy-efficient lighting that is IDA Approved Dark Sky Friendly to avoid excess light pollution and save costs (See www.darksky.org for more info)



Crime Prevention Through Environmental Design (CPTED)

CPTED is the proper design and effective use of the built environment which may lead to a reduction in the fear and incidence of crime, and an improvement of the quality of life. CPTED is realized for trail design in many ways, some of which are described below and at right.

NATURAL SURVEILLANCE: For trails and greenways, natural surveillance occurs through increased numbers of trail users, creating an environment where behavior on the trail is monitored by trail users themselves. This type of surveillance can, of course, be supplemented with a volunteer-based trail patrol group, park service staff, or the local police (often on bicycle, horseback, and electric cart respectively).

EMERGENCY CALL BOXES: Callboxes can be installed at various locations on trails so that trail users can contact the police in case of an emergency. Often, these are voice call boxes using a mobile phone service, and solar-powered so no wiring need be extended to the middle of a remote location.

LIGHTING IN SELECT AREAS: Most trails operate as linear parks, officially closing at dusk. Certain high-use areas of trails are sometimes kept open after dark to serve the needs of trail commuters who use the trail after dark. For sections of the trail open after dark, lighting can serve as a tool of CPTED.

911 TRAIL ADDRESS LOCATIONS: There are several key factors involved in properly developing a 911 trail address system:

- **Awareness:** Ensure trail users understand 911 address marking system and how to use it
- **Visibility:** 911 Address Marking should be easy to see and understand but NOT interfere or overwhelm natural ambience of trail environment
- **Cooperation:** Critical to have cooperation among: Trail System Management, 911 Call Center, and Emergency Services
- **Integration:** 911 Trail Addresses MUST be properly and promptly integrated into 911 Emergency System – Addresses are useless if not incorporated into system

*Model Case Study Community:
Cedar Valley Trails 911 Signs Project
Black Hawk County, Iowa
Improving Multi-Use Recreational Trail Safety
through a Coordinated 911 Sign Project
www.americantrails.org/awards/NTS06awards/TECH06.html*





Signage and Wayfinding

A comprehensive system of signage ensures that information is provided regarding the safe and appropriate use of all trails, both on-road and off-road. The greenway network should be signed seamlessly with other alternative transportation routes, such as bicycle routes from neighboring jurisdictions, trails, historic and/or cultural walking tours, and wherever possible, local transit systems. Signage is divided into several categories: Network signs, directional/wayfinding signs, regulatory signs and warning signs, and educational/Interpretive signs

Trail signage should conform to the (2001) Manual on Uniform Traffic Control Devices and the American Association of State Highway Transportation Official Guide for the Development of Bicycle Facilities. Trail signage should also be coordinated with county as well as citywide networks.

NETWORK SIGNS

A standardized trail network logo should be developed and used to aid in reinforcing the trail's identity. Additionally, local trail logos should compliment the greenway network signage.

- Network signage should be simple, direct, and easy to identify.
- A skilled graphic designer should be consulted when generating the design for the trail logo.
- Be consistent with the logo throughout the trail network by using it as a stand alone sign, on other signage, or incorporating it into trail furnishings, such as benches or waste receptacles.

DIRECTIONAL/WAYFINDING SIGNS

The purpose of the directional sign is to direct trail users and motorists to the location of trail heads, provide incremental distances along the trail, as well as illustrate overall maps of the trail network (for the City of Greenville, please refer to the City of Greenville Wayfinding and Signage Program Construction Documentation Package, 2010).

- Kiosks are a great facility for directional signage by providing a wealth of information at once, including trail opportunities, regional maps, or local/seasonal events occurring along the greenway.
- Locate informative signs and overall trail maps at trail access points to help users entering the trail determine their next destination.
- Locate directional signs at intervals along the trail to help users identify their locations or orient their position.
- Locate mile markers 3-feet from the edge of the trail and approximately one mile intervals beginning at the northern and southern ends of the trail network.





EXAMPLES OF BICYCLE-RELATED DIRECTIONAL SIGNS (from the 2009 MUTCD)



D1-1



D1-1a



D1-1b



D1-1c



D1-2



D1-2a



D1-2b



D1-2c



D1-3



D1-3a



D1-3b



D1-3c



D3-1



D4-3



D11-1



D11-1a



D11-1bP



D11-1c



D11-2



D11-3



D11-4



M1-8



M1-8a



M1-9



REGULATORY/WARNING SIGNS

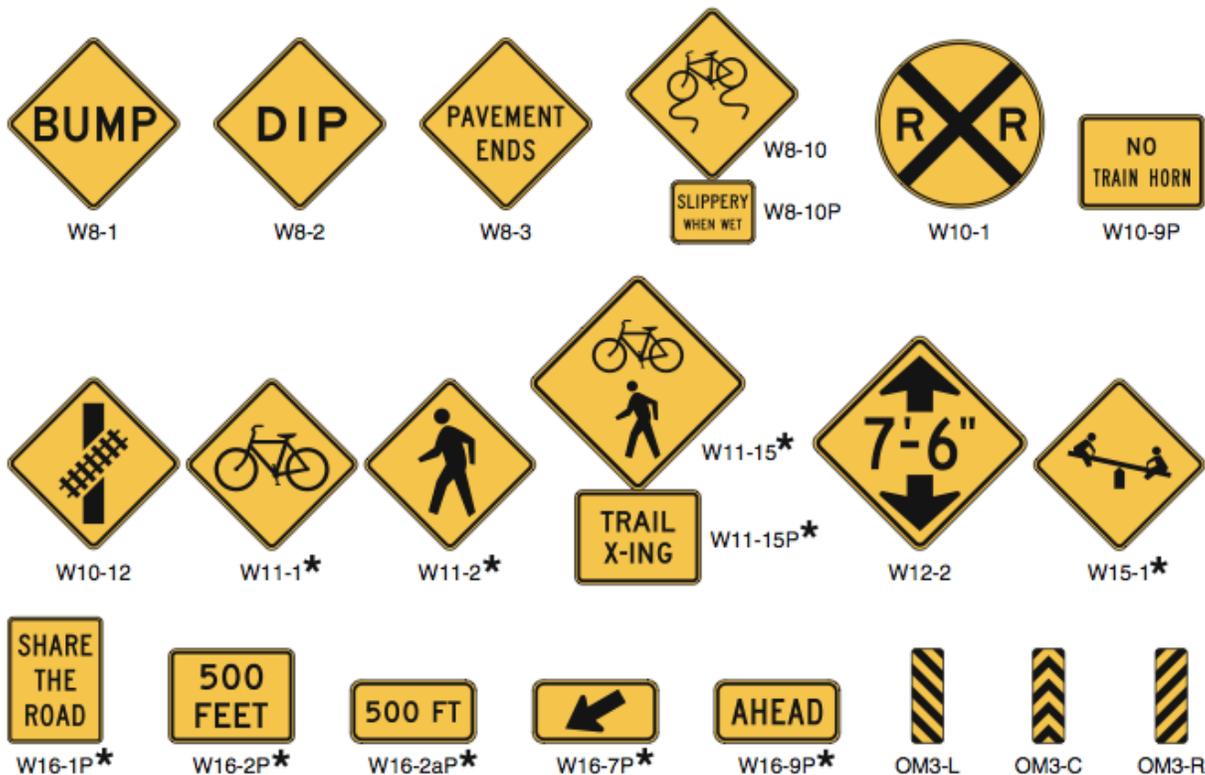
Located throughout the trail system, these signs inform trail users of rules and regulations along the trail, hours of trail operation, upcoming street and trail crossings and other potential hazards such as trail width changes.

- Post trail rules and regulations as well as hours of operation at trail heads or in kiosks.
- Locate warning signs appropriately ahead of the specific hazards to which they refer, such as road crossings, steep terrain, trail narrowing, and stop signs.
- All signage should conform to the Manual on Uniform Traffic Control Devices (MUTCD).

EXAMPLES OF BICYCLE-RELATED REGULATORY SIGNS *(from the 2009 MUTCD)*



EXAMPLES OF BICYCLE-RELATED WARNING SIGNS *(from the 2009 MUTCD)*



* A fluorescent yellow-green background color may be used for this sign or plaque. The background color of the plaque should match the color of the warning sign that it supplements.

EDUCATIONAL/INTERPRETIVE SIGNAGE

Educational signage provides trail users with information about the greenway, native flora and fauna, history and culture, and significance of elements along the trail.

- There is a wide variety of interpretive signage styles and the amount/type of information they provide.
- Consider the character of the trail and surrounding elements when designing educational signage.
- A skilled graphic designer should be used for sign design.
- Locate interpretive signage 3-feet from the edge of the trail.



Educational signage provides opportunities for gathering and learning about local environment.



INTERSECTION INVENTORY



| # | Road 1 | Road 2 | Reason (Major intersection, school, connectivity, etc) | Sight Distance (Good, Fair, Poor) | Signage (Y/N) | Controlled/Uncontrolled | Stop Light/Stop Sign | Curb Ramp (Y/N) | Curb Ramp (Complete/Incomplete) | Curb Radius (Very Wide, Wide, Not Wide) | Marked Crosswalk (Y/N) | Number and Location of Crosswalks Adequate (Y/N) | Highly Visible (Y/N) | Crosswalk Condition (Good/Fair/Poor) | Advanced Stop Line (Y/N) | Pedestrian Xing Signal (Y/N) | Type of Signal (Regular, Countdown) | Curb Extension (Y/N) | Sidewalk (Y/N) | Sidewalk Complete/Incomplete | Median island (Y/N) | Median Island Condition and Width | Estimated Traffic Volume (High/Medium/Low) | Speed Limit | Other Notes |
|----|---------|------------|--|-----------------------------------|---------------|-------------------------|----------------------|-----------------|---------------------------------|---|------------------------|--|---------------------------------|--------------------------------------|--------------------------|------------------------------|-------------------------------------|----------------------|----------------|------------------------------|---------------------|-----------------------------------|--|-------------|---|
| 1 | Mumford | Greene | Convenient store; existing sidewalk | G | N | C | SL | Y | INC | NW | N | - | - | - | - | N | - | N | Y | INC | N | - | MEDIUM | 35/45 | Railroad on west side parallel to Greene; Sidewalk needs improvement across tracks |
| 2 | 1st | Reade | Downtown, Town Commons Park | G | N | C | SS (FOR READE) | Y | INC | NW | Y | Y | Y (BRICK PAVER ACROSS READE) | F | Y (READE) | N | - | Y (READE) | Y | C | N | - | LOW-MEDIUM | 25 | Some good existing facilities in place, but faded brick paver and missing curb ramp |
| 3 | 1st | Cotanche | Downtown, Town Commons Park | F (ON STREET PARKING ON 1ST) | N | C | SS (FOR COTANCHE) | Y | INC | NW | Y | Y | Y (BRICK PAVER ACROSS COTANCHE) | F | N | N | - | Y (COTANCHE) | Y | C | N | - | LOW-MEDIUM | 25 | Missing curb ramps; Faded crosswalk/paver |
| 4 | 1st | Evans | Downtown, Town Commons Park | F (ON STREET PARKING ON 1ST) | N | C | SS (FOR EVANS) | Y | INC | NW | Y | Y | N | F | Y (EVANS) | N | - | N | Y | C | N | - | LOW-MEDIUM | 25 | Missing curb ramp |
| 5 | 1st | Washington | Downtown, Town Commons Park | F (HILL) | N | C | SS (FOR WASHINGTON) | N | INC | NW | Y | Y | N | F | Y (WASH.) | N | - | N | Y | C | N | - | LOW-MEDIUM | 25 | All curb ramps missing |
| 6 | 1st | Greene | Downtown, Town Commons Park | G | N | C | SL | Y | C | NW | Y | Y | N | F | Y | Y | PUSH-BUTTON COUNTDOWN | N | Y | C | N | - | MEDIUM | 25 | Crosswalk should be high-visibility |
| 7 | 2nd | Greene | Downtown | G | N | C | SS (FOR 2ND) | Y | INC | NW | N | N | - | - | - | N | - | N | Y | C | N | - | LOW-MEDIUM | 25 | No facilities here - needs high visibility marked crosswalks |
| 8 | 5th | Hickory | Adjacent to Elementary school; residences; existing sidewalk | F (ON STREET PARKING) | N | C | SS (FOR HICKORY) | Y | C | NW | Y | Y | Y (FOR CROSSING 5TH) | F | Y (HICKORY) | N | - | N | Y | INC | Y | 3FT PAINTED | MEDIUM | 25/35 | Sheltered walkway from school all the way to road at this crosswalk; Bike lanes and OSP present along 5th |
| 9 | 5th | Brownlea | Elementary school; multi-family housing near | G | N | C | SS (FOR BROWNLEA) | Y | INC | NW | N | - | - | - | - | N | - | N | Y | INC | N | - | MEDIUM | 25/35 | Turn lanes both ways and no stop lights makes this difficult for pedestrians; Consider stoplight or pedestrian activated signalization; Minimum high-visibility marked crosswalk needed |
| 10 | 5th | 10th | Commercial; Schools; Residential | P (CURVE AND HILL) | N | C | SL | Y | INC | W | N | - | - | - | - | N | - | N | Y | INC | Y (5TH) | 3FT CONCRETE | HIGH | 35/45 | Many pedestrians in area; not much accommodation for them here |
| 11 | 10th | Hwy 33 | Major commercial arterial; traffic | F | N | C | SL | Y | INC | W (VERY WIDE ON SE CORNER (PORK CHOP)) | Y | Y | N | P | Y | N | - | N | Y | INC | 1 PORK CHOP ISLAND | CONCRETE | HIGH | 45 | Heavy traffic and dangerous for pedestrians |
| 12 | 5th | Reade | ECU; Downtown | F | N | C | SL | Y | INC | NW | Y | Y | N | F | Y | Y (INC.) | Y | Y | Y | C | 1 PORK CHOP ISLAND | CONCRETE | MEDIUM-HIGH | 25 | Heavy traffic; driveway access management is a slight issue on SW corner |
| 13 | Evans | Reade | Downtown; near ECU | F (CURVE) | N | C | SL | Y | INC | NW | Y | Y | N | P | Y | Y | PUSH-BUTTON COUNTDOWN | N | Y | C | Y | 3FT GRASSY ON READE | MEDIUM | 25/35 | |
| 14 | Evans | 10th | Downtown; Commercial | F | N | C | SL | Y | INC | NW | Y | Y | N | G | Y | Y | PUSH-BUTTON COUNTDOWN | N | Y | C | N | - | MEDIUM-HIGH | 35 | Heavy commercial and traffic |
| 15 | Evans | 14th | Commercial; Residential near; ECU near | G | N | C | SL | Y | INC | NW | Y | Y | N | P | Y | N | - | N | Y | INC | N | - | MEDIUM | 35 | |



| # | Road 1 | Road 2 | Reason (Major intersection, school, connectivity, etc) | Sight Distance (Good, Fair, Poor) | Signage (Y/N) | Controlled/Uncontrolled | Stop Light/Stop Sign | Curb Ramp (Y/N) | Curb Ramp (Complete/Incomplete) | Curb Radius (Very Wide, Wide, Not Wide) | Marked Crosswalk (Y/N) | Number and Location of Crosswalks Adequate (Y/N) | Highly Visible (Y/N) | Crosswalk Condition (Good/Fair/Poor) | Advanced Stop Line (Y/N) | Pedestrian Xing Signal (Y/N) | Type of Signal (Regular, Countdown) | Curb Extension (Y/N) | Sidewalk (Y/N) | Sidewalk Complete /Incomplete | Median island (Y/N) | Median Island Condition and Width | Estimated Traffic Volume (High/Medium/Low) | Speed Limit | Other Notes |
|----|------------|------------------------|--|-----------------------------------|---------------|-------------------------|-----------------------------------|-----------------|---------------------------------|---|------------------------|--|----------------------|--------------------------------------|-----------------------------|------------------------------|-------------------------------------|----------------------|---------------------|-------------------------------|------------------------------------|------------------------------------|--|-------------|--|
| 16 | Evans | Arlington | Commercial; Major roads | F | N | C | SL | Y | I | NW | Y (EVANS) | N | N | P | Y | N | - | N | Y | I | Y | 2FT CONCRETE ON ARLINGTON (E SIDE) | HIGH | 35-45 | Destinations/conv. stores but no sidewalk present; Need sidewalk first in this area |
| 17 | Evans | Red Banks | Grocery; commercial; major roads | F | N | C | SL | Y | I | W (WITH 2 RIGHT HAND SLIP TURN LANES) | N | - | - | - | - | N | - | N | Y | I | 2 RIGHT HAND SLIP TURNS | 1- RAISED CONCRETE; 2- PAINTED | MEDIUM-HIGH | 35-45 | Need sidewalk here first then major crossing upgrades |
| 18 | Evans | Greenville | Commercial; Major roads | F (ANGLE) | N | C | SL | Y (see note) | I | VW | N | - | - | - | - | N | - | N | Y | I | Y WITH PORK CHOP ALSO ON NE CORNER | 2FT CONCRETE | HIGH | 45 | Angled intersection makes crossing dangerous; Need to view aerial to come up with solutions. Curb ramps w/truncated dome on Arlington only. |
| 19 | Greenville | Hooker | Commercial; Major roads; Conv. Center | G | N | C | SL | Y (see note) | C | NW | Y | Y | Y (YELLOW PAVER) | G | Y | Y | PUSH BUTTON COUNTDOWN | N | Y (WIDE) | C | N | - | HIGH | 45/40 | Nice new crossing treatments here; One of few locations with all curb ramps including truncated domes; Wide sidewalks; Globe painted in middle of intersection |
| 20 | Greenville | Memorial | Commercial; major roads | F (ANGLE) | N | C | SL | N | - | VW | N | - | - | - | - | N | - | N | N | - | Y (ON MEMORIAL) | 2FT CONCRETE | HIGH | 45 | Very dangerous intersection with no sidewalk present |
| 21 | Memorial | Fire Tower | Commercial; Major roads; Pitt Community College | G | N | C | SL | Y (see note) | C | W | N | - | - | - | - | N | - | N | Y | I | Y | GRASSY AND CONCRETE | MEDIUM-HIGH | 45 | Pitt Community College here; wide roadway crossings; Curb ramps w/truncated dome |
| 22 | Fire Tower | Old Tar/ Evans | Commercial; major roads | G | N | C | SL | Y (see note) | C | NW | Y | Y | N | G | Y | Y | PUSH BUTTON COUNTDOWN | N | Y (ON FIRE TOWER) | I | Y | 2FT CONCRETE | MEDIUM | 45 | New curb ramps with truncated domes; good pedestrian treatments here |
| 23 | Fire Tower | Arlington | Commercial; major roads | G | N | C | SL | Y | I | NW | N | - | - | - | - | N | - | N | Y (ON ARLING.) | I | N | - | MEDIUM-HIGH | 45 | Many commercial destinations here; Need sidewalk here |
| 24 | Fire Tower | Charles | Commercial; major roads | G | N | C | SL | Y (NEW) | I | NW | N | - | - | - | - | N | - | N | N | - | Y | 2FT CONCRETE ON FIRE TOWER | MEDIUM-HIGH | 45 | Many commercial destinations here; Need sidewalk here; No crossing treatments at all here |
| 25 | Charles | Red Banks | Commercial; residential | G | N | C | SL | Y (JUST ONE) | I | NW | N | - | - | - | - | N | - | N | Y (ONLY ON CHARLES) | I | N | - | MEDIUM | 45/35 | Need sidewalk here |
| 26 | Charles | Greenville | Commercial; residential; ECU | F | N | C | SL | Y | I | W (WITH RIGHT HAND SLIP TURN LANE ON NW CORNER) | N | - | - | - | - | N | - | N | Y | I | N | - | HIGH | 45 | Need sidewalk all ways; ECU is big destination here |
| 27 | Greenville | Red Banks | Commercial; Major roads | F (CURVES) | N | C | SL | N | - | W | N | - | - | - | - | N | - | N | Y | I | N | - | HIGH | 35-45 | Need sidewalk all ways; Heavy traffic here |
| 28 | Charles | 14th | Commercial; ECU | G | N | C | SL | Y (see note) | I | W | Y | N | N | F | Y (WITH EXISTING CROSSWALK) | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35 | Need sidewalk on 14th; Some curb ramps w/truncated dome. |
| 29 | Elm | 14th | Schools; church; residential; ECU; trail nearby | G | Y | C | SL | Y | I | NW | Y | Y | N | P | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | Y (ON ELM) | 6FT GRASSY | MEDIUM | 35 | |
| 30 | Elm | Overlook | Schools; residential | F (TREES) | Y | C | SS (FOR OVERLOOK) | Y | C | NW | Y | Y | Y | F | N | N | - | N | Y | C | Y (ON ELM) | 6FT GRASSY | MEDIUM | 35 | Existing median island is an opportunity; Sidewalk present here is all that is needed. |
| 31 | 10th | Forest Hill & Greenway | Greenway; residential | G | Y | C | SS (FOR FOREST HILL AND GREENWAY) | Y | C | NW | Y | Y | Y | F | N | N | - | N | Y | C | N | - | MEDIUM | 45/25 | Center turn lane is an opportunity for a refuge island (at existing crosswalk) |



| # | Road 1 | Road 2 | Reason (Major intersection, school, connectivity, etc) | Sight Distance (Good, Fair, Poor) | Signage (Y/N) | Controlled/Uncontrolled | Stop Light/Stop Sign | Curb Ramp (Y/N) | Curb Ramp (Complete/Incomplete) | Curb Radius (Very Wide, Wide, Not Wide) | Marked Crosswalk (Y/N) | Number and Location of Crosswalks Adequate (Y/N) | Highly Visible (Y/N) | Crosswalk Condition (Good/Fair/Poor) | Advanced Stop Line (Y/N) | Pedestrian Xing Signal (Y/N) | Type of Signal (Regular, Countdown) | Curb Extension (Y/N) | Sidewalk (Y/N) | Sidewalk Complete /Incomplete | Median island (Y/N) | Median Island Condition and Width | Estimated Traffic Volume (High/Medium/Low) | Speed Limit | Other Notes |
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| 32 | 1/17/2011 | 3rd | Residential; convenience store; lower-income community | F (VEG) | Y (see note) | C | SL | Y | I | W | Y | Y | N | G | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | Y | GRASSY WIDE ON MEMORIAL | MEDIUM | 25/45 | Many pedestrians in this area; Median refuge possible with existing island; Signage on Memorial. |
| 33 | Memorial | Greene, Greenfield | Residential; industrial | F (CURVE ON GREENE) | N | C | SL | N (NO CURB) | - | VW (PORK CHOP FOR GREENE ON AND OFF MEMORIAL) | N | - | - | - | N | N | - | N | Y | I | Y | GRASSY WIDE ON MEMORIAL | MEDIUM | 25/50 | No pedestrian facilities here at all; Pork chop islands and grassy median an opportunity for pedestrian refuges in future |
| 34 | Memorial | Moye | Park; commercial | F (VEG) | N | C | SL | Y | I | NW | Y | N | N | G | Y | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35/45 | Need sidewalk here |
| 35 | Dickinson | Hooker, Moye | Residential; grocery; industrial | P (HILLS, CURVE) | N | C | SL | Y | C | NW | Y | Y | N | P | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | C | Y | 2FT CONCRETE ON MOYE SIDE | MEDIUM-HIGH | 35/40/35 | Crosswalks are faded; Curb ramps need truncated domes |
| 36 | Arlington | Dickinson | Major roads; residential; commercial | G | N | C | SL | Y | I | VW | N | - | - | - | N | N | - | N | Y | I | N | - | HIGH | 45 | No pedestrian facilities here with the exception of curb ramps (of which many need improvement); Need sidewalk here |
| 37 | Arlington | Memorial | Major roads; residential; commercial | G | N | C | SL | Y | C (WITH TRUNCATED DOMES) | W | N | - | - | - | N | N | - | N | Y | I | Y | 2FT CONCRETE ON MEMORIAL | HIGH | 45/35 | No pedestrian facilities here with the exception of curb ramps (of which many need improvement); Need sidewalk here; Opportunity to use median as refuge |
| 38 | Arlington | Hooker | Major roads; school; residential | G | Y | C | SL | Y | C | W | Y | Y | N | F | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | Y | 2FT CONCRETE ON HOOKER | HIGH | 35/40 | Decent ped facilities here, just need updating; Median refuge opportunity here |
| 39 | Arlington | Rose High - Evans Park Midblock | School; park | G | N | UC | - | N (NO CURB) | - | - | Y | Y | N | F | - | - | - | N | Y | I | Y | WIDE GRASSY WITH TREES | MEDIUM-HIGH | 35 | No curb ramp on median island or roadside curb; Crosswalk should be high-visibility; Signage needed |
| 39_2 | Arlington | Rose pickup-dropoff | School; park | G | Y | C | SS | Y | I | NW | Y | Y | N | F | - | - | - | N | Y | I | Y | SMALL | MEDIUM-HIGH | 35 | Crosswalk is not very visible |
| 40 | Howell | Ames | School; residential | P (ON STREET PARKING) | Y | UC | - | N (NO CURB) | - | - | Y | Y | N | G | - | N | - | N | Y | - | N | - | LOW-MEDIUM | 35 | On-street parking present; No curb ramps; Crosswalk needs to be highly-visible; Opportunity for curb bulbout with on street parking |
| 41 | Howell | Hooker | School; residential | G | N | C | SS | Y | C | NW | Y | Y | Y | F | Y (ON HOWELL) | N | - | N | Y | C | N | - | MEDIUM | 35/40 | Highly-visible marked crosswalk across Hooker should be moved to other side so that turn lane can become a refuge island |
| 42 | Arlington | Greenville | Major roads; commercial | G | N | C | SL | Y | I | NW | Y | N (see note) | N | F | Y | N | - | N | Y | I | N | - | HIGH | 35/45 | Marked crosswalk across Greenville on north side where sidewalk exists; no other pedestrian facilities at all |
| 43 | Greenville | Elm | Residential; schools near | P (VEG) | N | C | SL | Y | I | W | Y | N | N | F | Y | N | - | N | Y | I | Y | WIDE PLANTED (ON ELEM) | MEDIUM-HIGH | 35/45 | Need sidewalk here |
| 44 | Red Banks | Tucker | School; residential | G | Y | C | SS (FOR TUCKER) | Y | I | NW | Y | Y | Y | F | N | N | - | N | Y | I | N | - | MEDIUM | 35/25 | Good pedestrian crossing; just a couple improvements will help safety here |
| 45 | Greenville | 14th | Residential; commercial | F | N | C | SL | Y | I (see note) | W | N | - | - | - | N | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35/45 | Currently no pedestrian treatments here; Need sidewalk here; curb ramp on one corner only |



