



SPARTANBURG TRAILS & GREENWAYS PLAN

Partner Agencies:

City of Spartanburg - SPATS - Spartanburg County Parks Department - Partners for Active Living - Healthy South Carolina Initiative

April 2013





Cover Page:

Top Left: Mary Black Foundation Rail Trail - Source: PAL

Top Right: Cottonwood Train- Source: SPACE

Bottom: Mary Black Foundation Rail Trail - Source: City of Spartanburg

ACKNOWLEDGEMENTS

PUBLIC PARTICIPANTS

Thank you to the many Spartanburg leaders and citizens who participated in this planning process through comment forms, interviews and meetings. Thanks also to the many individuals of the press and those engaged in social media throughout the process.

PROJECT PARTNERS



TRAILS & GREENWAYS PLAN COMMITTEE MEMBERS

City of Spartanburg (COS)

Chris Story, Joshua Henderson, Eric Davis,

Spartanburg Area Transportation Study

Erik Pechuekonis, Lisa Bollinger, Mary Walter

Partners for Active Living

Ralph Hibman, Rebecca Parrish, Laura Stille, Michelle Child, Laura Ringo, Ned Barrett

Spartanburg Area Conservancy

Ricky Richardson, Mary Walter

Mary Black Foundation

Cate Ryba (COS), Curt McPhail

Upstate Forever

Sherry Barrett

ACHIEVE Spartanburg

Sharyn Pittman

Pacolet Milliken

Stewart Winslow

Palmetto Conservation Foundation

Tabitha McKinney

Glendale Outdoor Leadership School

Tabitha McKinney

Bike/Pedestrian Comission

Mack Amick, Gary Purinton

Other Concerned Citizens

Joe Spigner, Clarence Johnson

PROJECT CONSULTANT

Alta Planning + Design

TABLE OF CONTENTS

EXECUTIVE SUMMARY

I. INTRODUCTION & VISION

Project Purpose.....	1-1
Study Area.....	1-1
Benefits of Trails and Greenways	1-2

II. BENEFITS OF TRAILS AND GREENWAYS

The Value of Trails and Walkable, Bikeable Communities.....	2-1
Economic Benefits - Community.....	2-1
Economic Benefits - Individual	2-3
Health Benefits.....	2-3
Safety Benefits.....	2-4
Environmental Benefits.....	2-5
Community/Quality of Life Benefits	2-5
Bicycling and Walking Demand and Benefits.....	2-6

III. NEEDS ASSESSMENT

Overview.....	3-1
Existing Planning Efforts.....	3-1
Existing Conditions.....	3-4
Relative Feasibility of Previously Proposed Trails.....	3-10

IV. NETWORK RECOMMENDATIONS

Overview	4-1
Recommended Trail Network.....	4-1
Interstate 26 Crossings.....	4-7
Henry Street at Union Street Crossings.....	4-18
Wayfinding Signage.....	4-22



TABLE OF CONTENTS (CONTINUED)

V. INSTITUTIONAL REVIEW

Overview.....5-1

Trail Implementation Case Studies.....5-2

Summary of Spartanburg Area Public Sector Policy and Institutional Capacity5-7

Summary of Stakeholder Interviews.....5-9

Key Findings.....5-12

VI. COST ESTIMATES & PROJECT PRIORITIZATION

Overview.....6-1

Project Prioritization.....6-1

Cost Estimates.....6-2

Project Cut Sheets.....6-6

First Tier Priority Projects.....6-8

Second Tier Priority Projects.....6-18

VII. STRATEGIES FOR IMPLEMENTATION

Overview7-1

Administrative Structure.....7-1

Infrastructure Action Steps.....7-5

Design Guidance.....7-8

APPENDICES

A: Complete Review of Existing Planning Efforts.....A-1

B: Summary of Public Input.....B-1

C: Potential Funding Sources.....C-1

Page Intentionally Left Blank



EXECUTIVE SUMMARY for the SPARTANBURG TRAILS & GREENWAYS PLAN

April 2013 **alta**
PLANNING + DESIGN

Partner Agencies: City of Spartanburg - SPATS - Spartanburg County Parks Department - Partners for Active Living - Healthy South Carolina Initiative



OVERVIEW

The Spartanburg Trails & Greenways Plan provides a framework for development of a connected network of off-street trails, integrated seamlessly with the on-street network to facilitate walking and biking as viable transportation choices and recreation opportunities throughout the metropolitan area of Spartanburg. The study area boundaries extend roughly from Boiling Springs to Old Canaan Road, and from Interstate 26 to the Pacolet River. In addition to the partner agencies (listed above) that led the Plan's development, more than 15 groups participated in guiding the process.

VISION STATEMENT

A comprehensive network of safe and inviting trails for recreation, transportation, and healthy living that connect Spartanburg's neighborhoods, destinations, and the bikeway, walkway, and transit system.

ESTIMATED ANNUAL BENEFITS OF WALKING AND BICYCLING TRANSPORTATION

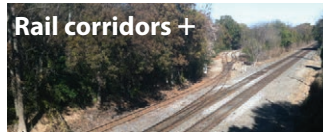
Current levels of walking and bicycling in Spartanburg are similar to national averages, and return significant benefits to the region and local residents in the form of improved air quality, reduced transportation costs, and improved health. The results of the bicycling and walking demand benefits analysis conducted for the Plan indicate that **existing rates of bicycling and walking transportation in Spartanburg are estimated to generate over \$3 million in annual benefits to the region.** If Spartanburg were to reach the walking and bicycling rates of 5% and 2.8% respectively, **the community could enjoy health and economic benefits valued at approximately \$13 million per year, or more than four times current levels.** The new bicycling and walking facilities proposed in this plan will become valuable assets that will increase bicycle and walk mode share and thus improve the health, affordability and livability of the Spartanburg region.

EXISTING CONDITIONS & NEEDS ANALYSIS

The existing bikeway, trail and greenway network within Spartanburg County is comprised of multi-use trails, on-street bikeways (bike lanes, sharrows and wide shoulders), mountain biking trails, blueways and natural surface trails. Though there is a concerted effort to link on-street bikeways to one another and to extend existing trails, Spartanburg County's trails have very little connections to one another.

The key opportunities and constraints for trail development within the study area are :

Rail corridors +



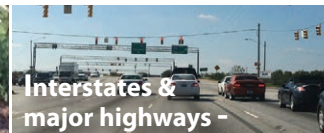
Low volume roads +



Utility easement corridors +



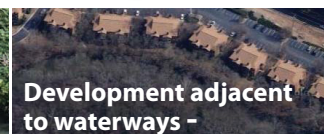
Interstates & major highways -



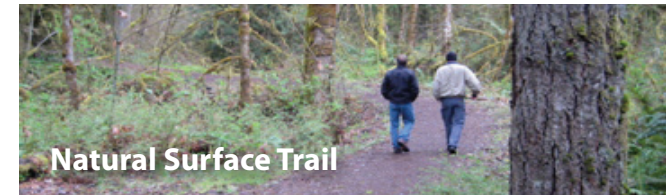
Waterways +



Development adjacent to waterways -



Multi-use Trail



Natural Surface Trail



Neighborhood Greenway

WAYFINDING SIGNAGE

The connectivity of a trail network is contingent upon physically linking bicycle and pedestrian infrastructure, as well as communicating to trail users the connections available. Wayfinding signage adds an extra link to a connected network of trails and bikeways. Spartanburg County Parks Department, Partners for Active Living, and the Spartanburg Area Conservancy (SPACE) each recently invested in new signage designs and materials. The Plan recommends design variations which adjust for the differences in urban versus natural trail settings, to complement these existing signs.



Existing wayfinding signage along the Mary Black Foundation Rail Trail

RECOMMENDED BIKEWAY NETWORK

The recommended trail network of this Plan considers previously proposed trail segments, as well as other factors, such as available funding, political support, and connectivity to other trail segments and key destinations. The proposed network is made up of the following trail types:

- Multi-use Trail
- Natural Surface Trail
- Neighborhood Greenway

The total recommended network includes approximately 123 miles of multi-use and natural-surface trails (off-street) and 14 miles of neighborhood greenways (on-street)

COST ESTIMATES

Cost estimates for the Trails Plan are presented in 4 categories:

Multi-Use Trails cost estimates per mile is **\$1,089,217.20**

Natural Surface Trails cost estimate per mile is **\$276,430.20**

Neighborhood Greenway (without sidewalks) cost estimates per mile is **\$40,000 to \$114,000**

Neighborhood Greenway (with new sidewalks, both sides) cost estimates per mile is **\$975,681.00**

PROJECT CUT SHEETS

The Plan identifies thirteen priority trail and greenway projects. The proposed recommendations are illustrated with photo renderings. The photo visualization below provides a conceptual example for a rail with trail strategy along the Norfolk Southern Line, which will provide a critical connection between Renaissance Park and the Farmers Market site.

EXAMPLE PROJECT: RENAISSANCE PARK TO FARMERS MARKET TRAIL

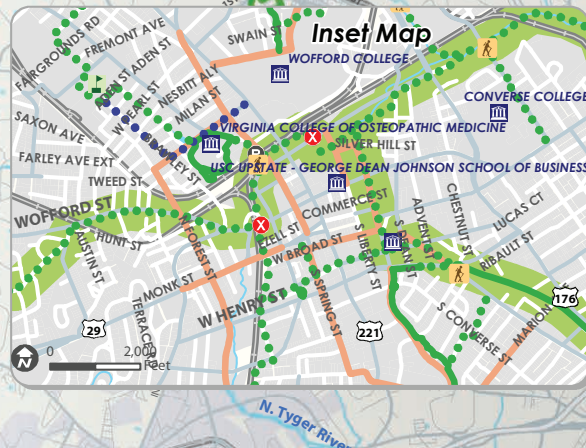
Type: Multi-use Trail

Length: 0.51 mi | 2686 ft

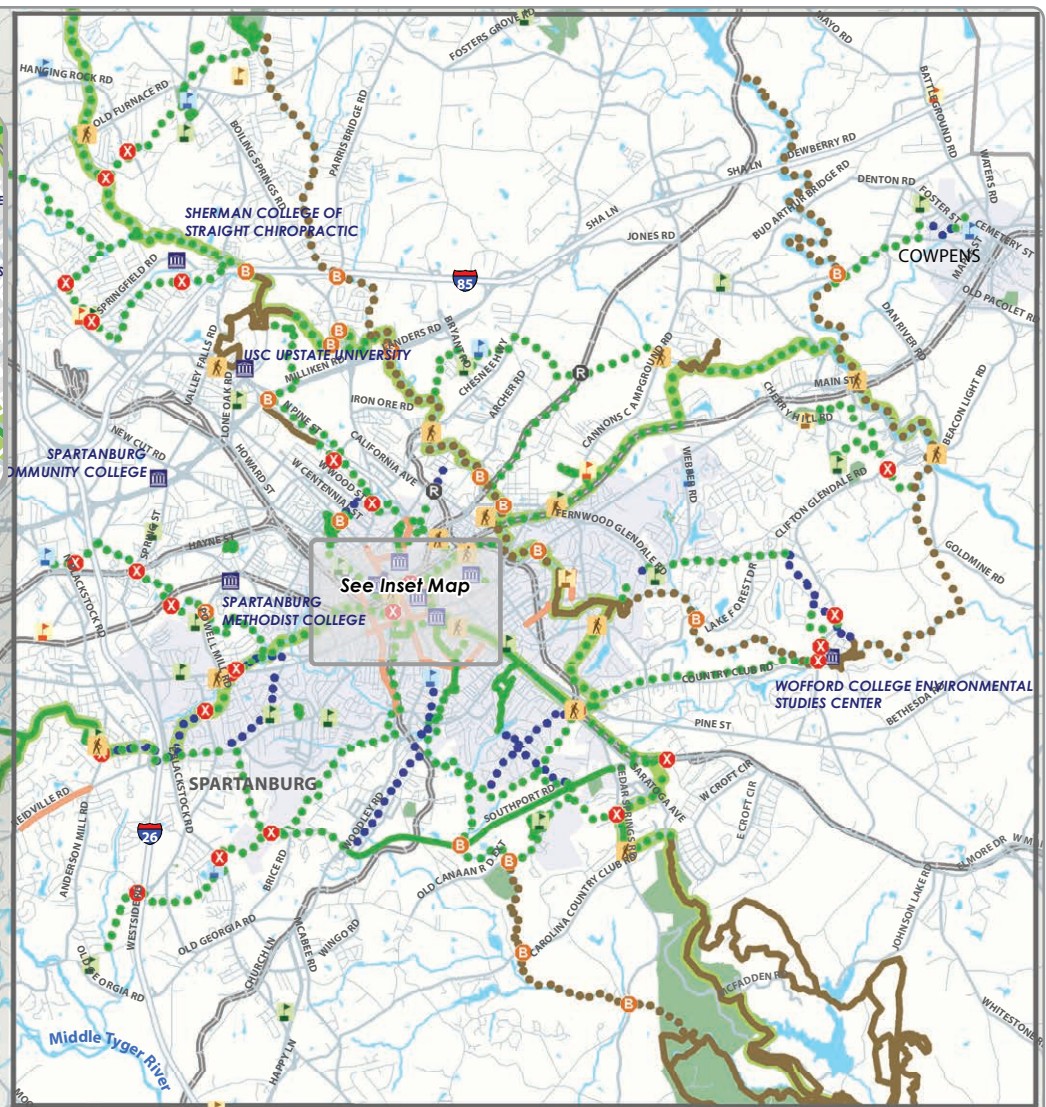
Cost Estimate: \$600,000

Implementation Strategy:
Rail with Trail

Spartanburg Trails and Greenways Plan Existing and Recommended Trail



- | | |
|--|---|
| Recommended Trail & Bikeway Network <ul style="list-style-type: none"> Potential Trailhead Location At-Grade Railroad Crossing Bridge Underpass Unsignalized Crossing Natural Surface Trail Multi-Use Trail Bike Route / Neighborhood Greenway | Roadway Features <ul style="list-style-type: none"> State Highways Interstate Local Road Railroad |
| Existing Trail & Bikeway Network <ul style="list-style-type: none"> Natural Surface Trail Multi-Use Trail Bike Lane / Sharrow Primary Route | Points of Interest <ul style="list-style-type: none"> Elementary School Middle School High School Private School College Major River Lake Park Focus Area |



CSX and Norfolk Southern Railroads at Church Street



Proposed Rail with Trail

INTRODUCTION & VISION

1

Chapter Contents:

Project Purpose

Study Area

Vision & Goals

The chief outcome of the Spartanburg Trails & Greenways Plan is a framework for a connected network of off-street trails, integrated seamlessly with the on-street network, to facilitate walking and biking as viable transportation choices and recreation opportunities throughout the metropolitan area of Spartanburg.

Opposite page:
Circle of Friendship Barnet Park. Source: City of Spartanburg, SC

PROJECT PURPOSE

Partners for Active Living (PAL), in partnership with the City of Spartanburg, Spartanburg County, the Spartanburg Area Transportation Study (SPATS) and the Healthy South Carolina Initiative of the South Carolina Department of Health and Environmental Control (SCDHEC), commissioned this trails and greenways plan for the urbanized area of Spartanburg County, South Carolina. The purpose of the Plan is to provide a blueprint for connecting Spartanburg's existing park and trail facilities to each other and to local residents.

The Plan serves as an update to the *2009 Spartanburg County Pedestrian and Bicycle Master Plan*, which established a blueprint for an on-street bikeway and walkway network. The local metropolitan planning organization, the *Spartanburg Area Transportation Study (SPATS)*, commissioned that Plan and has diligently worked with the South Carolina Department of Transportation (SCDOT), local jurisdictions and community partners to implement the Plan's recommendations. Examples of on-street bikeway and walkway projects completed since the adoption of that Plan include sidewalks on Fernwood Drive and Sydnor Road and bike lanes on Broad Street and Converse Street and, most recently, enhanced sidewalks and bike lanes on West Main Street.

The chief outcome of the Spartanburg Trails & Greenways Plan is a framework for a connected network of off-street trails, integrated seamlessly with the on-street network, to facilitate walking and biking as viable transportation choices and recreation opportunities throughout the metropolitan area of Spartanburg. The Plan identifies gaps in the active transportation network; assesses institutional needs among local government and trail development partners; proposes improved connectivity of communities, neighborhoods and activity centers; addresses infrastructure needs for safe routes to parks and trails; and develops a framework for effective trail funding and implementation. The development of this Plan included an open, participatory process, with area residents providing input through a public workshop, stakeholder interviews, the Project Steering Committee and an online comment form.

STUDY AREA

The project study area encompasses the metropolitan area of Spartanburg County. The City of Spartanburg, with a population just under 40,000, serves as a central hub. From Morgan Square, at the epicenter of the City, the study area boundaries extend a radius of roughly eight mile to the north and east, and roughly five miles to the south and the west. The Spartanburg Trails & Greenways Plan focuses on the area between the Wadsworth Trail to the west, Va Du Mar Park in Boiling Springs to the north, Croft State Natural Area to the south and the Pacolet River to the east.

The study area includes significant natural features and a range of topographies. The wide and winding Pacolet River provides a dramatic natural landmark for the area and is a prized asset for both the unincorporated and incorporated communities proximate to it. Likewise, to the west, the study area touches the edge of the mighty Tyger River, which branches to include the North, Middle and South Tyger forks carving a natural scenic corridor across the western portion

of Spartanburg County. Lawson's Fork Creek is the only waterway that starts and ends in Spartanburg County. The creek is not only the home to several popular trails, but also a treasured haven for paddlers, birders and naturalists. Other natural features and dynamic landscapes include the shoals along the county's waterways, such as Glendale Shoals within the study area, the steep hills of Clifton, the large abandoned (or, in some cases, renovated) mill sites throughout the area and the dams associated with those sites that create scenic waterfalls.

Existing trail segments dot the study area, including the Mary Black Foundation Rail Trail, the Wadsworth Trail, Peter's Creek Trail, Cottonwood Trail, Croft State Natural Area trails, USC Upstate Passage of the Palmetto Trail and many others. Incorporated and unincorporated communities within the study area include Boiling Springs, Clifton, Glendale, Saxon/Arcadia and the City of Spartanburg. The Plan recognizes the municipalities of Inman and Cowpens, just beyond the study boundaries, as well. **Map 1-1** on the opposite page shows the study area

VISION & GOALS

The Spartanburg Trails & Greenways Plan is guided by an overarching vision and seeks to meet the priorities of stakeholders of the Plan. The following draft vision statement and goals are based on the input of the Project Steering Committee, themes of existing planning documents and community priorities identified through outreach to stakeholders.

PLAN VISION

The Spartanburg Trails & Greenways Plan establishes a clear framework for local governments and project partners to successfully develop a comprehensive network of safe and inviting trails for recreation, transportation and healthy living that connect Spartanburg's neighborhoods, destinations, and the bikeway, walkway and transit system.

PLAN GOALS

The Spartanburg Trails & Greenways Plan achieves this vision by providing the resources and strategic action steps necessary to:

GOALS OF THE TRAIL NETWORK

- Expand and Connect Existing Trails
- Increase Access to Existing Resources (such as Parks, Waterways and Cultural Amenities)
- Create Connectivity within and between Incorporated and Unincorporated Communities
- Provide More Off-Road Opportunities (for Both Recreation and Transportation)
- Provide Safe and Comfortable Conditions for Bicycling and Walking
- Establish Trails as an Integral Part of a Robust Multimodal Transportation System
- Increase Bicycle and Walking Activity Levels
- Capitalize on Economic Development Opportunities

GOALS OF THE TRAIL DEVELOPMENT PROCESS

- Build on and Prioritize Existing Trail Plans
- Create Awareness of the Benefits of Trails (among the Public and Local Leadership)
- Establish Leadership and Partnership Roles for Agencies and Organizations Involved in Trail Development
- Identify Trail Development Costs and Feasible Funding Strategies
- Identify Opportunities for Near-term Successes in Trail Development

www.spartanburgtrails.org



NO
PARKING
ON
EITHER
SIDE OF
ROAD

RUNNERS
FACE
TRAFFIC

BENEFITS OF TRAILS & GREENWAYS



Chapter Contents:

The Value of Trails and Walkable, Bikeable Communities

Economic Benefits - Community

Economic Benefits - Individual

Health benefits

Safety Benefits

Environmental benefits

Community/Quality of Life Benefits

Bicycling and Walking Demand and Benefits

THE VALUE OF TRAILS AND WALKABLE, BIKEABLE COMMUNITIES

Given the commitment of time and resources needed to fulfill the goals of this Plan, it is 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 transportation choices. 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 of trails and greenways outlined in this section.

ECONOMIC BENEFITS - COMMUNITY

In a 2011 Community Preference Survey conducted by the National Association of Realtors (NAR), 66 percent of respondents selected being within walking distance of stores and other community amenities as being important. Additionally, the 2011 NAR survey reflected changes in priorities compared to 2004, the last time the survey was conducted. Interest in walkability increased, with 46

2011 NATIONAL ASSOCIATIONS OF REALTORS SURVEY

46% of respondents answered: my community has too few shops and restaurants within easy walking distance

46% of respondents answered: my community has too few sidewalks

“GREENWAYS AND PEDESTRIAN TRAILS HAVE BEEN SHOWN TO INCREASE THE VALUE OF ADJACENT PROPERTIES BY AS MUCH AS 5 TO 20%.”

*Opposite page:
Duncan Park Running Trail*

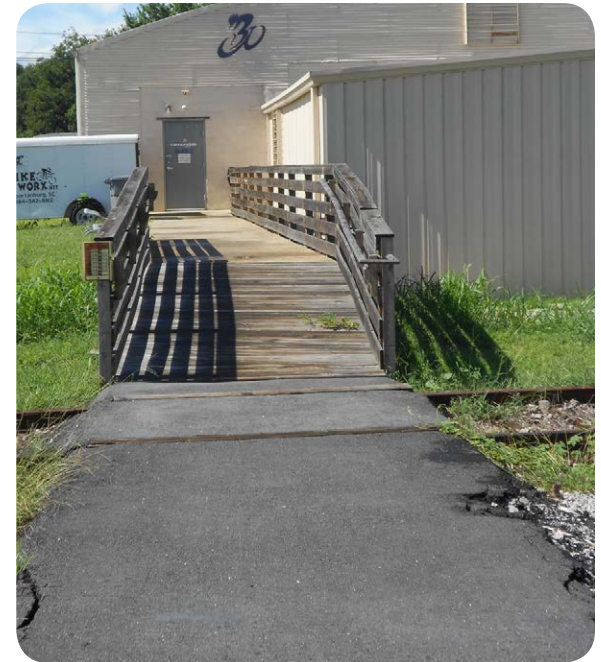
percent saying their community had too few shops and restaurants within easy walking distance, compared to 42 percent in 2004. In the 2011 survey, 40 percent said their community needed more sidewalks, compared to 36 percent in the 2004 survey. A 2010 study by CEOs for Cities looked at data for more than 90,000 recent home sales in 15 different markets around the Nation. While controlling for key characteristics that are known to influence housing value, the study showed a positive correlation between walkability and housing prices in 13 of the 15 housing markets studied.²

Trails play a central part in making communities more walkable. In a survey of homebuyers by the National Association of Realtors and the National Association of Home Builders, trails ranked as the second most important community amenity out of a list of 18 choices.³ Additionally, the study found that 'trail availability' outranked 16 other options including security, ball fields, golf courses, parks and access to shopping or business centers.

From a tourism perspective, cyclists can add real value to a community's local economy. For example, in the Outer Banks, NC, bicycling is estimated to have a positive 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.

Greenville, SC's Swamp Rabbit Trail, a roughly 17-mile trail corridor created largely through a rail to trail conversion, has documented economic gains. The portion of the trail within Greenville County (outside of the City of Greenville jurisdiction) saw more than 350,000 users in its first year open. This level of bicycle and pedestrian traffic has been a boon for the small city of Travelers Rest. The Mayor described the Swamp Rabbit Trail as "the single most important thing that has happened to Travelers Rest in years." Since development of the trail, property along the corridor has increased more than threefold, 21 new businesses have opened and several more have plans to do so. Overall, the businesses near the County segments of the trail have reported revenue or sales increases of 30 to 85 percent since the trail's arrival.⁴ Spartanburg has already begun realizing the benefits of connecting retail to trails. Local bike store BikeWorx relocated its store to a building adjacent to the Mary Black Foundation Rail Trail and created an asphalt path connecting the trail to its door.

The Augusta, GA region has seen positive economic gains through major physical activity events. The economic impact of cycling-related sporting events in just the last three years (2009-2011) totals \$15.5 million. The Ironman 70.3 event, which Augusta has hosted since 2009 and will continue to host through 2014, brings \$4.5million in economic impact each year. The USA Cycling championship events (Juniors, U23, Elite & Paralympic Road National Championships) totaled \$1.5 million in economic benefits in 2011 and is expected to have a similar or greater impact in 2012.



Bike Worx retail access to Mary Black Foundation Rail trail

²CEOs for Cities. (2010) Walking the Walk: How Walkability Raises Home Values in U.S. Cities.)

³ National Association of Realtors and National Association of Home Builders. (2002). Consumer's Survey on Smart Choices for Home Buyers.

⁴GSA Business. (October 18, 2012). Upstate cities investing in business growth. Retrieved from <http://www.gsabusiness.com/news/45596-upstate-cities-investing-in-business-growth?rss=0> and Reed, Julian. (2012). Greenville Hospital System Swamp Rabbit Trail: Year one findings.



Walking and bicycling are affordable, efficient options for commuting and short trips

TRANSPORTATION COST BY MODE

Car	\$0.59/mile
Transit	\$0.24/mile
Bike	\$0.05/mile
Walking	\$0.0/mile

(Source IRS, ATA, RTC)

The region was also fortunate to host the 2010 International Mountain Bike Association (IMBA) Summit in 2010, which brought nearly \$0.5 million in local economic gains.⁵

Spartanburg has made gains in this area through hosting the Spartanburg Regional Classic, an annual downtown criterium and Stump Jump, the state mountain biking championship. The community is also home to the iRecycle Half-Marathon and the Camp Croft Half-Marathon. **As Spartanburg develops a comprehensive trail network and builds upon the success of active lifestyle- related events, its tourism and visitorship will only grow.**

ECONOMIC BENEFITS - INDIVIDUAL

Walking is an affordable form of transportation. A walkable community directly benefits a citizen's transportation costs. The Pedestrian and Bicycle Information Center (PBIC), explains "When safe facilities are provided for pedestrians and bicyclists, more people are able to be productive, active members of society. Car ownership is expensive and consumes a major portion of many Americans' income." A study cited by the Victoria Transport Policy Institute's 2011 "Transportation Affordability" found that households in automobile-dependent communities devote 50% more to transportation (more than \$8,500 annually) than households in communities with more accessible land use and more multi-modal transportation systems (less than \$5,500 annually).