| # | Road 1 | Road 2 | Reason (Major intersection, school, connectivity, etc) | Sight Distance (Good, Fair, Poor) | Signage (Y/N) | Controlled/Uncontrolled | Stop Light/Stop Sign | Curb Ramp (Y/N) | Curb Ramp (Complete/Incomplete) | Curb Radius (Very Wide, Wide, Not Wide) | Marked Crosswalk (Y/N) | Number and Location of Crosswalks Adequate (Y/N) | Highly Visible (Y/N) | Crosswalk Condition (Good/Fair/Poor) | Advanced Stop Line (Y/N) | Pedestrian Xing Signal (Y/N) | Type of Signal (Regular, Countdown) | Curb Extension (Y/N) | Sidewalk (Y/N) | Sidewalk Complete /Incomplete | Median island (Y/N) | Median Island Condition and Width | Estimated Traffic Volume (High/Medium/Low) | Speed Limit | Other Notes |
|----|-----------|---------------|--|-----------------------------------|---------------|-------------------------|----------------------|-----------------|--|---|------------------------|--|----------------------|--------------------------------------|--------------------------|------------------------------|-------------------------------------|----------------------|----------------|-------------------------------|---------------------|--|--|-------------|---|
| 46 | 10th | Cotanche | ECU; Residential; commercial | F (VEG, CURVE) | N | C | SL | Y | I | W | Y | Y | N | F | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | N | - | HIGH | 35/35 | Decent pedestrian facilities here; Need a few upgrades including higher-visibility crosswalks and consistent curb ramps |
| 47 | 10th | Charles | ECU; Residential (apartments); commercial | G | N | C | SL | Y | I (ONE PER CORNER) | NW | Y | Y | N | F | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | N | - | MEDIUM-HIGH | 35/35 | Many pedestrians and cyclists in area |
| 48 | 10th | College Hill | ECU; Many pedestrians | G | Y | C | SL | Y | I | NW | Y | Y | Y | P | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | C | Y | CONCRETE ON ONE SIDE; PAINTED OTHER SIDE | HIGH | 35/15 | Many pedestrians here; opportunity for median refuge |
| 49 | 10th | Elm | ECU; greenway; residential; Many pedestrians | G | N | C | SL | Y | I | NW | Y | Y | N | P | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | N | - | HIGH | 35 | Many pedestrians here; Crosswalks are faded badly; Curb ramps missing or inadequate |
| 50 | 5th | Moye | Hospital; Future residential | G | N | C | SL | Y | I | W | N | - | - | - | - | N | - | N | Y | I | Y | CONCRETE ON 5TH | MEDIUM | 45/35 | No facilities for pedestrians; some curb ramps in place |
| 51 | 14th | Dickinson | Commercial; residential | F (VEG) | N | C | SL | Y | I | NW | Y | Y | N | P (FADED) | Y | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35/25 | Many pedestrians and cyclists in area |
| 52 | 10th | Dickinson | <i>Needs analysis by aerial</i> | | | | | | | | | | | | | | | | | | | | | 25/25 | |
| 53 | Arlington | Stantonsburg | Hospital; major roads; commercial | G | N | C | SL | Y | C (2 EACH CORNER WITH TRUNCATED DOMES) | W | Y | Y | N | F | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | N | - | HIGH | 45/35 | Heavy traffic; good pedestrian facilities; some upgrades will improve long crossing |
| 54 | Memorial | Stantonsburg | Commercial; Hospital; Major roads | F | N | C | SL | Y | I | W | N | - | - | - | - | N | - | N | Y | I | Y | 3FT CONCRETE ON MEMORIAL | HIGH | 45/35 | Heavy traffic; No facilities at all here for pedestrians |
| 55 | Memorial | 5th | Commercial; residential; park | F | N | C | SL | Y | I | W | Y | Y | N | G | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | Y | 2FT CONCRETE ON MEMORIAL; CONCRETE ON 5TH (W SIDE) | HIGH | 35/45 | Many pedestrians in area with new sidewalk being built on 5th (east side); Facilities here need improvement |
| 56 | 14th | Fleming-Tyson | School; residential; lower-income community | F | N | C (5 WAY) | SL | Y | I | W | Y | Y | N | G | Y | Y | PUSH BUTTON COUNTDOWN | N | Y | I | N | - | LOW-MEDIUM | 25 | Many pedestrians and cyclists in area; Curb extensions would help here; Curb ramps should be upgraded all corners |
| 57 | Fleming | Roosevelt | School; lower-income area | F (VEG) | Y | C | SS (FOR ROOSEVELT) | N | - | NW | Y | Y | N | P | - | N | - | N | Y | I | N | - | LOW-MEDIUM | 25 | Many pedestrians in area; No curb ramps and crosswalk is almost completely faded; Onstreet parking presents need for bulbouts |
| 58 | 14th | 5th | Low-income area; Many pedestrians | G | N | C | SL | Y | I | NW | Y | Y | N | G | Y | N | - | N | Y | C | N | - | MEDIUM | 25/35 | Many pedestrians in area; Intersection not aligned making it dangerous for pedestrians; Curb ramps not complete |
| 59 | Arlington | Red Banks | Commercial area | G | N | C | SL | Y | I | W | N | - | - | - | N | N | - | N | Y | I | N | - | MEDIUM-HIGH | 45/35 | Very little accommodation at this intersection |



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| Ayden | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 3rd | Snow Hill | Residential; parks | G | Y | C | SL | Y | I | NW | Y | Y | N | G | Y | N | - | N | Y | C | N | - | LOW-MEDIUM | 35/25 | Good ped treatments here; Needs curb ramps and high-visibility crosswalks | |
| 61 | 3rd | Lee | Downtown | G | N | C | SL | Y | C | NW | Y | Y | Y (BRICK PAVER) | G | Y | N | - | N | Y | C | N | - | LOW-MEDIUM | 20/35 | With onstreet parking, could do curb extensions; Driveway access management an issue on SE side | |
| 62 | 2nd | Lee | Downtown | G | N | C | SL | Y | C | NW | Y | Y | Y (BRICK PAVER) | G | Y (NEEDS RESTRIPE) | N | - | N | Y | C | N | - | LOW-MEDIUM | 25/20 | NE side needs driveway access management | |
| 63 | 3rd | Hwy 11 | Major road; Barrier; Commercial | G | N | C | SL | N (NO CURB) | - | W | N | - | - | - | N | N | - | N | N | - | Y | WIDE GRASSY ON HWY 11; CONCRETE ON W SIDE OF 3RD | MEDIUM-HIGH | 35/55-60 | No pedestrian facilities at all here; Grassy median is an opportunity for refuge across Hwy 11; Need sidewalks | |
| 64 | N. Lee St. | Hines Dr. | Part of walking Loop | G | N | C | SS (FOR HINES) | Y | I | W | N | - | - | - | - | N | - | N | Y | I | N | - | LOW-MEDIUM | 25/35 | No crossing facility here. No stoplight. Mainly marked crosswalk and curb extension at one corner would help substantially. Speed limit control and crossing signage also needed. | |
| 65 | 3rd | School Entrance | Schools across street from each other | G | Y | C | SS (FOR SCHOOL ENTRANCE) | Y | I | NW | Y | Y | N | F | N | N | - | N | Y | C | N | - | MEDIUM-HIGH | 35 | Crosswalk needs to be high-visibility. Crossing guard highly desirable at this location. Consideration should be given to flashing lights or HAWK signal as well. | |
| Winterville | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 66 | Mill | Main | Downtown | G | N | C | SL | Y | I | NW | N | - | - | - | - | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35/20 | Sidewalk lacking here; Driveway access management an issue; No ped treatments here at all; Identified as crossing improvement project in Winterville Pedestrian Plan; | |
| 67 | Main | Railroad | Downtown | F (ON STREET PARKING) | N | C | SS | N | - | NW | Y | N | Y (BRICK PAVER) | P | N | N | - | N | Y | I | N | - | MEDIUM-HIGH | 20/15 | Railroad crossing an issue and needs improvement; No curb ramps present; Incomplete marked crosswalks need restripe; Identified as crossing improvement project in Winterville Pedestrian Plan; | |
| 68 | Church | Sylvania | School; Residential; Park near | G | N | C | SS | N | - | NW | Y | Y | N | F | N | N | - | N | Y | I | N | - | LOW-MEDIUM | 25/20 | Needs high visibility crosswalk; signage and curb ramps needed too; Identified as crossing improvement project in Winterville Pedestrian Plan; | |
| 69 | Church | Cooper | Downtown area; residential; school nearby | G | N | C | SS | N | - | NW | Y | N | N | F | N | N | - | N | Y | I | N | - | LOW-MEDIUM | 25/35 | Improvements needed such as curb ramps and higher-visibility crosswalks. | |
| 70 | Main | Old Tar | Downtown near; residential/commercial | G | Y | C | SS | Y | I | W | N | - | - | - | - | N | - | N | Y | I | N | - | MEDIUM-HIGH | 35 | Identified as highway SPOT safety improvement project of MPO and as crossing improvement project in Winterville Pedestrian Plan; Currently, very little to accommodate safe pedestrian crossing. Town has requested a stoplight in past. | |
| Simpson | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71 | Simpson | McDonald | Major crossroads of town | G | N | C | SS FOR SIMPSON | N (NO CURB) | - | W | N | - | - | - | N | - | - | N | N | - | Y | SMALL RAISED CONCRETE ON SIMPSON | MEDIUM | 35 | | |



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double-sided printing)*



D BICYCLE SUITABILITY MAP

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Suitability Map*

Network Identification

Methodology

Field Review

Results and Findings

Conclusion

Overview

This appendix summarizes the methodology and results for roadway bicycle suitability under current conditions within the study area. This is only one tool for analysis with limited capabilities to accurately describe every segment of the roadway network. Still, when the methodology and limitations are taken into account, it can be a useful tool to at least see the big picture regarding the overall suitability of existing conditions in the study area.

Purpose of the Bicycle Suitability Map

A bicycle suitability analysis provides a snapshot of the quality of area roadways for use by bicyclists. The Bicycle Suitability Map is one tool that planners and officials can use to provide more information about the roadway and bicycling suitability. This map can be used by bicyclists to help them select the most appropriate routes for their travels. All bicyclists must use good judgment regarding their skill levels to determine the routes most appropriate for them.

Not every bicyclist will agree with all of the results within the Bicycle Suitability Map. The evaluation and methodology process used here represents a best effort to create an objective evaluation of the bikeability of the selected roadways, using both quantitative and qualitative measures of data available.

The Bicycle Suitability Map can be used as a dynamic tool, employing a straightforward rating system that can be maintained by the MPO in the future if desired. Information contained within this map can be used as a resource when determining the ultimate recommendations for the Bicycle and Pedestrian Plan. However, the recommended network in this plan considers numerous other factors that contribute to a well-balanced overall system.

Network Identification

The Bicycle Suitability Map is not intended as a mechanism for classifying every road within the MPO. At the outset of this effort, a selected roadway network was identified based on roadway functional class, proximity to key destination points, and spatial equity. Roadway facilities classified as major collectors or above initially were identified for inclusion in this process. Meetings held with Greenville MPO staff were used to determine additional roadways for inclusion in the network. Through this process, more than 278 miles of roadways within the Greenville MPO were selected to be analyzed for their bicycle suitability.

Methodology

At the outset of this effort, a brief policy and best practices review was conducted of bicycle suitability mapping and methodology applied elsewhere in the country. This



review, combined with Kimley-Horn's past experience developing bicycle suitability maps, led to the established methodology. Once this methodology was determined, the process was evaluated by Greenville MPO staff. The Bicycle Suitability Map considers the following factors:

- Roadway speed limit
- Traffic volumes
- Roadway geometrics
- Site access and freight traffic
- Pavement quality and maintenance

The roadway speed limit was obtained through MPO mapping data, which recently had been compiled and vetted in the field. Traffic volumes were obtained from NCDOT and represent 2008 average annual daily traffic values. The remaining categories were assessed qualitatively through a field review of each facility in the 278-mile analysis network.

The roadway geometrics and the site access and freight traffic categories combine two criteria into one ranking. Lane width and sight distance were combined into the roadway geometrics category because the two both contribute to a roadway's overall geometric condition. For instance, a roadway with excellent sight distances but excessively narrow lanes would not be considered a highly suitable bicycle facility. However, a roadway with good sight distance and on-street bicycle amenities would be a highly suitable facility. Similarly, site access and freight traffic were considered jointly so the benefits of reduced driveway access could be weighed against the presence of freight traffic on the network.

After establishing these categories, a ranking system was developed to assist in the suitability determination process. Using a 20-point scoring system, each category was assumed to be equally weighted, with up to four points possible for a category. The roadway segments were considered individually, with a score of 1 to 4 being assigned to each category. A designation of 1 in a category indicated the result was the most suitable, while a designation of 4 in a category denoted the least suitable value.

The rating criteria used to establish the suitability rankings for each category are included here.

ROADWAY SPEED LIMIT

1. Up to 30 mph
2. 35 or 40 mph
3. 45 or 50 mph
4. 55 mph or greater

TRAFFIC VOLUMES

1. 14,999 vpd or less
2. 15,000 to 24,999 vpd
3. 25,000 to 34,999 vpd
4. 35,000 vpd or more

ROADWAY GEOMETRICS

1. Existing on-street bicycle facilities (bike lane, wide outside lane, or paved shoulder), good sight distance
2. Normal width lane (12'), good sight distance
3. Narrow lanes (10'-11'), acceptable sight distance
4. Narrow lanes (10' or less), poor sight distance



SITE ACCESS AND FREIGHT TRAFFIC

1. Low truck volumes, few driveways
2. Low-median truck volumes, few-acceptable number of driveways
3. Medium-high truck volumes, acceptable number of driveways
4. High truck volumes, numerous driveways

PAVEMENT QUALITY AND MAINTENANCE

1. Excellent
2. Good
3. Fair
4. Poor

Field Review

A field review of the suitability conditions on the identified roadways was conducted over the span of two days. The initial field review, conducted on November 9, 2010, involved a member of the consultant team and a member of the Greenville MPO staff. Prior to initiating the field work, a brief in-office meeting was held to review methodology parameters and the network for analysis. Day 2 of the field review was conducted on November 16 by two members of the consultant team. As with the first day, a brief meeting was held with a member of the Greenville MPO staff to summarize the efforts from Day 1 and discuss any further network modifications.

Results and Findings

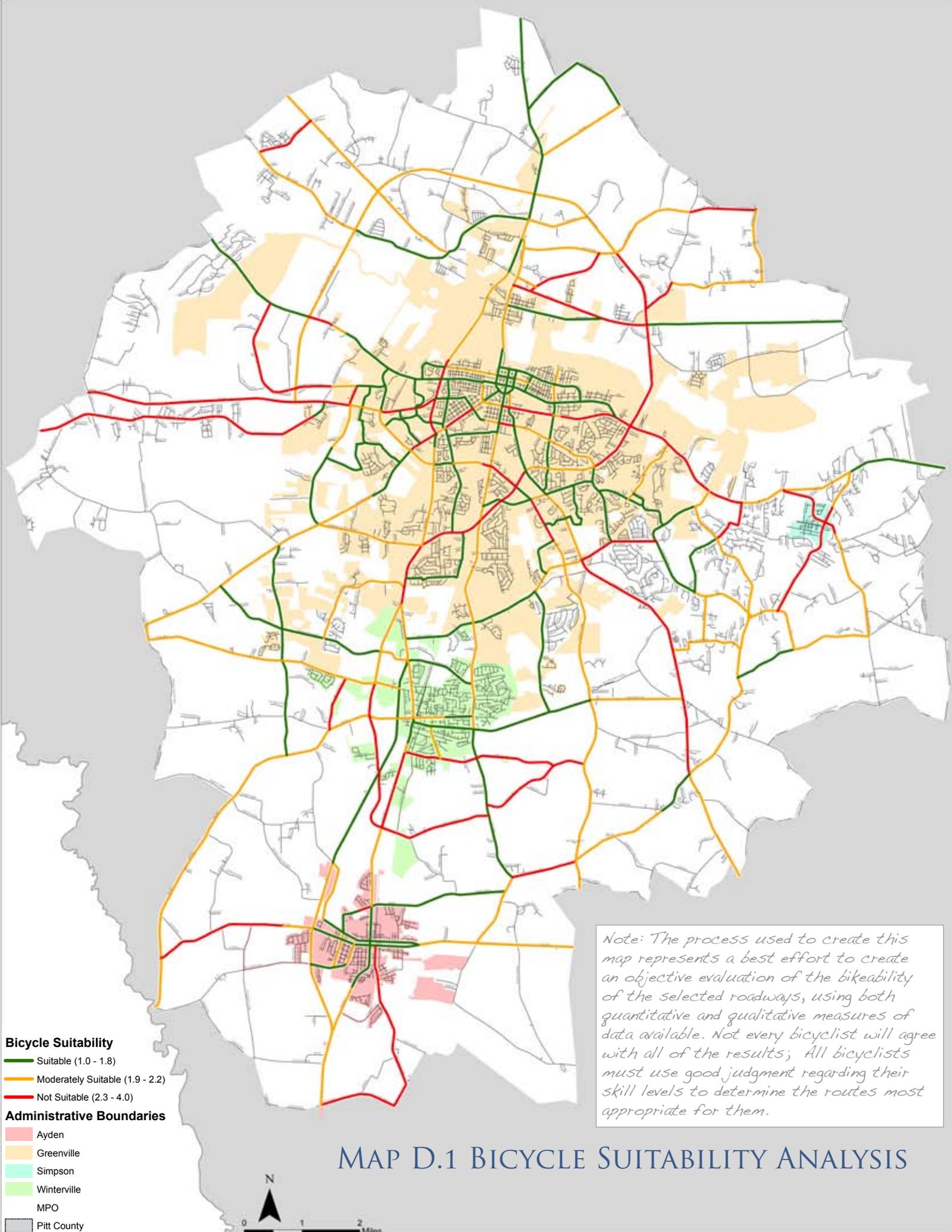
Following this field review, results from the analysis were incorporated into a GIS network. A shapefile was created containing only the roadway network identified as a part of this analysis. Within this shapefile, the suitability rankings for each of the five categories were tallied for all segments. Since all five categories received equal weighting, a simple average could be employed to determine the overall suitability of a given segment. Once the average suitability of each segment had been determined, a statistical grouping process was used to determine the natural breaks in the data. Once this was done, the overall bicycle suitability was divided into three categories:

- *Suitable*: Receiving an average suitability score between 1.0 and 1.8, these facilities were most suited for bicycle travel. On this type of facility, a basic level rider would be able to travel with a moderate level of comfort, while an advanced rider would be very comfortable.
- *Moderately suitable*: Receiving an average suitability score between 1.9 and 2.2, these facilities were somewhat suited for bicycle travel. On this type of facility, a basic level rider would be somewhat uncomfortable, while an advanced rider would be moderately comfortable.
- *Not suitable*: Receiving an average suitability score between 2.3 and 4.0, these facilities are not well suited for bicycle travel. Basic level riders should not travel on this type of facility, and advanced riders should use extreme caution.

Map D.1 depicts the results of this bicycle suitability analysis on the following page.

Conclusion

The Greenville MPO has a roadway network that varies with regard to its current suitability for bicyclists. The City of Greenville, as well as the downtown areas of Winterville and Ayden, has facilities that are more suitable than those in some of the outlying areas of the MPO. This information could be used to influence paving schedules or to identify minor safety improvements.



- Bicycle Suitability**
- Suitable (1.0 - 1.8)
 - Moderately Suitable (1.9 - 2.2)
 - Not Suitable (2.3 - 4.0)
- Administrative Boundaries**
- Ayden
 - Greenville
 - Simpson
 - Winterville
 - MPO
 - Pitt County

Note: The process used to create this map represents a best effort to create an objective evaluation of the bikeability of the selected roadways, using both quantitative and qualitative measures of data available. Not every bicyclist will agree with all of the results; All bicyclists must use good judgment regarding their skill levels to determine the routes most appropriate for them.

MAP D.1 BICYCLE SUITABILITY ANALYSIS





FUNDING RESOURCES

Chapter Contents

Overview

State and Federal

Local Government

*Private and
Non-Profit Sectors*

Overview

When considering possible funding sources for the City of Greenville’s bicycle and pedestrian projects, it is important to remember that not all construction activities will be accomplished with a single funding source. It will be necessary to consider several sources of funding, that when combined, would support full project construction. This appendix outlines the most likely sources of funding for the projects at the federal, state, local government level and from the private sector.

State and Federal

Federal funding is typically directed through State agencies to local governments either in the form of grants or direct appropriations. These projects do not qualify for the recently passed federal stimulus funding (2009 American Recovery and Reinvestment Act) since they are not “shovel ready.” Also, State budget shortfalls may make it extremely difficult to accurately forecast available funding for future project development. The following is a list of possible Federal and State funding sources that could be used to support construction of the many bicycle and pedestrian projects. Federal funding requires a 20% local match, however the recent stimulus money does not require a match. Since these funding categories are difficult to forecast, it is recommended that the City continue to work with the Greenville Urban Area Metropolitan Planning Organization on getting bicycle and pedestrian projects listed in the TIP (Transportation Improvement Program), as discussed below.

DEPARTMENT OF ENERGY (DOE)

The Department of Energy’s Energy Efficiency and Conservation Block Grants (EECBG) grants may be used to reduce energy use and fossil fuel emissions and for improvements in energy efficiency. Section 7 of the funding announcement states that these grants provide opportunities for the development and implementation of transportation programs to conserve energy used in transportation including development of infrastructure such as bicycle lanes and pathways and pedestrian walkways. Although this grant period has passed, more opportunities may arise. More information can be found at <http://www.eecbg.energy.gov/>

NC DEPARTMENT OF TRANSPORTATION AND SAFETEA-LU

The most likely source of funding for bicycle and pedestrian projects would come from the North Carolina Department of Transportation and the federal funding program SAFETEA-LU. Some of the sub-programs within SAFETEA-LU and within NCDOT are listed below:

- **State Transportation Improvement Program (STIP):** The STIP contains funding for various transportation divisions of NCDOT including: highways, aviation, enhancements, public transportation, rail, bicycle and pedestrian, and the Governor’s Highway Safety Program. STIP is the largest single source of funding within SAFETEA-LU and NCDOT.



- **NCDOT 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. The City would have to make a direct appeal to the Secretary of NCDOT to access these funds.
- **NCDOT Contingency Fund:** The Statewide Contingency Fund is a \$10 million fund administered by the Secretary of Transportation. Again, the City would have to appeal directly to the Secretary.
- **NCDOT Enhancement Funding:** Federal Transportation Enhancement funding is administered by NCDOT and serves to strengthen the cultural, aesthetic, and environmental aspects of the State's intermodal transportation system. Transportation Enhancement (TE) funding is awarded through NCDOT. The State typically will make a Call for Projects, and each project 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.
- **NCDOT Bicycle and Pedestrian Project:** Funds for bicycle and pedestrian projects come from several different sources. Allocation of funds depends on the type of project/program and other criteria. Projects can include independent and incidental projects.

NC DEPARTMENT OF ENVIRONMENT – RECREATIONAL TRAILS AND ADOPT-A-TRAIL GRANTS

The State Trails Program is a section of the N.C. Division of Parks and Recreation. The program originated in 1973 with the North Carolina Trails System Act and is dedicated to helping citizens, organizations and agencies plan, develop and manage all types of trails ranging from greenways and trails for hiking, biking and horseback riding to river trails and off-highway vehicle trails. The Recreation Trails Program awards grants up to \$75,000 per project. The Adopt-A-Trail Program awards grants up to \$5,000 per project.

POWELL BILL FUNDS

Annually, State street-aid (Powell Bill) allocations are made to incorporated municipalities which establish their eligibility and qualify as provided by G.S. 136-41.1 through 136-41.4. Powell Bill funds shall be expended only for the purposes of maintaining, repairing, constructing, reconstructing or widening of local streets that are the responsibility of the municipalities or for planning, construction, and maintenance of bikeways or sidewalks along public streets and highways.

COMMUNITY DEVELOPMENT BLOCK GRANT FUNDS

Community Development Block Grant (CDBG) funds are available to local municipal or county governments for projects that enhance the viability of communities by providing decent housing and suitable living environments and by expanding economic opportunities, principally for persons of low- and moderate-income. State CDBG funds are provided by the U.S. Department of Housing and Urban Development (HUD) to the state of North Carolina. Some urban counties and cities in North Carolina receive CDBG funding directly from HUD. Each year, CDBG provides funding to local governments for hundreds of critically-needed community improvement projects throughout the state. These community improvement projects are administered by the Division of Community Assistance and the Commerce Finance Center under eight grant categories. Two categories might be of support to the City of Greenville Bicycle and Pedestrian Projects: infrastructure and community revitalization.



LAND AND WATER CONSERVATION TRUST FUND

The Land and Water Conservation Fund (LWCF) has historically been a primary funding source of the US Department of the Interior for outdoor recreation development and land acquisition by local governments and state agencies. In North Carolina, the program is administered by the Department of Environment and Natural Resources (DENR).

N.C. PARKS AND RECREATION TRUST FUND (PARTF)

The Parks and Recreation Trust Fund (PARTF) provide dollar-for-dollar matching grants to local governments for parks and recreational projects to serve the general public. Counties, incorporated municipalities and public authorities, as defined by G.S. 159-7, are eligible applicants.

A local government can request a maximum of \$500,000 with each application. An applicant must match the grant dollar-for-dollar, 50% of the total cost of the project, and may contribute more than 50%. The appraised value of land to be donated to the applicant can be used as part of the match. The value of in-kind services, such as volunteer work, cannot be used as part of the match. http://www.ncparks.gov/About/grants/partf_main.php

SAFE ROUTES TO SCHOOL PROGRAM (MANAGED BY NCDOT, DBPT)

The NCDOT Safe Routes to School Program is a federally funded program that was initiated by the passing of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, which establishes a national SRTS program to distribute funding and institutional support to implement SRTS programs in states and communities across the country. SRTS programs facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. The Division of Bicycle and Pedestrian Transportation at NCDOT is charged with disseminating SRTS funding.

The state of North Carolina was allocated \$15 million in Safe Routes to School funding for fiscal years 2005 through 2009 for infrastructure or non-infrastructure projects. In 2009, more than \$3.6 million went to 22 municipalities and local agencies for infrastructure and non-infrastructure projects. All proposed projects must relate to increasing walking or biking to and from an elementary or middle school. An example of a non-infrastructure project is an education or encouragement program to improve rates of walking and biking to school. An example of an infrastructure project is construction of sidewalks around a school. Infrastructure improvements under this program must be made within 2 miles of an elementary or middle school. The state requires the completion of a competitive application to apply for funding. For more information, visit www.ncdot.org/programs/safeRoutes/ or contact DBPT/NCDOT, (919) 807-0774.

Local Government

Local funding sources that would support bicycle and pedestrian facility project construction will most likely be limited but should be explored.

GREENVILLE URBAN AREA METROPOLITAN PLANNING ORGANIZATION (MPO)

The Greenville Urban Area MPO manages the transportation planning process required by Federal law. The MPO plans for the area's surface transportation needs, including highways, transit, bicycle, and pedestrian facilities. There are two subcommittees of the MPO: the Technical Advisory Committee and the Technical Coordinating Committee. An important part of the transportation planning process is to identify transportation needs

and to explore feasible alternatives to meet those needs. Plans and programs are often conducted in partnership with the NC Department of Transportation to identify needs and projects to enhance Greenville's transportation infrastructure.

It is suggested that the City work closely with the MPO on getting these projects listed on the TIP since this may be the primary source of funding for the project. Typically, projects on this list require a 20% local match.

CITY OF GREENVILLE CAPITAL IMPROVEMENT PROGRAMMING AND RESERVE FUNDS

The City of Greenville may have funding available to support some elements of construction or repair. It will be important to meet with City Council representatives and the City Manager to judge the availability of this funding.

OTHER LOCAL FUNDING OPTIONS

- Bonds/Loans
- Taxes
- Impact fees
- Exactions
- Tax increment financing
- Partnerships

Private and Non-Profit Sectors

Many communities have solicited greenway funding assistance from private foundations and other conservation-minded benefactors. Below are several examples of private funding opportunities available.

LAND FOR TOMORROW CAMPAIGN

Land for Tomorrow is a diverse partnership of businesses, conservationists, farmers, environmental groups, health professionals and community groups committed to securing support from the public and General Assembly for protecting land, water and historic places. The campaign is asking the North Carolina General Assembly to support issuance of a bond for \$200 million a year for five years to preserve and protect its special land and water resources. Land for Tomorrow will enable North Carolina to reach a goal of ensuring that working farms and forests; sanctuaries for wildlife; land bordering streams, parks and greenways; land that helps strengthen communities and promotes job growth; historic downtowns and neighborhoods; and more, will be there to enhance the quality of life for generations to come. Website: <http://www.landfortomorrow.org/>

THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972 and today it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs



For more specific information about what types of projects are funded and how to apply, visit www.rwjf.org/applications/.

NORTH CAROLINA COMMUNITY FOUNDATION

The North Carolina Community Foundation, established in 1988, is a statewide foundation seeking gifts from individuals, corporations, and other foundations to build endowments and ensure financial security for nonprofit organizations and institutions throughout the state. Based in Raleigh, North Carolina, the foundation also manages a number of community affiliates throughout North Carolina, that make grants in the areas of human services, education, health, arts, religion, civic affairs, and the conservation and preservation of historical, cultural, and environmental resources. The foundation also manages various scholarship programs statewide. Web site: <http://nccommunityfoundation.org/>

Z. SMITH REYNOLDS FOUNDATION

This Winston-Salem-based Foundation has been assisting the environmental projects of local governments and non-profits in North Carolina for many years. They have two grant cycles per year and generally do not fund land acquisition. However, they may be able to offer support in other areas of open space and greenways development. More information is available at www.zsr.org.

BANK OF AMERICA CHARITABLE FOUNDATION, INC.

The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low and moderate income communities and serves to encourage entrepreneurial business development. Visit the web site for more information: www.bankofamerica.com/foundation.

DUKE ENERGY FOUNDATION

Funded by Duke Energy shareholders, this non-profit organization makes charitable grants to selected non-profits or governmental subdivisions. Each annual grant must have:

- An internal Duke Energy business “sponsor”
- A clear business reason for making the contribution

The grant program has three focus areas: Environment and Energy Efficiency, Economic Development, and Community Vitality. Related to this project, the Foundation would support programs that support conservation, training and research around environmental and energy efficiency initiatives. Web site: <http://www.duke-energy.com/community/foundation.asp>.

AMERICAN GREENWAYS EASTMAN KODAK AWARDS

The Conservation Fund’s American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying or political activities. For more information visit The Conservation Fund’s website at: www.conservationfund.org.



NATIONAL TRAILS FUND

American Hiking Society created the National Trails Fund in 1998, the only privately supported national grants program providing funding to grassroots organizations working toward establishing, protecting and maintaining foot trails in America. 73 million people enjoy foot trails annually, yet many of our favorite trails need major repairs due to a \$200 million backlog of badly needed maintenance. National Trails Fund grants help give local organizations the resources they need to secure access, volunteers, tools and materials to protect America's cherished public trails. To date, American Hiking has granted more than \$240,000 to 56 different trail projects across the U.S. for land acquisition, constituency building campaigns, and traditional trail work projects. Awards range from \$500 to \$10,000 per project.

Projects the American Hiking Society will consider include:

- Securing trail lands, including acquisition of trails and trail corridors, and the costs associated with acquiring conservation easements.
- Building and maintaining trails which will result in visible and substantial ease of access, improved hiker safety, and/or avoidance of environmental damage.
- Constituency building surrounding specific trail projects - including volunteer recruitment and support.

Web site: www.americanhiking.org/alliance/fund.html.

THE CONSERVATION ALLIANCE

The Conservation Alliance is a non-profit organization of outdoor businesses whose collective annual membership dues support grassroots citizen-action groups and their efforts to protect wild and natural areas. One hundred percent of its member companies' dues go directly to diverse, local community groups across the nation - groups like Southern Utah Wilderness Alliance, Alliance for the Wild Rockies, The Greater Yellowstone Coalition, the South Yuba River Citizens' League, RESTORE: The North Woods and the Sinkyone Wilderness Council (a Native American-owned/operated wilderness park). For these groups, who seek to protect the last great wild lands and waterways from resource extraction and commercial development, the Alliance's grants are substantial in size (about \$35,000 each), and have often made the difference between success and defeat. Since its inception in 1989, The Conservation Alliance has contributed \$4,775,059 to grassroots environmental groups across the nation, and its member companies are proud of the results: To date the groups funded have saved over 34 million acres of wild lands and 14 dams have been either prevented or removed-all through grassroots community efforts.

The Conservation Alliance is a unique funding source for grassroots environmental groups. It is the only environmental grant maker whose funds come from a potent yet largely untapped constituency for protection of ecosystems - the non-motorized outdoor recreation industry and its customers. This industry has great incentive to protect the places in which people use the clothing, hiking boots, tents and backpacks it sells. The industry is also uniquely positioned to educate outdoor enthusiasts about threats to wild places, and engage them to take action. Finally, when it comes to decision-makers - especially those in the Forest Service, National Park Service, and Bureau of Land Management, this industry has clout - an important tool that small advocacy groups can wield.

The Conservation Alliance Funding Criteria: The Project should be focused primarily on direct citizen action to protect and enhance our natural resources for recreation. We're



not looking for mainstream education or scientific research projects, but rather for active campaigns. All projects should be quantifiable, with specific goals, objectives and action plans and should include a measure for evaluating success. The project should have a good chance for closure or significant measurable results over a fairly short term (one to two years). Funding emphasis may not be on general operating expenses or staff payroll.

Web site: www.conservationalliance.com/index.m.

E-mail: john@conservationalliance.com.

NATIONAL FISH AND WILDLIFE FOUNDATION (NFWF)

The National Fish and Wildlife Foundation (NFWF) is a private, nonprofit, tax-exempt organization chartered by Congress in 1984. The National Fish and Wildlife Foundation sustains, restores, and enhances the Nation's fish, wildlife, plants and habitats. Through leadership conservation investments with public and private partners, the Foundation is dedicated to achieving maximum conservation impact by developing and applying best practices and innovative methods for measurable outcomes.

The Foundation awards matching grants under its Keystone Initiatives to achieve measurable outcomes in the conservation of fish, wildlife, plants and the habitats on which they depend. Awards are made on a competitive basis to eligible grant recipients, including federal, tribal, state, and local governments, educational institutions, and non-profit conservation organizations. Project proposals are received on a year-round, revolving basis with two decision cycles per year. Grants generally range from \$50,000-\$300,000 and typically require a minimum 2:1 non-federal match.

Funding priorities include bird, fish, marine/coastal, and wildlife and habitat conservation. Other projects that are considered include controlling invasive species, enhancing delivery of ecosystem services in agricultural systems, minimizing the impact on wildlife of emerging energy sources, and developing future conservation leaders and professionals. Website: <http://www.nfwf.org/AM/Template.cfm?Section=Grants> where additional grant programs are described.

THE TRUST FOR PUBLIC LAND

Land conservation is central to the mission of the Trust for Public Land (TPL). Founded in 1972, the Trust for Public Land is the only national nonprofit working exclusively to protect land for human enjoyment and well being. TPL helps conserve land for recreation and spiritual nourishment and to improve the health and quality of life of American communities. TPL's legal and real estate specialists work with landowners, government agencies, and community groups to:

- Create urban parks, gardens, greenways, and riverways
- Build livable communities by setting aside open space in the path of growth
- Conserve land for watershed protection, scenic beauty, and close-to home recreation safeguard the character of communities by preserving historic landmarks and landscapes.

The following are TPL's Conservation Services:

- Conservation Vision: TPL helps agencies and communities define conservation priorities, identify lands to be protected, and plan networks of conserved land that meet public need.



- Conservation Finance: TPL helps agencies and communities identify and raise funds for conservation from federal, state, local, and philanthropic sources.
- Conservation Transactions: TPL helps structure, negotiate, and complete land transactions that create parks, playgrounds, and protected natural areas.
- Research and Education: TPL acquires and shares knowledge of conservation issues and techniques to improve the practice of conservation and promote its public benefits.

Since 1972, TPL has worked with willing landowners, community groups, and national, state, and local agencies to complete more than 3,000 land conservation projects in 46 states, protecting more than 2 million acres. Since 1994, TPL has helped states and communities craft and pass over 330 ballot measures, generating almost \$25 billion in new conservation-related funding. For more information, visit www.tpl.org/.

BLUECROSS BLUESHIELD OF NORTH CAROLINA FOUNDATION (BCBS)

Blue Cross Blue Shield (BCBS) focuses on programs that use an outcome approach to improve the health and well-being of residents. The Health of Vulnerable Populations grants program focuses on improving health outcomes for at-risk populations. The Healthy Active Communities grant concentrates on increased physical activity and healthy eating habits. Eligible grant applicants must be located in North Carolina, be able to provide recent tax forms and, depending on the size of the nonprofit, provide an audit.

BlueCross BlueShield of NC Foundation

P.O. Box 2291

Durham, NC 27702

919-765-7347

<http://www.bcbsncfoundation.org/>

ALLIANCE FOR BIKING & WALKING: ADVOCACY ADVANCE GRANTS

Bicycle and pedestrian advocacy organizations play the most important role in improving and increasing biking and walking in local communities, states, and provinces. Advocacy Advance Grants enable state and local bicycle and pedestrian advocacy organizations to develop, transform, and provide innovative strategies in their communities. Thanks to remarkable support from SRAM, Planet Bike, and Bikes Belong, the Alliance for Biking & Walking has awarded more than \$500,000 in direct grants, technical assistance and scholarships to advocacy organizations across North America since the Advocacy Advance Grant program's inception. In 2009 and 2010, these one-year grants were awarded twice annually to startup organizations and innovative campaigns to dramatically increase biking and walking. Through the Advocacy Advance Partnership with the League of American Bicyclists, the Alliance also provided necessary technical assistance, coaching, and training to supplement the grants. For more information, visit www.peoplepoweredmovement.org

HEALTH AND WELLNESS TRUST FUND: FIT COMMUNITY PROGRAM

To address the growing obesity epidemic, commissioners of the Health and Wellness Trust Fund created a comprehensive program that would promote and help implement proven and innovative interventions to increase people's physical activity and improve nutrition choices.

HWTF partnered with Blue Cross and Blue Shield of North Carolina to launch Fit Together in 2004, a statewide campaign designed to raise awareness around the dangers of unhealthy weight and to equip individuals and communities with the tools they need to address this serious health concern.



In 2005, Fit Together unveiled Fit Community, a program to recognize and reward municipality and county-wide efforts to promote physical activity, healthy eating and tobacco-free programs, policies, environments and lifestyles. The Fit Community application process is a thorough evaluation that can and will benefit your community in numerous unexpected ways. For 2011, all applications due for designation must be submitted to Active Living by Design by 5:00 p.m. on March 18, 2011. For more information, visit www.fitcommunitync.com

LOCAL TRAIL SPONSORS

A sponsorship program for trail amenities allows smaller donations to be received from both individuals and businesses. Cash donations could be placed into a trust fund to be accessed for certain construction or acquisition projects associated with the greenways and open space system. Some recognition of the donors is appropriate and can be accomplished through the placement of a plaque, the naming of a trail segment, and/or special recognition at an opening ceremony. Types of gifts other than cash could include donations of services, equipment, labor, or reduced costs for supplies.

VOLUNTEER WORK

It is expected that many citizens will be excited about the development of a greenway corridor. Individual volunteers from the community can be brought together with groups of volunteers from church groups, civic groups, scout troops and environmental groups to work on greenway development on special community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.



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BICYCLE AND PEDESTRIAN NETWORK SEGMENTS

Table of Bicycle Network Segments

| Municipality | Roadway | To | From | Ownership | Bike Facility | Method of Construction | Distance (feet) | Distance (miles) |
|--------------|-----------------|------------------------|------------------------|-----------|----------------|--------------------------|-----------------|------------------|
| Greenville | NC 33 | Martin Luther King Hwy | MPO Boundary | State | Paved Shoulder | New Construction | 12,062 | 2 |
| Greenville | NC 33 | Old River Rd | Martin Luther King Hwy | State | Paved Shoulder | New Construction | 8,800 | 2 |
| Greenville | W/E Belvoir Rd | Old River Rd | Old Creek Rd | State | Paved Shoulder | New Construction | 8,824 | 2 |
| Greenville | Old Creek Rd | Pactolus Hwy | Martin Luther King Hwy | State | Paved Shoulder | New Construction | 8,959 | 2 |
| Greenville | Old Creek Rd | Martin Luther King Hwy | MPO Boundary | State | Paved Shoulder | New Construction | 14,900 | 3 |
| Greenville | Pactolus Hwy | N Greene St | Martin Luther King Hwy | State | Paved Shoulder | New Construction | 12,740 | 2 |
| Greenville | US 264 | Martin Luther King Hwy | MPO Boundary | State | Paved Shoulder | New Construction | 17,955 | 3 |
| Greenville | Old Pactolus Rd | Pactolus Hwy | Sunny Side Rd | State | Paved Shoulder | New Construction | 12,750 | 2 |
| Greenville | Old Pactolus Rd | Sunny Side Rd | MPO Boundary | State | Paved Shoulder | New Construction | 9,395 | 2 |
| Greenville | Airport Rd | N Memorial Dr | N Greene St | State | Bike Lane | Restripe | 1,967 | 0 |
| Greenville | Mumford Rd | N Greene St | 550 ft past Holly St | State | Bike Lane | Restripe | 3,295 | 1 |
| Greenville | Mumford Rd | 550 ft past Holly St | Pactolus Hwy | State | Paved Shoulder | New Construction | 5,442 | 1 |
| Greenville | N Greene St | Mumford Rd | Split/Bridges | State | Bike Lane | New Construction | 3,918 | 1 |
| Greenville | N/S Greene St | Split/Bridges | W 3rd St | Local | Bike Lane | Stripe | 2,500 | 1 |
| Greenville | N/S Pitt St | Split/Bridges | W 2nd St | Local | Bike Lane | Stripe | 2,010 | 0 |
| Greenville | S Pitt St | W 2nd St | Dickinson Ave | Local | Bike Lane | Restripe | 2,165 | 0 |
| Greenville | W 1st St | End of Street | S Greene St | Local | Sharrow | Marking | 564 | 0 |
| Greenville | E/W 1st St | S Greene St | N Summit St | Local | Bike Lane | Stripe | 2,440 | 1 |
| Greenville | S Washington St | W 1st St | Reade Cir | Local | Sharrow | Marking | 2,025 | 0 |
| Greenville | Evans St | W 1st St | Reade Cir | Local | Sharrow | Marking | 2,360 | 0 |
| Greenville | Cotanche St | Reade Cir | E 5th St. | Local | Sharrow | Marking | 500 | 0 |
| Greenville | W 3rd St | S. Pitt St. | N Memorial Dr | Local | Bike Boulevard | New Construction/Signage | 4,830 | 1 |
| Greenville | E 3rd St | S Meade St. | Reade St | Local | Bike Boulevard | New Construction/Signage | 3,500 | 1 |
| Greenville | E/W 3rd St | Reade St. | S. Pitt St. | Local | Sharrow | Marking | 1,650 | 0 |
| Greenville | E/W 4th St | Nash St | Reade St | Local | Sharrow | Marking | 5,868 | 1 |
| Greenville | E 4th St | Reade St | Forest Hill Ci | Local | Sharrow | Marking | 5,310 | 1 |
| Greenville | E 4th St | Forest Hill Ci | Cemetery Rd | Local | Bike Lane | Stripe | 3,824 | 1 |
| Greenville | E/W 5th St | Reade St | Pitt St | Local | Sharrow | Marking | 1,618 | 0 |
| Greenville | E 5th St. | Existing Bike Lane | Green Springs Dr. | Local | Bike Lane | New Construction | 1,350 | 0 |
| Greenville | E 5th St. | Green Springs Dr. | E 10th St. | Local | Bike Lane | Restripe | 750 | 0 |
| Greenville | W 5th St | Pitt St | Elizabeth St | Local | Bike Lane | Stripe | 1,295 | 0 |
| Greenville | W 5th St | Elizabeth St | N Memorial Dr | State | Bike Lane | Stripe | 3,782 | 1 |

| Municipality | Roadway | To | From | Ownership | Bike Facility | Method of Construction | Distance (feet) | Distance (miles) |
|--------------|---|-------------------|-------------------|-----------|-----------------------------|--------------------------|-----------------|------------------|
| Greenville | N Memorial Dr | W 3rd St | W 5th St | State | Bike Lane | Restripe | 1,192 | 0 |
| Greenville | Bancroft Ave | W 5th St | Farmville Ave | Local | Sharrow | Marking | 1,790 | 0 |
| Greenville | Line Ave | Farmville Ave | Chestnut St | Local | Sharrow | Marking | 2,300 | 0 |
| Greenville | Fleming St | Bancroft Ave | Pamlico Ave | Local | Sharrow | Marking | 2,800 | 1 |
| Greenville | Grande Ave, Pamlico Ave, S Alley St, Atlantic Ave | Loop | Loop | Local | Bicycle Route | Signage | 2,397 | 1 |
| Greenville | W 9th St | Dickinson Ave | Evans St | Local | Sharrow | Marking | 1,442 | 0 |
| Greenville | Library Rd | Evans St | End of Road | Local | Sharrow | Marking | 1,247 | 0 |
| Greenville | Charles St | Library Rd | Charles Blvd | Local | Sharrow | Marking | 1,064 | 0 |
| Greenville | Founders Dr | E 5th | E 10th | Local | Sharrow | Marking | 1,475 | 0 |
| Greenville | College Hill Dr | Founders Dr | E 14th St | Local | Sharrow | Marking | 3,774 | 1 |
| Greenville | Chestnut St | Grande Blvd | Moye Blvd | Local | Sharrow | Marking | 4,338 | 1 |
| Greenville | W 5th St | W Arlington Blvd | N Memorial Dr | State | Wide Outside Lane | Restripe | 4,992 | 1 |
| Greenville | W/E 10th St | Dickinson Ave | Cotanche St. | State | Bike Lane | New Construction | 2,390 | 1 |
| Greenville | E 10th St | Cotanche St. | E. Wright Rd. | State | Wide Outside Lane | Restripe | 6,900 | 1 |
| Greenville | N/S Elm St | River Dr | E 14th St | Local | Sharrow | Marking | 6,624 | 1 |
| Greenville | Overlook Dr. | Elm St. | Brownlea Dr | Local | Bike Boulevard | New Construction/Signage | 2,750 | 1 |
| Greenville | W 14th St | Fleming St | Dickinson Ave | Local | Bike Lane | New Construction | 2,046 | 0 |
| Greenville | W 14th St | Dickinson Ave | Beatty St. | Local | Sharrow | Marking | 1,340 | 0 |
| Greenville | W 14th St | Beatty St. | Evans St | Local | Bike Lane | Restripe | 1,640 | 0 |
| Greenville | E 14th St | Evans St | S Elm St | State | Sharrow | Marking | 4,870 | 1 |
| Greenville | E 14th St | S Elm St | Red Banks Rd | State | Bike Lane | New Construction | 6,400 | 1 |
| Greenville | E 14th St | Red Banks Rd | Fire Tower Rd | State | Bike Lane | New Construction | 5,850 | 1 |
| Greenville | S Elm | E 14th St | Greenville Blvd | Local | Bike Lane | Restripe | 2,592 | 1 |
| Greenville | S Elm | Greenville Blvd | Charles Blvd | Local | Bike Lane | Marking | 2,145 | 0 |
| Greenville | W Berkley Rd | E 14th St | Blackbeards Alley | Local | Bike Lane | Marking | 1,090 | 0 |
| Greenville | S Overlook Dr | Blackbeards Alley | S Elm St | Local | Bicycle Route | Signage | 2,424 | 1 |
| Greenville | Evans St | Reade Cir | 14th St | State | Bike Lane | Restripe | 2,734 | 1 |
| Greenville | Evans St | 14th St | Arlington Blvd | State | Bike Lane | Restripe | 4,052 | 1 |
| Greenville | Evans St | Arlington Blvd | Greenville Blvd | State | Bike Lane | Restripe | 4,900 | 1 |
| Greenville | Evans St | Greenville Blvd | Fire Tower Rd. | State | Bike Lane | New Construction | 9,400 | 2 |
| Greenville | Cotanche St | Reade Cer | W 10th St | Local | Bike Lane | Stripe | 1,010 | 0 |
| Greenville | Cotanche St | W 10th St | E 14th St | State | Bike Lane | Stripe | 1,900 | 0 |
| Greenville | Charles Blvd | E 14th St | Greenville Blvd | State | Bike Lane | Restripe | 4,290 | 1 |
| Greenville | Charles Blvd | Greenville Blvd | Bells Fork Rd. | State | Bike Lane | Restripe | 9,800 | 2 |
| Greenville | Dickinson Ave | Reade Cir | Columbia Ave | State | Sharrow | Marking | 2,165 | 0 |
| Greenville | Dickinson Ave | Columbia Ave | Moye Blvd | State | Bike Lane | New Construction | 3,895 | 1 |
| Greenville | Dickinson Ave | Moye Blvd | W Arlington Blvd | State | Bike Lane | New Construction | 3,715 | 1 |
| Greenville | Dickinson Ave | W Arlington Blvd | Dansey Rd | State | Bike Lane | Restripe | 1,932 | 0 |
| Greenville | Howell St | Hooker Rd | Evans St | Local | Bike Lane | Stripe | 4,494 | 1 |
| Greenville | Moye Blvd | W 3rd St | W 5th St | Local | Bike Lane | Stripe | 2,228 | 0 |
| Greenville | Moye Blvd | W 5th St | Stantonsburg Rd | Local | Bike Lane | Restripe | 3,526 | 1 |
| Greenville | Moye Blvd | Stantonsburg Rd | S Memorial Blvd | Local | Sharrow | Marking | 2,038 | 0 |
| Greenville | Moye Blvd | S Memorial Blvd | Dickinson Ave | Local | Bike Lane | Restripe | 1,460 | 0 |
| Greenville | Hooker Rd | Dickinson Ave | Sylvan Dr | Local | Bike Lane | Stripe | 1,618 | 0 |
| Greenville | Hooker Rd | Sylvan Dr | W Arlington Blvd | Local | Bike Lane | Restripe | 1,625 | 0 |
| Greenville | Hooker Rd | W Arlington Blvd | Greenville Blvd | Local | Bike Lane | Restripe | 6,567 | 1 |
| Greenville | Hartford St | Greenville Blvd | Landmark St | Local | Bike Lane | Stripe | 1,618 | 0 |
| Greenville | WH Smith Blvd | Stantonsburg Rd | Dickinson Ave | Local | Bike Lane | New Construction | 3,600 | 1 |
| Greenville | W Arlington Blvd | Melrose Dr | Stantonsburg Rd | State | Bike Lane/Wide Outside Lane | Restripe | 4,764 | 1 |
| Greenville | W Arlington Blvd | Stantonsburg Rd | Dickinson Ave | Local | Bike Lane | Restripe | 4,830 | 1 |