Bicycling is also an affordable form of transportation. According to the PBIC, the cost of operating a bicycle for a year is approximately \$120, compared to \$7,800 for operating a car over the same time period.⁶ Bicycling becomes an even more attractive transportation option when the unstable price of gas is factored into the equation.⁷ Replacing automobile trips with bicycle trips, even if it is for only one trip a week will reduce overall gas consumption and save money. Transportation is second to housing as a percentage of household budgets and it is a top expense for many low income families.

HEALTH BENEFITS

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). 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 Centers for Disease Control has 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.⁸ This is significant

⁵ Augusta Sports Council, phone interview (December 8, 2011)

⁶ Pedestrian and Bicycle Information Center. (2010). Economic Benefits: Money Facts. Retrieved 1/20/2010 from www.bicyclinginfo.org/why/benefits_economic.cfm

⁷ King, Neil. (2/27/08). The Wall Street Journal: Another Peek at the Plateau

⁸ U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2002). Guide to Community Preventive Services

considering that for people who are inactive, even small increases in physical activity can bring measurable health benefits. The establishment of a safe and reliable transportation network that offers opportunities for bicycling will have a positive impact on the health of nearby residents. The Rails-to-Trails Conservancy puts it simply: “Individuals must choose to exercise, but communities can make that choice easier”.⁹

Today, nearly 36 percent of American adults are obese and 67 percent are overweight or obese. America’s weight problem doesn’t spare our youth either: 17 percent of children and youth are obese.¹⁰ The childhood obesity rate has almost tripled since 1980 and the adolescent rate has more than quadrupled.¹¹

In Spartanburg County, an estimated 28 percent of adults are physically inactive and 30 percent of adults are obese. The county ranks 18th out of 46 counties in South Carolina for overall health.¹² Offering more opportunities for children, adolescents and adults to safely and conveniently bicycle and walk in their community will encourage citizens to exercise more frequently, increasing their levels of physical activity and impacting the obesity epidemic.

SAFETY BENEFITS

Conflicts between bicyclists and motorists and pedestrians and motorists result from poor riding, walking and/or driving behavior as well as insufficient or ineffective facility design. Encouraging development and redevelopment in which bicycle and foot travel are fostered improves the overall safety of the roadway environment for all users. Well-designed bicycle facilities improve safety and security for current cyclists and also encourage more people to bike, which in turn, can further improve bicycling safety. Studies have shown that the frequency of bicycle collisions has an inverse relationship to bicycling rates – more people on bicycles equates to fewer crashes.¹³ Likewise, well-designed walkway facilities improve safety and security for pedestrians. Providing information and educational opportunities about safe and lawful interactions between bicyclists, pedestrians and other roadway users also improves safety.

⁹ Rails-to-Trails Conservancy. (2006) Health and Wellness Benefits

¹⁰ Centers for Disease Control. (January 2012). *Prevalence of obesity in the United States, 2009-2010*. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db82.pdf>

¹¹ National Center for Health Statistics, Prevalence of Overweight Among Children and Adolescents: United States, 2003-2004. 2007

¹² County Health Rankings & Roadmap. (2012). Retrieved from <http://www.countyhealthrankings.org/app/south-carolina/2012/spartanburg/county/1/overall>

¹³ Jacobsen, P. “Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Bicycling”. *Injury Prevention*, 9: 205-209. 2003.

CENTER FOR DISEASE CONTROL

30 minutes of moderately intense exercise” is equivalent to:

- 1.5 miles of walking; or
- 5 miles of bicycling; or
- 1 less slice of pizza.



Investments in walking and bicycling facilities have a direct, positive impact on safety by reducing collision risk



Trails and greenways connect places without the use of emission-producing vehicles, while also reducing air pollution by protecting large areas of plants that create oxygen; and filter pollutants



Communities with bikeway, walkway and trail amenities can attract new businesses/tenants, visitors, and new residents

Top Right Image Source: City of Charlotte

ENVIRONMENTAL BENEFITS

As demonstrated by the Southern Resource Center of the Federal Highway Administration, when people get out of their cars and walk, or ride their bicycles, they reduce measurable volumes of pollutants.¹⁴ Bicycles and foot traffic produce absolutely no pollution and to make a bicycle requires only a fraction of the materials and energy needed to make a car.

A bicycle commuter who rides five miles to work, four days a week, avoids 2,000 miles of driving a year—the equivalent of 100 gallons of gasoline saved and 2,000 pounds of CO₂ emissions avoided. CO₂ savings of this magnitude reduce the average American's carbon footprint by about 5 percent. To achieve equivalent CO₂ reductions by public transportation one would have to shift approximately 30 miles of daily commuting from car to transit. A citizen who lives in a community that allows him or her to run most errands by bicycling or walking can save about 500 gallons of fuel, or 10,000 pounds of CO₂ each year.

Trails and greenways also convey unique environmental benefits. Greenways protect and link fragmented habitat and provide opportunities for protecting plant and animal species. Trails and greenways connect places without the use of emission-producing vehicles, while also reducing air pollution by protecting large areas of plants that create oxygen and filter pollutants such as ozone, sulfur dioxide, carbon monoxide and airborne particles of heavy metal. Finally, greenway corridors can 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.

COMMUNITY/QUALITY OF LIFE BENEFITS

Fostering conditions where bicycling and walking are accepted and encouraged increases a city's livability from a number of different perspectives, that are often difficult to measure but nevertheless important. The design, land use patterns and transportation systems that comprise the built environment have a profound impact on quality of life issues. Studies have found that people living in communities with built environments that promote bicycling and walking tend to be more socially active, civically engaged and are more likely to know their neighbors.^{15,16} Settings where walking and riding bicycles are viable also offer greater independence to the elderly, the disabled and people of limited economic means who are unable to drive automobiles for physical or economic reasons. The aesthetic quality of a community also improves when visual and noise pollution caused by automobiles is reduced and when green space is reserved for facilities that enable people of all ages to recreate and commute in pleasant settings.

¹⁴ Federal Highway Administration, Southern Resource Center. (1999)

¹⁵ Frumkin, H. 2002. *Urban Sprawl and Public Health*. Public Health Reports 117: 201–17.

¹⁶ Leyden, K. 2003. "Social Capital and the Built Environment: The Importance of Walkable Neighborhoods." *American Journal of Public Health* 93: 1546–51.

BICYCLING AND WALKING DEMAND AND BENEFITS

Walking and bicycling are gaining new interest from communities across the United States after decades of neglect when most attention focused on motor vehicle transportation. As fuel prices rise, making short trips by bicycling and walking instead of by car makes sense. However, due to low existing levels of use and funding, walking and bicycling face an uphill battle to prove their utility as viable, efficient modes of transportation. Many of walking and bicycling's greatest strengths – such as creating attractive, livable streetscapes and increasing community health through exercise – are not accounted for when evaluating transportation projects. Similarly, many of the external social costs of driving, such as traffic congestion, crashes and climate change from greenhouse gas emissions, are not sufficiently weighted. Quantifying these factors demonstrates the importance of walking and bicycling transportation and help compare benefits with costs.

The benefits created by walking and bicycling increase with use. For each additional mile traveled by walking or bicycling instead of driving, about one pound of greenhouse gas emissions are prevented, a few less cents are spent on gas and a person gets a few minutes closer to reaching their recommended healthy levels of physical activity for the week. When walking and bicycling become part of people's daily activity, these benefits add up to create a healthier, more affordable community. To calculate the current benefits of walking and bicycling transportation in Spartanburg, the first step is to estimate existing levels of use.

ESTIMATING WALKING AND BICYCLING DEMAND

User counts and user surveys are the two most commonly used tools for measuring walking and bicycling activity. The following section describes the strengths and weaknesses of each of these tools and presents a methodology for estimating activity across an entire community.

USER COUNTS

User counts, typically conducted at points across the street network during peak travel hours, capture levels of walking and bicycling activity on street or paths during a short period of time. While user counts can be instructive in comparing relative levels of use between one street and another, they do not fully capture the spectrum of walking and bicycling activity happening across the community over the length of the year. Counts are well suited to studying where people walk and bike, but do not provide answers to other important questions, such as:

- What destinations are people walking and bicycling to, and where are they coming from?
- How far are they traveling?
- What is the purpose of their trip?
- How often do they make similar walking or bicycling trips?
- How often do they make other kinds of walking or bicycling trips?
- Do other residents also make similar types of trips by walking and bicycling, or do they typically travel by another mode?

Therefore, while user counts are a good tool for measuring walking and bicycling at a certain location, user surveys

are needed to estimate the overall role of bicycling and walking in the transportation patterns of residents across the region.

USER SURVEYS

Transportation user surveys often ask respondents about their perceptions – e.g., their feeling of safety on a street – and about their usual travel behavior. The American Community Survey (ACS), an ongoing survey conducted by the US Census Bureau, collects social, economic and demographic information from respondents, and includes a question on respondents' commute to work. Sampling over 250,000 households per month, the ACS is the largest survey that asks Americans about their transportation habits, and is the most widely available source of walking and bicycling data in communities.

According to the 2006-2010 ACS¹⁷, 0.2% of workers in the Spartanburg focus area bicycle to work, while 2.7% walk to work. These percentages are known as commute mode share; the percentage of a community's population making their journey to work by a certain mode of transportation compared to all modes.

Although commute mode share data is able to capture wider information about walking and bicycling than user counts alone, work commutes are just one type of trip. Spartanburg residents make many other types of trips (to school, college, go shopping, etc.) by a variety of modes. Detailed household travel surveys can provide more information on travel patterns and help measure the full spectrum of walking and bicycling trips happening in the community.

¹⁷ For communities of Spartanburg's size, the Census Bureau recommends using 5-Year sample data sets for increased reliability. This report references 2006-2010 5-Year ACS data unless otherwise noted

Household travel surveys are usually conducted by phone and include a travel diary in which respondents are asked to record all their trips during a 24-hour period. Information on the qualities of each trip is collected, including the trip purpose, time of day, duration, length, mode and more. By collecting this data from a large sample of people across the population, household travel surveys can provide information on where, why and how far people are walking and bicycling for transportation. Though a recent household travel survey is not available for Spartanburg, national data from the 2009 National Household Travel Survey (NHTS 2009) can be used to estimate the number of other types of bicycling and walking trips being made in addition to work trips.

ESTIMATING OVERALL ACTIVITY

Overall bicycling and walking activity can be estimated by combining available local data such as ACS commute mode share with national trip purpose information from NHTS 2009. On average, 1.6 utilitarian bicycle trips are made for every bicycle-to-work trip in the United States and 4.3 utilitarian walk trips are made for every walk-to-work trip (**Figure 2-1** and **Figure 2-2** below). A utilitarian trip is one that serves a purpose, as opposed to for recreation or exercise.

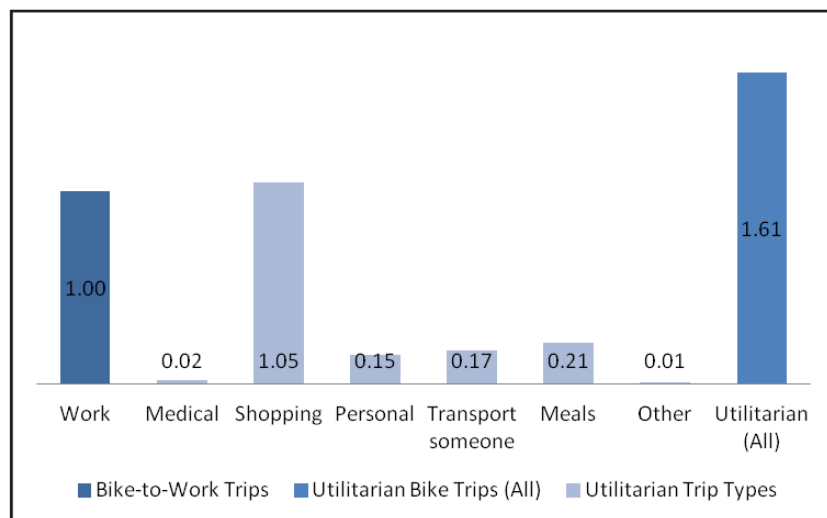


FIGURE 2-1: RATIO OF BICYCLE-TO-WORK TRIPS TO UTILITARIAN BICYCLE TRIPS (SOURCE: NHTS 2009)

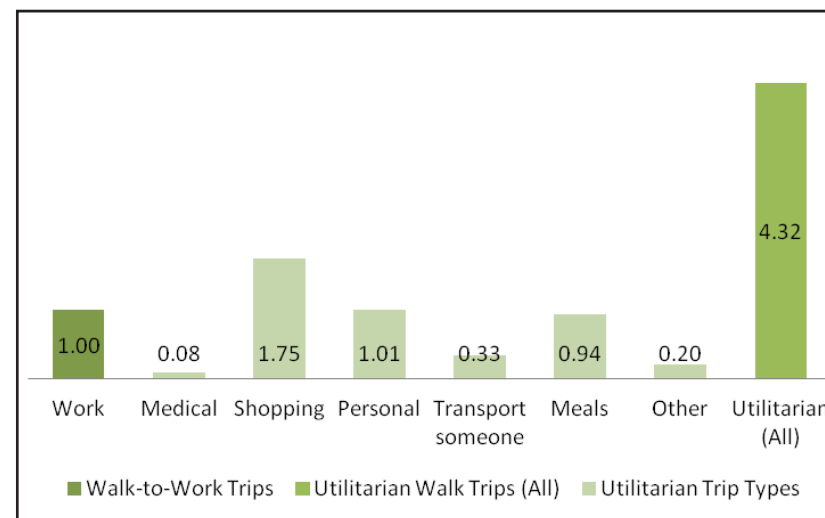


FIGURE 2-2: RATIO OF WALK-TO-WORK TRIPS TO UTILITARIAN WALK TRIPS (SOURCE: NHTS 2009)

Student commute trips to school and college are estimated independently of ACS data, because the populations making those trips are substantially different from the employed workforce surveyed by ACS. Because local university travel survey data is not available in Spartanburg, national data on walking and bicycling college trip mode share was used. National baseline K-8 school trip data from Safe Routes to School (SRTS) is used to estimate mode share for K-12 school trips.

For each type of trip, average trip distance and vehicle trip replacement multipliers are applied to estimate the total distance traveled by walking and bicycling and resulting vehicle miles traveled (VMT) reduced. National average trip distance multipliers are sourced from NHTS and SRTS, ranging from 0.36 miles for the K-12 walk to school to 3.54 miles per adult bike commute trip. Vehicle trip replacement multipliers assume that for each walking or bicycling trip, the chance of walking or bicycling replacing another mode for that trip is equal to the mode share of that other mode. Vehicle trip replacement multipliers are calculated independently using the mode split for each trip purpose available. For example, commute trip mode split is used for commute vehicle trip replacement and college trip mode split is used for college vehicle trip replacement. Single-occupancy vehicle trip equivalents are used to estimate VMT reduction; replaced carpool trips are weighted at 50% of a replaced single-occupancy vehicle trips.

Figure 2-3 provides a visual depiction of the steps used to translate local and national transportation data into an annual estimate of bicycling and walking activity currently happening in Spartanburg.

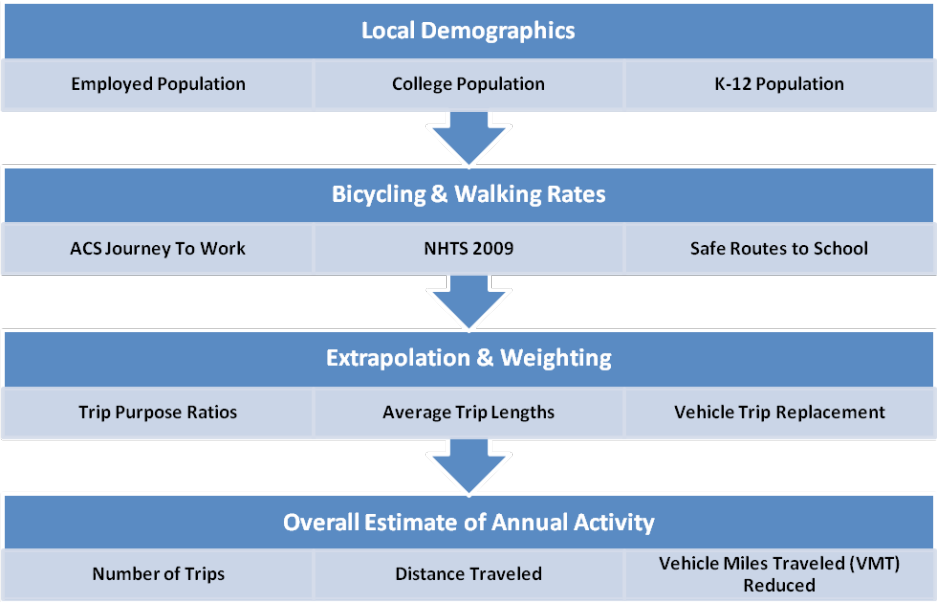


FIGURE 2-3: SPARTANBURG EXISTING WALKING AND BICYCLING OVERALL ACTIVITY ESTIMATE METHODOLOGY

KEY FINDINGS RELATED TO EXISTING DEMAND

Census tract level ACS data was the primary source for estimating existing levels of bicycling and walking activity in the Spartanburg Greenway Plan focus area. Mapping these inputs shows how bicycling and walking rates vary by neighborhood. Using ACS, NHTS and Safe Routes to School data sources, **it is estimated that approximately 3 million miles of trips in the focus area that could be made by car are now being made by bicycling and walking annually.**



Overall bicycling and walking activity can be estimated by combining available local data such as ACS commute mode share with national trip purpose information from NHTS 2009.

ESTIMATING BICYCLING AND WALKING BENEFITS

Benefits of bicycling and walking are based on the number of regular walk/bicycle transportation users and miles traveled developed in the overall demand estimate. Numerous studies have estimated the dollar value of the benefits of bicycling and walking such as reduced pollution from the reduction of vehicle travel, improved health from increased physical activity and other benefits (see **Table 2-2**). Using figures from these studies, overall levels of bicycling and walking transportation activity can be expressed in terms of their dollar value to local residents and the community at large.

TABLE 2-1: BICYCLING AND WALKING DEMAND ESTIMATION AND VMT REFERENCES.

References - Demand/Activity Multipliers		
Trip Purpose Extrapolation		
Commute Trip Mode Share	College Trip Mode Share	K-12 Trip Mode Share
<i>Bike: 0.2% Walk: 2.7%</i> <i>ACS 2006-10 (varies by location)</i>	<i>Bike: 1.7% Walk: 6.8%</i> <i>NHTS 2009 (used region wide)</i>	<i>Bike: 1.0% Walk: 13.4%</i> <i>SRTS Baseline, 2009 (used region wide)</i>
Utilitarian Trip Multiplier		
<i>Bike: 1.6 Walk: 4.3 NHTS 2009 (used region wide)</i>		
Annual Trip Extrapolation		
Annual Work Days	Annual College Class Days	Annual K-12 School Days
<i>251</i> <i>261 Weekdays - 10 Federal holidays</i>	<i>147</i> <i>USC Upstate 2012-13 Academic Calendar</i>	<i>180</i> <i>ECS, South Carolina State Minimum</i>
Annual Vehicle Trips Replaced (Sov Equivalent)		
Commute Vehicle Trip Replacement	College Vehicle Trip Replacement	K-12 Vehicle Trip Replacement
<i>Bike: 88.9% Walk: 91.1%</i> <i>ACS 2006-10 (varies by location)</i>	<i>Bike: 81.5% Walk: 86.0%</i> <i>NHTS 2009 (used region wide)</i>	<i>Bike: 42.6% Walk: 48.7%</i> <i>SRTS Baseline, 2009 (used region wide)</i>
Annual Vehicle Miles Traveled Reduced		
Commute Trip Distance	College Trip Distance	K-12 Trip Distance
<i>Bike: 3.54 Walk: 0.67</i> <i>NHTS 2009</i>	<i>Bike: 2.09 Walk: 0.48</i> <i>NHTS 2009</i>	<i>Bike: 0.77 Walk: 0.36</i> <i>SRTS Baseline, 2009 (used region wide)</i>
Utilitarian Trip Distance		
<i>Bike: 1.89 Walk: 0.67</i> <i>NHTS 2009</i>		

TABLE 2-2: BICYCLING AND WALKING TRANSPORTATION BENEFITS REFERENCES

References - Benefits Multipliers					
Reduced Emissions	Lb/VMT	Reduced Emissions Costs	\$/ton	Reduced Externalities	\$/VMT
<i>Hydrocarbons</i>	<i>0.00300</i>	<i>Volatile Organic Compounds</i>	<i>\$1,700</i>	<i>Traffic Congestion</i>	<i>\$0.05</i>
<i>Particulate Matter</i>	<i>0.00002</i>	<i>Particulate Matter</i>	<i>\$168,000</i>	<i>Vehicle Crashes</i>	<i>\$0.36</i>
<i>Nitrous Oxides</i>	<i>0.00209</i>	<i>Nitrous Oxides</i>	<i>\$4,000</i>	<i>Source: AAA, 2008</i>	
<i>Carbon Monoxide</i>	<i>0.02734</i>	<i>Carbon Monoxide</i>	<i>n/a</i>		
<i>Carbon Dioxide</i>	<i>0.81351</i>	<i>Carbon Dioxide</i>	<i>\$36.03</i>	<i>Road Maintenance Costs</i>	<i>\$0.15</i>
<i>Source: EPA, 2007</i>		<i>EPA, 2007</i>		<i>Kitamura, Zhao & Gubby, 1989</i>	
Physically Inactivity Rate	%	Reduced Healthcare Costs	\$/Year	Vehicle Operating Costs	\$/VMT
<i>South Carolina</i>	<i>26.9%</i>	<i>Savings/Newly Active Person</i>	<i>\$585.97</i>	<i>Operational Std. Mileage Rate</i>	<i>\$0.56</i>
<i>Source: 2010 BRFSS (CDC)</i>		<i>Wang, McDonald et al, 2012</i>		<i>IRS, 2012</i>	

TABLE 2-3: ESTIMATED ANNUAL BENEFITS OF WALKING AND BICYCLING TRANSPORTATION

Spartanburg Annual Walking And Bicycling Benefits	
Annual VMT Reduced	3,027,000
Air Quality	
CO2 Emissions Reduced (pounds)	2,462,000
Other Vehicle Emissions Reduced (pounds)	98,000
Total Vehicle Emissions Costs Reduced	\$70,000
Social Benefits	
Reduced Traffic Congestion Costs	\$151,000
Reduced Vehicle Crash Costs	\$1,090,000
Reduced Road Maintenance Costs	\$454,000
Individual Benefits	
Household Vehicle Operation Cost Savings	\$1,680,000
Health Care Cost Savings from Physical Activity	\$298,000
Total Monetized Benefits:	\$3,743,000

KEY FINDINGS RELATED TO EXISTING BENEFITS

Current levels of walking and bicycling in Spartanburg are similar to national averages and return significant benefits to the region and local residents in the form of improved air quality, reduced transportation costs and improved health. Frequently, most people do not recognize these factors in their daily routines. Using the VMT reduction estimated in the previous section and the multipliers described in **Table 2-1** and **Table 2-2**, **existing rates of bicycling and walking transportation in Spartanburg are estimated to generate over \$3 million in annual benefits to the region**, as shown in **Table 2-3**.

POTENTIAL FUTURE BENEFITS

Spartanburg has been recognized as a Bronze-level Bicycle Friendly Community (BFC) by the League of American Bicyclists. The Spartanburg region has taken steps to improve the accessibility, safety and quality of the bicycling environment, and the implementation of this plan will lay the groundwork for higher levels of active transportation and greater recognition in the future. Analysis of current walking and bicycling benefits show how active transportation is a boon to the health and economy of the region. Investing in improvements to bicycling and walking transportation networks could return even greater annual benefits.

Other communities awarded by the Bicycle Friendly Communities program provide a valuable reference point for setting goals and creating a vision for what role bicycling and walking transportation could play in Spartanburg's future. Many BFC cities have reputations for their livability and the quality of their walking environment, in addition to bicycling. The League of American Bicyclists reports that BFC-awarded cities have seen 80% growth in bicycling between 2000 and 2011.

Future growth in Spartanburg bicycling and walking rates would generate economic, environmental and health benefits greater than the current estimate of \$500,000 in annual benefits to the region. In a scenario where bicycling rates increase to levels found in Silver-level BFC cities, **local benefits from bicycling could reach more than \$7 million per year.** **Table 2-4** provides monetized annual estimates of the benefits of bicycling in the Spartanburg region at example increased rates.

Table 2-5 explores the potential annual benefits of increased walking rates in Spartanburg. Bicycling rates are typically more responsive to changes in transportation infrastructure than walking. Although walking rates in Spartanburg appear to be trending upward – recent 2008-2011 3-Year ACS surveys estimate walking mode share of over 3% – national walking rates are still declining slowly. Because walking rates are more dependent on factors like land use that can be slow to change, bicycling rates in Spartanburg will probably increase at a comparably faster rate. The increased walking rates used to estimate potential benefits reflect this likelihood. The potential benefits of increased walking and bicycling rates in Spartanburg make a strong case for increased investment in active transportation infrastructure. For example, **if Spartanburg were to reach the walking and bicycling rates of 5% and 2.8% respectively, the community could enjoy health and economic benefits valued at approximately \$13 million per year, or more than four times current levels. The new bicycling and walking facilities proposed in this plan will become valuable assets that will increase the health, affordability and livability of the Spartanburg region.**

TABLE 2-4: POTENTIAL ANNUAL BENEFITS OF INCREASED BICYCLING IN SPARTANBURG

Spartanburg Potential Annual Bicycling Benefits			
Bicycle Commute Mode Share	Current (0.2%)	US Average (0.5%)	Silver BFC Average (2.8%)
<i>Annual VMT Reduced</i>	408,000	1,090,000	6,080,000
Air Quality			
<i>CO2 Emissions Reduced (pounds)</i>	332,000	880,000	4,950,000
<i>Other Vehicle Emissions Reduced (pounds)</i>	13,000	30,000	190,000
<i>Total Vehicle Emissions Costs Reduced</i>	\$9,000	\$20,000	\$130,000
Social Benefits			
<i>Reduced Traffic Congestion Costs</i>	\$20,000	\$50,000	\$300,000
<i>Reduced Vehicle Crash Costs</i>	\$147,000	\$390,000	\$2,190,000
<i>Reduced Road Maintenance Costs</i>	\$61,000	\$160,000	\$910,000
Individual Benefits			
<i>Household Vehicle Operation Cost Savings</i>	\$226,000	\$600,000	\$3,370,000
<i>Health Care Cost Savings from Physical Activity</i>	\$43,000	\$110,000	\$640,000
Total Benefits:	\$507,000	\$1,330,000	\$7,540,000

Note: Estimates reflect conceptual benefits that would be generated at given mode shares as if they existed in Spartanburg today. Values are not discounted and do not reflect future demographic growth, cost changes or other multiplier changes.

TABLE 2-5: . POTENTIAL ANNUAL BENEFITS OF INCREASED WALKING IN SPARTANBURG

Spartanburg Potential Annual Walking Benefits			
Walk Commute Mode Share	Current (2.7%)	Example Medium Goal (4.0%)	Example High Goal (5.0%)
<i>Annual VMT Reduced</i>	2,619,000	3,930,000	4,910,000
Air Quality			
<i>CO2 Emissions Reduced (pounds)</i>	2,130,000	3,200,000	4,000,000
<i>Other Vehicle Emissions Reduced (pounds)</i>	85,000	130,000	160,000
<i>Total Vehicle Emissions Costs Reduced</i>	\$61,000	\$90,000	\$110,000
Social Benefits			
<i>Reduced Traffic Congestion Costs</i>	\$131,000	\$200,000	\$250,000
<i>Reduced Vehicle Crash Costs</i>	\$943,000	\$1,420,000	\$1,770,000
<i>Reduced Road Maintenance Costs</i>	\$393,000	\$590,000	\$740,000
Individual Benefits			
<i>Household Vehicle Operation Cost Savings</i>	\$1,453,000	\$2,180,000	\$2,730,000
<i>Health Care Cost Savings from Physical Activity</i>	\$255,000	\$380,000	\$480,000
Total Benefits:	\$3,236,000	\$4,860,000	\$6,080,000

Note: Estimates reflect conceptual benefits that would be generated at given mode shares as if they existed in Spartanburg today. Values are not discounted and do not reflect future demographic growth, cost changes or other multiplier changes.



NEEDS ASSESSMENT

OVERVIEW

This chapter provides an overview of the major components of the bikeway, trail and greenway environment of the study area. The assessment of existing conditions is based on information collected primarily from previous planning efforts, existing regional geographic information systems (GIS) data, field work, aerial imagery and input from the Project Steering Committee and stakeholders.

The following section identifies relevant planning efforts and summarizes the common themes of those plans. The existing conditions section describes the general context of the trail network and existing biking and walking facilities.

Given the significant trail planning that has already occurred in Spartanburg, this chapter includes a preliminary assessment of feasibility of previously proposed trail segments based on the physical context and design challenges. Non-infrastructure opportunities and challenges are assessed in Chapter 4: Institutional Review. The chapter concludes with an overview of opportunities and constraints of the current environment for bikeway, trail and greenway development in Spartanburg.

EXISTING PLANNING EFFORTS

The section outlines key planning efforts that the Trails and Greenways Master Plan can leverage for establishing a proposed trail network and for implementation. The review includes eleven adopted, current planning documents listed in the first half of **Table 3-1**. Seven additional relevant planning efforts are listed in the second half of the table. The full review of all plans is included in **Appendix A**.

3

Chapter Contents:

Overview

Existing Planning Efforts

Existing Conditions

Feasibility of Proposed Trails & Greenways

Summary of Opportunities & Constraints

*Opposite page:
Duncan Park Aerial Photo – Source: City of Spartanburg*

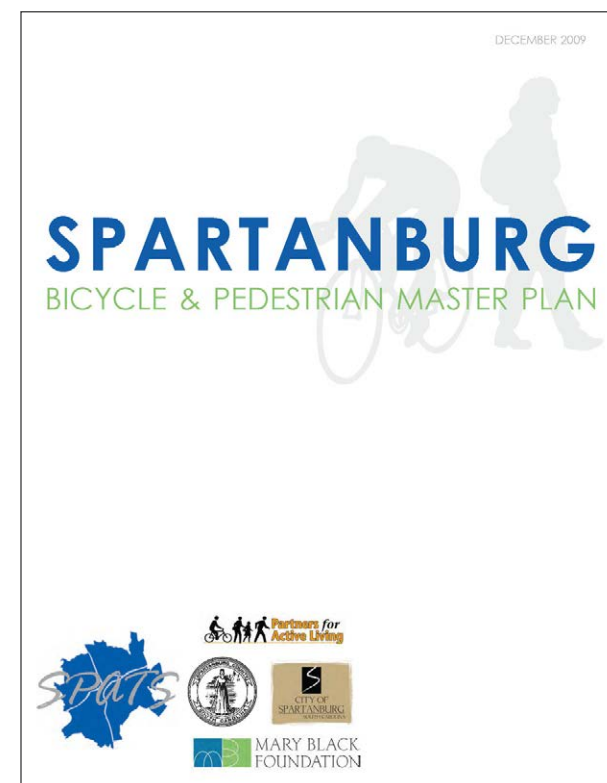


TABLE 3-1: KEY PLANNING EFFORTS AND EXISTING TRAILS REVIEW

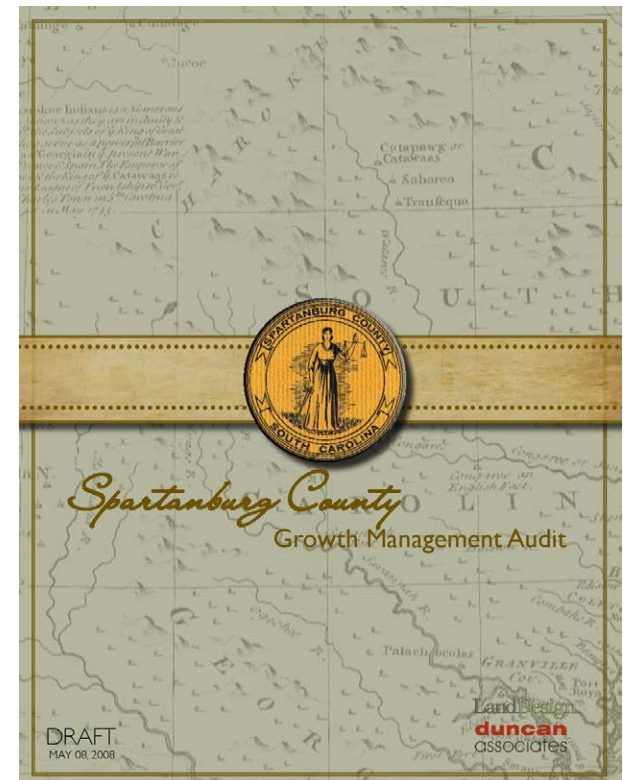
Plan	Agency	Year
Parks Enhancement Plan	Spartanburg County Parks	2012
City of Spartanburg Neighborhood Traffic Calming Program	City of Spartanburg	2012
Transportation Improvement Program	Spartanburg Area Transportation Study (SPATS)	2010
Flood Damage Prevention Ordinance	Spartanburg County	2010
Bicycle & Pedestrian Plan	Spartanburg Area Transportation Study (SPATS)	2009
City of Spartanburg Downtown Master Plan	City of Spartanburg	2008
Spartanburg County Growth Management Audit	Spartanburg County	2008
Long Range Transportation Plan	Spartanburg Area Transportation Study (SPATS)	2008
Enhancement Master Plan	Spartanburg Area Transportation Study (SPATS)	2004
Spartanburg County Unified Land Management Ordinance	Spartanburg County	1999 (last amended 2004)
Spartanburg County Comprehensive Plan 1998-2015	Spartanburg County	1998
Other Relevant Planning Efforts		
Safe Routes to School	SCDOT Safe Routes to School Resource Center	2012
Cottonwood Trail - Trail Development Plan	SPACE	2011
Spartanburg County Tourism Action Plan	Spartanburg County	2011
City of Spartanburg Parks & Recreation System Master Plan	City of Spartanburg	2007
Spartanburg Active Living Assessment	Upstate Forever	2005
Palmetto Trail	Palmetto Conservation Foundation	Ongoing
A Greenway for Spartanburg	City of Spartanburg	1978

Relevant Plans Reviewed

Table 1. The background document review included an assessment of trail-related planning documents.

Below:

Previous Study completed in 2008



Key Findings

Overall, the documents reviewed show a sustained and increasing interest in trails and trail planning in the Spartanburg area. While there has been greenway planning in the region since the late 1970s, this interest is not as evident in the documents reviewed from the 1990s. However, there is increasing support for trails in the more recent planning documents. The *2009 Bicycle and Pedestrian Plan*, in particular, evidences strong interest in trails and greenways among residents of Spartanburg County.

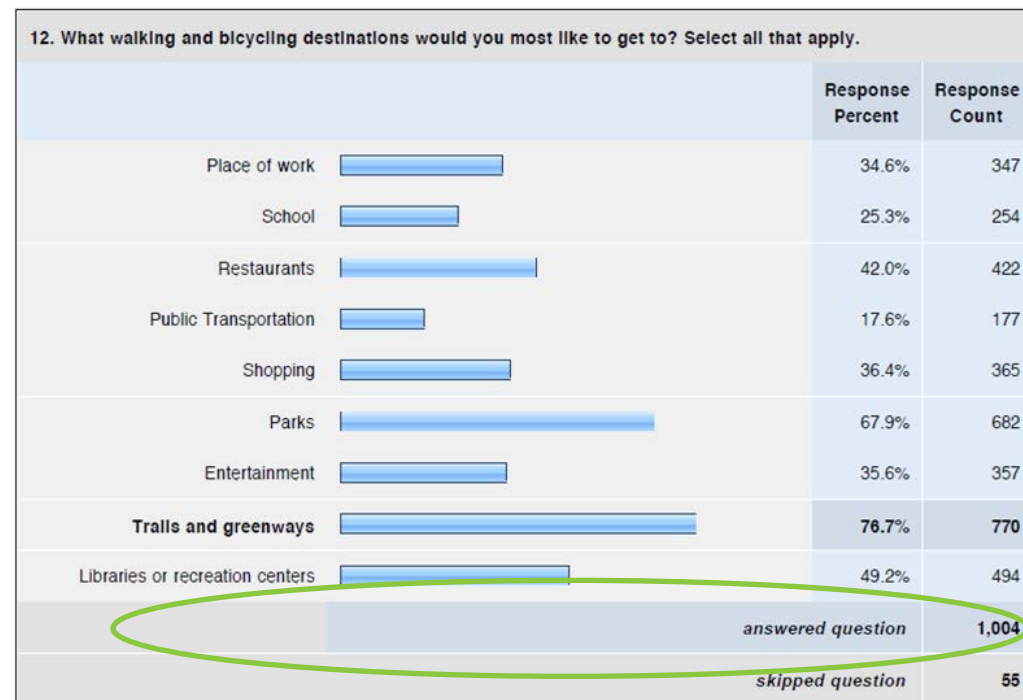
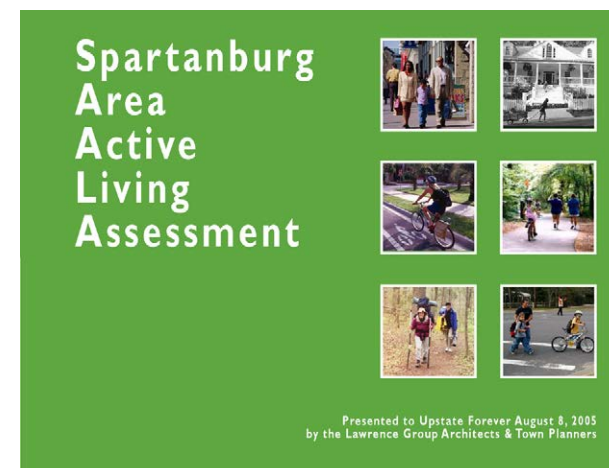
Key themes:

- **Existing policies need to be strengthened** to improve accommodation for active transportation and recreation facilities. *The Growth Management Audit, the Active Living Assessment and the Bicycle & Pedestrian Plan* provide such recommendations.
- **There is ample opportunity for trail/greenway development in the region.** This is reflected in the project lists in *the Spartanburg Downtown Master Plan, the Bicycle & Pedestrian Master Plan* and the *SPATS Enhancement Master Plan*.
- **Local stakeholders need to utilize existing and develop new partnership opportunities.** Many of the documents identified the lack or reduced funding available and identified the need to develop additional partnerships for implementation of identified projects.
- **Trails and greenways can serve an important function for both transportation and recreation.**

This review will support this current planning effort by:

- Identifying existing goals and policies that support this trail planning effort,
- Identifying shortcomings in existing policies that will need to be addressed through this planning effort and;
- Providing a substantial project list from which to begin this trail master plan

Right:
The 2005 Active Living Assessment identified existing policies needing improvements.



Trails and greenways are the number one destination Spartanburg County residents would like to bike and walk to according to the 2009 Bicycle and Pedestrian Plan citizen survey.

EXISTING CONDITIONS

Summary of Opportunities and Constraints

There is a lack of connectivity between the County's nearly 200 miles of bikeway and greenway facilities. Many of these facilities, however, are within close proximity to one another making future linkages possible. There is also a lack of connectivity between existing trail and bikeway facilities and neighborhoods or destinations.

Spartanburg County's waterways are an asset to the community. The area's creeks, rivers and shoals are important natural features in the community and serve as destinations in and of themselves. Overall, key destinations of the community are relatively dispersed. The land use characteristics of the study area suggest a need to focus trail connections on centers of activity and areas of relatively dense development and areas with mixes of land uses (such as commercial, residential and office).

The trail network previously proposed for the study area establishes many important connections and capitalizes on assets of the community. However, the feasibility of those segments in terms of the physical design challenges vary significantly. Trail connections with very limited feasibility (feasibility scores of 1 and 2) can be rerouted, removed as a trail recommendation or established as a long-term (time and/or cost intensive) project. Trail segments identified as "low-hanging" fruit (feasibility scores of 4 or 5) may present opportunities for near-term trail development.

The recommended trail network of this Plan (*Chapter 6: Network Recommendations*) considers the physical design challenges of these previously proposed trail segments, as well as other factors such as available funding, political support and connectivity to other trail segments and key destinations. Primary infrastructure-related opportunities and constraints for trail development in the study area are described below.



The riparian corridor along Lawsons Fork Creek is an opportunity for trail development

Opposite Page: The area's creeks, rivers and shoals are important natural features in the community, as shown by this public access to Glendale Shoals



Bikeway, Trail and Greenway Network

Nearly 200 miles of on-street and off-street bikeway, blueway and trail facilities exist in Spartanburg County. SPATS maintains an inventory of these facilities. On-street bikeways range from bike lanes to sharrows to wide outside lanes. Mountain biking trails, blueways, natural surface trails and shared-use or multi-use paths are included in the trail inventory. Approximately 122 miles of that inventory are trails and approximately 105 miles of those trails are open to multiple users (biking as well as hiking, walking, etc).

Though there is a concerted effort to link on-street bikeways to one another and to extend existing trails, Spartanburg County's roughly 122 miles of trails have very few connections to one another. Many of the trails serve very localized user groups and were developed based on grassroots citizen involvement. Moreover, the existing network doesn't provide a consistent trail experience for the broadest range of users. For example, bike lanes are not found to be as attractive to many potential users (including families with young children and other users who are averse to biking with motorized traffic) as more separated bikeways such as cycletracks or shared use paths. Also, existing on-street bikeways do not provide for the pedestrian element of trail users.

This existing network provides an important basis for developing a broader connected trail network, linking these popular facilities to one another and leveraging existing resources. **Map 3-1** on the opposite page shows the existing and previously proposed bikeway and trail facilities in the study area.

Physical Features

Spartanburg County benefits from an expansive network of creeks, rivers and lakes. These watersheds are prominent natural features generally valued by the community. The presence of creeks and rivers offers opportunities for access to floodplain areas that are undevelopable linear stretches of land.

The topography of the study area is moderately hilly. Trails developed along waterways, rail lines and some utility easement corridors benefit from flat, gentle terrain.

Land Use Characteristics

The spatial relationship of residential areas and destinations significantly affects the bikeability and walkability of a community. If destinations, such as retail or employment centers, are within walking and biking distance of points of origin, such as a neighborhood, apartments or downtown residences, people are more likely to make those trips by walking and biking.

The density of land uses and the mix of land uses varies throughout the Plan's study area. The City of Spartanburg

and downtown Spartanburg, in particular, are moderately dense. The downtown is characterized by a wide footprint and key attractions of downtown are separated by physical distance as well as challenging intersections. The concentration of activity in downtown Spartanburg is bookended by dispersed commercial clusters and residential growth on the City's eastside and, more heavily, on the westside.

Unincorporated communities of the study area are low in land use density. Boiling Springs is a significant center of activity including commercial destinations, employment centers and high residential growth. The Glendale community also serves as an outlying center of activity, though it is dominated by institutional, residential and open space land uses. The municipalities of Spartanburg County are generally small, low-density centers of activity with institutional, residential and some commercial land uses.



Left: Spartanburg County's roughly 122 miles of trails have very few connections to one another.

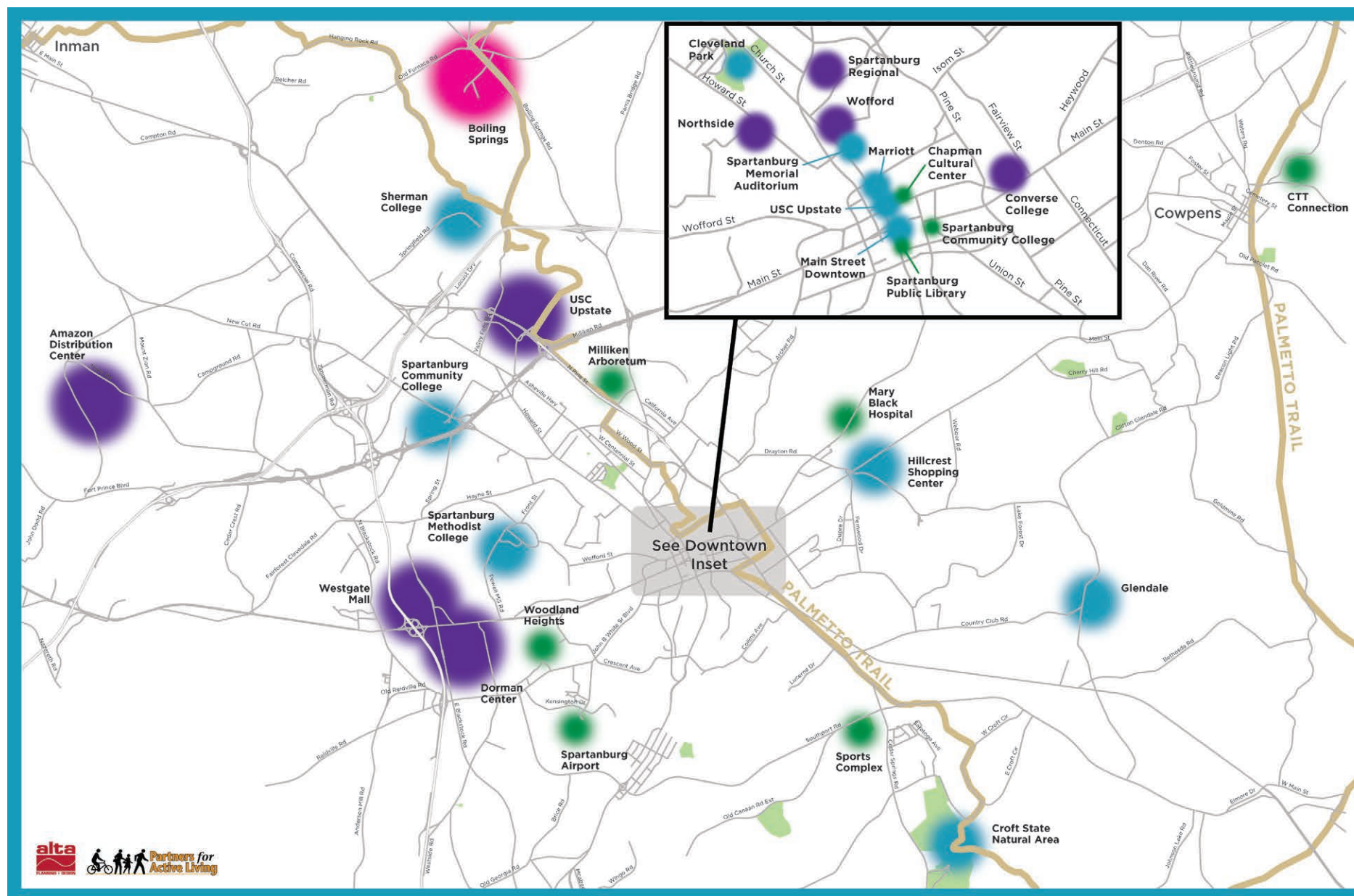




Trip Attractors and Generators

The study area has a number of important attractions for residents and visitors alike. **Map 3-2** on the next page shows the relative attractiveness of key destinations based on stakeholder input and the potential for certain areas of Spartanburg to generate bicycle and walking trips. Each attractor will generate demands from within a “comfortable” walking or cycling radius – the amount of that demand depends on the relative strength of the attractor to walking and biking, its geographic proximity to potential users and conglomerations of multiple attractions. Relative strength is represented graphically on the map and is based on local community perceptions and research on the relative importance of various types of destinations to pedestrians and cyclists. For example, a commercial center is likely to be more attractive than a library.

*Opposite Page:
Relative attractiveness of key destinations in Spartanburg*



MAP 3-2: SPARTANBURG TRAILS AND GREENWAYS PLAN: COMMUNITY IDENTIFIED TRIP ATTRACTORS AND GENERATORS



The USC Upstate Passage of the Palmetto Trail is part of Spartanburg's network of existing trails.

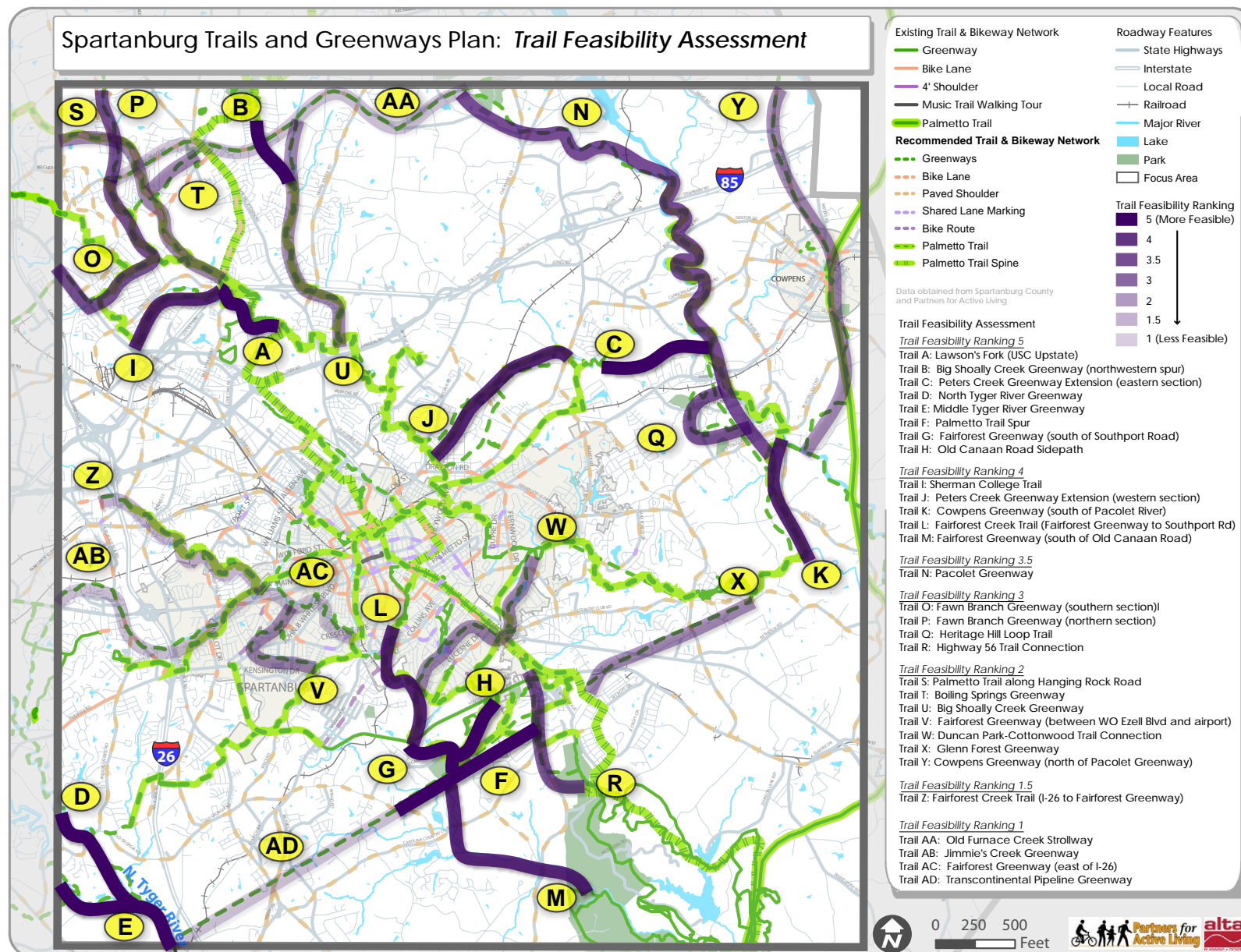
RELATIVE FEASIBILITY OF PREVIOUSLY PROPOSED TRAILS

This section provides a preliminary assessment of the feasibility developing previously proposed trail segments based on the physical context and design challenges. The assessment exclusively considers the physical context of the proposed trail alignment and does not weigh feasibility in terms of public support, access to destinations, connectivity, community priorities, potential for funding, landownership, or similar characteristics. The assessment considers design challenges, relative cost feasibility and some elements of process (such as public outreach requirements, railroad encroachment, SCDOT encroachment, etc).