| Municipality | Roadway | To | From | Ownership | Bike Facility | Method of Construction | Distance (feet) | Distance (miles) |
|--------------|--|-------------------------------|--------------------------------|-----------|-------------------|------------------------|-----------------|------------------|
| Greenville | W Arlington Blvd | Dickinson Ave | Hooker Rd | Local | Bike Lane | Restripe | 4,328 | 1 |
| Greenville | E Arlington Blvd | Evans St | Greenville Blvd | Local | Wide Outside Lane | Restripe | 3,052 | 1 |
| Greenville | E Arlington Blvd | Greenville Blvd | Old Fire Tower Rd | Local | Wide Outside Lane | Restripe | 9,451 | 2 |
| Greenville | Red Banks Rd | Evans St | Charles Blvd | Local | Wide Outside Lane | Restripe | 6,150 | 1 |
| Greenville | E 10th | Brownlea Dr. | Greenville Blvd | State | Wide Outside Lane | Restripe | 4,900 | 1 |
| Greenville | E 10th | Greenville Blvd | Portertown Rd | State | Wide Outside Lane | Restripe | 9,573 | 2 |
| Greenville | NE Greenville Blvd | Existing Paved Sh | Charles Blvd | State | Wide Outside Lane | Restripe | 12,703 | 2 |
| Greenville | SW Greenville Blvd | Charles Blvd | S Memorial Blvd | State | Wide Outside Lane | Restripe | 12,190 | 2 |
| Greenville | SW Greenville Blvd | S Memorial Blvd | Woodridge Park Rd | State | Wide Outside Lane | Restripe | 13,762 | 3 |
| Greenville | S Memorial Dr | W 5th St | Arlington Blvd | State | Wide Outside Lane | Restripe | 8,104 | 2 |
| Greenville | S Memorial Dr | Arlington Blvd | Thomas Langston Rd | State | Wide Outside Lane | Restripe | 11,760 | 2 |
| Greenville | S Memorial Dr | Thomas Langston Rd | Davenport Farm Rd | State | Wide Outside Lane | Restripe | 6,590 | 1 |
| Greenville | Stantonsburg Rd | Bethesda Dr | Moye Blvd | State | Wide Outside Lane | Restripe | 9,610 | 2 |
| Greenville | Hemby Ln. | Arlington Blvd | Moye Blvd | Local | Bicycle Route | Signage | 3,270 | 1 |
| Greenville | Wellness Dr, Bethesda Dr, Spring Forest Rd | McGregor Downs Rd | Dickinson Ave | Local | Bicycle Route | Signage | 9,800 | 2 |
| Greenville | Drexel Ln, Sherwood Dr, Fantasia St, Tucker Dr, Woodwin Dr, Tuckahoe Dr | S Elm St | 14th St | Local | Bicycle Route | Signage | 9,780 | 2 |
| Greenville | Turtle Creek Rd, Oakmont Dr | Arlington Blvd | Charles Blvd | Local | Bicycle Route | Signage | 1,992 | 0 |
| Greenville | Granville Dr, Martinsboough Rd, Cromwell Dr, Queen Annes Rd, Bremerton Dr, Caversham Rd, Chesapeake Pl, Ashcroft Dr | Red Banks Rd/ Greenville Blvd | Fire Tower Rd/Evans | Local | Bicycle Route | Signage | 20,225 | 4 |
| Greenville | Wimbledon Dr | Arlington Blvd | Fire Tower Rd | Local | Bicycle Route | Signage | 4,000 | 1 |
| Greenville | Landmark St, Baywood St, Cedarhurst Rd, Westhaven Rd, Thornbrook Dr | Greenville Blvd | Memorial Dr/ Thomas Lanston Rd | Local | Bicycle Route | Signage | 12,575 | 2 |
| Greenville | Monroe St., Jefferson Dr., Wright Rd., Ragsdale Rd, Brownlea Dr, Beaumont Dr, Fairview Wy, Oakview Dr | Greensprings Dr. | S. Elm St. | Local | Bicycle Route | Signage | 11,300 | 2 |
| Greenville | Thomas Langston Ext. | Memorial Dr | Evans St | Local | Bike Lane | New Construction | 5,850 | 1 |
| Greenville | York Rd, King George Rd, Oxford Rd | E 14th St | E 10th St/ Portertown Rd | Local | Bicycle Route | Signage | 13,812 | 3 |
| Greenville | W Fire Tower Rd | S Memorial Dr | Old Tar Rd | State | Bike Lane | Restripe | 6,490 | 1 |
| Greenville | W Fire Tower Rd | Old Tar Rd | Whitebridge Dr | State | Bike Lane | Restripe | 5,424 | 1 |
| Greenville | W Fire Tower Rd. Ext. | S Memorial Dr | Forlines Rd. | State | Bike Lane | New Construction | 8,500 | 2 |
| Greenville | E Fire Tower Rd | Whitebridge Dr | Charles Blvd | State | Bike Lane | Restripe | 6,400 | 1 |
| Greenville | E Fire Tower Rd Ext. Phase III | Charles Blvd | 14th St. Ext. | State | Bike Lane | New Construction | 3,200 | 1 |
| Greenville | E Fire Tower Rd Ext. Phase IV | 14th St. Ext. | Portertown Rd | State | Bike Lane | New Construction | 4,050 | 1 |
| Greenville | Corey Rd, Duke Rd, Royal Dr | Fire Tower Rd | SR 1711 | State | Bicycle Route | Signage | 15,815 | 3 |
| Greenville | Farmville Blvd (10th St. Connector) | Moye Blvd | 14th St | State | Bike Lane | New Construction | 4,000 | 1 |
| Greenville | Allen Rd. | Stantonsburg Rd | US-13/264A | State | Bike Lane | New Construction | 12,100 | 2 |
| Greenville | Brownlea Dr. Ext Phase II | 10th Street | 14th Street | Local | Bike Lane | New Construction | 3,600 | 1 |
| Greenville | Forest Hill Cir/E 8th St. | 10th Street | End of E. 8th St. | Local | Sharrow | Marking | 1,050 | 0 |
| Winterville | Railroad St | Vernon White | Worthington St | State | Paved Shoulder | New Construction | 2,163 | |
| Winterville | Railroad St | Worthington St | Sylvania St | Local | Bike Lane | Stripe | 4,274 | 1 |

| Municipality | Roadway | To | From | Ownership | Bike Facility | Method of Construction | Distance (feet) | Distance (miles) |
|--------------|---|--------------------|------------------------|-----------|-------------------|------------------------|-----------------|------------------|
| Winterville | Main St | Chapman St | Railroad St | State | Bike Lane | Stripe | 1,022 | 0 |
| Winterville | Main St | Railroad St | Academy St | State | Sharrow | Marking | 682 | 0 |
| Winterville | Main St | Academy St | East St | State | Bike Lane | Stripe | 926 | 0 |
| Winterville | Main St | East St | Old Tar Rd | State | Bike Lane | Restripe | 3,556 | 1 |
| Winterville | Church St | Main St | Cooper St. | State | Sharrow | Marking | 500 | 0 |
| Winterville | Church St | Cooper St. | Blount St | State | Bike Lane | Stripe | 500 | 0 |
| Winterville | Church St | Sylvania St. | Linden St | State | Bike Lane | Stripe | 1,400 | 0 |
| Winterville | Church St | Blount St | Sylvania St | State | Sharrow | Marking | 450 | 0 |
| Winterville | Academy St | Main St | Blount St | Local | Sharrow | Marking | 1,070 | 0 |
| Winterville | Blount St | Railroad St | Ange St | Local | Sharrow | Marking | 1,612 | 0 |
| Winterville | Sylvania St | Railroad St | Ange St | Local | Sharrow | Marking | 2,028 | 0 |
| Winterville | Ange St | Cooper St | Blount St | State | Bike Lane | Stripe | 525 | 0 |
| Winterville | Ange St | Blount St | Laurie Ellis St | State | Bike Lane | New Construction | 2,562 | 1 |
| Winterville | Cooper St | Railroad St | Ange St | State | Bike Lane | Stripe | 1,552 | 0 |
| Winterville | Cooper St | Ange St | Old Tar Rd | State | Paved Shoulder | New Construction | 3,795 | 1 |
| Winterville | Laurie Ellis | Railroad St | Old Tar Rd | State | Paved Shoulder | New Construction | 6,721 | 1 |
| Winterville | Old Tar Rd | Fire Tower Rd | Laurie Ellis St | State | Bike Lane | New Construction | 12,510 | 2 |
| Winterville | Vernon White | NC 11 | Old Tar Rd | State | Paved Shoulder | New Construction | 6,450 | 1 |
| Winterville | Mill St | Vernon White | Tyson St | State | Paved Shoulder | New Construction | 4,024 | 1 |
| Ayden | Lee St | Hines Dr | 1st St | State | Bike Lane | Stripe | 2,762 | 1 |
| Ayden | Lee St | 1st St | 6th St | State | Sharrow | Marking | 1,900 | 0 |
| Ayden | Lee St | 6th St | Jackson St | State | Bike Lane | Stripe | 2,782 | 1 |
| Ayden | Snowhill St | 3rd St | 6th St | Local | Sharrow | Marking | 1,247 | 0 |
| Ayden | Snowhill St | 6th St | Juanita | Local | Bike Lane | Stripe | 2,007 | 0 |
| Ayden | Snowhill St | Juanita | NC 11 | Local | Paved Shoulder | New Construction | 2,006 | 0 |
| Ayden | Nc 102/ 3rd St | Wildwood St | Jolly St | State | Wide Outside Lane | Restripe | 1,105 | 0 |
| Ayden | 3rd St | Jolly St | Verna St | State | Bike Lane | Restripe | 1,872 | 0 |
| Ayden | 3rd St | Verna St | Martin Luther King | State | Bike Lane | Stripe | 2,824 | 1 |
| Ayden | 3rd St | Martin Luther King | McCary St | State | Sharrow | Marking | 2,502 | 1 |
| Ayden | 3rd St | McCary St | North Edge Rd | State | Bike Lane | Stripe | 1,252 | 0 |
| Ayden | Nc 102/ 3rd St | North Edge Rd | Ayden Golf Club Rd | State | Paved Shoulder | New Construction | 6,813 | 1 |
| Ayden | 6th St/ Westhaven/ Terrace/Fifth/ New Circle/ Edgewood/Stokes | Lee St. | Ayden Middle | Local | Bicycle Route | Signage | 7,000 | 1 |
| Ayden | Mill St | Lee St. | East Ave | Local | Bicycle Route | Signage | 760 | 0 |
| Simpson | Black Jack Simpson Rd | NC 33 | Millbrook Dr. | State | Paved Shoulder | New Construction | 3,340 | 1 |
| Simpson | McDonald St. | Millbrook Dr. | Edwards Dr. | State | Bike Lane | New Construction | 3,900 | 1 |
| Simpson | Black Jack Simpson Rd | Edwards Dr. | Hudsons Crossroads Rd. | State | Paved Shoulder | New Construction | 16,500 | 3 |
| Simpson | Tucker Rd | NC 33 | River Birch Dr. | State | Paved Shoulder | New Construction | 3,200 | 1 |
| Simpson | Simpson Rd. | River Birch Dr. | Ruth Evans Dr. | State | Bike Lane | New Construction | 4,940 | 1 |
| Simpson | Tucker Rd | Ruth Evans Dr. | Ivy Rd | State | Paved Shoulder | New Construction | 6,470 | 1 |
| County | East Ave, Weyerhauser Rd | 3rd St | MPO Boundary | State | Paved Shoulder | New Construction | 13,303 | 3 |
| County | Old NC 11 | Jackson St | NC 11 | State | Paved Shoulder | New Construction | 4,766 | 1 |
| County | Old Snowhill Rd | Hanrahan Rd | Juanita Av | State | Paved Shoulder | New Construction | 13,345 | 3 |
| County | NC 102 | MPO Boundary | Wildwood St | State | Paved Shoulder | New Construction | 14,223 | 3 |
| County | NC 102 | Ayden Golf Club Rd | MPO Boundary | State | Paved Shoulder | New Construction | 8,790 | 2 |
| County | Ayden Golf Club Rd | NC 102 | MPO Boundary | State | Paved Shoulder | New Construction | 18,730 | 4 |
| County | Ayden Golf Club Rd | NC 102 | County Home | State | Paved Shoulder | New Construction | 12,788 | 2 |
| County | Hines Drive | Lee St | Ayden Golf Club Rd | State | Paved Shoulder | New Construction | 12,205 | 2 |



| Municipality | Roadway | To | From | Ownership | Bike Facility | Method of Construction | Distance (feet) | Distance (miles) |
|--------------|------------------------------|-------------------|-----------------------|-----------|----------------|------------------------|-----------------|------------------|
| County | Old NC 11 | Sylvania St | Hines Dr | State | Paved Shoulder | New Construction | 16,450 | 3 |
| County | Old Tar Rd Rd | Laurie Ellis Rd | Ayden Golf Club Rd | State | Paved Shoulder | New Construction | 11,537 | 2 |
| County | Reedy Branch Rd | S Memorial | Davenport Farm Rd | State | Bike Lane | New Construction | 3,730 | 1 |
| County | Reedy Branch Rd | Davenport Farm Rd | NC 11 | State | Paved Shoulder | New Construction | 11,200 | 2 |
| County | Reedy Branch Rd | NC 11 | Old Tar Rd | State | Paved Shoulder | New Construction | 15,866 | 3 |
| County | Pitt Tech Rd | Tice Rd. | Fulford Rd | Local | Bike Lane | New Construction | 1,520 | 0 |
| County | Tice Rd. | Reedy Branch | S Memorial | Local | Bike Lane | New Construction | 1,000 | 0 |
| County | Laurie Ellis Rd | Old Tar Rd | Jack Jones Rd | State | Paved Shoulder | New Construction | 7,328 | 1 |
| County | Jack Jones Rd | Old Tar Rd | County Home Rd | State | Paved Shoulder | New Construction | 10,400 | 2 |
| County | County Home Rd | Worthington Rd | MPO Boundary | State | Paved Shoulder | New Construction | 17,700 | 3 |
| County | Ivy Rd | County Home Rd | NC 43 | State | Paved Shoulder | New Construction | 13,530 | 3 |
| County | Worthington Rd | Old Tar Rd | NC 43 | State | Paved Shoulder | New Construction | 19,600 | 4 |
| County | County Home Rd | Old Fire Tower Rd | Worthington Rd | State | Paved Shoulder | New Construction | 12,120 | 2 |
| County | Charles Blvd/NC 43 | Bells Fork Rd. | Worthington Rd. | State | Bike Lane | New Construction | 16,812 | |
| County | NC 43 | Worthington Rd | MPO Boundary | State | Paved Shoulder | New Construction | 17,260 | 3 |
| County | Mills Rd | NC 43 | MPO Boundary | State | Paved Shoulder | New Construction | 12,662 | 2 |
| County | Ivy Rd | Mobleys Bridge Rd | Mills Rd | State | Paved Shoulder | New Construction | 17,777 | 3 |
| County | Mobleys Bridge Rd | Ivy Rd | Black Jack Simpson Rd | State | Paved Shoulder | New Construction | 12,920 | 2 |
| County | Portertown Rd | E. Fire Tower Rd. | Ivy Rd | State | Paved Shoulder | New Construction | 12,238 | 2 |
| County | Portertown Rd | E 10th St | E. Fire Tower Rd. | State | Bike Lane | New Construction | 7,300 | 1 |
| County | 14th St | Scarborough Rd | Fire Tower Rd | State | Paved Shoulder | New Construction | 3,220 | 1 |
| County | Fire Tower Rd | Kittrell Rd | Portertown Rd | State | Paved Shoulder | New Construction | 5,969 | 1 |
| County | 10th St/ NC 33 | Portertown Rd | MPO Boundary | State | Paved Shoulder | New Construction | 22,615 | 4 |
| County | NC 903 | MPO Boundary | NC 11 | State | Paved Shoulder | New Construction | 17,894 | 3 |
| County | Pocosin Rd | MPO Boundary | NC 903 | State | Paved Shoulder | New Construction | 15,142 | 3 |
| County | Frog Level Rd | Davenport Farm Rd | NC 904 | State | Paved Shoulder | New Construction | 11,750 | 2 |
| County | Forlines Rd | MPO Boundary | SW Bypass | State | Paved Shoulder | New Construction | 6,700 | 1 |
| County | Forlines Rd | SW Bypass | NC 11 | State | Bike Lane | New Construction | 16,900 | 3 |
| County | Davenport Farm Rd | US 13 | NC 11 | State | Paved Shoulder | New Construction | 19,282 | 4 |
| County | Thomas Langston Rd | Davenport Farm Rd | NC 11 | State | Bike Lane | New Construction | 10,928 | 2 |
| County | Frog Level Rd | Bell Arthur Rd | Davenport Farm Rd | State | Paved Shoulder | New Construction | 21,420 | 4 |
| County | Kinsaul Willoughby Rd | Stantonsburg Rd | Bell Arthur Rd | State | Paved Shoulder | New Construction | 9,164 | 2 |
| County | Bell Arthur Rd | Stantonsburg Rd | Frog Level Rd | State | Paved Shoulder | New Construction | 14,852 | 3 |
| County | Stantonsburg Rd | MPO Boundary | Stocks Ln | State | Paved Shoulder | New Construction | 19,816 | 4 |
| County | Stantonsburg Rd | Stocks Ln | US 264 | State | Paved Shoulder | New Construction | 8,407 | 2 |
| County | BS Barbeque Rd | US 264 | W 5th St | State | Paved Shoulder | New Construction | 6,120 | 1 |
| County | Stantonsburg Rd | BS Barbeque Rd | Bethesda Dr | State | Paved Shoulder | New Construction | 3,378 | 1 |
| County | NC 43/W 5th St | MPO Boundary | Martin Luther King Jr | State | Paved Shoulder | New Construction | 13,587 | 3 |
| County | Eastern Pines Rd. | Portertown Rd | Portertown Rd | Local | Paved Shoulder | New Construction | 11,800 | 2 |
| County | Lt. Hardee Rd. | Portertown Rd | NC 33 | Local | Paved Shoulder | New Construction | 11,050 | 2 |
| County | Sunny Side Rd. | US 264 | Old Pactolus Rd. | State | Paved Shoulder | New Construction | 3,000 | 1 |
| County | B. Stokes Rd. | NC 43 | Ivy Rd | Local | Paved Shoulder | New Construction | 7,000 | 1 |
| County | NC 11 | Vernon White Rd. | Old NC 11 | State | Sidepath | New Construction | 35,800 | 7 |



Table of Pedestrian Network Segments

| Municipality | Roadway | To | From | # of Sides | Distance (feet) | Distance (miles) |
|--------------|-------------------------------|-------------------|-------------------|------------|-----------------|------------------|
| Greenville | N Memorial Dr | Greenfield Blvd | Airport Rd | 2 | 6,516 | 1 |
| Greenville | N Memorial Dr | Airport Rd | W 3rd St | 2 | 7,224 | 1 |
| Greenville | Mumford Rd | N Greene St | Tice Cir | 1 | 3,475 | 1 |
| Greenville | N Greene St | Morgan St | Existing by Split | 1 | 4,592 | 1 |
| Greenville | N Greene St | Morgan St | N. Memorial Dr. | 1 | 5,250 | 1 |
| Greenville | W Dudley St | Existing | N Greene St | 1 | 627 | 0 |
| Greenville | Taylor St | Existing | W Moore St | 1 | 336 | 0 |
| Greenville | W 5th St | BS Barbeque Rd | Mattox Rd. | 1 | 1,200 | 0 |
| Greenville | BS Barbeque Rd | W 5th St | US 264 | 1 | 6,200 | 1 |
| Greenville | Stantonsburg Rd | US 264 | Westpointe Dr | 1 | 2,850 | 1 |
| Greenville | Stantonsburg Rd | BS Barbeque Rd | Wellness Dr | 2 | 3,488 | 1 |
| Greenville | W Arlington Blvd | Stantonsburg Rd | Dickinson Ave | 1 | 4,700 | 1 |
| Greenville | WH Smith Blvd | Stantonsburg Rd | Dickinson Ave | 1 | 3,475 | 1 |
| Greenville | Moye Blvd | Stantonsburg Rd | S Memorial Dr | 1 | 1,914 | 0 |
| Greenville | Stantonsburg Rd | Moye Blvd | S Memorial Dr | 1 | 1,850 | 0 |
| Greenville | Farmville Blvd | S Memorial Dr | Tyson St | 1 | 1,923 | 0 |
| Greenville | Bancroft Ave/ Line Ave | Fleming St | Chestnut St | 1 | 3,095 | 1 |
| Greenville | S Village Dr | S Memorial Dr | Bancroft Ave | 1 | 1,070 | 0 |
| Greenville | Paige Dr | Conley St | N Memorial Dr | 1 | 294 | 0 |
| Greenville | W 3rd St | Conley St | N Memorial Dr | 1 | 302 | 0 |
| Greenville | W 4th St Gaps | N Memorial Dr | Davis St | 1 | 2,080 | 0 |
| Greenville | Spruce St | W 14th St | Myrtle St | 1 | 1,080 | 0 |
| Greenville | Myrtle St Gaps | Wilson St | Pamlico Ave | 1 | 3,285 | 1 |
| Greenville | Virginia Ave | Pamlico Ave | Albemarle Ave | 1 | 304 | 0 |
| Greenville | Pamlico Ave | Virginia Ave | Cherry St | 1 | 952 | 0 |
| Greenville | S Alley St | Pamlico Ave | Atlantic St | 2 | 702 | 0 |
| Greenville | Chestnut St | Line Ave | W Watauga Ave | 1 | 1,648 | 0 |
| Greenville | Wilson St | Line Ave | Chestnut St | 1 | 622 | 0 |
| Greenville | Manhattan Ave | Existing | Dickinson Ave | 1 | 570 | 0 |
| Greenville | Dickinson Ave Gaps | W Watauga Ave | W 14th St | 1 | 600 | 0 |
| Greenville | Grande Ave | Chestnut St | Dickinson Ave | 1 | 500 | 0 |
| Greenville | Clark St | Bonner S Ln | Dickinson Ave | 1 | 927 | 0 |
| Greenville | W 9th St | Clark St | S Pitt St | 2 | 330 | 0 |
| Greenville | Dickinson/W 8th St | Intersection Gaps | | 1 | 323 | 0 |
| Greenville | Washington St / W 8th | W 8th | W 9th | 1 | 508 | 0 |
| Greenville | Evans St | Reade Cir | E 7th | 1 | 150 | 0 |
| Greenville | Cotanche St | E 9th St | E 10th St | 1 | 325 | 0 |
| Greenville | S Pitt St | W 10th St | W 11th St | 1 | 340 | 0 |
| Greenville | 12th St Gaps | Clark St | Charles St | 1 | 1,530 | 0 |
| Greenville | S Washington St Gaps | W 11th St | W 14th St | 1 | 1,088 | 0 |