Table 3-2 lists previously proposed trail segments, assigns a score of relative feasibility (between one and five, with five representing the most feasible projects) and describes the design challenges that impacted the score. Examples of important design and construction considerations noted in the table are:

- Sensitive natural areas, or wetlands
- Presence of utility easement corridor
- Presence of an active rail line
- Proximity to private residences
- Road crossings
- Riparian corridors

Map 3-3 noted the relative feasibility of previously proposed trails. Based on this assessment the most feasible trail segments are the following:



MAP 3-3: TRAIL FEASIBILITY ASSESSMENT

TABLE 3-2: FEASIBILITY OF PREVIOUSLY PROPOSED TRAIL SEGMENTS

Trail Segment	Feasibility (5 being most feasible)	Assessment
Northwest Metro Area		
Fawn Branch Greenway (northern section)	3	Three road crossings: Hanging Rock Road, Clark Road and Old Furnace Road. Difficult to determine what these crossings involve but the creek appears to be piped beneath the roadway. This means that the trail most likely could not follow the creek's path beneath the roadway. In this case, the topography appears to be such that the trail could cross these roads at-grade without requiring significant infrastructure (such as a ramp or staircase leading from the trail to the road).
Fawn Branch Greenway (southern section)	3	The creek appears to pass beneath Double Branch Road by way of a bridge and Old John Dodd Road through a box culvert. This means that the trail most likely could not follow the creek's path beneath Old John Dodd Road as reconstructing a box culvert to create space for a greenway is cost-intensive. Further study is needed to assess the feasibility of the greenway passing beneath the bridge on Double Branch Road. In this case, the topography appears to be such that the trail could cross these roads at-grade without requiring significant infrastructure.
Palmetto Trail along Hanging Rock Road	2	Two lane road with high vehicle speeds. There appears to be enough available ROW to develop a sidepath, but there are a significant number of driveways and the project would require substantial public outreach and support.
Boiling Springs Greenway	2	Three road crossings: Double Branch Road, Hanging Rock Road and Pinebrook Road. The creek flows under a bridge at Double Branch Road, but is piped under Hanging Rock Road and Pinebrook Drive. The creek appears to run along backs of some property lines (near houses) at western end, but portions south and north of Hanging Rock Road and north of Pinebrook Road are located in wooded areas. North of Pinebrook Drive, the trail alignment crosses a utility easement corridor. The eastern terminus is at Boiling Springs Elementary School and the trail provides an important connection to the school but may be an isolated fragment.
Sherman College Trail	4	One road crossing: Upper Valley Falls Road. There appears to be a bridge with box culverts under Upper Valley Falls Road. The culvert height is undetermined, but may limit the potential for the trail to cross beneath the road. The trail alignment crosses an electric utility easement. Most of trail appears to be located in wooded area (further from backyards).
Lawson's Fork at USC Upstate	5	No road crossings. Trail alignment passes through wooded areas and crosses more than one electric utility easement.
Big Shoally Creek Greenway (northwestern spur)	5	This section has few challenges. The creek is piped under Old Furnace Road, but in this case, the trail could easily cross the road at-grade with limited to no interruption of the trail's route.
Big Shoally Creek Greenway	2	This section includes a very challenging crossing of I-85. It appears that the creek is piped under the interstate (meaning that the trail could not follow the creek under the roadway). It is not possible to cross the interstate at-grade and crossing above grade would most likely be cost-prohibitive. Rerouting the trail to an existing roadway crossing (Highway 9 or Highway 43) could present a more workable alternative.

Trail Segment	Feasibility (5 being most feasible)	Assessment
Old Furnace Creek Strollway	1	Two lane road with high speed traffic and inadequate width for a bike lane/buffered bike lane. Available ROW appears limited for a sidepath and it would necessarily be located over an existing ditch. This would likely require construction of curb and gutter and/or pipes, which would substantially add to construction costs.
Northeast Metro Area		
Peters Creek Greenway Extension (western section)	4	Several crossings: Police Club Road and several neighborhood streets. At Police Club Road, the creek passes under a bridge, but it has limited height. This means that it may be more feasible to create an at-grade road crossing. Some tweaking of the trail alignment would be needed; for example, the current alignment requires a new railroad crossing, but with rerouting, the trail may be able to cross at an existing roadway crossing instead. Using an existing crossing rather than requesting a new crossing will improve feasibility. Most of the alignment passes through wooded areas.
Peters Creek Greenway Extension (eastern section)	5	One road crossing: Old Converse Road. The creek appears to pass under a bridge at Old Converse Road. The trail alignment crosses several electric utility easements. The trail alignment is primarily through a wooded area.
Heritage Hill Loop Trail	3	This segment has numerous road crossings and would likely need to be rerouted along the roadway, as the alignment goes through a school, across private lots, etc. With on-road rerouting the segment might be quite doable, as there appear to be many low-volume neighborhood streets nearby.
Pacolet Greenway	3 to 4	Several crossings: Cherokee Circle, Highway 221, Green River Road, I-85, Bud Arthur Bridge Road, Cannons Campground Road, Highway 29, Wall St., Main St., Square St., Cherry Hill Rd., Old Clifton Village Rd., Glendale St., Stone Hill Dr., Clifton Glendale Rd. and Clifdale Road. Many of the crossings appear to be bridges, suggesting that the route is feasible, but it would require further analysis to determine the viability of each roadway crossing. The trail alignment also crosses a utility easement and two railroads. The alignment appears to pass through large tracts of wooded area, suggesting there may be relatively few property owners along the corridor. Certain stretches of this long greenway will be more feasible than others, and further analysis could determine a phased approach to developing the trail based on relative feasibility.
Cowpens Greenway (north of Pacolet River)	2	This section follows Highway 110 north of Cowpens. The road is a two-lane, high vehicle speed roadway. There appears to be sufficient ROW available, but many driveways are present. This will present design and safety challenges and may also necessitate significant public outreach. In Cowpens, the trail alignment follows Church St., which appears to have existing sidewalks and plenty of roadway width for a bike lane or buffered bike lane. There is one railroad crossing, but that is at an existing road crossing and may not be as much of a challenge if it were a new railroad crossing. South of Cowpens, the alignment follows Linda Road, a two-lane road without additional width. There is an existing sidewalk and numerous driveways. Sections along Beacon Light Road have more width available. Along Ebenezer Road there is sufficient ROW, but also many driveways. The southern portion of the trail alignment appears to go through wooded areas.

Trail Segment	Feasibility (5 being most feasible)	Assessment
Cowpens Greenway (south of Pacolet River)	4	Two at-grade road crossings: Lewis Chapel Road and Farr Road. Crosses electrical easement. Lewis Chapel Road is two-lane road and not too wide; Farr Road is quite narrow and easy to cross I imagine.
Southwest Metro Area		
North Tyger River Greenway	5	This trail segment is feasible. Located in forested area and appears to include one utility easement crossing.
Middle Tyger River Greenway*	5	This trail segment is feasible. A few utility easement crossings but no major road crossings. Located mainly in forested area.
Jimmie's Creek Greenway	1	S. Blackstock Rd. appears to have extra pavement width that may be usable for an on-street bikeway, such as a buffered bike lane. There may be enough width for a sidepath, but many driveways are present. Shorebrook Rd. could be a candidate for a shared lane marking on-street bikeway. The crossing of Highway 29 (4 driving lanes with median) would likely be at grade, which would require some intersection improvements for safety. It is more feasible to consider on-street bikeways rather than greenway connections.
Fairforest Creek Trail (I-26 to Fairforest Greenway)	1 to 2	Eastern sections have few roadway crossings and would be more feasible than the western sections. On the east side there is a crossing at Powell Mill Road and a railroad crossing. Rerouting the alignment to Bellew Carver Road would avoid creating a new railroad crossing and may improve feasibility. The three remaining crossings (Hayne St. and north of Hayne Street) appear to have bridges.
Fairforest Creek Trail (Fairforest Greenway to Southport Road)	4	Appears to be one electric utility easement crossing; no road crossings.
Fairforest Greenway (east of I-26)	1	Total of 10 road crossings, including two Highway 29 crossings: one would be at grade and the other appears to have a box culvert. The Interstate 26 crossing would require a new tunnel or bridge. The trail alignment crosses an electric utility easement twice.
Fairforest Greenway (between WO Ezell Blvd and airport)	2	There are nine road crossings, including two crossings of Hwy 296 (five lanes). South of Highway 296 the trail follows an electric utility easement. Merging with St. James Dr. (two lane road) would present challenges. Overall the trail is located mostly in wooded areas, near residences. Public outreach efforts would be required.
Fairforest Greenway (south of Southport Road)	5	The road crossing at Old Canaan Road has a bridge under which the creek passes. The alignment includes an electric utility easement crossing. The Southport Road crossing also has a bridge. Otherwise appears to travel through forested area. The bridges suggest that the trail could follow the creek beneath the roadways, avoiding a crossing at grade.

Trail Segment	Feasibility (5 being most feasible)	Assessment
Old Canaan Road Sidepath	5	This trail segment is feasible. There appears to be plenty of road right of way for a sidepath and few obstructions.
Southeast Metro Area		
Transcontinental Pipeline Greenway	1	The trail alignment follows a utility easement corridor. It involves a few minor road crossings and at least one stream crossing. Crossing Highway 221 could occur at the intersection with Stone Station Road, if intersection improvements are made. There is a railroad crossing that may be challenging. Crossing Interstate 26 is a barrier- there is no bridge or culvert to use.
Palmetto Trail Spur*	5	Appears that it is following an easement (sewer?). A couple stream crossings and small road crossings, but looks pretty feasible.
Fairforest Greenway (south of Old Canaan Road)*	4	Two road crossings: Carolina Country Club Rd. and Hwy 56. Both have bridges that may allow a trail to follow the creek and cross beneath the roadway. The alignment also includes an electric utility easement crossing. Otherwise, the alignment is located primarily within forested area with few obstructions.
Highway 56 Trail Connection	3	The alignment follows Highway 56 ROW. North of Carolina Country Club Road, there appears to be sufficient ROW width for a facility such as a cycle track or sidepath. South of Carolina Country Club Road, there is limited ROW width. At Clayton Road, the alignment turns east and goes off-road, staying mostly within wooded areas. It crosses two utility easements.
Duncan Park – Cottonwood Trail Connection	2	This trail segment has many implementation challenges. It includes two utility easement crossings, a railroad crossing, several major roadway crossings and would require substantial public coordination. The alignment follows along a waterway within and/or adjacent to residential backyards. The Woodburn Road crossing would be at-grade. Highway 176 is a five-lane road and would require an at-grade crossing. The trail alignment merges with Cameron Rd. (available ROW undetermined). To connect to the Mary Black Foundation Rail Trail, the trail will need to cross a railroad, but this could occur at the existing roadway crossing. A section of the alignment merges with Union St., which is five lanes and would be best suited for a buffered bike lane or cycle track through lane reconfiguration. The trail alignment on Woodside Ln. and E. Park Dr. could be created as on-street bikeways with shared lane markings. Extending off of E. Park Dr. and south of Duncan Park Lake, the trail route travels through wooded areas.
Glenn Forest Greenway	2	The current alignment shows 10 to 11 crossings of low-volume neighborhood streets, as well as two more challenging crossings: midblock crossings (meaning not at an existing intersection) of Highway 176 and Highway 295. Tweaking the alignment using a feasible route, such as the parallel utility easement and some sections of bikeways on low-volume neighborhood streets would make the trail opportunity more practical.

Trail Development Opportunities and Challenges

Interstates: Interstates 26 and 85 are significant barriers to on-street bikeway crossings, as well as trail crossings. Spartanburg needs to capitalize on the few areas available to create safe and convenient biking and walking access across the interstates.

Major highways: Multi-lane, high-volume and high speed arterials are significant barriers to at-grade trail, walkway and bikeway crossings. Safely navigating these arterials requires significant infrastructure improvements. Examples are Highway 296 and Highway 29.

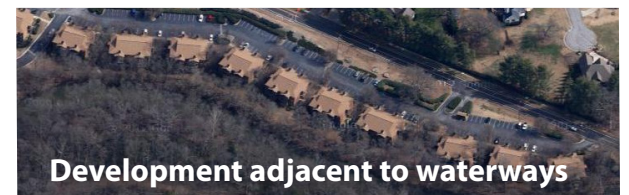
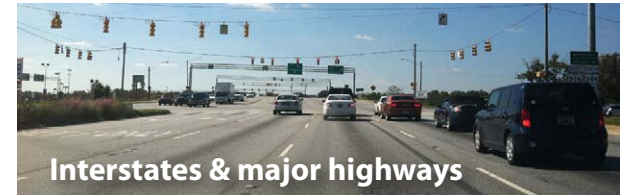
Rail lines: Railroad tracks provide a linear right of way suitable for developing rails-to-trail or rails-with-trail greenways. Spartanburg has few abandoned rail lines, but an abundance of active rail lines that provide key connections. The railroad corridors also present a challenge for trail crossings due to the encroachment permitting process for at-grade crossings and the topography of the railroad right of way where tracks are above or below grade.

Utility easement corridors: Utility easement corridors, such as those afforded by gas lines, power lines and sewer or water lines, provide a linear right of way suitable for developing greenways. Piedmont Natural Gas, Duke Energy and Spartanburg Water are partners in the current discussions for trail planning and development. Utility companies may require adherence to their own unique design guidelines for a trail within their easement corridor, which can present a challenge for trail development.

Waterways/Riparian buffers: Creeks and rivers provide a linear right of way suitable for developing greenways while capitalizing on attractive natural features. Often encompassing a floodplain, the creeks and rivers of Spartanburg offer expansive corridors across the study area and connect many important destinations. The waterways can also present a challenge for trail development if a crossing (a trail bridge) is required.

Development adjacent to waterways: Residential development along creeks and rivers can present challenges for trail access. Such projects require a more robust public outreach process or may become infeasible based on real or perceived impacts to adjacent property owners.

Low-volume roads: Spartanburg has numerous residential areas with low traffic volumes and low traffic speeds. This includes traditional neighborhoods near the city center as well as less dense residential areas throughout the study area. These roads present an opportunity for near-term development of bikeways that create links between trail segments.



Page Intentionally Left Blank



NETWORK RECOMMENDATIONS

4

Chapter Contents:

Overview

Recommended Trail Network

Interstate 26 Crossings

Henry Street at Union Street Crossings

Wayfinding Signage

Many Trails throughout the US are located on Transmission Line Right-of-Ways as they often provide a good, already cleared and graded path for trail construction. More examples of such trails can be found at americantrails.org

Opposite page:

Horsham Power Line Trail - Willow Grove, PA

Image Credit: John Boyle, www.worldisround.com

OVERVIEW

The purpose of this chapter is to provide an overview and descriptions of the proposed trail network. The network was developed through extensive field work, research into related planning efforts, and analysis of digital geographic information. Input from the project stakeholders, the Project Steering Committee, and the public helped to further guide these recommendations. The network recommendations are organized to include: Recommended Trail Network, Interstate 26 Crossing Improvements, and Wayfinding Signage.

RECOMMENDED TRAIL NETWORK

TRAIL TYPES

The proposed network is made up of several different types of trails. The trail types are categorized as follows:

- Multi-use Trail
- Natural Surface Trail
- Neighborhood Greenway

Multi-use Trail: For the purposes of this report, a multi-use trail refers to an eight to twelve-foot wide, paved trail suitable for bicycle, pedestrian, and other active transportation uses. Such trails are also referred to as “shared use paths”, which is the preferred terminology by SCDOT. This category includes scenic trails located in a natural setting, such as along a creek or river, as well as sidepaths located adjacent to a road and within the roadway right-of-way. Rail-with-trail facilities are constructed within the right-of-way of an active rail-line and are also categorized as a multi-use trail. The Wadsworth Trail, Mary Black Foundation Rail Trail, and Mary H Wright Greenway are existing examples of multi-use trails in Spartanburg.



Multi-use Trail

Natural Surface Trail: A natural surface trail refers to an unpaved trail, ranging in character from two foot-wide path to a twelve foot-wide mulched trail. This type of trail can be used in environmentally sensitive areas, in areas where the typical paved cross-section cannot fit, or in areas where frequent use is unexpected or undesirable. A wide natural surface trail can also be used to preserve the natural context of the trail's surroundings. The Cottonwood Trail, USC Upstate Passage of the Palmetto Trail and the Peters Creek Trail are existing examples of natural surface trails in Spartanburg.



The Mary Black Foundation Rail Trail is an example of an existing multi-use path in Spartanburg



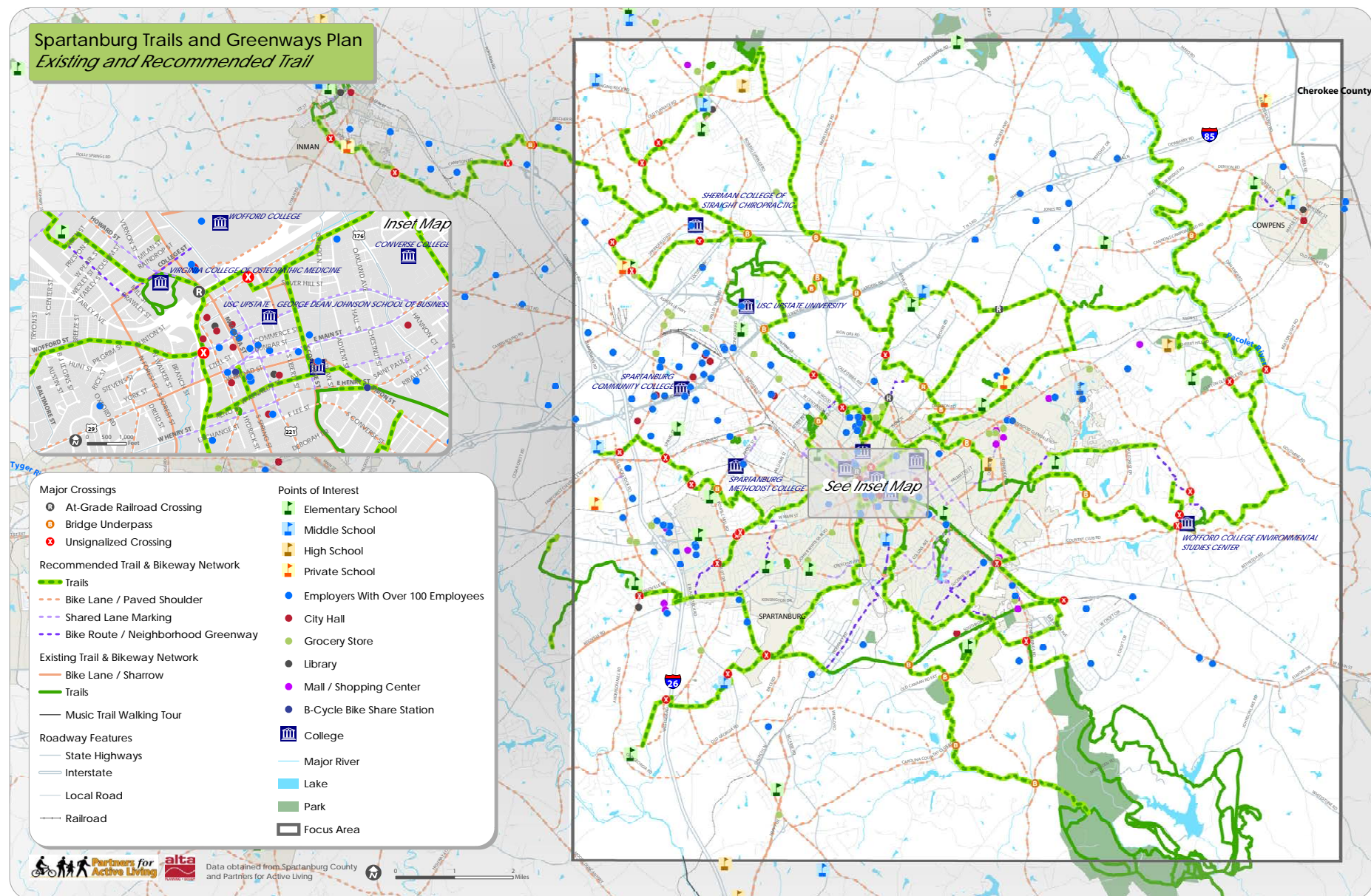
Neighborhood Greenway: Some sidewalks and bicycle-friendly roadways are recommended as trail routes in order to preserve overall network connectivity (where off-road trails are not feasible). Such portions of trail are referred to as street-based trails or on-road routes, providing trail users and local residents with safe routes to connect to and from separate trailheads. On-road routes typically feature sidewalks (with a 5' minimum width), bicycle route signage and traffic calming treatments. Where necessary and feasible, a neighborhood greenway may include shared-lane markings or bike lanes. The sidewalks and bike lanes along Spring Street in the Hampton Heights neighborhood provide one example of a neighborhood greenway.



TRAIL NETWORK MAPS

The recommended trail network for the project study area total 120.4 miles of new multi-use trails and natural surface trails. An additional 13.5 miles of neighborhood greenways are recommended as crucial trail connections. The following maps are included in this section and illustrate the recommended trail network.

- Map 4-1 Proposed Trail Network
- Map 4-2 Proposed Trail Network: Trail Types
- Map 4-3 Proposed Trail Network: Primary Routes and Proposed Trailheads



MAP 4-1 PROPOSED TRAIL NETWORK







INTERSTATE 26 CROSSINGS

Interstate 26 (I-26) presents a significant barrier to bicycle and pedestrian access on the west side of Spartanburg. Trail connectivity on the west side is limited without a safe and practical way to cross I-26. This section provides a summary of possible solutions for improving bicycle and pedestrian access across I-26 and assesses the advantages and disadvantages of each approach. The two intersections examined are WO Ezell Boulevard and Reidville Road.

CURRENT CONDITIONS

Under existing conditions, it is very difficult for bicyclists to cross over or under I-26 by travelling on either Reidville Road or WO Ezell Boulevard. However, any changes to the existing road infrastructure or operation to better accommodate bicyclists may also impact pedestrians crossing I-26 so their access, safety and comfort will be considered in the proposed options also.

Comfort and safety of bicyclists is affected by the number and configuration of lanes, the width of those lanes, the traffic volumes and speed, merging and diverging traffic and driver awareness of their presence. Improving conditions for bicyclists can present challenges due to the complexity of the road operation in situations such as these crossings of I-26. In particular, turning or merging vehicles are a major safety concern: free flow ramps with large turning radii are designed to facilitate high speed merge or diverge actions and make travel very uncomfortable for cyclists.

*Opposite page:
Reidville Road at South Blackstock Road*

REIDVILLE ROAD CROSSING I-26

There are no dedicated improvements for bicyclists traveling on Reidville Road between the S. Blackstock Road and E. Blackstock Road intersections. The challenges for on-road bicyclists along this road segment include:

- Lack of dedicated on-road bicycling space
- Absence of signs, warnings and signals indicating presence of bicyclists
- Very little available paved shoulder widening
- High-speed and high-volume traffic along entire corridor
- Right-turning traffic merging across cycling route at two locations (both sides)
- Free-flow on-ramp traffic entering at one location (both sides)
- Merging/diverging, accelerating/decelerating traffic after on-ramp (both sides)
- Clearing the wide signal-controlled crossing above I-26

However, there are several existing features which could potentially improve bicycle travel through this corridor:

- Continuous concrete sidewalks on both sides
- Signal-controlled on- and off- ramps (in addition to the free flow ramps)
- Marked crossings at the signal-controlled ramps.

Based on the existing conditions and features, the following options are considered for improving bicycle travel along this segment of Reidville Road:

- Option 1: Improve on-road bicycling conditions by installing bike lane and additional safety features (both directions)
- Option 2: Upgrade adjacent sidewalk to sidepath on both sides of road
- Option 3: Convert sidewalk to two-way separated cycle track (one side only)

Figure 4-1 on the following page shows the proposed layout of each of these options along the corridor. Each option considered has various advantages and disadvantages which are listed in **Table 4-1** shown immediately after. Impacts on pedestrian users along the corridor are also included for each of these options. WO

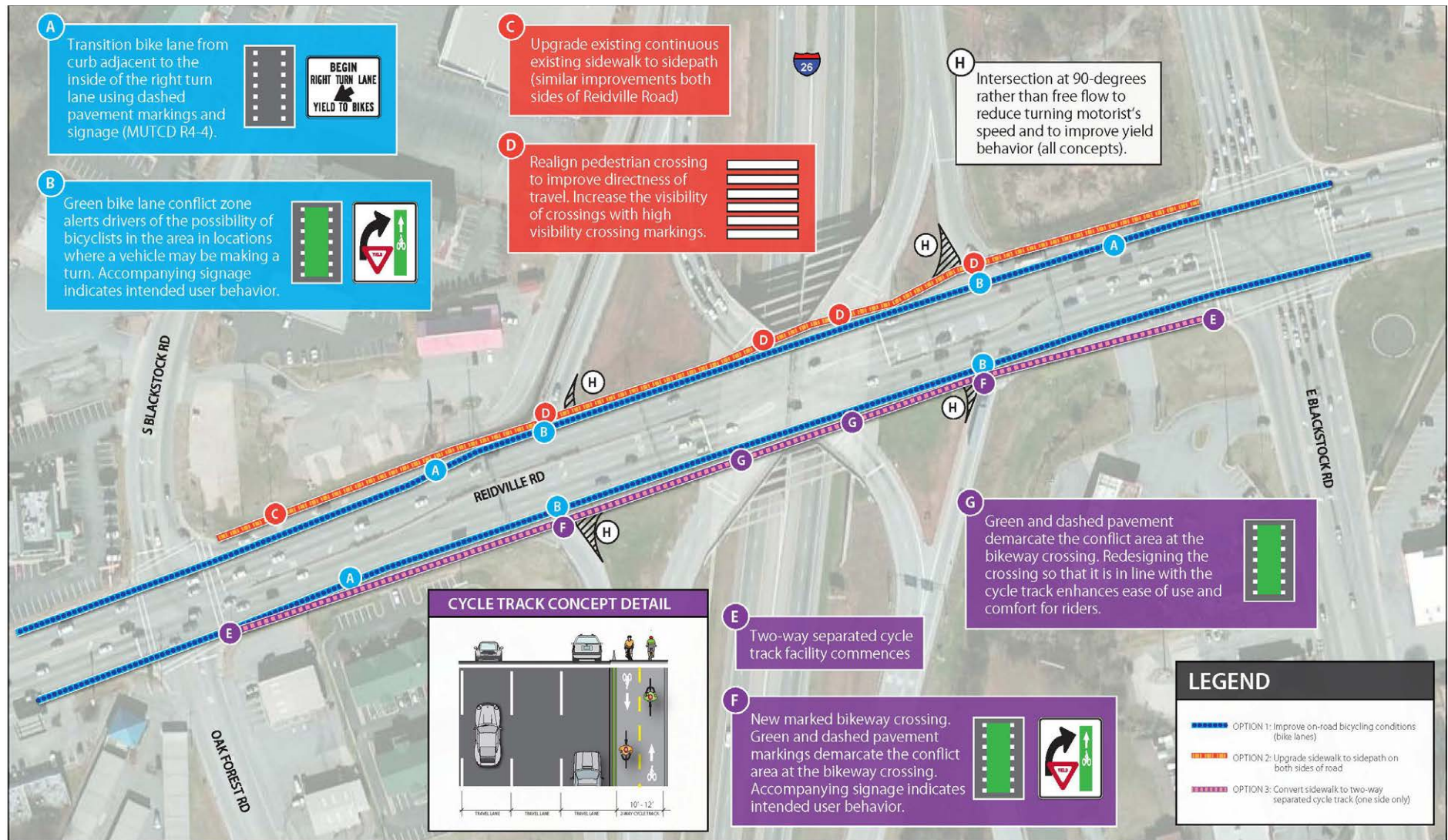


FIGURE 4-1: REDVILLE ROAD BICYCLE IMPROVEMENTS OPTIONS

TABLE 4-1: REIDVILLE ROAD AND I-26 CROSSING IMPROVEMENT OPTIONS

Design Option	Advantages	Disadvantages
Option 1: On-road bike lane with additional safety treatments at crossings and yield points (both directions)	<ul style="list-style-type: none"> Provides dedicated operating space Accommodates confident bicyclists Improves interactions with drivers at merges, diverges and crossings Improves driver awareness of presence of bicyclists Increased driver awareness may provide some benefit to pedestrians along corridor On-road bike lanes will increase the buffer distance from high-speed traffic for pedestrians using this corridor 	<ul style="list-style-type: none"> Most bicyclists uncomfortable travelling adjacent to high speed vehicles without some type of barrier separation or buffer Merging or diverging, free-flowing traffic will continue to be difficult for bicyclists to negotiate due to the speeds and complexity of the operation
Option 2: Adjacent sidepath upgrade with improved ramp crossings (both sides)	<ul style="list-style-type: none"> Creates new dedicated space for bicyclists outside the travel lane Accommodates broader range of bicyclists Improves safety of ramp crossings for bicyclists and pedestrians Improves perceived comfort and safety Improves driver general awareness of presence of bicyclists Increases in driver awareness will likely benefit pedestrians also 	<ul style="list-style-type: none"> Free flow ramp crossings remain difficult for both bicyclists and pedestrians Lack of buffer from adjacent high-speed traffic for both bicyclists and pedestrians Difficult to prevent contra-flow bicycling Bicycling mixed with pedestrian traffic
Option 3: Two-way cycle track with improved ramp crossings (one side only)	<ul style="list-style-type: none"> Easily negotiated design for bicyclists Most significant safety improvement Conflicts with traffic minimized Highest level of perceived comfort and safety Barrier provides high levels of protection from high-speed traffic for both bicyclists and pedestrians With geometric adjustments to uncontrolled on- and off-ramp and adjustment of marked crossings, best opportunities to significantly improve safety and encourage increased cycling levels 	<ul style="list-style-type: none"> Most costly option May require widening of sidewalk in some areas Lengthiest design and construction Pedestrian benefit on one side of corridor only Possible increases to pedestrian crossing distance (exposure) on several existing crossings: may be negated by increased visibility and driver awareness of crossing.



EZELL BOULEVARD CROSSING I-26

There are no dedicated improvements for bicyclists or pedestrians traveling on WO Ezell Boulevard between the Franklin Avenue and W. Blackstock Road/E. Blackstock Road intersections. There are several significant challenges for pedestrians and on-road cyclists along this segment including:

- Lack of sidewalks or dedicated on-road bicycling space
- Very little available paved shoulder widening
- Absence of signs, warnings and signals indicting presence of bicyclists or pedestrians
- High-speed and high-volume traffic along entire corridor
- Right-turning traffic merging across path at three locations (on both sides)
- Free-flow on-ramp traffic entering at two locations (on both sides)
- Merging/diverging, accelerating/decelerating traffic at two ramp locations (on both sides)
- Uninviting crossing beneath I-26 with adjacent guardrails

While there is no existing sidewalk on either side of WO Ezell Boulevard in this corridor, the continuous trail worn into the grass along the edge of road on both sides confirms existing pedestrian use. However, for those travelling along these trails whether by foot or bike, there are four free-flow traffic ramps to be crossed with no marked crossing or other means to alert or slow traffic. In addition, where these trails cross under I-26 behind the guardrails, they appear particularly uninviting.

The following options are considered for improving the safety and comfort of bicycle travel along this segment of WO Ezell Boulevard:

- Option 1: Improve on-road bicycling conditions by installing bike lane and additional safety features (both directions)
- Option 2: Construct I-26 underpass and install connecting two-way trail and on-ramp separated cycle track (subject to existing conditions)

A third option of constructing a paved two-way trail along WO Ezell Boulevard for the length of the corridor was eliminated due to the high number of ramps with free flow traffic that would have to be crossed. Extensive redesign and reconstruction all four ramps would likely be required to improve crossing safety to an acceptable level. However, such an option would have provided a significant benefit to pedestrian users of this corridor.

Figure 4-2 in the following page shows the proposed layout of both of the considered options. Each option has various advantages and disadvantages which are listed in **Table 4-2** shown immediately after. Impacts on pedestrian users along the corridor are also included for each.

SUMMARY

Designing for a safe and comfortable pedestrian and bicycle crossing of I-26 should take into account safety and comfort levels of pedestrians and bicyclists as well ensuring all road users are fully aware of one another's presence. In addition, the design should consider such factors as:

- Speeds and conflict locations
- Dedicated on-road space
- Improving ramp and intersection crossings
- Safety and warning signs
- Buffering and separation from traffic
- Impact on pedestrians access, safety and comfort

It is clear that there are numerous opportunities to improve bicycling safety and comfort levels along both corridors and that a number of those options may provide a significant pedestrian benefit also. In general, it appears that higher levels of improvements can be achieved by separating and buffering cyclists from the speeds and complex traffic movements. In general, the cycle track options, which maximize separation and buffering, are also the most costly and difficult to implement. However, it is likely that a separated and buffered facility would provide a safe and attractive route that could be used by a much broader range of cyclists which also improving conditions for pedestrians along the corridor.

*Opposite page:
Ezell Boulevard at Franklin Avenue*

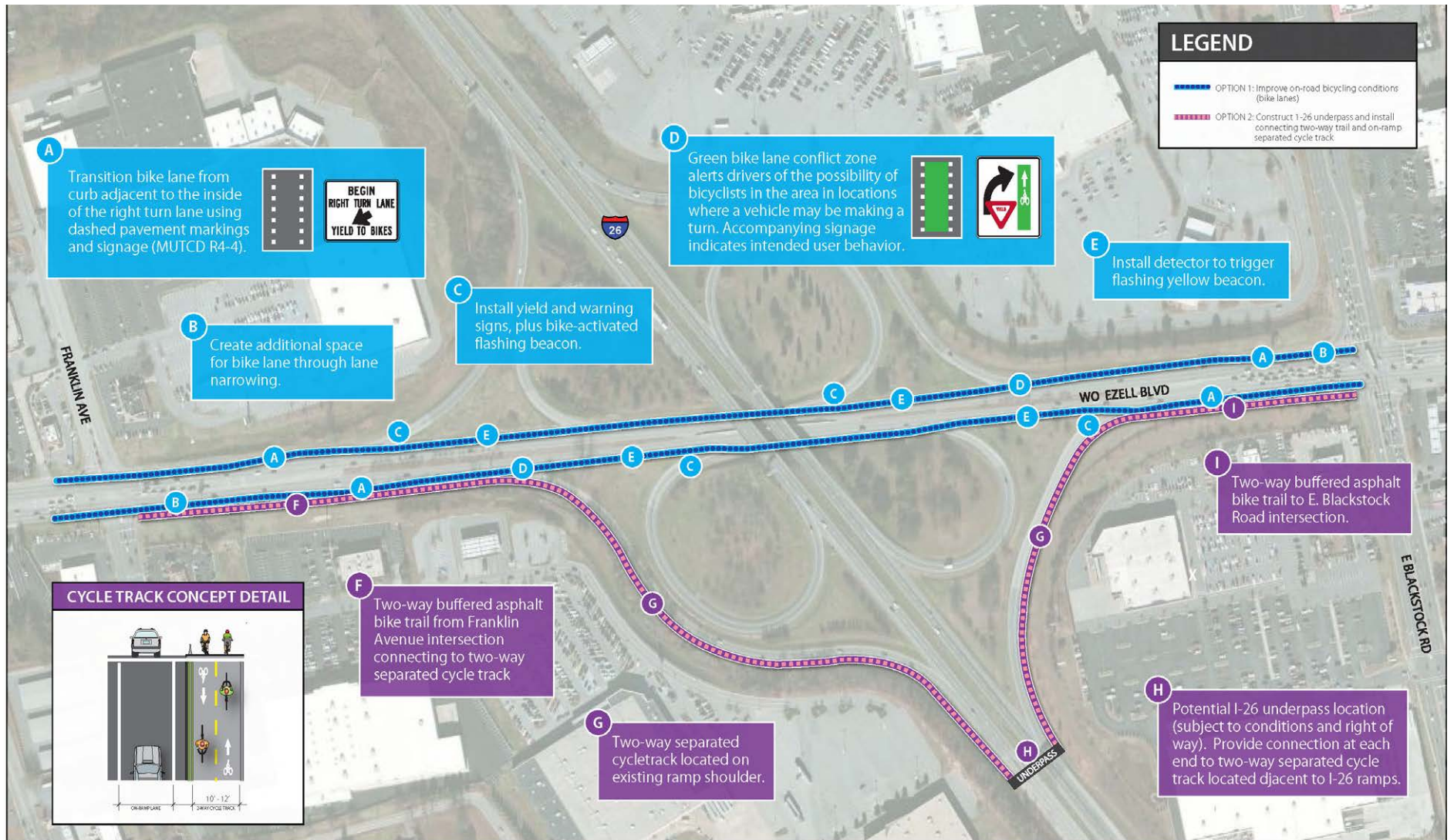


FIGURE 4-2: WO EZELL BOULEVARD AND I-26 CROSSING: BICYCLING IMPROVEMENTS OPTIONS

TABLE 4-2: WO EZELL BOULEVARD AND I-26 CROSSING IMPROVEMENT OPTIONS

Design Option	Advantages	Disadvantages
Option 1: On-road bike lane with additional safety treatments at crossings and yield points (both directions)	<ul style="list-style-type: none"> • Provides dedicated operating space • Accommodates confident bicyclists • Improves interactions with drivers at merges, diverges and crossings • Improves driver awareness of presence of bicyclists • Increased driver awareness may provide some benefit to pedestrians along corridor 	<ul style="list-style-type: none"> • Most bicyclists uncomfortable travelling adjacent to high speed vehicles without some type of separation or buffer • Does not provide much assistance or safety improvement crossing the high speed traffic at the four ramps along the corridor • In locations where there is merging or diverging, free-flowing traffic, it will continue to be difficult for bicyclists to negotiate due to the speeds and complexity of the operation
Option 2: I-26 underpass and connecting trail and on-ramp separated cycle track	<ul style="list-style-type: none"> • Elimination of the need to cross ramps is a significant safety improvement for bicyclists and pedestrians • Complete separation and buffering from traffic improves safety and increases comfort for bicyclists and pedestrians • Provides most significant safety improvement for all users • Design improves perceived comfort for many users • Accommodates broader range of bicyclists • Easily negotiated design for bicyclists • Creates a safe and separated facility for pedestrians where no facility currently exists 	<ul style="list-style-type: none"> • Costly option • Lengthy design and construction • Non-direct route, particularly for pedestrians • Some bicyclists and pedestrians may be uncomfortable using underpass due to security concerns • Drivers may not be expecting to see bicyclists approaching from the opposite direction at Franklin and Blackstock intersection • May not be adequate ROW or appropriate conditions to install underpass

Figures 4-3 through 4-5 provide a more detailed illustration of the existing conditions along the preferred I-26 crossing and the proposed improvements as part of the recommended trail network

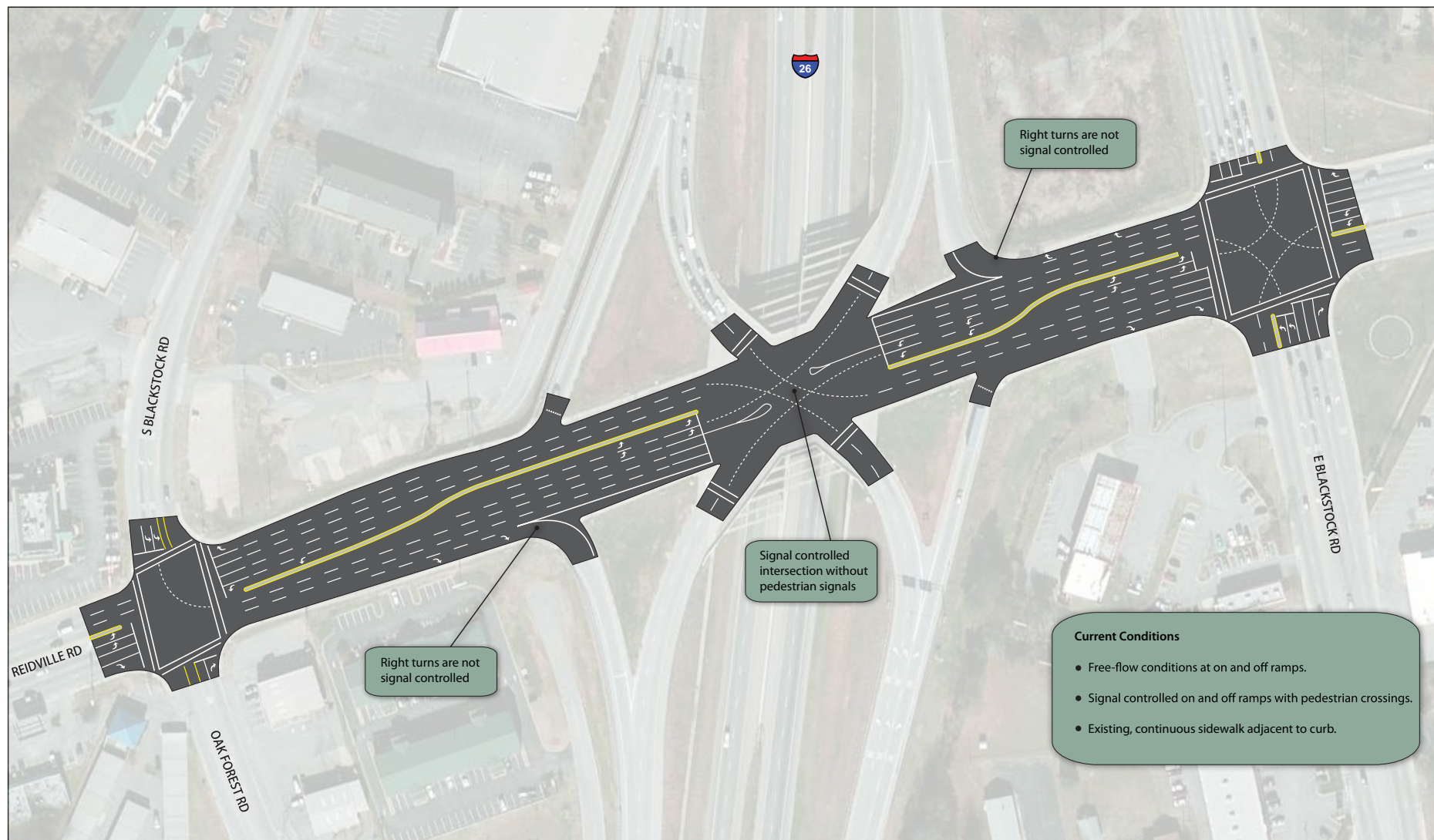


FIGURE 4-3: REIDVILLE ROAD: EXISTING CORRIDOR FACILITIES

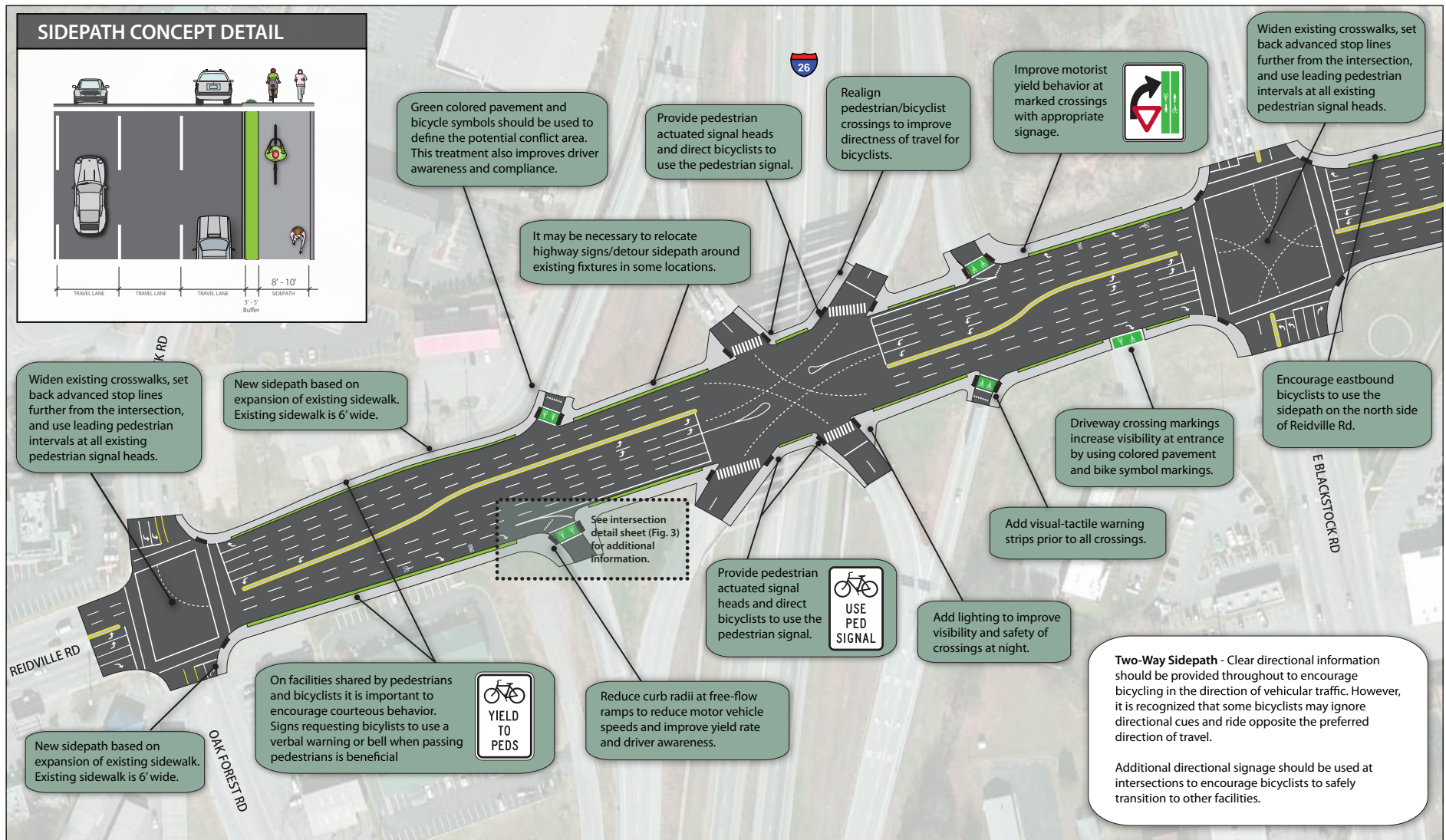


FIGURE 4-4: REIDVILLE ROAD: SIDEPATH CONCEPT



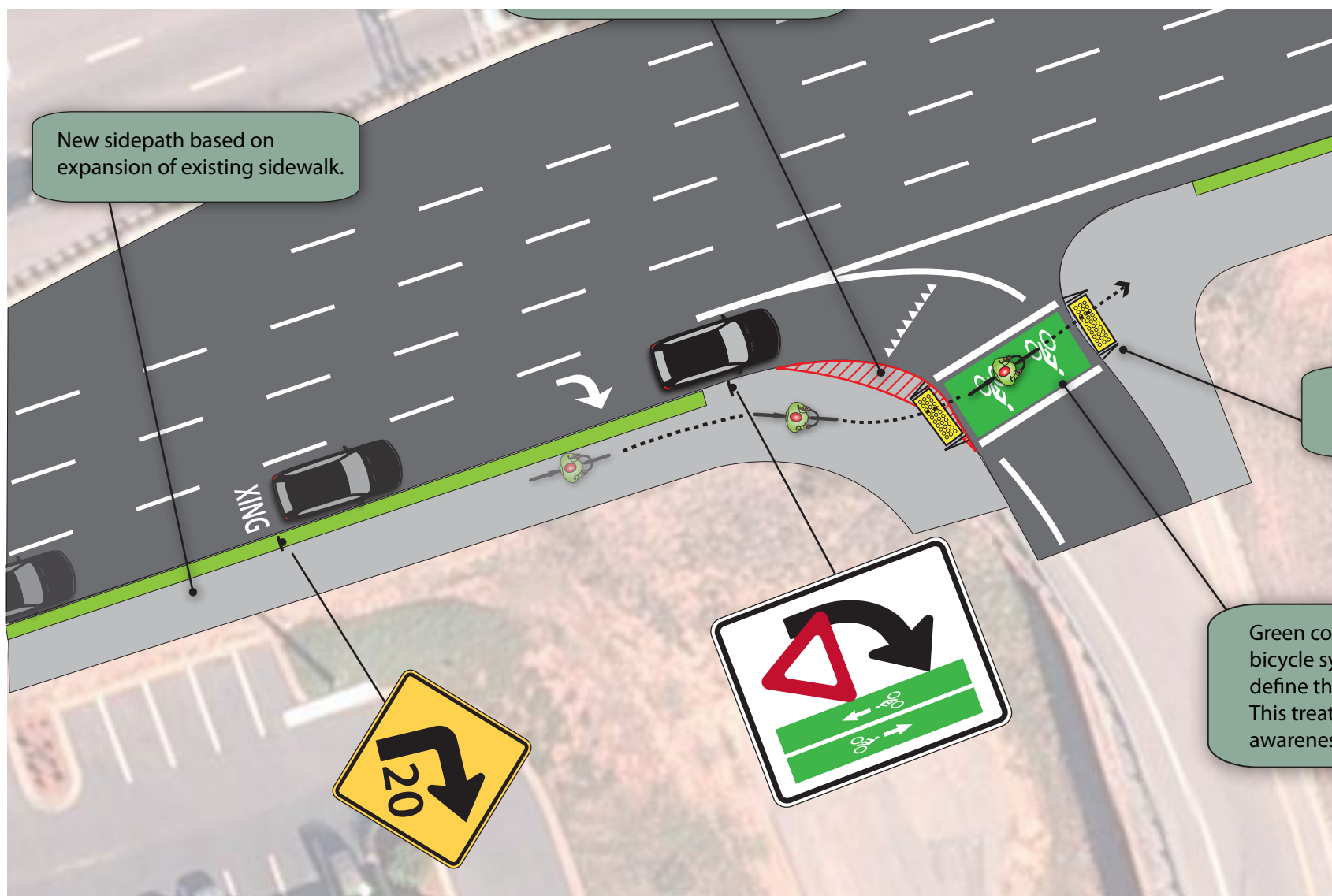


FIGURE 4-5: REIDVILLE ROAD: INTERSECTION CONCEPT DETAIL



HENRY STREET AT UNION STREET CROSSINGS

The wide, multilane nature of Henry Street forms a barrier and multiple threat risk for bicyclists and pedestrians who wish to get from one side to the other. In addition, the Henry and Union Street intersection has a particularly skewed aspect that greatly increases the crossing distances as well as makes it harder for those crossing to see and be seen. High traffic volumes and speeds can inhibit people's feeling of safety and comfort and discourage their use of such facilities as well as increase crash risk in a corridor. Under current conditions, Henry Street facilitates high speeds and is an uncomfortable and risky street for bicyclists and pedestrians to cross from one side to the other.

However, there are a number of tools that can alter this experience, primarily by adding features that provide safe waiting areas, increase overall visibility, improve views for interactions and reduce exposure to moving vehicles. In an effort to assist bicyclists and pedestrians in crossing safely and comfortably from the Mary Black Rail Trail to the opposite side of Henry Street, the following two alternative treatments are proposed:

- Concept 1: Median Refuge Island
- Concept 2: Intersection Refuge with Enhanced Crossing

CONCEPT 1: MEDIAN REFUGE ISLAND ON HENRY STREET

This alternative proposes a new mid-block crossing in Henry Street which includes a new median barrier and a user-actuated flashing beacon. The median location restricts left turns into and out of St. Paul Street. The proposed design has the following features:

- Raised median with refuge area: Provides a safe refuge for those crossing the street.
- Rectangular Rapid Flashing Beacons (RRFBs): Alerts motorists to the presence of those crossing and greatly increases the driver yield rate.
- Median location: Prevents left-turning movements in and out of St. Paul Street.
- High-visibility crosswalk: Warns motorists to expect pedestrians and indicates to pedestrians the preferred crossing location.
- Warning signs: Increase motorist awareness of the presence of crossing bicyclists and pedestrians.
- Overhead lighting: Enhances safety of all roadway users, particularly the bicyclists and pedestrians, while also improving nighttime security.

This design minimizes crossing distances on Henry Street while also allowing those crossing to safely wait and find the necessary safe gap in traffic, first in one direction and then the other. The design also focuses on increasing driver awareness of those crossing while reminding them to yield to bicyclists and pedestrians. The design reduces the potential for conflicts with turning vehicles. The proposed crossing is close and easily visible to trail users, providing a direct and convenient route across Henry Street. Such features are especially important where those crossing include children, families and those who may need extra time. While the crossing is close to a signalized intersection, it is unlikely to cause stacking of vehicles sufficient to interfere with the Union Street intersection. The safety benefits for bicyclists and pedestrians will improve likely motorist safety in this section of the corridor also.

CONCEPT 2: MEDIAN REFUGE WITH ENHANCED CROSSING AT HENRY-UNION STREET INTERSECTION

This alternative proposes installing a new median on Henry Street to create a safer pedestrian crossing at the intersection with Union Street. Additional modifications include curb extensions and the addition of railings on the median to stagger the crossing locations. This alternative has the following design features:

- Split crosswalk and staggered median refuge: Provides a safe haven for viewing traffic and forces those crossing to look at the oncoming traffic when crossing each direction of travel.
- Curb extensions: Increases visibility and reduces speed of turning vehicles while encouraging pedestrians to cross at designated locations. Also shortens the crossing distance and exposure to risk from moving vehicles.