| Municipality | Roadway | To | From | # of Sides | Distance (feet) | Distance (miles) |
|--------------|---------------------------|--------------------|--------------------|------------|-----------------|------------------|
| Greenville | W 13th St Gaps | S Washington St | Charles St | 1 | 610 | 0 |
| Greenville | Forbes St | Existing | W 12th St | 1 | 687 | 0 |
| Greenville | Cotanche St | Charles St | E 12th St | 1 | 400 | 0 |
| Greenville | 14th St | Beatty St | Charles St | 1 | 2,984 | 1 |
| Greenville | Skinner St | Existing | Howell St | 1 | 950 | 0 |
| Greenville | Howell St | Skinner St | Evans St | 1 | 3,156 | 1 |
| Greenville | Evans St | E 14th St | E Arlington Blvd | 1 and 2 | 4,016 | 1 |
| Greenville | E 1st St | Existing | E 5th St | 2 | 6,557 | 1 |
| Greenville | E 3rd St Gaps | Contache St | S Library St | 1 | 1,970 | 0 |
| Greenville | Jarvis St Gaps | Avery St | E 3rd St | 1 | 880 | 0 |
| Greenville | S Harding St Gaps | E 1st | E 3rd St | 1 | 390 | 0 |
| Greenville | Eastern St Gaps | E 1st | E 5th St | 1 | 1,340 | 0 |
| Greenville | E 4th St Gaps | Biltmore St | Brownlea Dr | 1 and 2 | 4,245 | 1 |
| Greenville | S Meade St | E 1st | E 3rd St | 1 | 667 | 0 |
| Greenville | S Warren St | E 1st | E 3rd St | 1 | 604 | 0 |
| Greenville | E 3rd St | S Meade St | Forrest Hill Cir | 1 | 1,760 | 0 |
| Greenville | Forrest Hill Cir | E 3rd St | E 6th St | 1 | 1,222 | 0 |
| Greenville | N Elm St | End of Street | E 1st St | 1 | 1,410 | 0 |
| Greenville | N Warren St | End of Street | E 3rd St | 1 | 2,152 | 0 |
| Greenville | S Elm St | E 5th St | E 10th St | 1 | 995 | 0 |
| Greenville | E 5th St | S Oak | E 10th St | 1 and 2 | 5,755 | 1 |
| Greenville | E 6th St | Hill Top St | Brownlea Dr | 1 | 760 | 0 |
| Greenville | E 4th St | Brownlea Dr | Cemetery St | 1 | 2,734 | 1 |
| Greenville | Hickory St | Loop | E 5th St | 1 | 1,236 | 0 |
| Greenville | Cedar St | Cypress View | E 4th St | 1 | 668 | 0 |
| Greenville | Cemetery St | E 2nd St | E 5th St | 1 | 805 | 0 |
| Greenville | E 10th St | Forrest Hill Cir | SE Greenville Blvd | 1 and 2 | 5,954 | 1 |
| Greenville | E 10th St | Portertown Rd | Port Terminal Rd | 2 | 3,494 | 1 |
| Greenville | SE Greenville Blvd | E 14th St | E 10th St | 1 and 2 | 4,990 | 1 |
| Greenville | Adams Blvd | Laura Ln | Bloomsbury Rd | 1 | 2,515 | 1 |
| Greenville | E 14th St | W Rock Spring Rd | S Elm St | 1 | 2,607 | 1 |
| Greenville | E 14th St | S Elm St | SE Greenville Blvd | 2 | 4,920 | 1 |
| Greenville | E 14th St | SE Greenville Blvd | E Fire Tower Rd | 2 | 7,174 | 1 |
| Greenville | W 14th St | Broad St. | Fleming St | 1 | 2,400 | 1 |
| Greenville | Portertown Rd | E 10th St | E Fire Tower Rd | 1 | 7,356 | 1 |
| Greenville | E Fire Tower Rd | Portertown Rd | Charles Blvd | 1 | 7,152 | 1 |
| Greenville | Tucker Dr | Red Banks Rd | Cantata Dr | 1 | 3,935 | 1 |
| Greenville | Thackery Rd | Charles Blvd | Cantata Dr | 1 | 378 | 0 |
| Greenville | Charles Blvd | Red Banks Rd | E Fire Tower Rd | 1 and 2 | 6,888 | 1 |
| Greenville | Charles Blvd | Red Banks Rd | SE Greenville Blvd | 1 | 2,783 | 1 |
| Greenville | Charles Blvd | E Fire Tower Rd | NC 43 | 2 | 7,415 | 1 |
| Greenville | W Arlington Blvd | Dickinson Ave | Evans St | 1 | 7,664 | 2 |
| Greenville | E Arlington Blvd | Evans St | Red Banks Rd | 1 | 4,676 | 1 |



| Municipality | Roadway | To | From | # of Sides | Distance (feet) | Distance (miles) |
|----------------------------|------------------------------|---------------------|---------------------|------------|-----------------|------------------|
| Greenville | E Arlington Blvd | Red Banks Rd | E Fire Tower Rd | 1 | 6,694 | 1 |
| Greenville | County Home Rd | E Fire Tower Rd | Wintergreen schools | 2 | 8,665 | 2 |
| Greenville | E Fire Tower Rd | Old Fire Tower Rd | Charles Blvd | 2 | 5,010 | 1 |
| Greenville | Corey Rd | E Fire Tower Rd | Worthington Rd | 1 | 11,298 | 2 |
| Greenville | Red Banks Rd | 14th St | Charles Blvd | 1 | 4,322 | 1 |
| Greenville | Red Banks Rd | Charles Blvd | Evans St | 2 | 6,005 | 1 |
| Greenville | SE Greenville Blvd | Charles Blvd | Red Banks Rd | 1 and 2 | 3,650 | 1 |
| Greenville | SE Greenville Blvd | Charles Blvd | 14th St | 1 | 6,230 | 1 |
| Greenville | SW/SE Greenville Blvd | Red Banks Rd | S Memorial Dr | 1 and 2 | 7,355 | 1 |
| Greenville | Evans St | Arlington Blvd | SE Greenville Blvd | 2 | 4,474 | 1 |
| Greenville | Evans St | SE Greenville Blvd | E Fire Tower Rd | 2 | 9,505 | 2 |
| Greenville | Forlines Rd | near Ruby Rd. | NC 11 | 2 | 16,800 | 3 |
| Greenville | Davenport Farm Rd | Thomas Langston Rd | S Memorial Dr | 1 | 5,609 | 1 |
| Greenville | Frog Level Rd. | Dickinson Ave Ex. | Forlines Rd | 1 | 10,770 | 2 |
| Greenville | Thomas Langston Rd | Davenport Farm Rd | S Memorial Dr | 1 | 10,975 | 2 |
| Greenville | Reedy Branch Rd | S Memorial Dr | Davenport Farm Rd | 2 | 4,514 | 1 |
| Greenville | Manhattan Ave | Farmville Blvd | Myrtle St | 1 | 1,140 | 0 |
| Greenville | Raleigh Ave | Chestnut St | Farmville Blvd. | 1 | 1,050 | 0 |
| Greenville | W 3rd St | Moye Blvd | Darden Drive | 1 | 590 | 0 |
| Greenville | Nash St. | W 3rd St | W 4th St | 1 | 300 | 0 |
| Greenville | Nash St. | W 5th St | Existing sidewalk | 1 | 350 | 0 |
| Greenville/ Winterville | S Memorial Dr | Thomas Langston Rd | Vernon White Rd | 1 and 2 | 6,580 | 1 |
| Greenville | S Memorial Dr | SE Greenville Blvd | Thomas Langston Rd | 2 | 4,287 | 1 |
| Greenville | S Memorial Dr | W Arlington Blvd | SE Greenville Blvd | 2 | 7,310 | 1 |
| Greenville | S Memorial Dr | Farmville Rd | W Arlington Blvd | 2 | 6,070 | 1 |
| Greenville | S Memorial Dr | W 5th St | Farmville Rd | 1 | 1,780 | 0 |
| Greenville | Dickinson Ave | Hooker Rd | W Arlington Blvd | 2 | 3,680 | 1 |
| Greenville | Dickinson Ave | W Arlington Blvd | SW Greenville Blvd | 2 | 10,881 | 2 |
| Greenville | Allen Ave | Stantonsburg Rd | Dickinson Ave | 1 | 11,992 | 2 |
| Greenville | SW Greenville Blvd | Dickinson Ave | S Memorial Dr | 1 | 9,402 | 2 |
| Greenville | South Square Dr | S Memorial Dr | Granada Dr | 1 | 1,386 | 0 |
| County | E 10th St/NC 33 | Portertown Rd | Black Jack-Simpson | 2 | 7,380 | 1 |
| County | Portertown Rd | E Fire Tower Rd | Eastern Pines Rd. | 1 | 11,800 | 2 |
| County | Eastern Pines Rd. | Portertown Rd | Ivy Rd. | 1 | 11,900 | 2 |
| County | Ivy Rd. | Portertown Rd | B. Stokes Rd. | 1 | 3,300 | 1 |
| County | B. Stokes Rd. | NC 43 | Ivy Rd. | 1 | 7,000 | 1 |
| County | County Home Rd | Wintergreen schools | Worthington Rd | 1 | 4,360 | 1 |
| County | Worthington Rd. | County Home Rd. | NC 43 | 1 | 8,470 | 2 |
| County | Worthington Rd. | Corey Rd. | County Home Rd. | 1 | 3,900 | 1 |



| Municipality | Roadway | To | From | # of Sides | Distance (feet) | Distance (miles) |
|--------------|--------------------------|--------------------------|------------------------------|------------|-----------------|------------------|
| County | Hyde Dr. | Arlington Blvd | Charles Blvd | 1 | 1,800 | 0 |
| County | Lt. Hardee Rd. | Portertown Rd | Eastern Pines Rd. | 1 | 6,300 | 1 |
| County | Lt. Hardee Rd. | Eastern Pines Rd. | NC 33 | 1 | 4,800 | 1 |
| Ayden | Jolly Rd | NC-11 | 3rd St | 1 | 6,750 | 1 |
| Ayden | NC-102 | 0.4 miles west of NC-11 | NC-11 | 2 | 2,266 | 0 |
| Ayden | 3rd St | NC-11 | 0.1 miles east of Jolly Rd | 2 | 963 | 0 |
| Ayden | 2nd St | Jolly Rd | Snow Hill St | 1 | 3,703 | 1 |
| Ayden | Juanita Rd | 2nd St | Old No. 11 | 1 | 4,358 | 1 |
| Ayden | Westhaven Av | 2nd St | 3rd St | 1 | 699 | 0 |
| Ayden | Juanita Rd | 3rd St | Snow Hill St | 1 | 2,692 | 1 |
| Ayden | Lee St | Barwick St | NC-11 | 1 | 5,765 | 1 |
| Ayden | Venters St | 3rd St | 6th St | 1 | 1,160 | 0 |
| Ayden | 6th St | Juanita Rd | Pitt St | 1 | 2,627 | 1 |
| Ayden | Snow Hill St | 0.07 miles east of NC-11 | 6th St | 1 | 3,649 | 1 |
| Ayden | Barwick St | Joyner St | Lee St | 1 | 584 | 0 |
| Ayden | Hines Dr | Old No. 11 | Sunny Ln | 1 | 3,187 | 1 |
| Ayden | College St | Hines Dr | 3rd St | 1 | 3,889 | 1 |
| Ayden | 3rd St | College St | 0.13 east of 2nd St | 1 | 2,549 | 1 |
| Ayden | Southeast Av | 3rd St | Franklin Dr | 1 | 3,129 | 1 |
| Ayden | 2nd St | 0.02 west of College St | 3rd St | 1 | 2,073 | 0 |
| Ayden | Lee St | 0.04 south of 6th St | Planters St | 1 | 618 | 0 |
| Ayden | Washington St | 3rd St | 4th St | 1 | 396 | 0 |
| Ayden | 6th St | Southwest Av | Southeast Av | 1 | 117 | 0 |
| Ayden | 4th St | Washington St | Snow Hill St | 1 | 227 | 0 |
| Ayden | Southwest Av | 3rd St | 0.07 south of 3rd St | 1 | 424 | 0 |
| Ayden | Unnamed Street | Snow Hill St | 0.15 south of Snow Hill St | 1 | 822 | 0 |
| Winterville | Main St | Tar Rd | 0.6 miles east of Bentley Dr | 2 | 1,937 | 0 |
| Winterville | Ashley Meadows Dr | Tar Rd | Edenbrook Dr | 1 | 2,084 | 0 |
| Winterville | Edenbrook Dr | Ashley Meadows Dr | Ray Crawford Dr | 1 | 828 | 0 |
| Winterville | Ray Crawford Dr | Spring Run Rd | Edenbrook Dr | 1 | 1,498 | 0 |
| Winterville | Spring Run Rd | Corbett St | Ray Crawford Dr | 1 | 1,048 | 0 |
| Winterville | Old Tar Rd | Laurie Ellis Rd | Reedy Branch Rd | 2 | 5,428 | 1 |
| Winterville | Old Tar Rd | Fire Tower Rd | Vernon White Rd | 2 | 5,654 | 1 |
| Winterville | Old Tar Rd | Vernon White Rd | Laurie Ellis Rd | 2 | 6,850 | 1 |
| Winterville | Vernon White Rd | Mill St | Railroad St | 2 | 2,311 | 0 |
| Winterville | Railroad St | Vernon White Rd | Depot St | 1 | 4,888 | 1 |
| Winterville | Worthington Rd. | Old Tar Rd. | Corey Rd. | 1 | 7,200 | 1 |
| Winterville | Worthington Rd | Mill St | Jones St | 1 | 1,762 | 0 |
| Winterville | Jones St | Worthington Rd | Main St | 1 | 2,841 | 1 |



| Municipality | Roadway | To | From | # of Sides | Distance (feet) | Distance (miles) |
|--------------|---|-----------------|-------------------------------|------------|-----------------|------------------|
| Winterville | Forbes Av | Main St | 0.03 miles north of Rose Lane | 1 | 1,814 | 0 |
| Winterville | Primrose Lane | Ange St | Rosewood Dr | 1 | 3,471 | 1 |
| Winterville | Vernon White Rd | Railroad St | Evans St | 2 | 4,144 | 1 |
| Winterville | Boyd St | Memorial Dr | Railroad St | 2 | 2,129 | 0 |
| Winterville | Evans St | Vernon White Rd | Laurie Ellis St | 2 | 6,850 | 1 |
| Winterville | Main St | Railroad St | Graham St | 1 | 2,226 | 0 |
| Winterville | Sylvania St | Railroad St | Ange St | 1 and 2 | 2,001 | 0 |
| Winterville | Ange St | Main St | Cooper St | 2 | 802 | 0 |
| Winterville | Ange St | Cooper St | Laurie Ellis St | 2 | 3,117 | 1 |
| Winterville | Rosewood Dr | Cooper St | Primrose Lane | 1 | 2,035 | 0 |
| Winterville | Davenport Farm Rd | Reedy Branch Rd | Memorial Dr | 2 | 2,739 | 1 |
| Winterville | Dr Fulford Dr | Reedy Branch Rd | Memorial Dr | 1 | 2,059 | 0 |
| Winterville | Memorial Dr | Tice Rd | Davenport Farm Rd | 1 and 2 | 3,436 | 1 |
| Winterville | Main St | Reedy Branch Rd | Mill St | 1 and 2 | 4,146 | 1 |
| Winterville | Reedy Branch Rd | Main St | Memorial Dr | 2 | 5,041 | 1 |
| Winterville | Reedy Branch Rd | Memorial Dr | Forlines Rd | 1 and 2 | 4,347 | 1 |
| Winterville | Reedy Branch Rd | Forlines Rd | Main St | 2 | 6,036 | 1 |
| Winterville | Corbett St | Evans St | Tabard Rd | 1 | 4,634 | 1 |
| Winterville | Tabard Rd | Evans St | Franklin Dr | 1 | 3,049 | 1 |
| Winterville | Friar Dr | Stillwater Dr | Tabard Rd | 1 | 369 | 0 |
| Winterville | Cooper St | Mill St | Tar Rd | 1 and 2 | 5,978 | 1 |
| Winterville | Laurie Ellis Rd | Ange St | Old Tar Rd | 2 | 3,400 | 1 |
| Winterville | Laurie Ellis Rd | Gaylord St | Ange St | 1 and 2 | 3,165 | 1 |
| Winterville | Church St | North St | Laurie Ellis St | 1 and 2 | 3,865 | 1 |
| Winterville | Railroad St | Main St | Sylvania St | 1 and 2 | 1,146 | 0 |
| Winterville | Blount St | Mill St | Church St | 1 and 2 | 827 | 0 |
| Winterville | Blount St | Academy St | Ange St | 1 and 2 | 761 | 0 |
| Winterville | Cooper St | Mill St | Church St | 1 and 2 | 687 | 0 |
| Winterville | Academy St | Cooper St | Blount St | 1 | 336 | 0 |
| Winterville | Old NC 11 | Sylvania St | Laurie Ellis St | 1 | 1,533 | 0 |
| Winterville | Mill St | Boyd St | Sylvania St | 2 | 4,045 | 1 |
| Winterville | Mill St | Vernon White Rd | Boyd St | 2 | 2,913 | 1 |
| Winterville | Tyson St | Mill St | Memorial Dr | 1 | 618 | 0 |
| Winterville | Hammond St | Memorial Dr | Jones St | 1 | 608 | 0 |
| Winterville | Channel Dr | Hillcrest Av | Evans St | 1 | 2,944 | 1 |
| Winterville | Kennedy St/ Evergreen Av/ Hillcrest Av | Jones St | Loop | 1 | 3,516 | 1 |
| Simpson | Simpson/Tucker | Arden Ridge | Prestonwood | 1 and 2 | 6,950 | 1 |
| Simpson | Black Jack- Simpson/ McDonald | NC 33 | Avon | 1 and 2 | 7,960 | 2 |
| Simpson | Queen | McDonald | Telfaire | 1 | 1,650 | 0 |
| Simpson | Telfaire | Queen | Simpson | 1 | 965 | 0 |
| Simpson | Virginia | Queen | Simpson | 1 | 1,035 | 0 |

A photograph of a paved road with a concrete sidewalk on the right side, bordered by green grass and trees. The image is used as a background for the title.

PEDESTRIAN RECOMMENDATIONS FROM RELATED PLANS

Appendix Contents

Overview

*Recommendations from
the Town of Ayden
Comprehensive Sidewalk
Plan (2009)*

*Recommendations
from the Winterville
Comprehensive
Pedestrian Plan (2008)*

Overview

This appendix contains recommendations from the Town of Ayden Comprehensive Sidewalk Plan (2009) and the Winterville Comprehensive Pedestrian Plan (2008). These documents are included in this appendix as a supplementary reference to 1) the summary of these plans found at the end of Chapter 2, and 2) the recommendations made in Chapter 5.



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double-sided printing)*

SECTION IV. SIDEWALK INSTALLATION LOCATIONS

In accordance with the “Town of Ayden Comprehensive Sidewalk Plan Map” sidewalks are to be constructed as follows:

Fourth Street

- The north side of Fourth Street from Washington Street to Snow Hill Street.

Hines Drive

- The north side of Hines Drive from Old NC 11 / Lee Street to Sunny Lane.

Jolly Road

- The east side of Jolly Road from NC 11 to NC 102 / Third Street.

Juanita Avenue

- The north and west side of Juanita Avenue from Old NC 11 / Lee Street to Second Street.

Lee Street / Old NC 11

- The west side of Old NC 11 / Lee Street from the northernmost intersection of Countryaire Drive to First Street.
- Both sides of Old NC 11 / Lee Street from First Street to Mill Street.
- The west side of Old NC 11 / Lee Street from Mill Street to NC 11.

Magellan Court

- The east side of Magellan Court from Snow Hill Street to the southern terminus.

Martin Luther King Jr. Street

- The west side of Martin Luther King Jr. Street from Second Street to Old NC 11 / Lee Street.

Northeast College

- The east side of Northeast College Street from Hines Drive to NC 102 / Third Street.

Second Street

- The north side of Second Street from Jolly Road to Snow Hill Street.
- Both sides of Second Street from Snow Hill Street to Northeast College Street.
- The south side of Second Street from Northeast College Street to NC 102 / Third Street.



Snow Hill Street

- The west and north side of Snow Hill Street from Second Street to just east of NC 11.

Third Street / NC 102

- Both sides of Third Street / NC 102 from the proposed Southwest By-Pass to McCary Street.
- The north side of Third Street / NC 102 from McCary Street to Second Street.

Washington Street

- The east side of Washington Street from Third Street to Fourth Street.

West Avenue

- The east side of West Avenue from First Street to Franklin Drive.

*It should be noted that any new street created after August, 2006 shall provide a sidewalk on one side of the street.

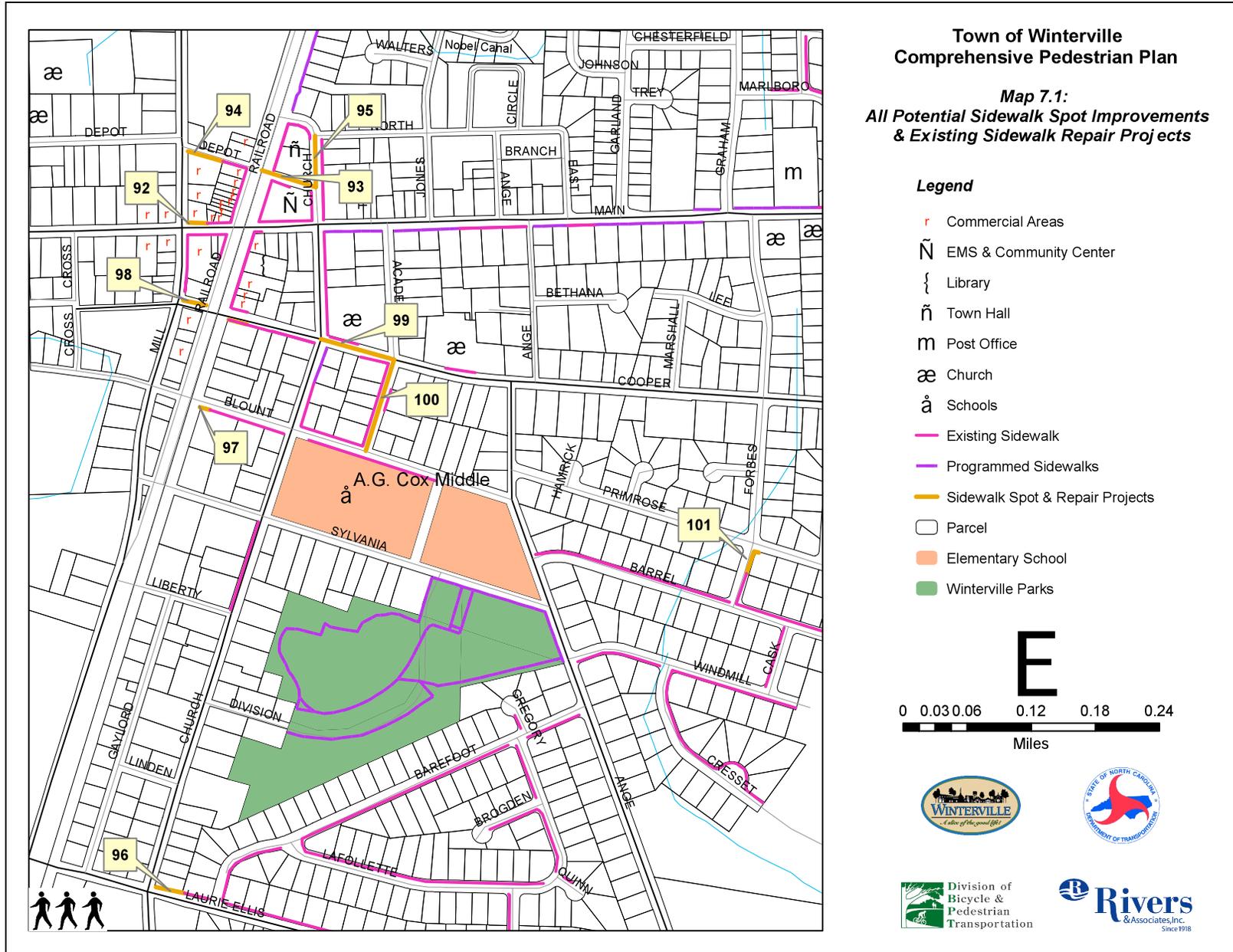
** The Town of Ayden Comprehensive Sidewalk Plan Map and this Section identify approximately 6.82 miles of existing sidewalks and 9.66 miles of new sidewalk needs.