- High visibility crosswalk: Warns motorists to expect pedestrians and indicates to pedestrians the preferred crossing location.
- Leading pedestrian interval: Assigns pedestrians an exclusive 3 to 5 second signal (or longer) to begin crossing the street before vehicles get a green light.
- Overhead lighting: Enhances safety of all roadway users, particularly the bicyclists and pedestrians, while also improving nighttime security.

This combination of design features creates a safe haven for crossing the Henry and Union Street intersection in two stages. The design reduces the overall crossing distance and exposure to risk from vehicles. Vehicles approach from several directions so users will need to play closer attention to all traffic movements even when they have the right-of-way. In addition, this crossing may be less convenient for users and crossing delays may be lengthier with this design.

Figures 4-6 and 4-7 on the following pages illustrate these two concepts

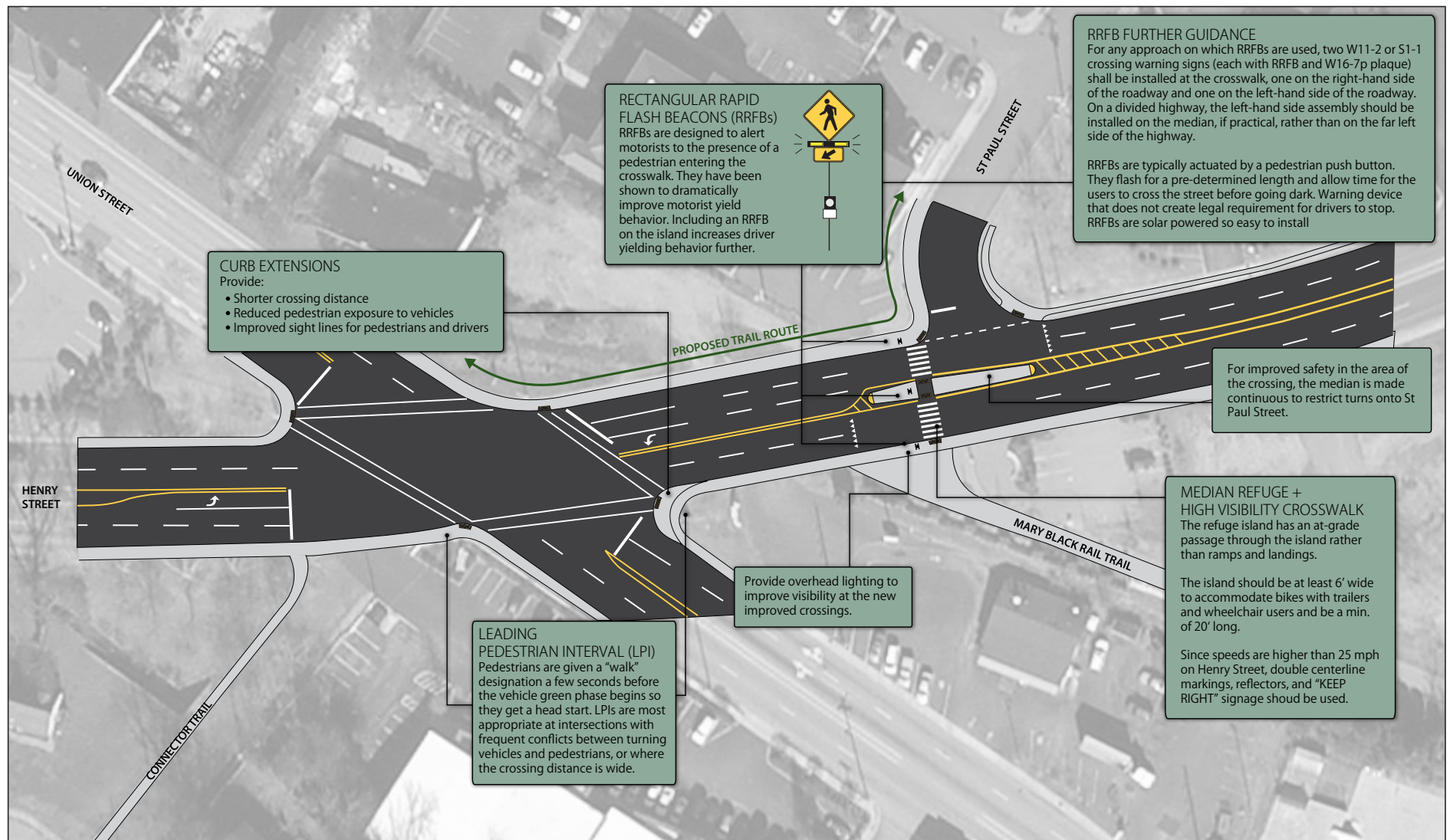


FIGURE 4-6: MARY BLACK RAIL-TRAIL CONNECTOR -CONCEPT 1: MEDIAN ISLAND REFUGE



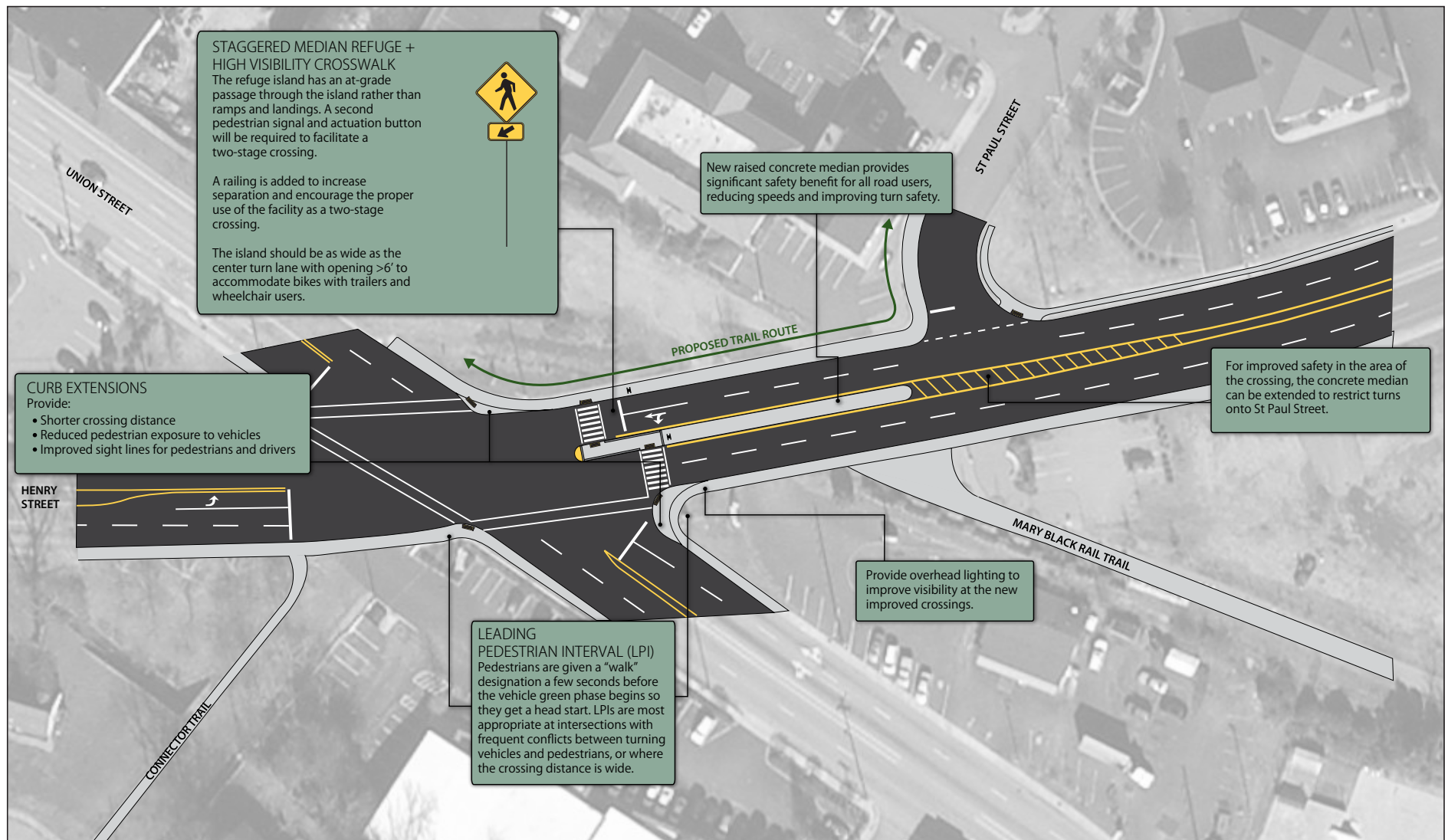


FIGURE 4-7: MARY BLACK RAIL-TRAIL CONNECTOR -CONCEPT 2: INTERSECTION REFUGE WITH ENHANCED CROSSING



WAYFINDING SIGNAGE

The connectivity of a trail network is contingent upon physically linking bicycle and pedestrian infrastructure, as well as communicating to trail users the connections available. Spartanburg is fortunate to have several agencies and nonprofit organizations involved in trail planning and development, which has resulted in multiple trail brands, agency brands and trail signage types along the existing trail network. As existing trails are linked to one another through implementation of the recommended trail network, consistency in trail branding and communication to trail users is paramount.

Wayfinding signs direct trail users along the trail, bikeway and walkway network and to community destinations. These signs can also include “distance to” information, which displays mileage to community destinations, and even estimated travel time and calories burned for both biking and walking. Wayfinding signs also provide an opportunity for recognition of trail partners and sponsors, where applicable.

Spartanburg County Parks Department, Partners for Active Living and the Spartanburg Area Conservancy (SPACE) each recently invested in new signage designs and materials. Examples of the conceptual designs are shown in **Figures 4-8, 4-9, 4-10**. **Figure 4-11** describes recommended new wayfinding signage that complements these existing signage designs.

Design variations are offered to adjust for the differences in urban versus natural trail settings. For example, Figure 5-6 matches the look and color scheme of the urban trail signs adopted for the Mary Black Foundation Rail Trail, but also includes a wooden notched post and natural materials to match the look and feel of the Cottonwood Trail signage. This type of sign could be used to transition trail users from the Mary Black Foundation Rail Trail to the Cottonwood Trail. Additionally, a bike route trail sign is recommended to show continuity of the trail network along recommended neighborhood greenways.

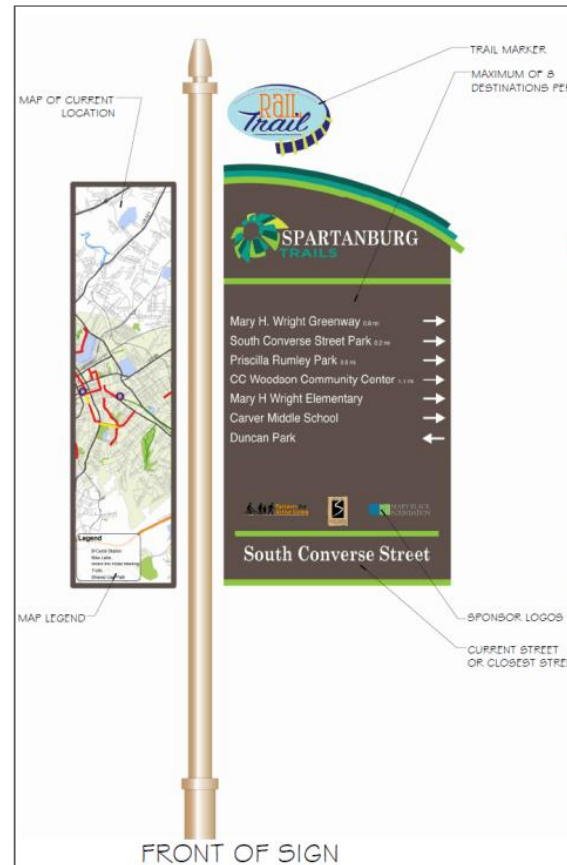


FIGURE 4-8: SPARTANBURG COUNTY PARKS DEPARTMENT SIGNAGE CONCEPT

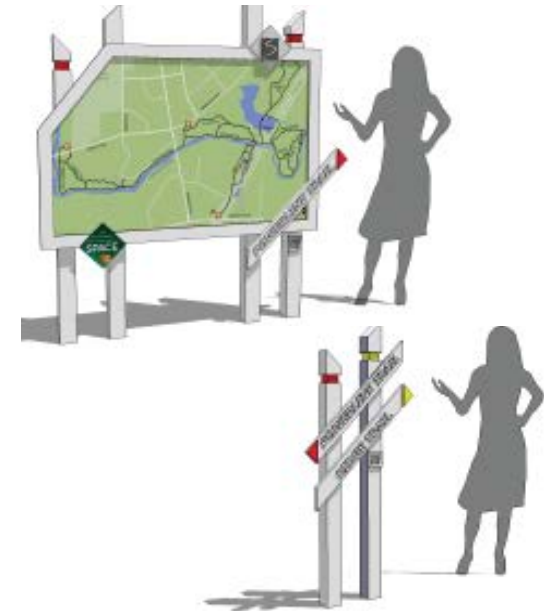


FIGURE 4-9: SPACE COTTONWOOD TRAIL SIGNAGE CONCEPT



FIGURE 4-10: PAL RAIL TRAIL SIGNAGE CONCEPT

FIGURE 4-11: RECOMMENDED NEW WAY FINDING SIGNAGE

Signage Types

6'x6"x6", square cedar wood post,
painted PMS 411 with colored
marker embedded into square post,
painted PMS 368

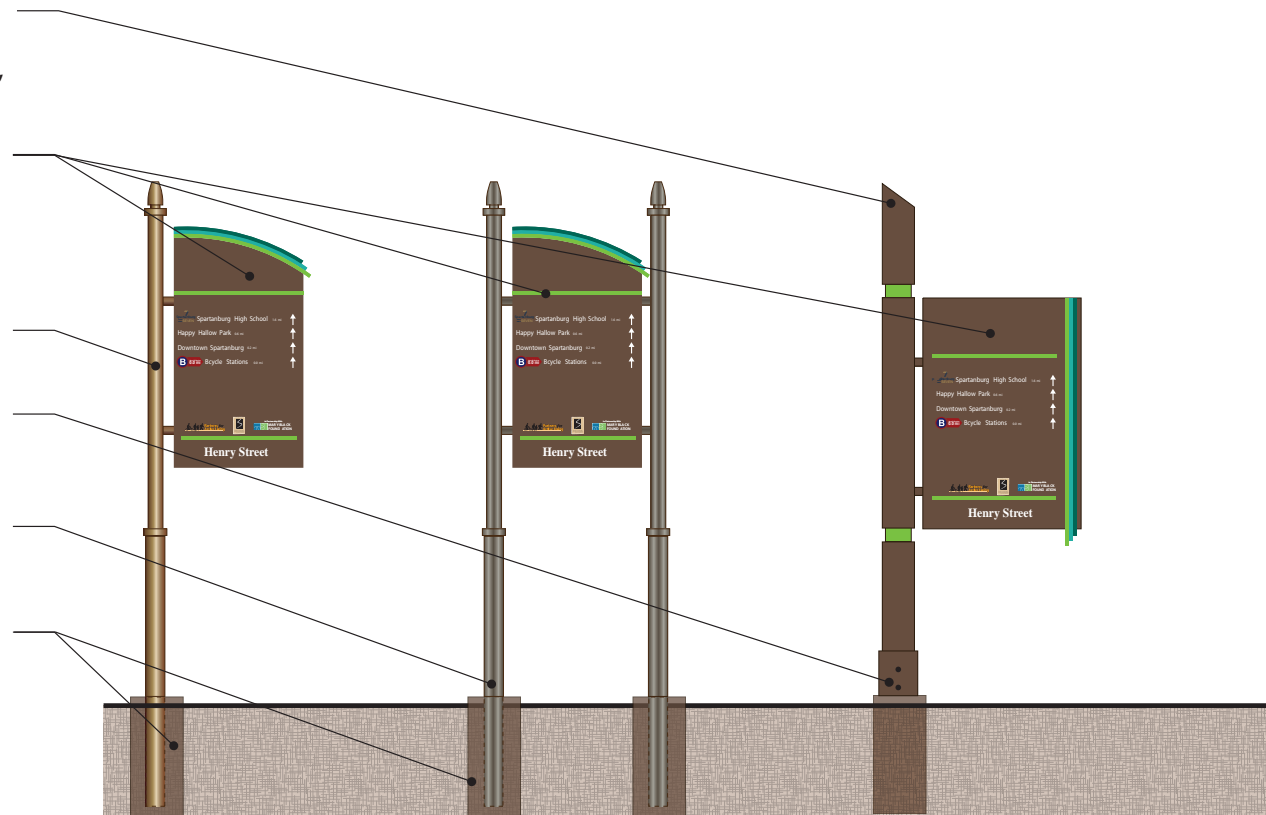
1/8" aluminum panel w/ vinyl
graphics, digitally printed logos &
white vinyl copy (match Garfield
Signs & Graphics sign specifica-
tions)

8' decorative post with horizontal
support bars, antique copper finish

6" square (inside dimension) metal
sleeve to receive 6" square post,
powder coated PMS 411,

(2) 8' decorative posts with horizon-
tal support bars, statuary bronze,
ultracoat finish

Colored concrete footing, PMS 411



Secondary Access & Intersection Signage

This type of sign can be used at secondary access points (i.e., trail access points from neighborhoods & access points that don't require a trailhead). The sign will also direct users to key destinations at major trail intersections. Several material options are proposed for both urban and native landscape settings.

FIGURE 4-11: RECOMMENDED NEW WAY FINDING SIGNAGE (CONTINUED)

1/8" aluminum panel w/ vinyl graphics, digitally printed logos & white vinyl copy (match Garfield Signs & Graphics sign specifications)

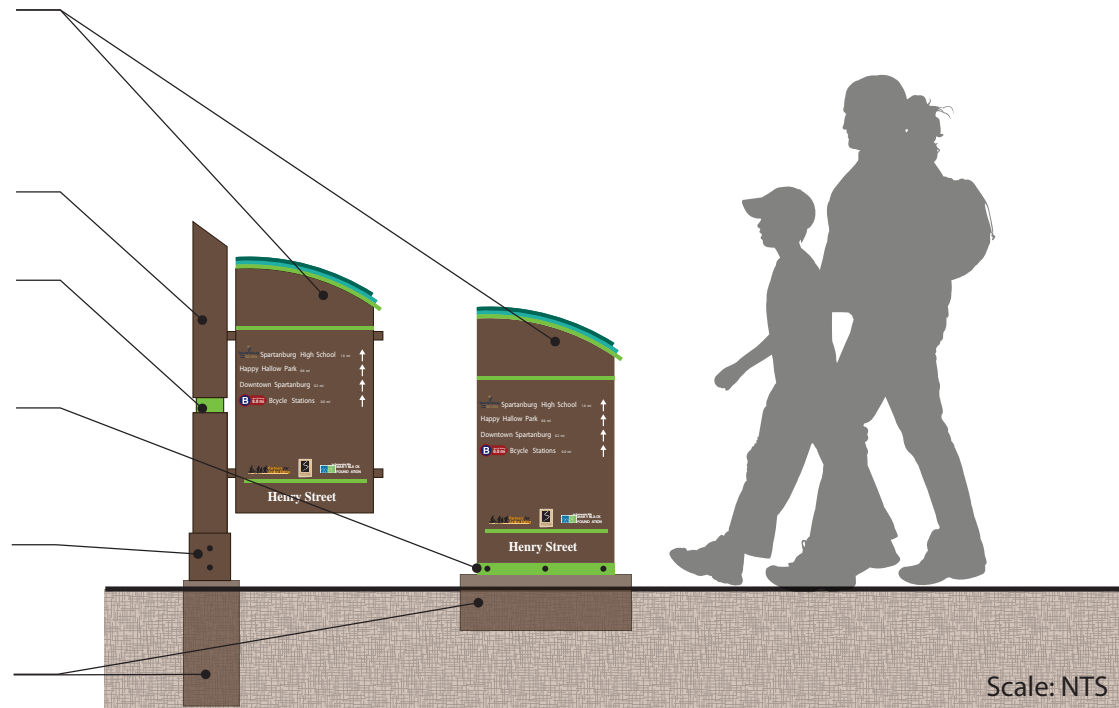
4'x6"x6", square cedar wood post, painted PMS 411

Colored marker embedded into square post

Angle iron connected to 1/8" aluminum panel and colored concrete footer, powder coated to match graphic colors (PMS 411, PMS 7473, PMS 368, PMS 561)

6" square (inside dimension) metal sleeve to receive 6" square post, powder coated PMS 411,

Colored concrete footing, PMS 411



Trail ID & Location Marker

This type of sign notifies the trail user of distance traveled and trail name. The sign can also direct users to key destinations at minor trail intersections.

FIGURE 4-11: RECOMMENDED NEW WAY FINDING SIGNAGE (CONTINUED)



Bike Route Signage

This type of sign directs bicyclists traveling along neighborhood bike routes to primary or secondary trail access points.

little sugar creek
greenway

Imagine
the world
in a
cup

WILSON COUNTY
FILM AND RECREATION



INSTITUTIONAL REVIEW

OVERVIEW

With any planning effort, implementation remains the most difficult piece. The right combination of funding, leadership, staff capacity and construction and design expertise must be in place in order to move a proposed trail facility from concept to reality.

The review of existing planning efforts (*Chapter 3: Needs Assessment*) reveals a strong background of trail and greenway planning and of evidenced growing political support for prioritizing trail development. However, as discussed in *Chapter 3: Needs Assessment*, the existing trail network is limited in reach and remains largely disconnected.

This chapter focuses on the institutional elements of trail implementation for the Plan's study area. It includes relevant examples of successful trail implementation strategies from communities comparable to Spartanburg (whether by regional proximity, population size, trail type, or other characteristics). The review identifies the existing structure of partnerships involved in trail planning and development and assesses existing capacity for trail implementation. The chapter is organized to include the following:

- Trail Implementation Case Studies
- Summary of Public Sector Capacity
- Summary of Stakeholder Interviews
- Key Findings

The following information provides context for trail development in Spartanburg and describes the existing local institutional framework for implementing the recommendations of this Plan. Recommendations related to the institutional framework are included in *Chapter 7: Strategies for Implementation*.



Chapter Contents:

Overview

Trail Implementation Case Studies

Public Sector Capacity

Summary of Stakeholder Interviews

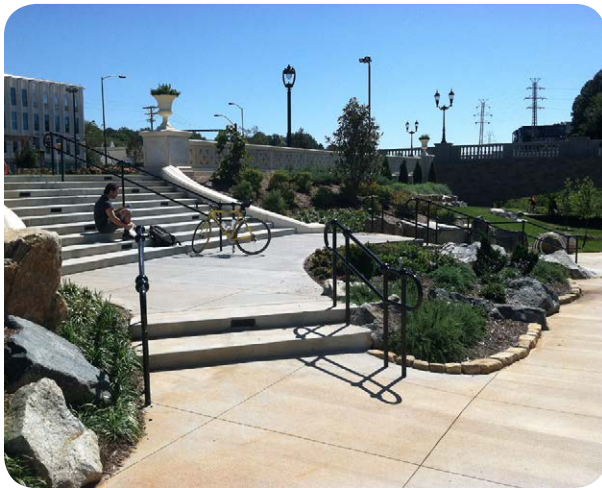
Key Findings

*Opposite page:
Little Sugar Creek Greenway
Charlotte, NC*



Above: Little Sugar Creek Greenway

Below: Little Sugar Creek Greenway



TRAIL IMPLEMENTATION CASE STUDIES

URBAN LITTLE SUGAR CREEK GREENWAY (CHARLOTTE, NC)

The urban section of the Little Sugar Creek Greenway is a paved trail that is 1.29 miles in length and generally follows the Little Sugar Creek alignment. The trail is mostly 10' wide with concrete borders and is primarily "off-street" but does use some sidewalk segments to bridge gaps. A widened trail in one area provides the infrastructure needed for festivals such as ArtWalk.

Trail construction began on the trail in 2008 and was completed in 2012. The trail passes by a new mid-rise, mixed-use development, restaurants, Target, Central Piedmont Community College and connects the Elizabeth, Thompson and Midtown Parks. Mecklenburg County reported the Little Sugar Creek's water quality was the worst in the state a decade ago. The greenway project targeted improving the water quality and associated habitat, along with stimulating recreation and the economic opportunities. As a result, a section of Little Sugar Creek was daylighted during the construction of Midtown Park and redevelopment of a former shopping center site for a mixed use project.

This section is part of the County's central north-south greenway spine, which will eventually connect Charlotte's downtown area, UNCC, Freedom Park and major shopping, employment and residential destinations. The greenway is also part of the Carolina Thread Trail alignment through Mecklenburg County.

Lead Agency: Mecklenburg County (Mecklenburg County Park and Recreation and Charlotte-Mecklenburg Storm Water Services)

Approximate Cost: \$43 million which includes land, design and construction costs.

Funding Sources (see Table 5-1):

- Public funding sources are described in the table below.
- \$500,000 May 20th Society public privately funded/publicly dedicated art valuation
- \$250,000 Robert Haywood Morrison Foundation for a garden
- \$35,000 LandDesign for the Bradley W. Davis memorial
- \$23,000 Rotary Club of Charlotte for clockworks
- Undetermined benefit of in-kind services by partners

Major Partners: Little Sugar Creek Action Committee, Pappas Properties LTD, Partners for Parks, May 20th Society and the Arts and Science Council

TABLE 5-1: LITTLE SUGAR CREEK GREENWAY FUNDING SOURCES SUMMARY

Funding Source and Purpose	1999 Land Bonds (repaid with tax funds)	Storm Water Services fee revenue	NC Clean Water Management Trust Fund grant	NC Division of Water Resources grant	County Park and Recreation (tax funds)	NC Department of Transportation grant	Private Donations	Total
Buy flood-prone land	\$17,295,000							\$17,295,000
Stream restoration		\$1,645,000	\$1,337,000	\$575,000				\$3,557,000
Greenway construction					\$17,588,000	\$4,000,000	\$810,000	\$22,398,000
Total cost								\$43,250,000

Note: 19% of project funding comes from sources other than Mecklenburg County property taxes. Final greenway cost will be determined in several months when construction is complete and all reimbursement grants are received. (Source: Mecklenburg County Park & Recreation)

Below: Town Branch Trail

TOWN BRANCH TRAIL (LEXINGTON, KY)

Phase I and II of 1.9 mile Town Branch Trail is an asphalt multi-use path that begins in a residential sub-division just northwest of downtown Lexington, KY. The trail winds through an agricultural area, over a state highway, then aligns directly adjacent to the CSX Rail Line active rail corridor. Phase I of the trail was a .5 mile segment that opened in October 2005. Phase II was completed in 2009. Several spur trails off the main trail backbone connect to Masterson Station Park and several subdivisions.

Lead Agency: The Town Branch Trail, Inc. (<http://www.townbranch.org>) with support from the Lexington-Fayette Urban County Government (LFUCG).

Approximate Cost: \$1,270,000.00+ for Phase I and II



Funding Sources:

- \$450,000 Federal TEA-21 monies
- \$800,000 appraised land donation from a private developer
- \$20,000 grant for trail promotion and signage from the City of Lexington
- \$10,000 grant for trail promotion and signage from the State of Kentucky
- Unspecified amount to create educational materials to distribute to local schools from the Kentucky River Authority Watershed Grant Program (KRA) in FY 2003-04.
- Unspecified amount to fabricate and install three environmental education signs from KRA in FY 2007-08
- Undetermined benefit of in-kind services by partners, including a six-week planning project done by the University of Kentucky Department of Landscape Architecture; and a design charrette funded by the Kodak American Greenways Program in 1999.

Below: Catawba River Greenway



Major Partners: Originally, the trail was envisioned by Friends of the Parks of Fayette County, Inc. “Friends” did the initial fundraising and involved the University’s Department of Landscape Architecture in 1999. In 2000, the non-profit corporation Town Branch Trail (TBT), Inc. was formed to move the project forward. TBT has written grants, conducted community outreach and education and developed partnerships with local government agencies and other partners. TBT, in collaboration with LFUCG, raised the funds for trail implementation. Developer Dennis Anderson is considered a major partner due to his donation land critical to the trail.

Other Background Information: The design, planning and feasibility study for Phases III and IV was funded by Federal Transportation Enhancement monies (\$208,000) in 2008. The Phase III and IV master plan was drafted in 2010 for another 6.8 miles of trail which will end in the Distillery section in downtown Lexington. When fully completed, the entire trail is intended to be promoted as tourist attraction that connects downtown to “Bluegrass Country”. Much of the 6.8 miles of the planned trail is along the Town Branch Creek that has been covered and is severely polluted. Daylighting sections of the creek is planned: <http://bit.ly/IWov7h>

CATAWBA RIVER GREENWAY (MORGANTON, NC)

The Catawba River Greenway Park is a 3.8 mile long paved trail that runs along the Catawba River and through the historic town of Morganton. The width of the trail varies from eight to ten feet. The trail meanders through wooded areas, open meadows and behind a retail complex that includes a bicycle shop, restaurants and other eateries. The trail connects to a soccer complex at the south terminus and a baseball/softball complex at the north terminus. The Parks and Recreation Department last estimated the monthly user volume at 25,000 per month. The next phase of the greenway is to provide a .8 mile connection between the trail and downtown via the sidewalk system.

Lead Agency: City of Morganton

Approximate Cost: \$4,610,000, including land acquisition (440 acres and 5.5 miles of riverfront property) and trail construction costs

Funding Sources:

- \$90,000 Land and Water Conservation Funds (1989, 40 acres and 1.5 miles of riverfront property)
- \$550,000 North Carolina Clean Water Management Trust Funds (early 1990's, 200 acres and 2.5 miles of riverfront property)
- \$250,000 319 EPA Funding (mid to late 1990's, 100 acres and 1.5 miles of riverfront property)
- \$125,000 Water Resource Grants
- \$650,000 NCDOT Bikeway Grants
- \$10,000 Federal Recreational Trails Program
- \$385,000 NCDOT Enhancement Funding
- \$85,000 NCDOT Discretionary Funds
- \$700,000 NC Parks and Recreation Trust Funds (PARTF)
- \$125,000 US Soccer Federation
- \$250,000 Professional Sports Promoter
- \$140,000 Local clubs and organizations
- \$50,000 Local sidewalk fees
- \$1,200,000 locally matched funding
- Undetermined benefit: Private property donations

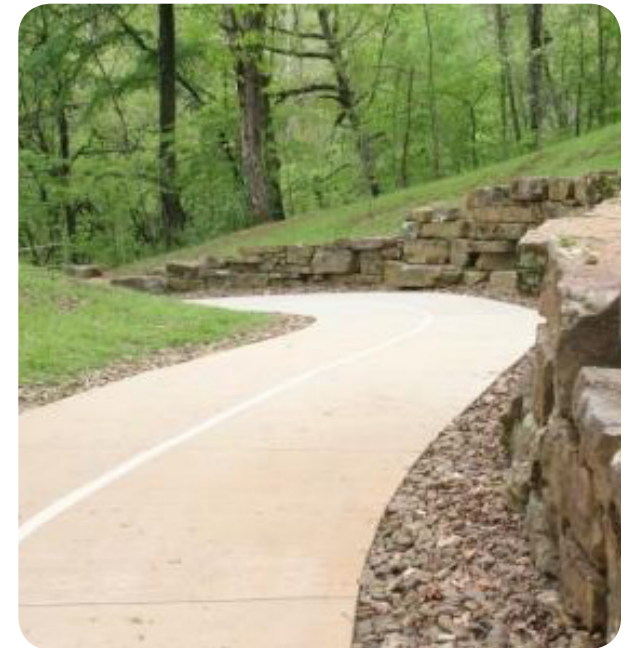
Major Partners: The City really took this on alone. They waged an aggressive grant writing campaign starting in 1988 and provided service equipment to volunteers to do the preliminary clearing, grubbing and grading work.

Lessons Learned: The City estimates trail user volumes on parking lot and restroom usage, not trail user counts. Conducting trail user counts and quantifying the economic benefits could help justify funding for expanding the trail and other bicycle and pedestrian facilities.

Trail width variation is due to underestimating the potential trail user volumes at the onset. The first .25 mile of trail section is eight feet wide; the next .5 mile is nine feet wide; with the remaining sections ten feet in width. The city's Planning Director indicated that the future trail widths will be at least 12 feet.

Other Background Information: Much of the acquired land was held by Duke Energy and is located within the flood plain. The lack of development potential on the land contributed to Duke Energy's willingness to work with the city.

Below: Northwest Arkansas Razorback Greenway





Above: Northwest Arkansas Razorback Greenway

NORTHWEST ARKANSAS RAZORBACK GREENWAY(AR)

The Northwest Arkansas Razorback Greenway is a proposed 36-mile paved trail that will link Bentonville, Rogers, Lowell, Springdale, Johnson and Fayetteville Arkansas. Trail connections include Tyson Foods corporate headquarters, Hunt Transport Services, Wal-Mart, six downtown centers, the University of Arkansas, three major hospitals, 23 schools, shopping areas, historic sites and parks. Planned trail widths are between 10 and 12 feet. Primarily, the trail will be concrete and single track with a potential to braid the trail where space allows.

Lead Agency: Northwest Arkansas Regional Planning Commission (NWARPC)

Approximate Cost: \$66.8 million dollars

Funding:

- \$27 million from the municipalities and private funding partners for the 14.2 miles of existing trails
- \$24.8 million TIGER II funding for 22 miles of planned facilities
- \$15 million from the Walton Foundation to match the TIGER II funds

Major Partners: Northwest Arkansas Regional Planning Commission (NWARPC), the Walton Family Foundation and all

six municipalities

Other Background Information:

- Bentonville, Arkansas
 - ♦ Population 32,365
 - ♦ 20 miles of existing trails
- Rogers, Arkansas
 - ♦ Population 53,524
 - ♦ 13 miles of existing trails
- Lowell, Arkansas
 - ♦ Population 7,134
 - ♦ 0 miles of existing trails
- Springdale, Arkansas
 - ♦ Population 66,491
- ♦ 0 miles of existing trails outside of a park
- ♦ Proposed greenway is central to the City's revitalization and economic downtown development plan, including an outdoor market, a pedestrian mall, a trailhead and daylighting a creek
- Johnson, Arkansas
 - ♦ Population 3,558
 - ♦ 0 miles of existing trails
- Fayetteville
 - ♦ Population 74,631
 - ♦ 17 miles of existing trails

SUMMARY OF SPARTANBURG AREA PUBLIC SECTOR POLICY AND INSTITUTIONAL CAPACITY

STAFFING

The study area includes the jurisdictions of Spartanburg County, SPATS, the City of Spartanburg and the Town of Cowpens. Currently, Spartanburg County provides the only staff position dedicated to trail programming, development and management. Spartanburg County Parks & Recreation employs a Project Manager within the Facilities Division focusing on trail coordination. The management of trails is aided by a capable staff of facility maintenance personnel.

SPATS employs an intermodal transportation planner dedicated to planning for bicycle, pedestrian and transit modes. This staff position serves as an important link between multiple jurisdictions and a key player in identifying funding streams for active modes. While SPATS serves as a leader in planning for trails, as well as on-street bicycle and pedestrian facilities, the agency does not have a direct role in trail implementation or management.

Currently, the City of Spartanburg's Community Services division, which includes Parks and Recreation and the Public Works division, which includes Streets and Stormwater and Traffic Engineering, serve as the primary points of contact for bicycle and pedestrian projects. The City of Spartanburg does not staff a bicycle and pedestrian program manager or trails program manager. While in many jurisdictions around the country oversight of bicycle, pedestrian and trails programs may fall within the purview of other full time staff positions, the City currently does not employ staff in related capacities, such as a parks and recreation director, planning director, or transportation planner. The Town of Cowpens also does not employ these positions.

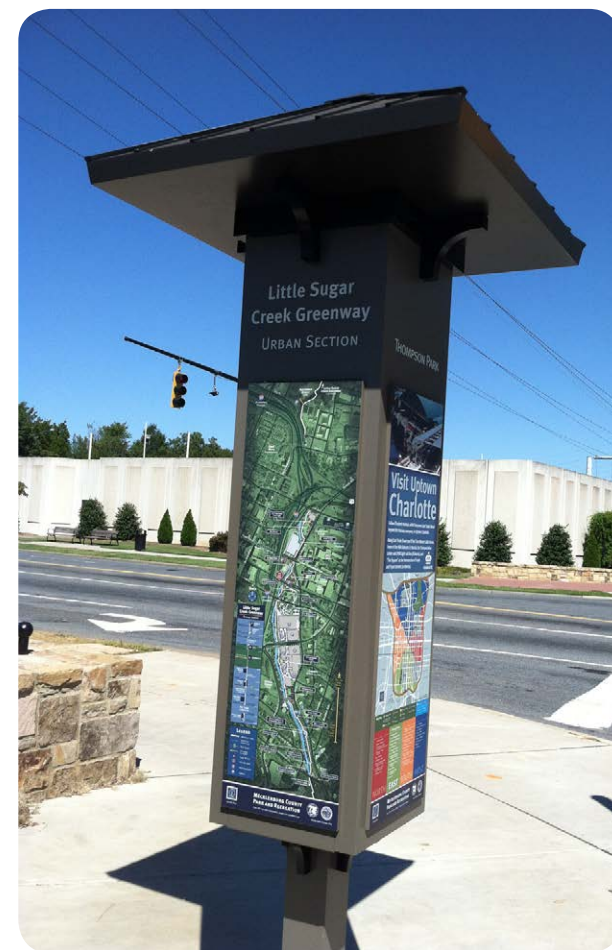
POLICY

In 2003, SCDOT became one of the first states in the country to adopt a Complete Streets policy (supported by engineering directive memorandum 22, or EDM 22). Additionally, the state's 2008 passage of the Bicycle Traffic Law reform bill (H3006) provided legal measures that improved the bicycling environment for the state.

In 2006, Spartanburg's City Council passed a Complete Streets Resolution officially establishing the city's support for accommodating active transportation. Though the City has not adopted a Complete Streets ordinance, it has remained an active partner in developing on-street bicycle and pedestrian facilities (the Broad Street bicycle lane and West Main Street sidewalk expansion and bicycle lane are two recent examples).

Spartanburg County Council passed a Complete Streets Resolution in 2007 officially establishing the county's support for considering bicycle and pedestrian facilities as a routine part of roadway design and construction.

Below: Map Kiosk - Little Sugar Creek Greenway





FUNDING

Following the passage of the federal transportation bill *Moving Ahead for Progress in the 21st Century*, or *MAP-21*, SCDOT notified the state's metropolitan planning organizations that all will receive a 7 percent reduction in funding allocation for the next two fiscal years and that 20 percent of allocated funds must be used for maintenance projects (such as resurfacing) on SCDOT roads within the jurisdiction. For SPATS, the new funding allocations amount to a potential 40 percent budget reduction when combined with existing debt service. Other changes to funding opportunities based on the passage of MAP-21 are described in *Appendix C: Potential Funding Sources*.

In 2007, Spartanburg County created a line item in its Capital Improvement Plan (CIP) for development of sidewalks and active transportation facilities of roughly \$150,000 to \$300,000 per fiscal year. The adopted FY2013-FY2017 CIP includes no funding for sidewalks or other active transportation facilities. Spartanburg County provides funding for bicycle, pedestrian and trails infrastructure primarily through a \$100,000 per year allotment to the Parks & Recreation division for construction of bicycle and pedestrian infrastructure (in accordance with the recently adopted *Parks Enhancement Plan*). Other potential sources of funding through the County include:

- The County Transportation Committee (CTC) "C-funds" which are derived from state gas tax revenues and are disbursed by voting committee members with 50 percent for general County/City road projects, 25 percent for state road projects, 5 percent for economic development projects, 10 percent for sidewalks, traffic lights, intersection improvements, etc, and 10 percent set aside for projects of the County delegation and approved by the full CTC.
- The County Road Maintenance Fee (also administered by the CTC), which can be used for repaving or restriping roads, adding bike lanes, improving intersections, adding speed humps or other traffic calmers, among other things, and of which a portion is allotted annually to each of the fourteen municipalities.

The City of Spartanburg does not have a line item for annual funding of bicycle and pedestrian infrastructure within its CIP, but, as mentioned, has been an active partner in identifying resurfacing or road reconstruction projects that can include such facilities. Additionally, the City has contracted annually with Partners for Active Living to coordinate bicycle and pedestrian infrastructure development and staff the City's bicycle and pedestrian advisory committee (this contract amounts to a \$1,000/month).

SUMMARY OF STAKEHOLDER INTERVIEWS

A summary of comments from 18 interviewees representing 15 different entities is provided below. The interviews focused on stakeholder perceptions of who currently plans, develops, funds and manages the Spartanburg trails system and what key agencies or organizations can and should be involved in trail development, funding and management. The interviews also asked what role the interviewee's own agency/organization currently has, or could have in the future, for trail development, funding and management.

The 15 entities that participated in interviews included:

- Clifton Improvement Council
- City of Spartanburg Administration
- City of Spartanburg Community Services
- Mary Black Foundation
- Northside Development Corporation
- Pacolet Milliken
- Partners for Active Living
- Palmetto Conservation Foundation
- Safe Routes to School Resource Center
- Spartanburg Area Conservancy (SPACE)
- Spartanburg Area Transportation Study
- Spartanburg City Council
- Spartanburg County Council
- Spartanburg County Parks & Recreation
- Spartanburg Water

Below: Wadsworth Trail Volunteer Maintenance Day - Source: PAL





PARTNERSHIPS

All stakeholders recognize the important role that other partners play in trail development. Spartanburg has a strong infrastructure of organizations advancing trail development, though the efforts are, at times, viewed as disconnected from one another and piecemeal. Collaboration among partners has improved within the last two years. Overall, stakeholders believe that all of the necessary “players” are at the table and that each of those parties considers trails to be a priority.

LEADERSHIP

A clear majority of stakeholders believe that leadership among the partners is needed in order to move forward with a cohesive plan for trail development. Spartanburg benefits from a strong base of partners with specific strengths and skills attributed to each group. In particular, stakeholders noted Partners for Active Living’s strength as a convener of key players and a respected for advocacy, and Spartanburg County Parks & Recreation’s capacity for overseeing trail construction and for trail management and maintenance.

Some stakeholders also suggested a need for a community “champion” focused on trails (whether an individual or an advisory committee) at the politicking level of community engagement. The champion would be a spokesperson for trail development, particularly to elected officials and decision makers, and also have some ability to raise funds among local patrons and corporations.

TRAIL DEVELOPMENT AND MANAGEMENT

Spartanburg County Parks & Recreation and Palmetto Conservation Foundation have experience in successfully developing and managing trails. Spartanburg County Parks & Recreation is seen as a leader in implementing trails and a strong partner in terms of collaborating with other entities (such as nonprofits, municipalities and the School District) to make trail development possible. The department also has the staff and equipment needed for maintenance of existing facilities and the potential to accept new trail facilities (though this would include some additional operating costs).

The Palmetto Conservation Foundation brings statewide recognition of its trail network and experience with specialized trail development, such as rails to trail conversions, easement negotiations and multi-jurisdictional coordination. The organization also manages trails for multiple user groups and maintains its existing statewide trail network.

PRIORITIES

Every stakeholder is clear in their support for trail development across the study area, wherever the best opportunities exist. However, when asked about specific priority trail connections, expansion of the rail trail was noted by almost every stakeholder. Connections to Croft State Natural Area and to Glendale were also commonly cited. Other priorities generally centered on areas of existing investment for each stakeholder.

For the Mary Black Foundation, this would include the Northside community and the Mary Black Foundation Rail Trail. The City is also heavily invested in the Northside project, as are many other stakeholders in the trails planning process,

and in the recently completed CC Woodson Center. City Council members noted the need to provide connections for residents within their districts, as well as the broader goals of network connectivity and extending the rail trail. County representatives prioritize trail connections to their park facilities and to the Wadsworth Trail network. As a landholder, Pacolet Milliken noted opportunities for near-term trail development in the Drayton community and near USC Upstate. The Palmetto Conservation Foundation prioritizes development of the Palmetto Trail and connections to that route. SPACE, along with many other stakeholders, considers a trail connection to Glendale and extensions of the Cottonwood Trail in general, to be a high priority.

FUNDING

Funding is identified as the single largest obstacle to trail development. Stakeholders identified the following as current funders of trail development:

- SPATS (largely through Transportation Enhancement funds)
- City of Spartanburg
- Spartanburg County Parks & Recreation
- Mary Black Foundation
- South Carolina Parks Recreation and Trails (through the Recreational Trails Program)

Spartanburg's Wadsworth Trail and Mary Black Foundation Rail Trail, both constructed in 2006, received funds from individual major donors, family foundations and individual small donations. Palmetto Conservation Foundation secured a federal earmark for trail development in Spartanburg at that time, as well.

There has been very little private sector investment in trail development (outside of private foundations). Stakeholders suggested that corporate and business partners have not been approached with a request for trail funding (rather than this being the result of rejection of requests). Stakeholders identified the following potential funding partners:

- Entities with a health interest, such as the hospitals or the JM Smith Corporation (which has adopted progressive internal policies for healthy and active employees)
- Unlikely private sector partners, who may not receive many requests for community funds, such as those in the manufacturing industry with limited brand recognition
- Landholders, especially in cases of trail development on or adjacent to or connecting to their lands, such as Johnson Development or Pacolet Milliken
- State or regional funders, such as Blue Cross Blue Shield of SC or the Walmart Foundation
- Colleges and other institutions
- Further leveraging existing public funding sources, such as C-funds, Road Maintenance Fee, Hospitality Tax funds (County or in local municipalities)

Below: Mary Black Foundation Trail. Source: City of Spartanburg





KEY FINDINGS

The institutional review provides useful examples of trail development strategies and reveals a number of key opportunities and challenges for trail development in Spartanburg County. The trail implementation case studies show the benefits of seeking a variety of funding streams for each trail project, the potential for using environmentally focused funds for trail development. The Northwest Arkansas Razorback Greenway underscores the importance of securing matching funds for leveraging public sector grants. The value of leveraging land donations is also clear, particularly in the cases of the Urban Little Sugar Creek Greenway and the Town Branch Trail, in which a developer and landholder was a major partner in trail planning, design and construction. The studies also highlight the potential to use trails as a local economic development tool and to integrate commercial development with trail development.

The Town Branch Trail provides a useful example of the role that a nonprofit organization may play in fundraising, marketing, coordination and other essential functions of trail development. The Catawba River Greenway and Urban Little Sugar Creek Greenway characterize the leadership role of local government in trail development, and the Northwest Arkansas Razorback Greenway reflects inter-jurisdictional cooperation. All examples rely on partnerships between multiple levels of government, the private sector and community groups.

The key findings of the public sector capacity review and the stakeholder interviews are:

- It is clear that new and innovative funding sources are needed for trail development and existing funding sources must be leveraged further. Stakeholders identified several “untapped” potential sources of funding, including new private sector partnerships and sponsorships. Finding instances in which trail priorities overlap with existing community funding priorities (such as the Northside redevelopment) can broaden the range of potential funding sources and leverage existing investments. Stakeholders also identified this Plan as an important tool for securing future funds.
- Spartanburg County’s stakeholders in trail development already have strong partnerships and working relationships. Though the groups are all “on the same page” regarding the future direction of trail development, clear leadership is needed to successfully move the community in that direction.
- In terms of staffing, the public sector currently has significant capacity for trail maintenance, but limited capacity for leading trail development. The area benefits from strong community organizations and the role of these groups in trail development is currently filling a gap left by the shortfall of local government staffing and funding capacity.

Page Intentionally Left Blank



Welcome to Rail Tail Dog Park

Dog Park Rules

As a condition of use, dog owners/handlers agree to abide by the following regulations:

- Aggressive dogs are not welcome. Dogs displaying any aggressive behavior are to be removed immediately.
- Dogs in heat and puppies under four months of age are prohibited.
- Never leave any dog unattended. Your dog must be under strict voice control.
- Owners must dispose of waste in appropriate on-site containers. Failure to do so may result in dog park privileges being revoked.
- All dogs shall display current vaccination & City license tags.
- Dogs with communicable diseases including internal or external parasites (fleas, ticks, worms) are not permitted in the park.
- Maximum of 2 dogs per handler.
- Fill any holes your dog digs.
- No animals other than dogs are allowed in park.
- Dogs shall be on a leash when outside the park.
- Professional dog trainers are not permitted to use the park to conduct business.
- While small, bit sized training treats are permitted. No other food for humans, or dogs including long lasting chews or glass containers, allowed inside the park.
- Small children are not allowed in the park. A running, playing child can trigger a dog's natural instinct to chase. It is strongly recommended that children under 12 are not permitted in the park unless CLOSELY supervised by an adult.
- Park users and dog owners assume all risks of using the park.
- South Carolina State Law requires all dog bites to be reported immediately to the City of Spartanburg's Animal Services at 864-582-1558. In addition, owners are required to assist in the investigation into incidences of aggression or biting by providing appropriate identification and information to enforcement authorities.
- Hours: Sunrise to sunset.

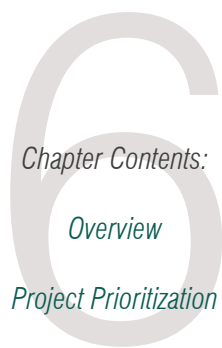
Entering and exiting the park

To Enter:

1. Before you open the outer gate, be sure the inner gate is closed.
2. Open the outer gate and enter the transition area with your dog(s).
3. Close the outer gate behind you.
4. Remove your dog's leash.
5. As you open the inner gate, be careful to not allow other dogs to enter the transition area.
6. Enter the park with your dog and close the inner gate behind you and move your dog away from the entrance.

To Exit the park follow the procedure for entry in reverse order.

COST ESTIMATES & PROJECT PRIORITIZATION



Chapter Contents:

Overview

Project Prioritization

Cost Estimates

Project Cut Sheets

OVERVIEW

The first step towards implementing a trails and greenways network is identifying near-term projects and understanding associated costs. This chapter identifies 13 priority trail segments for development and provides a cut-sheet, or summary page, for each priority segment. Unit-level cost estimates for multi-use trails, natural surface trails, neighborhood greenways with sidewalks and neighborhood greenways without sidewalks are provided as a reference tool. Project-specific cost estimates for nine ‘first tier’ priority projects are included within the project cut sheets.

PROJECT PRIORITIZATION

This section identifies the high priority projects recommended in the Plan. These first- and second-tier priority projects are listed in the table below and described in the project cut sheets at the end of this chapter. Criteria used to determine the priority projects are:

- Near-term feasibility
 - Design feasibility
 - Large tract property owners
 - Community support (as evidenced through the public involvement process of this Plan)
- Connections to existing trail facilities
- Proximity to key destinations

Based on research, analysis and public input in the preparation of this plan, the entire trail network proposed within this Plan has evidenced merit. All remaining proposed projects not listed below play an important role in completing the vision of the trails and greenway network and should be considered mid- to long-term projects.

*Opposite page:
Add image name*

COST ESTIMATES

This section provides general planning-level cost opinions for the facility types recommended in this Plan. Project-specific planning-level cost estimates for each of the nine first-tier priority projects are also included. The following is a summary of the fully burdened costs of multi-use trails, natural surface trails and neighborhood greenways both with and without the added cost of sidewalk construction. The multi-use trail estimates assume a 10 foot wide asphalt path. The natural surface trail estimates assume a coal ash surface, a material commonly used by the Spartanburg County Parks Department. All costs are total installed costs that include: planning and engineering, environmental and contingency.