TABLE 7.1: POTENTIAL SIDEWALK SPOT IMPROVEMENTS & EXISTING SIDEWALK REPAIR PROJECTS

| PROJECT ID (REF. ON MAP) | SIDEWALK SPOT IMPROVEMENTS LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
|---------------------------------|--|-----------------|-------------------|--|
| 92 | Main Street (Spot) | Mill Street | Railroad Street | Install a continuous sidewalk and curb ramps along north side of road to connect existing sidewalks |
| 93 | Depot Street (Spot) | Railroad Street | Church Street | Install sidewalks and curb ramps along both sides of road to connect existing sidewalks |
| 94 | Depot Street (Spot) | Railroad Street | Mill Street | Install continuous sidewalks and curb ramps along south side of road to connect existing sidewalks to downtown |
| 95 | Church Street (Spot) | Depot Street | North Street | Install sidewalks and curb ramps along west side of road to connect existing sidewalks |
| 96 | Laurie Ellis Road (Spot) | Barefoot lane | Church Street | Install a continuous sidewalk and curb ramps along north side of street to connect existing sidewalks |
| 97 | Blount Street (Spot) | Railroad Street | Existing sidewalk | Install sidewalk and curb ramps along south side of street to connect existing sidewalks and A.G. Cox |
| 98 | Cooper Street (Spot) | Mill Street | Railroad Street | Install sidewalks along both sides of road to provide a safety area for pedestrian travel to commercial areas and downtown |
| 99 | Cooper Street (Spot) | Church Street | Academy Street | Install a continuous sidewalk and curb ramps along both sides of street to connect existing sidewalks |
| 100 | Academy Street (Spot) | Cooper Street | Blount Street | Install continuous sidewalks and curb ramps along east side of street to connect existing sidewalks and provide a connection to A.G. Cox |
| 101 | Forbes Avenue (Spot) | Barrel Drive | Primrose Lane | Install sidewalk and curb ramps along east side of street to connect existing sidewalks |





New Sidewalk Construction (NSC)

New sidewalk construction projects (52) are aimed at providing pedestrian accessibility and connectivity between areas of Winterville that are currently isolated. These projects were identified to connect areas of high pedestrian density (residential areas) to surrounding destinations, such as parks, schools, commercial areas, downtown, and proposed greenways. Sidewalk construction also includes connections to existing sidewalks to form continuous routes. All sidewalk projects should include curb cuts with ramps at all driveways and intersections. (See Map 7.2)

| TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS | | | | |
|---|------------------------------------|---------------------|---------------------|---|
| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
| 40 | West Firetower Road Extension | Memorial Drive | Davenport Farm Road | Install sidewalks and curb ramps along both sides of future road to connect residential, commercial, and PCC |
| 41 | Reedy Branch Road | Memorial Drive | Hwy 11 | Install sidewalks and curb ramps along both sides of road to connect residential to PCC, elementary schools, parks and future commercial |
| 42 | Forlines Road | Elm Street | Reedy Branch Road | Install sidewalks and curb ramps along south side of road to connect residential to nearby schools |
| 43 | Memorial Drive | Vernon White Road | West Firetower Road | Install sidewalks and curb ramps along both sides of road to connect main portion of Winterville with sprawling commercial areas and PCC |
| 44 | Memorial Drive | West Firetower Road | Tice Road | Install sidewalks and curb ramps along west side of road to connect commercial and PCC |
| 45 | Hwy 903/Main Street | Mill Street | Reedy Branch Road | Install sidewalks and curb ramps along both sides of road to connect residential to downtown and future commercial and residential areas west of Hwy 11 |
| 46 | Boyd Street | Railroad Street | Reedy Branch Road | Install sidewalks and curb ramps along both sides (if possible) of road to connect residential areas to downtown and W.H. Robinson Elem. School |
| 47 | Depot Street | Railroad Street | Mill Street | Install sidewalks and curb ramps along north side of road provide connection to downtown |



| TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS | | | | |
|--|---|--------------------|--------------------|---|
| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
| 48 | Tyson Street | Mill Street | Railroad Street | Install sidewalks along one side of road to connect residential area with downtown and W.H. Robinson Elem. School |
| 49 | Church Street | Blount Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along east side of street to connect A.G. Cox Middle School (also identified as a greenway route per Pitt County Greenway Plan) with residential area |
| 50 | Church Street | Sylvania Street | Main Street | Install continuous sidewalks and curb ramps along west side of street for connection to downtown and A.G. Cox |
| 51 | Church Street | Liberty Street | Laurie Ellis Road | Install sidewalks and curb ramps along west side of street to provide a continuous sidewalk to A.G. Cox |
| 52 | Railroad Street | Vernon White Road | Depot Street | Install continuous sidewalks and curb ramps along west side of street for connection to downtown and W.H. Robinson |
| 53 | Railroad Street | Worthington Street | Hammond Street | Install continuous sidewalks and curb ramps along east side of street in front of W.H. Robinson |
| 54 | Railroad Street | Main Street | Sylvania Street | Install continuous sidewalks and curb ramps along west side of street to connect existing sidewalks and the downtown |
| 55 | Railroad Street | Cooper Street | Sylvania Street | Install continuous sidewalks and curb ramps along east side of street to connect downtown |
| 56 | Mill Street | Vernon White Road | Sylvania Street | Install continuous sidewalks and curb ramps along both sides to provide connection to downtown |
| 57 | Mill Street | Sylvania Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along west side of street to connect downtown |
| 58 | Jones Street | Main Street | Worthington Street | Install continuous sidewalks and curb ramps along both sides of street to provide connection to W.H. Robinson Elem. School |



TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS

| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
|---------------------------------|---|-------------------|-------------------|---|
| 59 | Hammond Street | Railroad Street | Jones Street | Install continuous sidewalks and curb ramps along both sides of street to connect to downtown and W.H. Robinson |
| 60 | East Main Street | Old Tar Road | Future Town Park | Install sidewalks and curb ramps along both sides of street to connect residential areas, commercial areas, and potential recreation opportunities on a Town-owned parcel at the end of E. Main Street |
| 61 | Main Street | Old Tar Road | Church Street | Install continuous sidewalks and curb ramps along both sides of street to connect residential areas with schools, parks, downtown, Winter Village, and existing sidewalks (identified as a sidewalk/greenway connector in the Pitt County Greenway Plan 2025) |
| 62 | Main Street | Railroad Street | Church Street | Install a continuous sidewalk and curb ramps along south side of road to connect existing sidewalks |
| 63 | Cooper Street | Old Tar Road | Academy Street | Install continuous sidewalks and curb ramps along both sides of street to connect residential areas with schools, downtown and other commercial areas and connect existing sidewalks |
| 64 | Cooper Street | Railroad Road | Church Street | Install sidewalk and curb ramps along north side of street to connect existing sidewalks and provide a connection to A.G. Cox and downtown |
| 65 | Kennedy/Hillcrest/Channel | Jones Street | Old Tar Road | Install continuous sidewalks and curb ramps along one side of street to connect to W.H. Robinson Elem. School |
| 66 | Evergreen/Hillcrest | Kennedy/Hillcrest | Hillcrest/Channel | Install continuous sidewalks and curb ramps along one side of street to connect to W.H. Robinson Elem. School |
| 67 | Worthington Street | Mill Street | Railroad Street | Install continuous sidewalks and curb ramps along one side of street to connect residential areas to W.H. Robinson School |



| TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS | | | | |
|--|---|----------------------|---------------------------|---|
| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
| 68 | Worthington Street | Railroad Street | Jones Street | Install continuous sidewalks and curb ramps along south side of street to connect to W.H. Robinson |
| 69 | Sylvania Street | Ange Street | Railroad Street | Install continuous sidewalks and curb ramps along both sides to connect residential areas with A.G. Cox and park |
| 70 | Ange Street | Main Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along both sides to connect residential areas with A.G. Cox, park, and downtown |
| 71 | Blount Street | Ange Street | Academy | Install continuous sidewalks and curb ramps along north side of street to connect A.G. Cox |
| 72 | Blount Street | Ange Street | Existing sidewalk | Install a continuous sidewalk and curb ramps along entire length of street (south side) to connect A.G. Cox |
| 73 | Blount Street | Mill Street | Church Street | Install a continuous sidewalk and curb ramps along north side of street to connect downtown and A.G. Cox |
| 74 | Vernon White Road | Old Tar Road | Memorial Drive/Highway 11 | Install continuous sidewalks and curb ramps along both sides of street to connect residential areas with commercial, schools, and parks |
| 75 | Old Tar Road | West Firetower Road | Laurie Ellis Road | Install continuous sidewalks and curb ramps along both sides of street to provide a connection to surrounding areas |
| 76 | Ashley Meadows Drive | Old Tar Road | Edenbrook Drive | Install continuous sidewalks and curb ramps along one side of street to connect to neighboring commercial and residential areas |
| 77 | Edenbrook Drive | Ashley Meadows Drive | Ray Crawford Drive | Install continuous sidewalks and curb ramps along one side of street to connect to neighboring residential and commercial areas |
| 78 | Ray Crawford Drive | Edenbrook Drive | Spring Run Road | Install continuous sidewalks and curb ramps along one side of street to connect to neighboring residential and commercial areas |

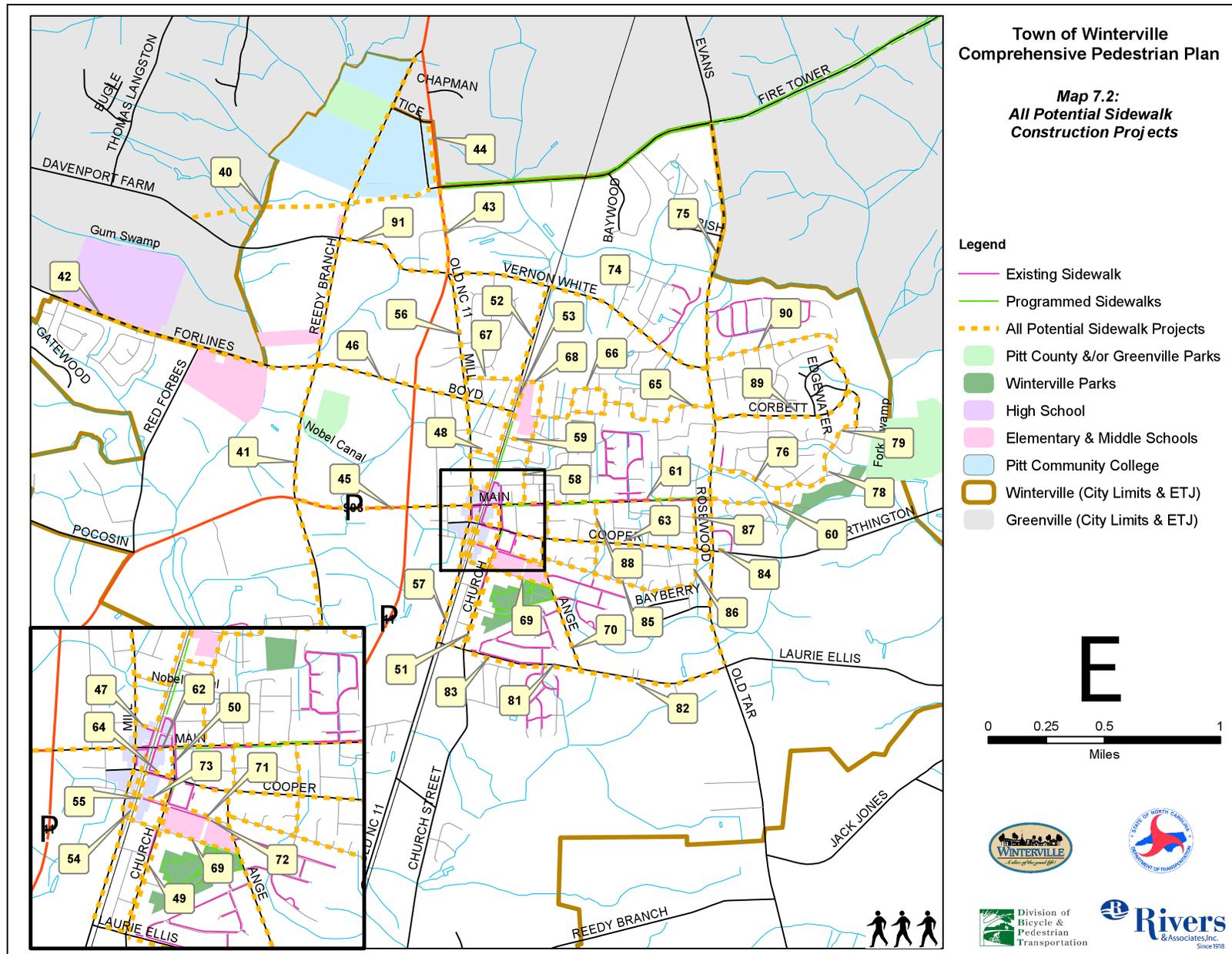


TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS

| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
|---------------------------------|---|----------------------|--------------------|---|
| 79 | Spring Run Road | Ray Crawford Drive | Corbett Street | Install continuous sidewalks and curb ramps along one side of street to connect to neighboring residential and commercial areas |
| 80 | Laurie Ellis Road | Church Street | Mill Street | Install continuous sidewalks and curb ramps along north side of street to connect neighboring residential areas |
| 81 | Laurie Ellis Road | Ellis Landing Lane | Ange Street | Install continuous sidewalks and curb ramps on both sides for connection to parks and neighboring areas |
| 82 | Laurie Ellis Road | Ange Street | Old Tar Road | Install continuous sidewalks and curb ramps on both sides of street for connection to future residential and commercial areas |
| 83 | Laurie Ellis Road | Church Street | Laurie Meadows Way | Install continuous sidewalks and curb ramps on south side of street for connection to daycare center and neighboring destinations |
| 84 | Worthington Road | Old Tar Village Road | Old Tar Road | Install sidewalks and curb ramps on north side of street to connect residential and commercial areas |
| 85 | Primrose Lane | Rosewood Drive | Ange Street | Install continuous sidewalks and curb ramps on south side of street for connection to school, park and neighboring development |
| 86 | Rosewood Drive | Primrose Lane | Cooper Street | Install continuous sidewalks and curb ramps on one side of street for connection to commercial area |
| 87 | Rosewood Drive | Cooper Street | Main Street | Install continuous sidewalk and curb ramps on one side of street for connection to surrounding destinations |
| 88 | Forbes Avenue | Primrose Lane | Main Street | Install continuous sidewalk and curb ramps on east side of street for connection to surrounding destinations |
| 89 | Corbett Street | Old Tar Road | Tabard Drive | Install sidewalk and curb ramps along one side of street for connection from residential area to surrounding land uses |



| TABLE 7.2: POTENTIAL NEW SIDEWALK CONSTRUCTION PROJECTS | | | | |
|--|---|--------------|----------------|--|
| PROJECT ID (REF. ON MAP) | NEW SIDEWALK CONSTRUCTION LOCATION | FROM | TO | PREFERRED ACTION / TREATMENT |
| 90 | Tabard Drive | Old Tar Road | Corbett Street | Install sidewalk and curb ramps along one side of street for connection from residential area to surrounding land uses |
| 91 | Davenport Farm Road | Hwy 11 | Reedy Branch | Install sidewalks and curb ramps along both sides of road to connect commercial properties |





Greenway Corridor Construction (GCC)

Greenway corridor construction projects (12) include off-road pedestrian facilities, typically along lateral stream and drainage corridors, easements, and other open tracts of land. These projects will become a part of a larger greenway system, as identified in *Pitt County Greenway Plan 2025*. Adequate grade separated pedestrian crossings should be installed at all greenway corridor intersections. (See Map 7.3)

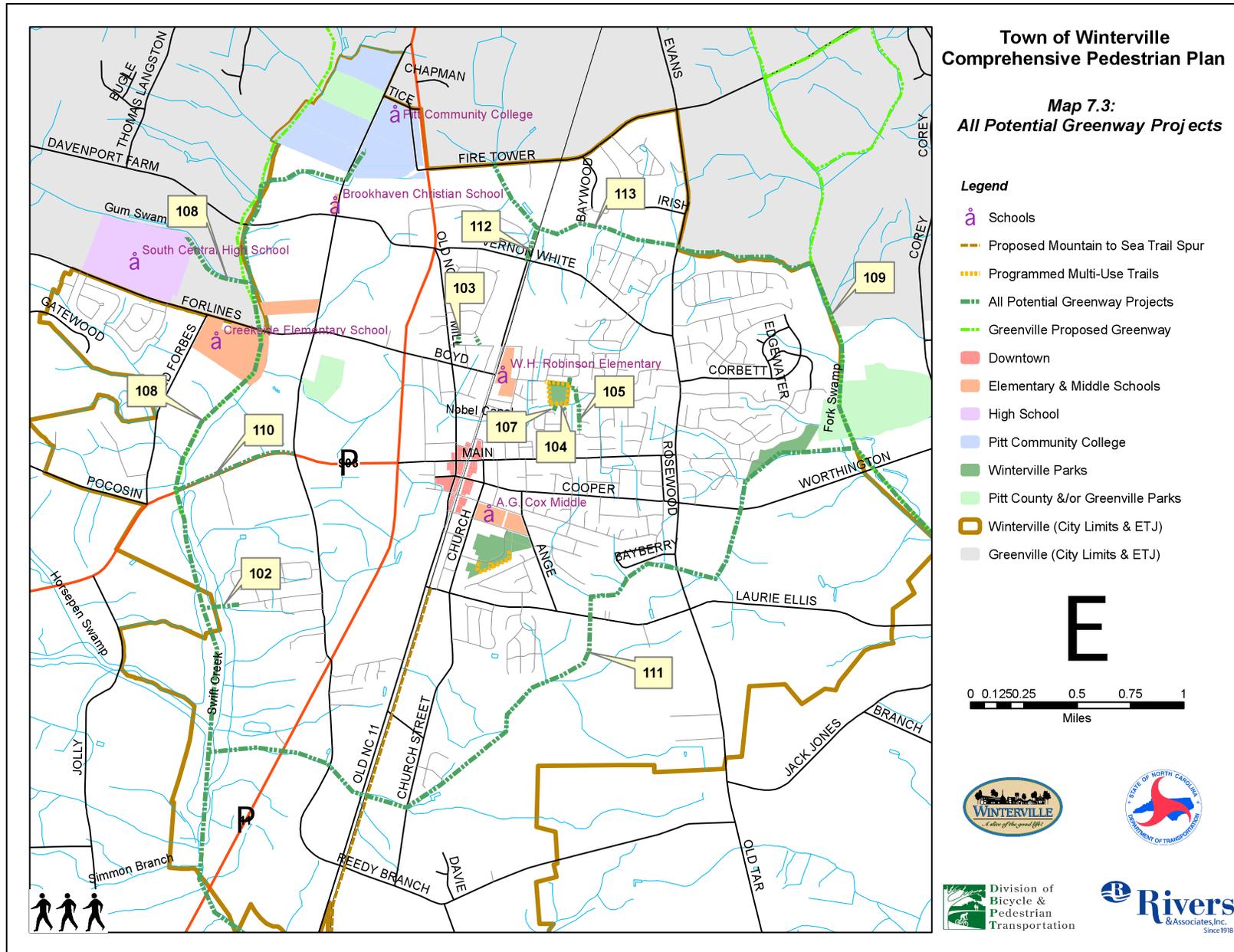
TABLE 7.3: POTENTIAL GREENWAY CORRIDOR CONSTRUCTION PROJECTS

| PROJECT ID (REF. ON MAP) | GREENWAY CORRIDOR CONSTRUCTION LOCATION | FROM | TO | REASON | ALIGNMENT DETAILS |
|-----------------------------|--|------------------------------------|----------------------|--|--|
| 102 | Magnolia Ridge Subdivision | Magnolia Drive | Swift Creek Greenway | To provide a connection to greenway system | Suggested alignment is between cul-de-sac lots (262 & 263 Magnolia Drive). Length of this alignment is approximately 913 feet (0.2 miles) |
| 103 | Waterford Subdivision | Foxcroft Place | Worthington Street | Connection from residential area to W.H. Robinson Elementary School and downtown | Suggested alignment between properties at cul-de-sac (297 & 293 Foxcroft Place) or between 2304 & 2305 Foxcroft Place. Length of this alignment is approximately 276 feet (0.05 miles) |
| 104 | Graham Street | Graham Street | Hillcrest Park | Connection between residential neighborhoods, park, and W.H. Robinson | Suggested alignment between 2500 & 2504 Graham Street. Length of this alignment is approximately 231 feet (0.04 miles) |
| 105 | Williamston Drive & Pinetops Drive | Williamston Drive & Pinetops Drive | Hillcrest Park | Connection between residential neighborhoods, park, and W.H. Robinson | Suggested alignment between 2421 & 2406 Pinetops Drive. Length of this alignment is approximately 1,187 feet (0.2 miles) |
| 106 | Carmon Street | Hillcrest Avenue | Hillcrest Park | Connection between residential neighborhoods, park, and W.H. Robinson | Suggested alignment along Carmon Street. Length of this alignment is approximately 88 feet (0.04 miles) |
| 107 | Johnson Lane | Johnson Lane | Hillcrest Park | Connection between residential neighborhoods, park, and W.H. Robinson | Suggested alignment between 383 & 385 Johnson Lane. Length of this alignment is approximately 160 feet (0.03 miles) |



TABLE 7.3: POTENTIAL GREENWAY CORRIDOR CONSTRUCTION PROJECTS

| PROJECT ID (REF. ON MAP) | GREENWAY CORRIDOR CONSTRUCTION LOCATION | FROM | TO | REASON | ALIGNMENT DETAILS |
|-----------------------------|--|----------------------------------|-----------------------|--|--|
| 108 | Swift Creek | Pitt Community College | Highway 11 | Connection between PCC, South Central High School, Creekside Elementary School | Suggested alignment along existing drainage easements with adequate road crossings and a spur along Gum Swamp to South Central HS. Length of this alignment is approximately 40,167 feet (7.6 miles) |
| 109 | Fork Swamp Creek | Greenville limits & Old Tar Road | Boyd Lee Park | Connection to Boyd Lee Park and other destinations | Suggested alignment along existing drainage easements with adequate road crossings where needed. Length of this alignment is approximately 23,364 feet (4.4 miles) |
| 110 | Hwy 903 | Swift Creek | Reedy Branch Road | Connection to Swift Creek Greenway Corridor and downtown | Suggested alignment along one side of road within right-of-way. Length of this alignment is approximately 3,108 feet (0.6 miles) |
| 111 | Lateral Drainage/Stream Branch | Swift Creek | Fork Swamp Creek | Connection between Swift Creek Greenway and Fork Swamp Creek Greenway | Suggested alignment along one side of stream/drainage with adequate road crossings where needed. Length of this alignment is approximately 11,338 feet (2.15 miles). |
| 112 | Railroad Street | Vernon White Road | Lateral drainage area | Connection to Fork Swamp Creek Greenway | Suggested alignment along railroad easement. Length of this alignment is approximately 506 feet (0.1 miles). |
| 113 | Firetower Road | Firetower Road | Old Tar Road | Connection to Fork Swamp Creek Greenway | Suggested alignment along one side of stream/drainage with adequate road crossings where needed. Length of this alignment is approximately 1,459 feet (0.3 miles). |





Pedestrian Crossings (PC)

Pedestrian crossings (39 identified projects) range from striping crosswalks or installing curb extensions to crossing multi-lane highways and railroad tracks. Installing proper pedestrian crossings will encourage pedestrian travel and safely connect isolated portions of Winterville. Further study and cooperation with NCDOT and CSX railroad will be required to ensure proper crossings involving their infrastructure. (See Map 7.4)

TABLE 7.4: POTENTIAL PEDESTRIAN CROSSING PROJECTS

| PROJECT ID (REF. ON MAP) | PEDESTRIAN CROSSING LOCATION | DESCRIPTION | PREFERRED ACTION / TREATMENT |
|--------------------------|---|--|---|
| 1 | Dr. Fulford Drive, Tice, & Pitt Tech Road | Location of a pedestrian-vehicle crash and near PCC | Install highly visible crosswalks, possible traffic calming measures (raised crosswalk, reduce speed limits, etc.) |
| 2 | Memorial Drive & West Firetower Road | Access to PCC, commercial areas, and transit stop at PCC | Install crosswalks, refuge island, pedestrian-activated signals, and signage |
| 3 | Vernon White, Davenport Farm Road, & Hwy 11 | Location of a pedestrian-vehicle crash, an identified Highway Spot Safety Improvement Project (See Section 3), and connection to PCC and new Commercial area | Install highly visible crosswalks, pedestrian-activated signals, signage, and possible traffic calming measures (raised crosswalk or intersection, refuge island, reduced speed limits) |
| 4 | Mill Street & Hammond Street | Location of a pedestrian-vehicle crash and connects neighborhoods | Install highly visible crosswalks, signage, and traffic calming measures (i.e., reduced speed limits, raised crosswalk) |
| 5 | Mill Street & Tyson Street | Location of a pedestrian-vehicle crash and near downtown and W.H. Robinson Elem. School | Install highly visible crosswalks, signage, and traffic calming measures (curb extensions, lower speed limits, raised crosswalk, etc.) |
| 6 | Mill Street & Boyd Street | Access to W.H. Robinson Elem. School | Install highly visible crosswalks, 4-way stop signs and possible curb extensions |
| 7 | Mill Street & Cooper Street | Downtown | Install highly visible crosswalks, curb ramps, and signage |
| 8 | Mill Street & Depot Street | Downtown | Install highly visible crosswalks, signage, and possible curb extensions |
| 9 | Railroad Street & Worthington Street | Near W.H. Robinson Elem. School | Install 4-way stop signs, highly visible crosswalk, pedestrian signage, and improved railroad crossing |



TABLE 7.4: POTENTIAL PEDESTRIAN CROSSING PROJECTS

| PROJECT ID (REF. ON MAP) | PEDESTRIAN CROSSING LOCATION | DESCRIPTION | PREFERRED ACTION / TREATMENT |
|---------------------------------|-------------------------------------|--|---|
| 10 | Railroad Street & Depot Street | Downtown | Install highly visible crosswalks, signage, curb extension, and improved railroad crossing |
| 11 | Railroad Street & Main Street | Downtown | Install highly visible crosswalks, signage, curb extension, and improved railroad crossing |
| 12 | Railroad Street & Boyd Street | Location of pedestrian-vehicle crash and is in front of W.H. Robinson Elem. School | Install highly visible crosswalks, signage, 4-way stop signs, improved railroad crossing, and possible traffic calming measures |
| 13 | Railroad Street & Cooper Street | Downtown | Install highly visible crosswalks |
| 14 | Main Street & Mill Street | Downtown | Install highly visible crosswalks, curb ramps, and pedestrian-activated signals |
| 15 | Main Street & Old Tar Road | Connection to downtown from residential areas and is an identified Highway Spot Safety Improvement Project (See Section 3) | Install crosswalks, curb ramps, pedestrian-activated signals, and signage |
| 16 | Main Street & Gayle Street | Near Post Office and parks | Install highly visible crosswalks, signage, possible curb extensions, and pedestrian-activated signals |
| 17 | Main Street & Jones Street | Downtown and schools | Install highly visible crosswalks, signage, possible curb extensions, and pedestrian-activated signals |
| 18 | Main Street & Forbes Street | Near Post Office and parks | Install highly visible crosswalks, signage, possible curb extensions, and pedestrian-activated signals |
| 19 | Ange Street & Sylvania Street | Near A.G. Cox and park | Install highly visible crosswalks, 3-way stop sign, and signage |
| 20 | Jones Street & Kennedy Street | Access to W.H. Robinson Elem. School | Install 3-way stop sign, improve existing crosswalk to be more visible, and signage |
| 21 | Church Street & Blount Street | A.G. Cox Middle School | Install improved crosswalks (highly visible), curb ramps, 4-way stop signs, signage, and possible curb extensions |
| 22 | Church Street & Sylvania Street | A.G. Cox Middle School and park | Install improved crosswalks (highly visible), curb ramps, 4-way stop signs, signage, and possible curb extensions |



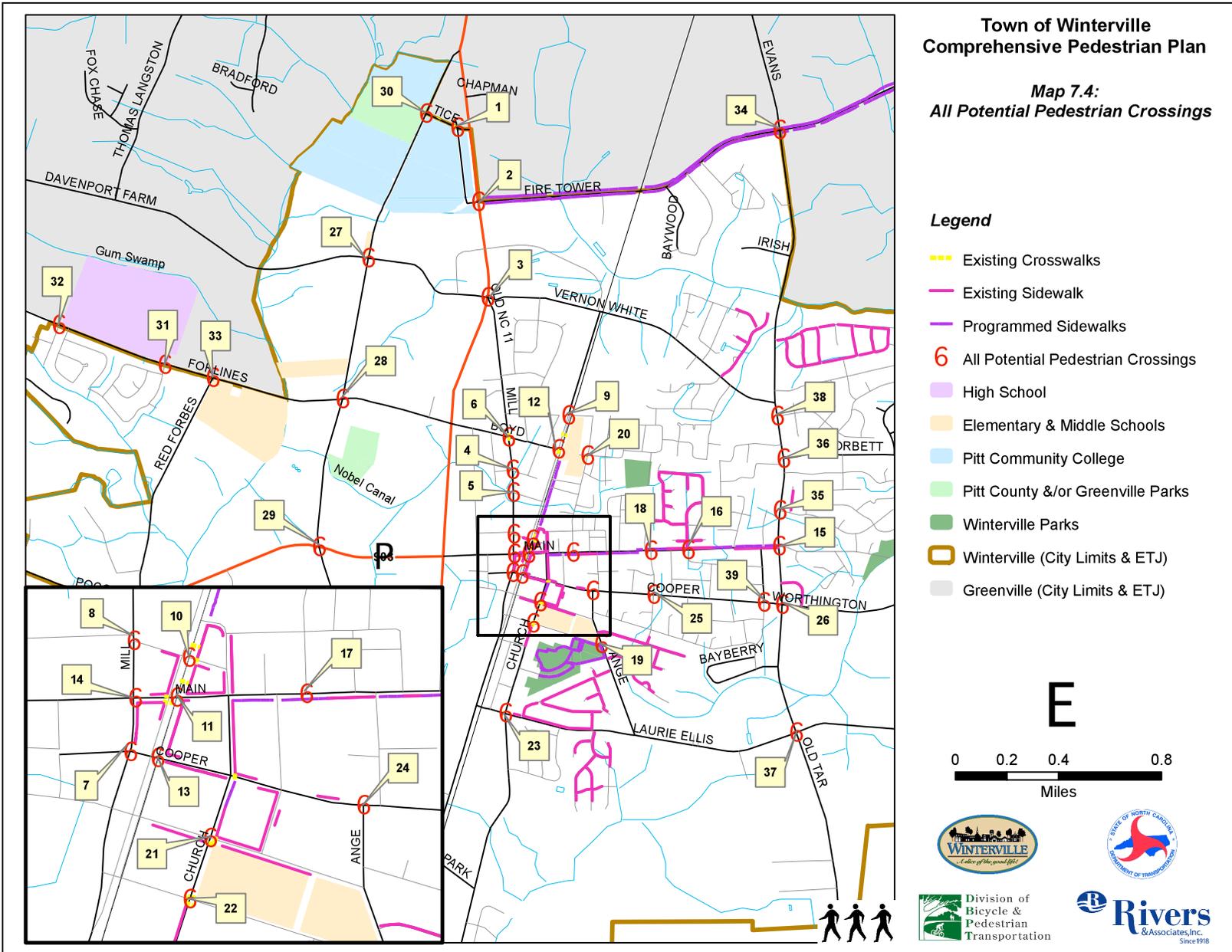
TABLE 7.4: POTENTIAL PEDESTRIAN CROSSING PROJECTS

| PROJECT ID (REF. ON MAP) | PEDESTRIAN CROSSING LOCATION | DESCRIPTION | PREFERRED ACTION / TREATMENT |
|--------------------------|---|--|--|
| 23 | Church Street & Laurie Ellis Road | Access to daycare and residential neighborhoods | Install highly visible crosswalks, signage, and 4-way stop sign |
| 24 | Cooper Street & Ange Street | Near A.G. Cox Middle School, downtown, and parks | Install highly visible crosswalks and signage |
| 25 | Cooper Street & Forbes Street | Near Post Office, A.G. Cox, and park | Install highly visible crosswalks and signage |
| 26 | Cooper Street/ Worthington Road & Old Tar Road | Connection to parks, schools, downtown and nearby commercial | Install highly visible crosswalks and signage |
| 27 | Reedy Branch Road & Davenport Farm Road | Connection to PCC and commercial areas | Install highly visible crosswalks and signage at time of sidewalk construction |
| 28 | Reedy Branch Road & Forlines Road | Near Creekside Elem. School and softball complex | Install highly visible crosswalks, signage and 4-way-stop signs |
| 29 | Reedy Branch Road & Hwy 903 | Future commercial & residential growth area | Install highly visible crosswalks and signage |
| 30 | Reedy Branch Road & Tice Street | Near PCC and residential areas | Install highly visible crosswalks |
| 31 | Forlines Road & Westminster Street | Near South Central High School, Creekside Elem. School and residential areas, also an identified Highway Spot Safety Improvement Project (See Section 3) | Install highly visible crosswalks, signage, and 3-way stop signs |
| 32 | Forlines Road & Elm Street | Near South Central High School and residential, also a Highway Spot Safety Improvement Project | Install highly visible crosswalks and signage |
| 33 | Forlines Road & Red Forbes Road | Near Creekside Elem. School and an identified Highway Spot Safety Improvement Project (See Section 3) | Install highly visible crosswalks, signage, 3-way stop signs |
| 34 | Old Tar Road/Evans Street & West Firetower Road | Connection to surrounding commercial and residential areas | Install crosswalks, pedestrian-activated signals, and signage |
| 35 | Old Tar Road & Ashley Meadows Drive | Access to Winter Village (Food Lion) and nearby daycare centers | Install highly visible crosswalk and signage |



TABLE 7.4: POTENTIAL PEDESTRIAN CROSSING PROJECTS

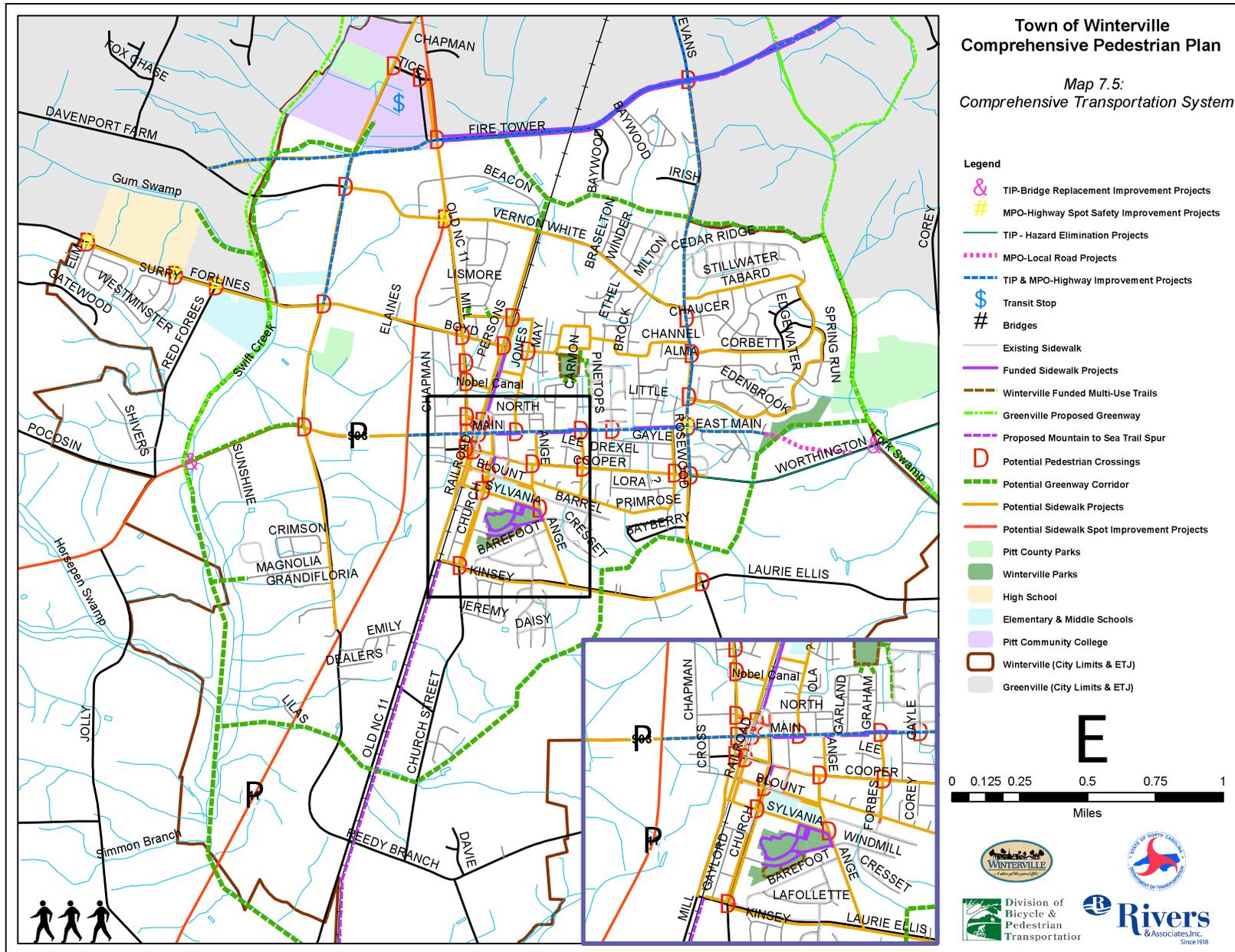
| PROJECT ID (REF. ON MAP) | PEDESTRIAN CROSSING LOCATION | DESCRIPTION | PREFERRED ACTION / TREATMENT |
|---------------------------------|-------------------------------------|--|--|
| 36 | Old Tar Road & Corbett Street | Connection to parks, schools, downtown and nearby commercial | Install highly visible crosswalks, pedestrian-activated signals, and signage |
| 37 | Old Tar Road & Laurie Ellis Road | Future residential growth area | Install highly visible crosswalks and pedestrian signage |
| 38 | Old Tar Road & Chaucer Drive | Connection to parks, schools, downtown and nearby commercial | Install highly visible crosswalks, pedestrian-activated signals, and signage |
| 39 | Cooper Street & Rosewood Street | Connection to commercial | Install highly visible crosswalks |





WINTERVILLE COMPREHENSIVE PEDESTRIAN PLAN

SECTION 7 – PROJECT DEVELOPMENT





Potential Projects Prioritized

All prioritized potential projects were placed into an itemized table (Table B.1 in Appendix B) in order of their priority ranking (based on the above formula). These projects are illustrated on Maps 7.1, 7.2, 7.3, and 7.4 in Section 7. The top 10 potential projects are:

1. Railroad Street – From Main Street to Sylvania Street. Install continuous sidewalk and curb ramps along west side of street to connect existing sidewalks and the Downtown.
2. Railroad Street – From Cooper Street to Sylvania Street. Install continuous sidewalk and curb ramps along east side of street to connect Downtown.
3. Blount Street – From Ange Street to Academy Street. Install continuous sidewalk and curb ramps along north side of street to connect A.G. Cox.
4. Blount Street – From Ange Street to Existing Sidewalk. Install continuous sidewalk and curb ramps along entire length of street (south side) to connect A.G. Cox.
5. Blount Street – From Mill Street to Church Street. Install continuous sidewalk and curb ramps along north side of street to connect Downtown and A.G. Cox.
6. Hammond Street – From Railroad Street to Jones Street. Install continuous sidewalk and curb ramps along both sides of street to connect to Downtown and W.H. Robinson.
7. Cooper Street (Spot) – From Church Street to Academy Street. Install continuous sidewalk and curb ramps along both sides of street to connect existing sidewalks.
8. Church Street – From Sylvania Street to Main Street. Install continuous sidewalk and curb ramps along west side of street for connection to Downtown and A.G. Cox .
9. Church Street – Liberty Street to Laurie Ellis Road. Install sidewalk and curb ramps along west side of street to provide a continuous sidewalk to A.G. Cox.
10. Main Street – From Railroad Street to Church Street. Install continuous sidewalk and curb ramps along south side of road to connect existing sidewalks.



Recommended Projects (step 2)

Due to the amount of potential projects identified and prioritized, the Town's Planning Staff decided to recommend the Top 25 projects on State and the Top 25 projects on Non-State roads at this time due to manageability (See Map 8.1). To assist the Town in determining which recommended project to construct over a specific period, a preliminary opinion cost analysis was performed to further prioritize the projects. All recommended projects were assessed a preliminary opinion of cost estimate based only on proposed treatment for each recommended project. The preliminary cost estimates (See Appendix C – Sample Cost Estimates) are rough estimates based on the Federal Highway Administration¹ and similar projects recently implemented in the area. Therefore, the listed cost estimates should be used as a planning guide and do not include extra costs such as land acquisition, utility relocation, roadway accommodations, drainage, final materials used, grading, land clearing and demolition, professional engineering and surveying, inspection, permitting, legal and administration costs. These costs are not and should not be considered a substitute for professional engineering and surveying regarding actual costs of project construction.

All recommended projects will require some amount of additional coordination and cooperation between the Town, NCDOT, CSX, and/or property owners to resolve general constraints for some of these projects. The general constraints of implementing the below recommended projects include various right-of-way widths and obstacles (utility and light poles, fire hydrants, etc), existing curb and gutter on streets where little room is left for sidewalks, space limitations (existing building setbacks, remaining right-of-way remaining, etc.), large street trees, and resistance from property owners. In addition, there are streets (mainly NCDOT owned) that have excessive width; for instance, Jones Street, East Main Street, and Church Street that will require some sort of traffic calming feature to create safe pedestrian crossing distance. Rural roads (Laurie Ellis Road) with existing drainage ditches on both sides have their own special constraints to be handled before pedestrian facilities are installed. Therefore, some of these projects will require additional study and analysis due to the complexity of the situation (costs, ideal pedestrian facility type, right-of-way issues, drainage, existing utilities, etc.).

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 low cost (less than \$150,000) and high priority ranking were placed on the short-term (0-5 yrs) implementation schedule. Mid-term (5-10 yrs) projects are those projects with a moderate cost (\$150,000-\$300,000) and low and high priority ranking. Long-term (10+ yrs) projects were those projects that had high cost (greater than \$300,000) and low priority ranking. However, mid- and long-term projects should be expedited if financing becomes available.

Table 8.1 is the recommended phasing schedule of short-term, mid-term, and long-term projects; refer to Map 8.1.

- *Project & Map #* - Corresponds to the project identification number used through Plan and its associated maps
- *Priority Rank* – Corresponds to the project's priority ranking
- *Type of Project* – Identifies project type (pedestrian crossing, sidewalk, etc.)



- *Road Class* – Identified ownership of road(s) in project
- *At/On* – Identifies location of project (street, intersection, etc)
- *From* – Identifies starting point of construction project
- *To* – Identifies ending point of construction project
- *Preferred Treatment* – Identifies project information
- *Est. Length (FT)* – Identifies estimated length of project in feet (scaling was done with GIS)
- *Estimated Cost* – Cost estimates calculated using various sources (Federal Highway Administration published costs and recent projects in the area and rough GIS scaling). These costs are rough estimates and should not be considered final. Further surveying, professional engineering, and coordination among interested parties should be completed to determine final costs.

TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|--|------------------|----------------------------|---------------|-------------------------------|-----------------|-------------------|---|------------------------|----------------------|
| Short-Term Recommended Projects | | | | | | | | | |
| 24 | 39 | Pedestrian Crossing | NCDOT | Cooper Street & Ange Street | N/A | N/A | Install highly visible crosswalks, and signage | 0 | \$2,242.00 |
| 19 | 36 | Pedestrian Crossing | Town & NCDOT | Ange Street & Sylvania Street | N/A | N/A | Install highly visible crosswalks, 3-way stop sign, and signage (“Yield to Peds” & “School Zone”) | 0 | \$2,875.00 |
| 97 | 11 | Sidewalk Spot Improvements | Town | Blount Street (Spot) | Railroad Street | Existing sidewalk | Install sidewalk and curb ramps along south side of street to connect existing sidewalks and A.G. Cox | 48 | \$5,400.00 |
| 92 | 14 | Sidewalk Spot Improvements | NCDOT | Main Street (Spot) | Mill Street | Railroad Street | Install a continuous sidewalk and curb ramps along north side of road to connect existing sidewalks | 96 | \$11,168.00 |



TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|---------------------------|--------------------------|----------------------------|-----------------------|-----------------------|-----------------|-------------------|--|---------------------------------|------------------------------|
| 101 | 31 | Sidewalk Spot Improvements | Town | Forbes Avenue (Spot) | Barrel Drive | Primrose Lane | Install sidewalk and curb ramps along east side of street to connect existing sidewalks | 139 | \$14,217.00 |
| 94 | 30 | Sidewalk Spot Improvements | Town | Depot Street (Spot) | Railroad Street | Mill Street | Install continuous sidewalks and curb ramps along south side of road to connect existing sidewalks to Downtown | 179 | \$18,518.00 |
| 95 | 23 | Sidewalk Spot Improvements | NCDOT | Church Street (Spot) | Depot Street | North Street | Install sidewalks and curb ramps along west side of road to connect existing sidewalks | 206 | \$20,150.00 |
| 62 | 10 | New Sidewalk Construction | NCDOT | Main Street | Railroad Street | Church Street | Install a continuous sidewalk and curb ramps along south side of road to connect existing sidewalks | 247 | \$25,298.00 |
| 98 | 21 | Sidewalk Spot Improvements | NCDOT | Cooper Street (Spot) | Mill Street | Railroad Street | Install sidewalks along both sides of road to provide a safety area for pedestrian travel to commercial areas and Downtown | 220 | \$27,117.00 |
| 99 | 7 | Sidewalk Spot Improvements | NCDOT | Cooper Street (Spot) | Church Street | Academy Street | Install a continuous sidewalk and curb ramps along both sides of street to connect existing sidewalks | 340 | \$32,016.00 |
| 100 | 12 | Sidewalk Spot Improvements | Town | Academy Street (Spot) | Cooper Street | Blount Street | Install continuous sidewalks and curb ramps along east side of street to connect existing sidewalks and provide a connection to A.G. Cox | 322 | \$32,334.00 |
| 72 | 4 | New Sidewalk Construction | Town | Blount Street | Ange Street | Existing sidewalk | Install a continuous sidewalk and curb ramps along entire length of street (south side) to connect A.G. Cox | 363 | \$34,443.00 |



TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|---------------|---------------|----------------------------|--------------|-------------------------------|--------------------|-----------------|---|------------------|-------------------|
| 93 | 15 | Sidewalk Spot Improvements | Town | Depot Street (Spot) | Railroad Street | Church Street | Install sidewalks and curb ramps along both sides of road to connect existing sidewalks | 295 | \$34,569.00 |
| 64 | 13 | New Sidewalk Construction | NCDOT | Cooper Street | Railroad Road | Church Street | Install sidewalk and curb ramps along north side of street to connect existing sidewalks and provide a connection to A.G. Cox and Downtown | 348 | \$35,760.00 |
| 73 | 5 | New Sidewalk Construction | Town | Blount Street | Mill Street | Church Street | Install a continuous sidewalk and curb ramps along north side of street to connect Downtown and A.G. Cox | 454 | \$44,778.00 |
| 48 | 22 | New Sidewalk Construction | Town | Tyson Street | Mill Street | Railroad Street | Install sidewalks along one side of road to connect residential area with Downtown and W.H. Robinson Elem. School | 620 | \$61,755.00 |
| 71 | 3 | New Sidewalk Construction | Town | Blount Street | Ange Street | Academy Street | Install continuous sidewalks and curb ramps along north side of street to connect A.G. Cox | 699 | \$67,991.00 |
| 55 | 2 | New Sidewalk Construction | Town | Railroad Street | Cooper Street | Sylvania Street | Install continuous sidewalks and curb ramps along east side of street to connect Downtown | 858 | \$84,370.00 |
| 53 | 33 | New Sidewalk Construction | Town | Railroad Street | Worthington Street | Hammond Street | Install continuous sidewalks and curb ramps along east side of street in front of W.H. Robinson | 937 | \$87,916.00 |
| 21 | 16 | Pedestrian Crossing | Town & NCDOT | Church Street & Blount Street | N/A | N/A | Install improved crosswalks (highly visible), curb ramps, 4-way stop sign, signage ("Yield to Peds", "School Zone"), and possible curb extensions (further study is needed) | 0 | \$99,590.00 |



TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|-------------------|------------------|-------------------------------|-----------------|------------------------------------|-----------------|-----------------|---|------------------------|----------------------|
| 22 | 17 | Pedestrian Crossing | Town & NCDOT | Church Street & Sylvania Street | N/A | N/A | Install improved crosswalks (highly visible), curb ramps, 4-way stop sign, signage (“Yield to Peds”, “School Zone”), and possible curb extensions (further study is needed) | 0 | \$99,590.00 |
| 59 | 6 | New Sidewalk Construction | Town | Hammond Street | Railroad Street | Jones Street | Install continuous sidewalks and curb ramps along both sides of street to connect to Downtown and W.H. Robinson | 1092 | \$103,550.00 |
| 10 | 24 | Pedestrian Crossing | Town | Railroad Street & Depot Street | N/A | N/A | Install highly visible crosswalks, signage, curb extension, and improved CSX railroad crossing (further study and coordination is needed) | 0 | \$117,530.00 |
| 11 | 25 | Pedestrian Crossing | Town & NCDOT | Railroad Street & Main Street | N/A | N/A | Install highly visible crosswalks, signage, curb extension, and improved CSX railroad crossing (further study and coordination is needed) | 0 | \$117,530.00 |
| 13 | 26 | Pedestrian Crossing | Town & NCDOT | Railroad Street & Cooper Street | N/A | N/A | Install highly visible crosswalks, signage, curb extension, and improved CSX railroad crossing (further study and coordination is needed) | 0 | \$117,530.00 |
| 54 | 1 | New Sidewalk Construction | Town | Railroad Street | Main Street | Sylvania Street | Install continuous sidewalks and curb ramps along west side of street to connect existing sidewalks and the Downtown | 1152 | \$126,734.00 |
| 96 | 38 | Sidewalk Spot Improvements | NCDOT | Laurie Ellis Road (Spot) | Barefoot Lane | Church Street | Install a continuous sidewalk and curb ramps along north side of street to connect existing sidewalks | 144 | \$139,012.00 |



TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|--------------------------------------|------------------|---------------------------|---------------|----------------------------|-----------------|--------------------|---|------------------------|----------------------|
| 51 | 9 | New Sidewalk Construction | NCDOT | Church Street | Liberty Street | Laurie Ellis Road | Install sidewalks and curb ramps along west side of street to provide a continuous sidewalk to A.G. Cox | 1436 | \$139,347.00 |
| 50 | 8 | New Sidewalk Construction | NCDOT | Church Street | Sylvania Street | Main Street | Install continuous sidewalks and curb ramps along west side of street for connection to Downtown and A.G. Cox | 1492 | \$148,124.00 |
| Mid-Term Recommended Projects | | | | | | | | | |
| 57 | 27 | New Sidewalk Construction | NCDOT | Mill Street | Sylvania Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along west side of street to connect Downtown | 1961 | \$179,741.00 |
| 14 | 32 | Pedestrian Crossing | NCDOT | Main Street & Mill Street | N/A | N/A | Install highly visible crosswalks, curb ramps, and pedestrian-activated signals on existing traffic signal, consider "No Right on Red" signs | 0 | \$189,980.00 |
| 49 | 20 | New Sidewalk Construction | NCDOT | Church Street | Blount Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along east side of street to connect A.G. Cox Middle School (also identified as a greenway route) with residential area | 2387 | \$233,448.00 |
| 17 | 35 | Pedestrian Crossing | Town & NCDOT | Main Street & Jones Street | N/A | N/A | Install highly visible crosswalks, signage, possible curb extensions, and pedestrian-activated signals | 0 | \$277,955.00 |
| 69 | 19 | New Sidewalk Construction | Town | Sylvania Street | Ange Street | Railroad Street | Install continuous sidewalks and curb ramps along both sides to connect residential areas with A.G. Cox and park | 1861 | \$297,594.00 |
| 58 | 28 | New Sidewalk Construction | Town | Jones Street | Main Street | Worthington Street | Install continuous sidewalks and curb ramps along both sides of street to provide connection to W.H. Robinson Elem. School | 2840 | \$308,683.00 |



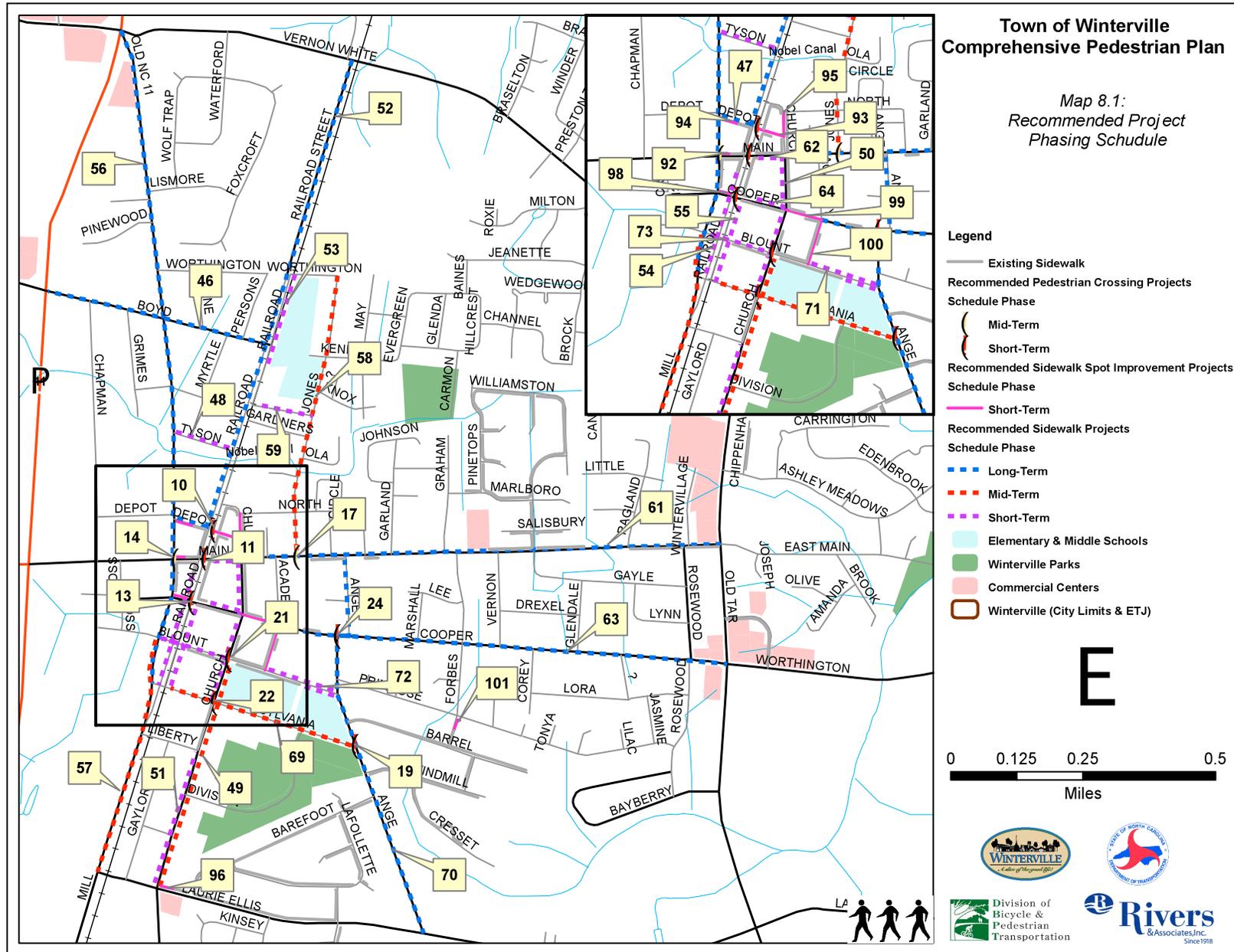
TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|---------------------------------------|------------------|---------------------------|---------------|-----------------|-------------------|-------------------|--|------------------------|----------------------|
| Long-Term Recommended Projects | | | | | | | | | |
| 46 | 40 | New Sidewalk Construction | NCDOT | Boyd Street | Railroad Street | Hwy 11 | Install sidewalks and curb ramps along both sides (if possible) of road to connect residential areas to Downtown and W.H. Robinson Elem. School | 3792 | \$378,469.00 |
| 47 | 41 | New Sidewalk Construction | Town | Depot Street | Railroad Street | Mill Street | Install sidewalks and curb ramps along north side of road provide connection to Downtown | 358 | \$385,549.00 |
| 52 | 18 | New Sidewalk Construction | Town & NCDOT | Railroad Street | Vernon White Road | Depot Street | Install continuous sidewalks and curb ramps along west side of street for connection to Downtown and W.H. Robinson | 3094 | \$456,371.00 |
| 61 | 37 | New Sidewalk Construction | NCDOT | Main Street | Old Tar Road | Church Street | Install continuous sidewalks and curb ramps along both sides of street to connect residential areas with schools, parks, Downtown, Winter Village, and existing sidewalks (identified as a component of greenway system) (further study is needed) | 6559 | \$651,777.00 |
| 70 | 29 | New Sidewalk Construction | Town & NCDOT | Ange Street | Main Street | Laurie Ellis Road | Install continuous sidewalks and curb ramps along both sides to connect residential areas with A.G. Cox, park, and Downtown | 7153 | \$664,701.00 |
| 63 | 42 | New Sidewalk Construction | NCDOT | Cooper Street | Old Tar Road | Academy Street | Install continuous sidewalks and curb ramps along both sides of street to connect residential areas with schools, Downtown and other commercial areas and connect existing sidewalks | 8035 | \$794,184.00 |



TABLE 8.1: RECOMMENDED PROJECT PHASING SCHEDULE

| Project/ Map # | Priority Rank | Type of Project | Road Class | At / On | From | To | Preferred Treatment | Est. Length (FT) | Est. Project Cost |
|-------------------|------------------|------------------------------|---------------|-------------|----------------------|-----------------|---|------------------------|----------------------|
| 56 | 34 | New Sidewalk Construction | NCDOT | Mill Street | Vernon White Road | Sylvania Street | Install continuous sidewalks and curb ramps along both sides to provide connection to Downtown | 10726 | \$1,050,734.00 |





H GLOSSARY

AASHTO – American Association of State Highway and Transportation Officials: a non-profit, nonpartisan association representing highway and transportation departments of all transportation modes in the 50 states, the District of Columbia and Puerto Rico.

ADA – American Disabilities Act of 1991: The Act gives civil rights protections to individuals with disabilities including equal opportunities in public accommodations, employment, transportation, state and local government services, and telecommunications.

Advance Stop lines - applies to a stop line placed prior to a crosswalk, to either prevent motor vehicle encroachment, or to improve visibility. It plays an important safety role especially in multi-lane roads.

Alternative Transportation – modes of travel other than private cars, such as walking, bicycling, rollerblading, carpooling and transit

Arterial Connections – interconnected corridors designed to accommodate a large volume of through traffic

Bicycle Facilities – a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling. Examples include, but are not limited to bicycle parking/storage facilities, shared roadways not specifically designated for bicycle use, bicycle lanes, paved shoulders, and sidepaths.

Bicycle Network - a continuous, connected bicycle system composed of various bicycle facilities, such as bicycle lanes, paved shoulders, and sidepaths, etc.

BPAC - Bicycle and Pedestrian Advisory Commission

Bridge Culvert – a sewer or drain crossing used for the transference of surface water from a bridge

Buffer Zone - an area of land specifically designed to separate one zoning use from another

Bulb-out - extended pavement to narrow roadway, or pinch through fare, or provide space for bus stop, bench, etc. Commonly used as a traffic calming measure.

Collector Streets – a public road designed to flow traffic from small neighborhood streets and connect to larger thoroughfares

Connectivity - the logical and physical interconnection of functionally related points so that people can move among them

Corridor - a spatial link between two or more destinations

Crosswalk - a designated point on a road at which some means are employed to assist pedestrians who wish to cross a roadway or intersection. They are designed to keep pedestrians together where they can be seen by motorists, and where they can cross most safely with the flow of vehicular traffic.

Curb Cut – interruption in the curb, as for a driveway

Curb Extension - a section of sidewalk at an intersection or mid-block crossing that reduces the crossing width for bicyclists and pedestrians and is intended to slow the speed of traffic and increase driver awareness

Curb Ramp - a ramp leading smoothly down from a sidewalk, greenway or multiuse path to an intersecting street, rather than abruptly ending with a curb

DBPT - Division of Bicycle and Pedestrian Transportation (NCDOT)

Demographics - the characteristics of human populations for purposes of social studies

Design Guidelines - a set of discretionary statements and graphics to guide land development and pedestrian facility development to achieve a desired level of quality and safety for pedestrians and the physical environment

Driveway Access Management - the management and reduction of the size and number of necessary driveway entrances. Driveway access management creates a safer walking environment for pedestrians by reducing crossings and continuing a safe walking zone.

EPA – Environmental Protection Agency

Fee Simple Purchase – an outright purchase of the land by municipality

FHWA – Federal Highway Administration

GUAMPO - Greenville Urban Area Metropolitan Planning Organization

GIS – (Geographic Information System) a system for collecting, analyzing and displaying spatial information

Greenway - a linear open space; a corridor composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas.

High Volume Arterial – an important transportation corridor that is used by large traffic levels

Hub - a center of activity or interest or commerce or transportation; a focal point around which events revolve

Implementation - the realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy

Intersection - an area where two or more pathways or roadways join together.

Land Use - describes how land is used for example as residential, commercial, or agricultural



Linear Stream Corridor - generally consists of the stream channel, floodplain, and transitional upland fringe aligned linearly

L RTP – Long Range Transportation Plan

Median - a barrier, constructed of concrete, asphalt, or landscaping and separates two directions of traffic.

Median Refuge Island - island in the median, that offers a stopping or halfway point for a pedestrian

Mixed Use Area – a term used to describe a specific area that possesses a combination of different land use types, such as residential, commercial, and recreation

Mode Share - a term used to describe percentage splits in transportation options

MPO – Metropolitan Planning Organization

MUTCD – Manual of Uniform Traffic Control Devices: National standards guidebook on signage and pavement marking for roadways

Municipal Boundary – the limit of municipal jurisdiction

NCDOT – North Carolina Department of Transportation

On-Road Bicycle Facility – any bicycle lane, shared lane, shoulder, or route that is on the road as opposed to being physically separated designed for pedestrian use.

On-Road Pedestrian Facility – any sidewalk, curb, median refuge or crosswalk designed for pedestrian use.

Off-Road Trail – paths or trails in areas not served by the street system, such as parks and greenbelt corridors. Off-street paths are intended to serve both recreational uses and other trips, and may accommodate other non-motorized travel modes, such as bicycles in addition to walking.

Open Space - empty or vacant land which is set aside for public or private use and will not be developed. The space may be used for passive or active recreation, or may be reserved to protect or buffer natural areas.

Ordinance - a statute enacted by a city government

Pedestrian Network - a continuous, connected pedestrian system composed of sidewalks, trails, and roadway crossing facilities

Planned Unit Development (PUD) - a project or subdivision that includes common property that is owned and maintained by a homeowners' association for the benefit and use of the individual PUD unit owners

Public Access Easement – a voluntary legal agreement which grants a municipality a perpetual right-of-way and easement for public access and public benefit

Retrofit - the redesign and reconstruction of an existing facility or subsystem to incorporate new technology, to meet new requirements, or to otherwise provide performance not foreseen in the original design.



Right Turn Slip Lane “Pork Chop Island” - the channel created in larger intersection by a very long turning radius to which the pedestrian must cross before being in the formal intersection that is controlled by lights. The right-turn cut-off allows continuous right turns at fairly high speeds without stopping but the drivers do not always yield to pedestrians.

Roundabout - traffic calming device at which traffic streams circularly around a central island after first yielding to the circulating traffic

ROW (right of way) - an easement held by the local jurisdiction over land owned by the adjacent property owners that allows the jurisdiction to exercise control over the surface and above and below the ground of the right-of-way; usually designated for passage

RTOR – Right turn on red

Safe Routes to School (SRTS) – a federal program that provides funding to encourage and facilitate the planning and implementation of bicycle and pedestrian projects near schools.

SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

Shoulder - The portion of the roadway contiguous with the traveled way for the accommodation of stopped vehicles, for emergency use, and for lateral support of sub-base, base, and surface courses. Paved shoulders can be used for pedestrian and bicycle travel as well.

Shared Use Path (Multi Use Path/Sidepath) - A bikeway and walkway physically separated from motorized vehicular traffic by an open space or barrier and located either within the highway right-of-way (often termed “parallel shared use path”) or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. In some cases shared use paths also accommodate equestrians.

Sidewalk - an improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete, but can be made with asphalt, bricks, stone, wood, and other materials.

Thoroughfare - a public road from one place to another, designed for high traffic volumes and essential connections

TND (traditional neighborhood development) - an area of land developed in a planned fashion for a compatible mixture of residential units for various income levels and non-residential commercial and workplace uses, with a high priority placed on access to open spaces

Traffic Calming - a range of measures that reduce the impact of vehicular traffic on residents, pedestrians and cyclists - most commonly on residential streets, but also now on commercial streets

Trip Attractor/Generator - a location which, because of what it contains, generates itself as a destination for people



I ADOPTION RESOLUTIONS

Greenville Urban Area MPO Resolution

RESOLUTION NO. 2011-03-GUAMPO

ADOPTING THE GREENVILLE URBAN AREA BICYCLE AND PEDESTRIAN MASTER PLAN

WHEREAS, the Greenville Urban Area MPO, participating local governments, and its subcontractor Greenways Incorporated, has prepared the Greenville Urban Area Bicycle and Pedestrian Master Plan (the Plan) and;

WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area and;

WHEREAS, the Plan process involved multiple methods and opportunities for public participation, and;

WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share, and;

WHEREAS, The Bicycle and Pedestrian Master Plan will establish the MPO's official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO.

NOW THEREFORE, BE IT RESOLVED that

The Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the MPO and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance on this the 17th day of March, 2011.

Mayor Patricia C. Dunn, Chairperson
Transportation Advisory Committee
Greenville Urban Area

Amanda Braddy, Secretary



City of Greenville Resolution

RESOLUTION NO. 012-11

A RESOLUTION ADOPTING THE GREENVILLE URBAN AREA BICYCLE AND PEDESTRIAN MASTER PLAN AND RECOMMENDING ADOPTION BY THE METROPOLITAN PLANNING ORGANIZATION'S TRANSPORTATION ADVISORY COMMITTEE

WHEREAS, the Greenville Urban Area Metropolitan Planning Organization (MPO), participating local governments, and its subcontractor Greenways Incorporated, have prepared the Greenville Urban Area Bicycle and Pedestrian Master Plan (the Plan); and

WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area; and

WHEREAS, the Plan process involved multiple methods and opportunities for public participation; and

WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share; and

WHEREAS, the Bicycle and Pedestrian Master Plan will establish the City's official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO; and

WHEREAS, increasing walking and bicycling offers the potential for cleaner air, greater health of the population, reduced traffic congestion, more livable communities, less reliance on fossil fuels and their foreign supply sources and more efficient use of road space and resources; and

WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;

WHEREAS, at their January 20, 2011 meeting, the Greenville Bicycle and Pedestrian Commission reviewed and recommended that City Council adopt the Bicycle and Pedestrian Master Plan.

NOW, THEREFORE, BE IT RESOLVED that the Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the City of Greenville and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance. The City of Greenville recommends the Metropolitan Planning Organization's Transportation Advisory Committee adopt the Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials.

#886650

This 10th day of February, 2011.


 Patricia C. Dunn, Mayor

ATTEST:


 Carol L. Barwick, City Clerk



Town of Winterville Resolution

RESOLUTION NO. 11-R-250

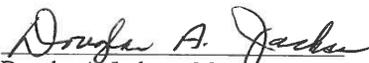
ADOPTING THE GREENVILLE URBAN AREA BICYCLE AND PEDESTRIAN MASTER PLAN

- WHEREAS, the Greenville Urban Area MPO, participating local governments, and its subcontractor Greenways Incorporated, has prepared the Greenville Urban Area Bicycle and Pedestrian Master Plan (the Plan) and;
- WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area and;
- WHEREAS, the Plan process involved multiple methods and opportunities for public participation, and;
- WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share, and;
- WHEREAS, The Bicycle and Pedestrian Master Plan will establish the City's official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO, and;
- WHEREAS, increasing walking and bicycling offers the potential for cleaner air, greater health of the population, reduced traffic congestion, more livable communities, less reliance on fossil fuels and their foreign supply sources and more efficient use of road space and resources; and
- WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;

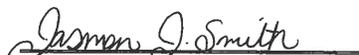
NOW THEREFORE, BE IT RESOLVED that

The Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the Town of Winterville and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance.

This 14th day of February, 2011.


Douglas A. Jackson, Mayor

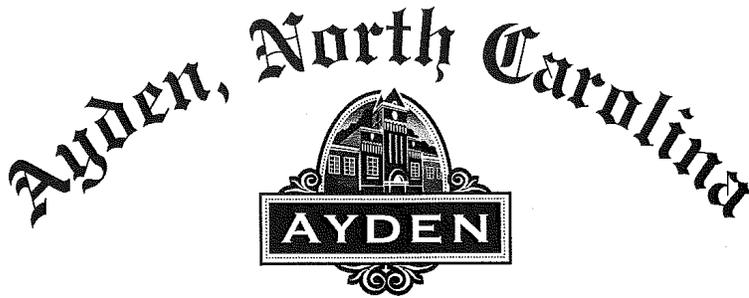
ATTEST:


Jasman Smith, Acting Town Clerk





Town of Ayden Resolution



Resolution No. 10-11-07

A RESOLUTION ADOPTING THE GREENVILLE URBAN AREA MPO BICYCLE AND PEDESTRIAN MASTER PLAN

WHEREAS, the Greenville Urban Area MPO, participating local governments, and its subcontractor Greenways Incorporated, has prepared the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan (the Plan) and;

WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area and;

WHEREAS, the Plan process involved multiple methods and opportunities for public participation, and;

WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share, and;

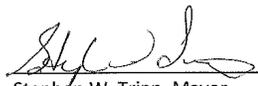
WHEREAS, The Bicycle and Pedestrian Master Plan will establish the Town's official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO, and;

WHEREAS, increasing walking and bicycling offers the potential for cleaner air, greater health of the population, reduced traffic congestion, more livable communities, less reliance on fossil fuels and their foreign supply sources and more efficient use of road space and resources; and

WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;

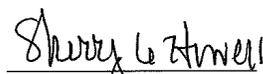
NOW, THEREFORE, BE IT RESOLVED by the Governing Board of the Town of Ayden that the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the Town of Ayden and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance. The Town of Ayden recommends that the MPO's Technical Advisory Committee adopt this master plan.

This 28th day of February, 2011


Stephen W. Tripp, Mayor

(SEAL)

ATTEST:


Sherry C. Howell, Town Clerk



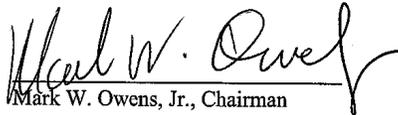
Pitt County Resolution

RESOLUTION ADOPTING THE GREENVILLE URBAN AREA BICYCLE AND PEDESTRIAN MASTER PLAN

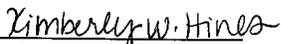
- WHEREAS, the Greenville Urban Area MPO, participating local governments, and its subcontractor Greenways Incorporated, has prepared the Greenville Urban Area Bicycle and Pedestrian Master Plan (the Plan) and;
- WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area and;
- WHEREAS, the Plan process involved multiple methods and opportunities for public participation, and;
- WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share, and;
- WHEREAS, the Plan will establish the affected local governments official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO, and;
- WHEREAS, increasing walking and bicycling offers the potential for cleaner air, greater health of the population, reduced traffic congestion, more livable communities, less reliance on fossil fuels and their foreign supply sources and more efficient use of road space and resources; and
- WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;
- WHEREAS, at its January 20, 2011 meetings, the Greenville Bicycle and Pedestrian Commission and the MPO Technical Coordinating Committee reviewed and recommended adoption of the Bicycle and Pedestrian Master Plan.

NOW THEREFORE, BE IT RESOLVED that the Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the Pitt County Board of Commissioners and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance.

Adopted this 7th day of February, 2011.


Mark W. Owens, Jr., Chairman

ATTEST:


Kimberly W. Hines, County Clerk





Village of Simpson Resolution



Village of Simpson

Office of Mayor

Email: Simpson@suddenlinkmail.com
www.villageofsimpsonnc.com

RESOLUTION

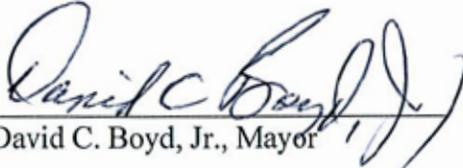
ADOPTING THE GREENVILLE URBAN AREA BICYCLE AND PEDESTRIAN MASTER PLAN

- WHEREAS, the Greenville Urban Area MPO, participating local governments, and its subcontractor Greenways Incorporated, has prepared the Greenville Urban Area Bicycle and Pedestrian Master Plan (the Plan) and;
- WHEREAS, the purpose of the Plan is to study the feasibility of establishing an interconnected network of bicycle and pedestrian routes throughout the entire Greenville Urban Area and;
- WHEREAS, the Plan process involved multiple methods and opportunities for public participation, and;
- WHEREAS, the Plan was financed by Federal planning funds and a per-capita cost-share methodology by all MPO-member communities for the local share, and;
- WHEREAS, The Bicycle and Pedestrian Master Plan will establish the City's official policy addressing the planning of facilities and programs to enhance the role of walking and bicycling throughout the MPO, and;
- WHEREAS, increasing walking and bicycling offers the potential for cleaner air, greater health of the population, reduced traffic congestion, more livable communities, less reliance on fossil fuels and their foreign supply sources and more efficient use of road space and resources; and
- WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21) calls for the mainstreaming of bicycle and pedestrian projects into the planning, design and operation of our Nation's transportation system;

NOW THEREFORE, BE IT RESOLVED that

The Greenville Urban Area Bicycle and Pedestrian Master Plan and related materials are hereby adopted by the Village of Simpson and will be used to guide future bicycle and pedestrian transportation development, operations, and maintenance. The Village of Simpson recommends that the MPO's Transportation Advisory Committee adopt this master plan.

This 21st day of February, 2011.


 David C. Boyd, Jr., Mayor

ATTEST:


 Sue Ellen Hill, Village Clerk