TABLE 6-1: MULTI-USE TRAIL COST ESTIMATES PER MILE (10 FT. WIDTH ASPHALT)

Item Description	Unit	Qty	Unit Cost	Total	Notes
Clearing and Grubbing	SF	73,920	\$0.20	\$14,784.00	10' path + 2' ea side = 14'
Excavation	CY	1,360	\$16.00	\$21,760.00	Assumes 14' width, 6" depth average
Erosion Controls	LF	5,280	\$1.50	\$7,920.00	Both sides, length of project
Sedimentation Controls	LF	5280	\$7.15	\$37,752.00	Hay bales
Grading	SY	8130	\$10.00	\$81,300.00	
Asphalt path over aggregate base	SF	52800	\$9.00	\$475,200.00	Assumes 10' width
Mile markers	EA	4	\$350.00	\$1,400.00	4 per mile
Regulatory and Warning Signs	EA	2	\$300.00	\$600.00	2 per mile
ESTIMATED DIRECT COST				\$640,716.00	
Contingency	25%			\$160,179.00	
Engineering / Design	20%			\$128,143.20	
Construction / Overhead / Mobilization	15%			\$96,107.40	
Project Administration	10%			\$64,071.60	
ESTIMATED CONSTRUCTION COSTS (70% BURDEN)				\$1,089,217.20	

TABLE 6-2: NATURAL SURFACE TRAILS COST ESTIMATES PER MILE (10 FT. WIDTH)

Item Description	Unit	Qty	Unit Cost	Total	Notes
Clearing and Grubbing	SF	73,920	\$0.20	\$14,784.00	10' path + 2' ea side = 14'
Erosion Controls	LF	5,280	\$1.50	\$7,920.00	Both sides, length of project
Sedimentation Controls	LF	5280	\$7.15	\$37,752.00	Hay bales
Grading	SY	8130	\$10.00	\$81,300.00	
Stone Dust path surface	CY	650	\$29.00	\$18,850.00	Assumes 10' width, 4" depth
Mile markers	EA	4	\$350.00	\$1,400.00	4 per mile
Regulatory and Warning Signs	EA	2	\$300.00	\$600.00	2 per mile
1 Mile Estimated Direct Cost				\$162,606.00	
Contingency	25%			\$40,651.50	
Engineering / Design	20%			\$32,521.20	
Construction / Overhead / Mobilization	15%			\$24,390.90	
Project Administration	10%			\$16,260.60	
1 Mile Estimated Construction Costs (70% burden)				\$276,430.20	

* Note: planning level estimates do not include ROW acquisition costs; costs for potentially required bridges or retaining walls; or costs for amenities including lighting, benches, bicycle parking, interpretive kiosks, etc.

TABLE 6-3: NEIGHBORHOOD GREENWAY COST ESTIMATES PER MILE WITHOUT SIDEWALKS (AVERAGE TREATMENT)

Item Description	Unit	Qty	Unit Cost	Total	Notes
Wayfinding Signs	EA	24	\$400.00	\$9,600.00	
Regulatory Signs	EA	24	\$300.00	\$7,200.00	Every 400' each direction
Pavement markings	EA	26	\$275.00	\$7,150.00	Every 200' each direction, thermoplastic bike with chevron
Turn stop signs	EA	4	\$150.00	\$600.00	4 intersections per mile
Median refuge island	EA	1	\$12,000.00	\$12,000.00	1 per mile
Curb Extensions	EA	2	\$5,000.00	\$10,000.00	2 per mile
Speed humps	EA	7	\$2,000.00	\$14,000.00	Every 800'
Curb Ramp Improvements	EA	1	\$2,500.00	\$2,500.00	Curb ramp upgrades at 25% of intersections
Diverter	EA	0.5	\$8,000.00	\$4,000.00	Every 2 miles
1 MILE ESTIMATED DIRECT COST				\$67,050.00	
Contingency	25%	-	-	\$16,762.50	
Engineering / Design	20%	-	-	\$13,410.00	
Construction / Overhead / Mobilization	15%	-	-	\$10,057.50	
Project Administration	10%	-	-	\$6,705.00	
1 MILE ESTIMATED CONSTRUCTION COSTS (70% BURDEN)				\$113,985.00	

TABLE 6-4: NEIGHBORHOOD GREENWAY COST ESTIMATES PER MILE WITH NEW SIDEWALKS BOTH SIDES (AVERAGE TREATMENT)

Item Description	Unit	Qty	Unit Cost	Total	Notes
Wayfinding Signs	EA	24	\$400.00	\$9,600.00	
Regulatory Signs	EA	24	\$300.00	\$7,200.00	Every 400' each direction
Pavement markings	EA	26	\$275.00	\$7,150.00	Every 200' each direction, thermoplastic bike with chevron
Turn stop signs	EA	4	\$150.00	\$600.00	4 intersections per mile
Median refuge island	EA	1	\$12,000.00	\$12,000.00	1 per mile
Curb Extensions	EA	2	\$5,000.00	\$10,000.00	2 per mile
Speed humps	EA	7	\$2,000.00	\$14,000.00	Every 800'
Curb Ramp Improvements	EA	1	\$2,500.00	\$2,500.00	Curb ramp upgrades at 25% of intersections
Diverter	EA	0.5	\$8,000.00	\$4,000.00	Every 2 miles
Sidewalks	SF	63,360	\$8.00	\$506,880.00	(2) 6' wide sidewalks - (1 each side of road)
ESTIMATED DIRECT COST				\$573,930.00	
Contingency	25%	-	-	\$143,482.50	
Engineering / Design	20%	-	-	\$114,786.00	
Construction / Overhead / Mobilization	15%	-	-	\$86,089.50	
Project Administration	10%	-	-	\$57,393.00	
ESTIMATED CONSTRUCTION COSTS (70% BURDEN)				\$975,681.00	

PROJECT CUT SHEETS

The following pages offer details for nine priority trail and greenway recommendations in Spartanburg. The purpose of these project sheets is to provide a clear picture of this Plan's recommendations. The photo rendering illustrations represent a typical treatment scenario of this Plan's recommendations and recommended implementation strategies. The list of projects selected for the cut sheets are listed in **Table 6-5** below.

TABLE 6-5: PROJECT CUT SHEETS LIST

Priority Trail Segment	Length (ft)	Length (mi)	Implementation Strategy
First Tier Priority Projects			
Cottonwood Trail to Country Club Road	6,915	1.31	Powerline easement
Country Club Road to Rail Trail East	1,754	0.33	Road Right of Way/Lane Reconfiguration
North Spartanburg Park to USc Upstate Passage	16,711	3.17	Fawn Branch riparian buffer
Cottonwood Trail to Chesnee Highway*	22,667	4.29	Lawsons Fork Creek riparian buffer/creek
Westview Elementary to Reidville Road	7,436	1.41	Existing road right of way
Reidville Road to Camelot Drive	4,003	0.76	Existing road right of way
Renaissance Park to Farmers Market	2,686	0.51	Rail with trail
Union Street to Renaissance Park	2,437	0.46	Road diet
Rail Trail West to Kennedy Street	1,021	0.19	Existing road right of way/ Former rail road bed
Second Tier Priority Projects			
Farmers Market to Edward Via College of Osteopathic Medicine	n/a	n/a	Road Right-of-Way
Cleveland Park to Berry Field	n/a	n/a	Highway Underpass
Daniel Morgan Avenue to Crescent Avenue	n/a	n/a	Rail with Trail/Road Right-of-way
Crescent Avenue to Airport Road	n/a	n/a	Fairforest Creek riparian buffer



FIRST TIER PRIORITY PROJECTS

COTTONWOOD TRAIL TO COUNTRY CLUB ROAD

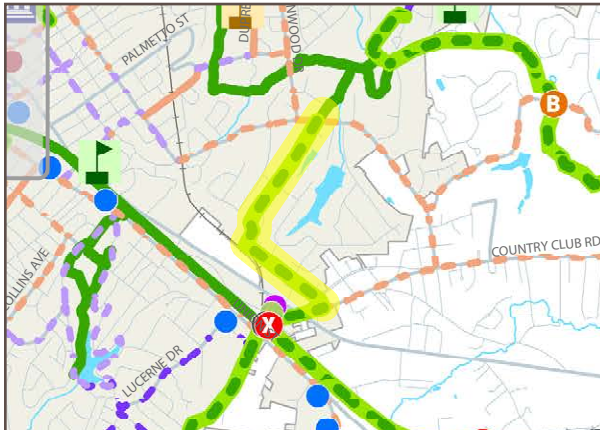
Type: Multi-use Trail

Length: 1.31 mi | 6915 ft

Cost Estimate: \$1,490,000

Implementation Strategy: Power Easement

Description: This segment is a crucial link in connecting two popular trails - the Cottonwood Trail and the Mary Black Foundation Rail Trail. The segment follows an existing utility easement from Woodburn Road (at Pheasant Drive) to Country Club Road (at Moulton Street). The easement is particularly wide south of Woodburn Road to the substation and already includes several informal dirt trails. The easement east of the substation to Moulton Street narrows, yet much of it is flanked by existing wooded areas and it has sufficient width to allow additional landscaping buffers.



PROJECT LOCATION



Left: Existing power line easement



Below: Proposed multi-use path along power easement between Cottonwood Trail and Country Club Road

COUNTRY CLUB ROAD TO RAIL TRAIL EAST

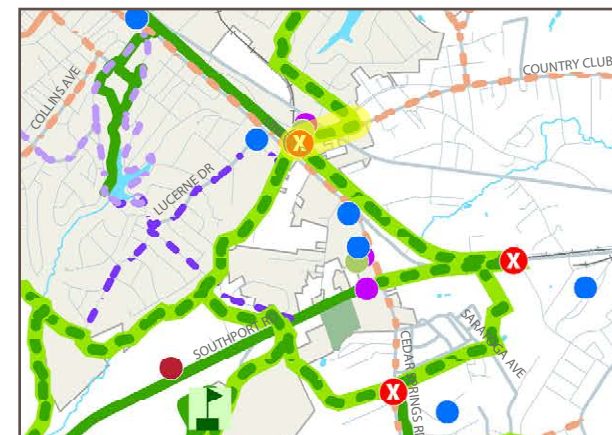
Type: Multi-use Trail

Length: 0.33 mi | 1754 ft

Cost Estimate: \$500,000

Implementation Strategy: Road Right of Way/Lane Reconfiguration

Description: This segment is a crucial link in connecting two popular trails - the Cottonwood Trail and the Mary Black Foundation Rail Trail. The proposed trail alignment extends along the westbound side of Country Club Road from Moulton Road to Union Street (Highway 56). The preferred implementation strategy involves reducing the number of travel lanes within this short corridor. Further study is required to determine the feasibility of this approach. An alternative, though potentially more costly, involves collaboration with existing land owners to develop a trail adjacent to the roadway but outside of the existing roadway right of way.



PROJECT LOCATION

Below: Proposed multi-use trail connection along Country Club Road to Rail Trail East



Above: Existing conditions of Country Club Road at Pine Street

NORTH SPARTANBURG PARK TO USC UPSTATE PASSAGE

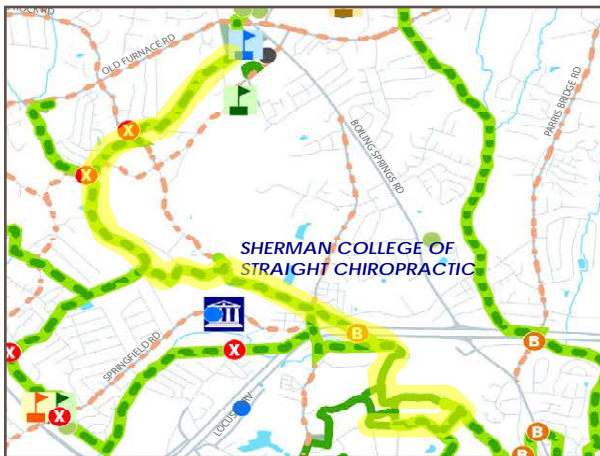
Type: Multi-Use Trail

Length: 3.17 mi | 1671 ft

Cost Estimate: \$3,560,000

Implementation Strategy: Fawn Branch Creek Riparian Buffer

Description: Of the proposed trail segments in the Boiling Springs community, the trail segment along Fawn Branch Creek between North Spartanburg Park and the USC Upstate Passage of the Palmetto Trail is the most feasible near-term option. The creek borders the western edge of the park property just south of Old Furnace Road. Following the natural riparian buffer along the creek, the proposed trail alignment winds south, crossing Double Bridge Road, eventually meeting Lawsons Fork Creek. The trail alignment follows Lawsons Fork Creek and parallels Hanging Rock Road until intersecting Valley Falls Road. At this juncture, two proposed trail alignments provide the necessary connection to the northernmost point of the USC Upstate Passage. The nearer-term option continues to follow the path of Lawsons Fork Creek, which passes beneath Interstate 85 due east of Valley Falls Road. This alignment provides the most direct route and is less likely to require a bridge crossing, though further study is needed. The second trail alignment involves development of a multi-use trail within the right of way of Valley Falls Road. This route requires expansion of the existing roadway bridge over Lawsons Fork Creek, or construction of a new bicycle and pedestrian only bridge and utilizes the existing roadway underpass at Interstate 85. The trail then connects to the USC Passage via a power line easement just south of the interstate.



PROJECT LOCATION

*Above: Existing conditions on Fawn Branch Creek
Below right: Proposed multi-use trail along Fawn Branch Creek near Old Furnace Road.*



COTTONWOOD TRAIL TO CHESNEE HIGHWAY

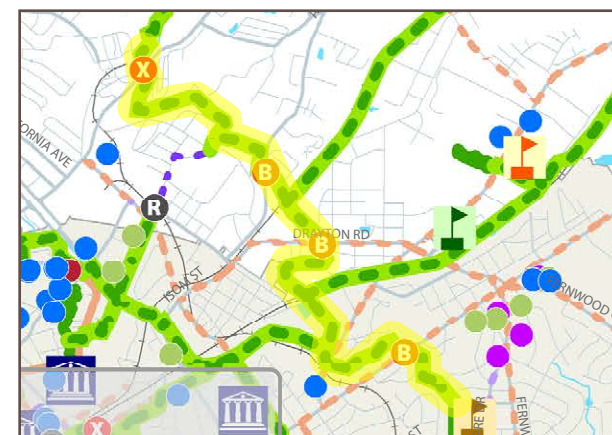
Type: Natural Surface Trail

Length: 4.29 mi | 22,667 ft

Cost Estimate: \$1,860,000

Implementation Strategy: Lawsons Fork Creek Riparian Buffer

Description: Connecting to the existing Cottonwood Trail is a community priority. The existing trail follows Lawsons Fork Creek to the trail's current western terminus at Spartanburg High School (this includes the trail segment known as the Riverbirch Trail, which links to the Cottonwood Trail). From that western terminus, the proposed trail alignment continues along the northern path of Lawsons Fork Creek. The segment includes underpasses at East Main Street (Highway 29) and two railroad trestles. Intersections with Heywood Avenue, Drayton Road and Archer Road could be accommodated through either a bridge underpass or at-grade crossing. As a natural surface trail, this segment will serve as a seamless extension of the scenic, natural characteristics that currently exist along the Cottonwood Trail.



PROJECT LOCATION



Left: Existing conditions along Lawsons Fork Creek.



Below: Proposed natural surface trail along Lawsons Fork Creek, near Heywood Avenue.

WESTVIEW ELEMENTARY ELEMENTARY TO REIDVILLE ROAD

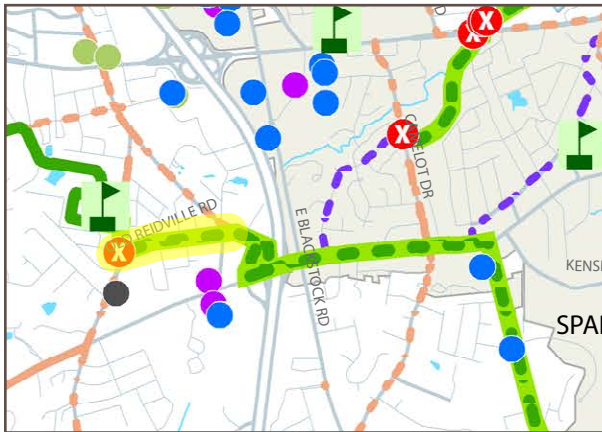
Type: Multi-use Trail

Length: 1.41 mi | 7436 ft

Cost Estimate: \$2,120,000

Implementation Strategy: Old Reidville Road/S Blackstock Road Existing Right of Way

Description: This Plan identified connections to existing trails, such as the Wadsworth Trail, and connections between the west side of Spartanburg and downtown as community priorities. The trail segment from Westview Elementary to Reidville Road is a crucial link in fulfilling both of those goals. The existing Wadsworth Trail ends at the back entrance to Westview Elementary. The proposed trail alignment extends from the front entrance of the school, on Oak Grove Road, to the intersection of S Blackstock Road and Reidville Road. The trail segment will be constructed within the roadway right of way along Oak Grove Road, Old Reidville Road and S Blackstock Road. Improvements will be required at the unsignalized trail crossing at Oak Grove Road.



PROJECT LOCATION



Left: Existing conditions on Old Reidville Road



Below: Proposed multi-use trail along Old Reidville Road between S. Blackstock Road and Westview Elementary

REIDVILLE ROAD TO CAMELOT DRIVE

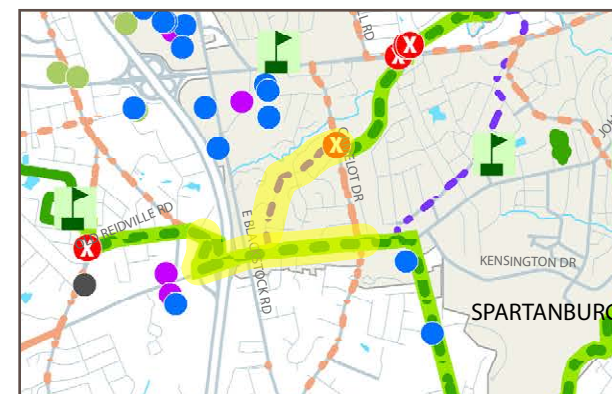
Type: Neighborhood Greenway

Length: 0.76 mi | 4003 ft

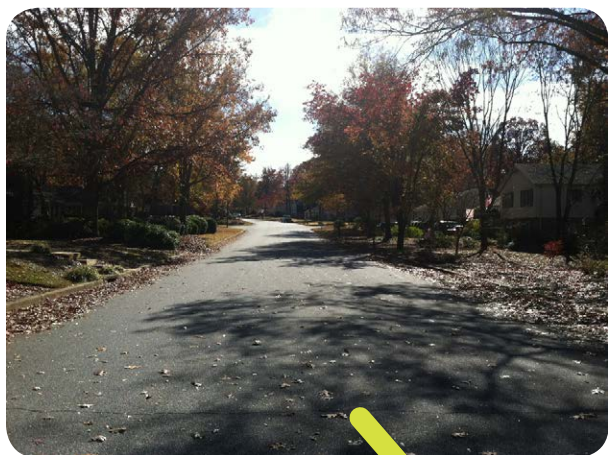
Cost Estimate: \$2,270,000

Implementation Strategy: Heather Drive Existing Right of Way

Description: This Plan identified connections to existing trails, such as the Wadsworth Trail, and connections between the west side of Spartanburg and downtown as community priorities. As with the trail segment from Westview Elementary to Reidville Road, the trail segment from Reidville Road to Camelot Drive is a crucial link in fulfilling both of those goals. The proposed trail improvements along Reidville Road as it crosses Interstate 26 connect these two key west Spartanburg projects. This Plan recommends that the trail network capitalize on the existing low-volume, low-speed traffic conditions of Heather Drive. Through improvements to the existing street that will increase bicyclists and pedestrian safety and comfort, Heather Drive can serve as a quiet, residential connection for families, neighbors and trail users. Proposed improvements include construction of sidewalks on both sides of the street, pavement markings and signage.



PROJECT LOCATION



Left: Existing conditions on Heather Drive



Below: Proposed neighborhood greenway along Heather Drive

RENAISSANCE PARK TO FARMERS MARKET

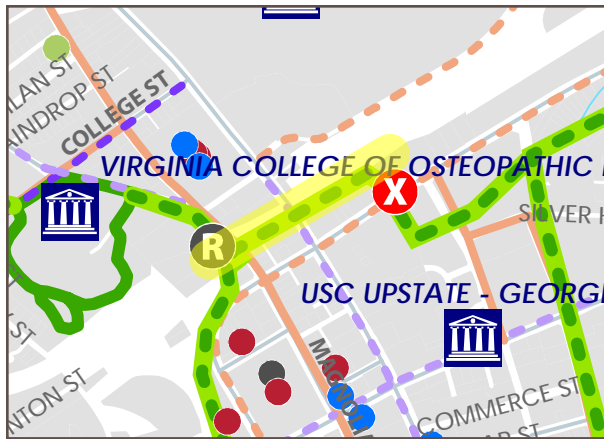
Type: Multi-use Trail

Length: 0.51 mi | 2686 ft

Cost Estimate: \$600,000

Implementation Strategy: Rail with Trail

Description: Located between Daniel Morgan Avenue, Saint John Street and Church Street in downtown Spartanburg, Renaissance Park is a key destination. The site includes a Marriott Hotel, Barnet Park, the Chapman Cultural Center, the USC Upstate George Dean Johnson School of Business, as well as a large tract of undeveloped land awaiting investment. The Farmers Market site at the Magnolia Street Train Depot is another priority destination. The two are linked by an active Norfolk Southern rail line² with a wide, flat right of way. This segment's proposed alignment follows the path of a former rail bed from Liberty Street, across Daniel Morgan Avenue, to the parcel adjacent to 200 East Daniel Morgan Avenue. This unsignalized crossing will require bicycle and pedestrian safety improvements. Passing between existing buildings and following the former rail bed path, the proposed trail intersects the Norfolk Southern line just east of the Church Street overpass. The trail would parallel the rail line and include a buffer between the rail and the asphalt path. The trail crosses Magnolia Street, at the existing at-grade railroad crossing to connect users to the Farmers Market site. The trail also provides a crucial link in connecting these destinations to the Northside neighborhood, which is located north of the Farmers Market site.



PROJECT LOCATION

² An active CSX rail line runs tandem to the Norfolk Southern line within this corridor. The proposed trail alignment is directly adjacent to the Norfolk Southern rail line and, thus, appears to be within its right of way.



Above: CSX and Norfolk Southern Railroads at Church Street



Below: Proposed Rail with Trail

UNION STREET TO RENAISSANCE PARK

Type: Multi-use Trail

Length: 0.46 mi | 2437 ft

Cost Estimate: \$620,000

Implementation Strategy: Upfit Existing Sidewalks/ Lane Reconfiguration

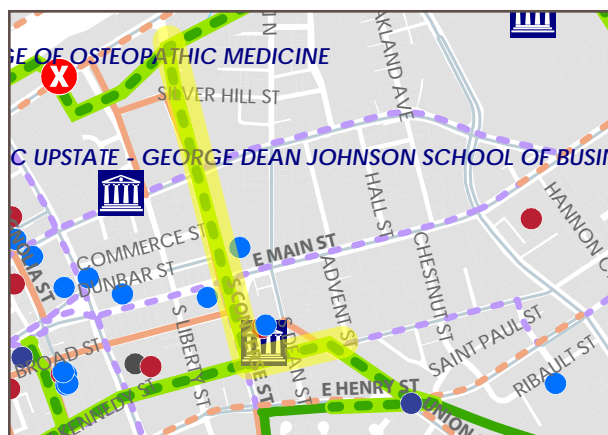
Description: Kennedy Street and Converse Street have existing wide sidewalks ranging from 7.5 to 9.5 feet. With average annual daily traffic volumes (AADT) of 4900 and 1600, respectively², these two urban connectors provide an ideal opportunity for reconfiguring the existing travel lanes to better suit these low traffic volumes, while also creating space for a safe and comfortable bicycle and pedestrian path. Trail development will involve upfitting the existing sidewalk on Kennedy Street by adding approximately two feet of sidewalk and five feet of landscaped buffer. This will create a nearly 12 foot wide path comfortably separated from motor vehicle traffic. The reconfiguration of Kennedy Street will include two 11 foot travel lanes and an 11 foot center turn lane. Most of Converse Street

has more pavement width and less traffic than Kennedy Street. This will allow for the inclusion of two travel lanes, a center turn lane two bike lanes (as proposed in the 2009 Spartanburg County Pedestrian and Bicycle Plan) and a widened sidewalk to serve as the trail connection. The narrowest segment of Converse Street exists between Dunbar and Commerce Streets. While the sidewalk on Kennedy Street has no pedestrian obstructions, relocation of some streetlighting, signage and other fixed objects will be required on Converse Street.

After crossing Saint John Street, this trail segment will take advantage of the existing 14-16 foot sidewalk bordering Barnett Park. Wide, buffered sidewalks and on-street bike lanes will guide trail users through the remainder of Renaissance Park to Daniel Morgan Avenue until the proposed off-street trail connection within the Park is established.



Left: Existing sidewalk on Kennedy Street
Below: Proposed multi-use trail along existing sidewalk



PROJECT LOCATION

² Source: http://www.scdot.org/getting/pdfs/Traffic_Counts/2011/SPARTANBURG.pdf



RAIL TRAIL WEST TO KENNEDY STREET

Type: Multi-use Trail

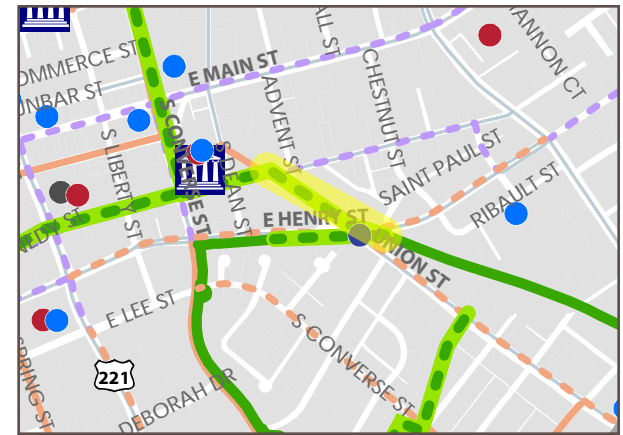
Length: 0.19 mi | 1021 ft

Cost Estimate: \$330,000

Implementation Strategy: Existing Right of Way/Former Rail Road Bed

Description: During development of this Plan, the most commonly cited priority for trail development was extension of the Mary Black Foundation Rail Trail. Currently, the trail extends 1.9 miles from Country Club Road to East Henry Street. At East Henry Street, the former rail line extended north along Union Street into downtown. The proposed trail alignment follows that path from East Henry Street to Kennedy Street. The trail will use the existing grassy buffer (and former rail bed) between the parcels at 289 Union Street and 327 East Kennedy Street and the travel lanes on Union Street. Because a sidewalk does not currently exist along this block, this extension of the Mary Black Foundation Rail Trail will serve that function, while also serving many other trail uses.

Two potential routes for reaching Kennedy Street exist. The preferred route follows Union Street, crossing Advent Street at its southernmost point, utilizes the open space within the landscaped triangular parcel and then crosses Kennedy Street at Union Street. The alternative route turns north at Advent Street, crosses Kennedy Street, then turns west across Advent Street. Both routes involve at least one unsignalized crossing where bicycle and pedestrian improvements will be needed. Though currently signalized, safety improvements to the intersection of Union Street and Kennedy Street, such as signage and pedestrian signals, are recommended as well.



PROJECT LOCATION

Below: Existing Conditions on Union Street





Left: Proposed trail along Union Street

Left: Proposed trail along Union Street with storefront retail option



SECOND TIER PRIORITY PROJECTS



FARMERS MARKET TO EDWARD VIA COLLEGE OF OSTEOPATHIC MEDICINE

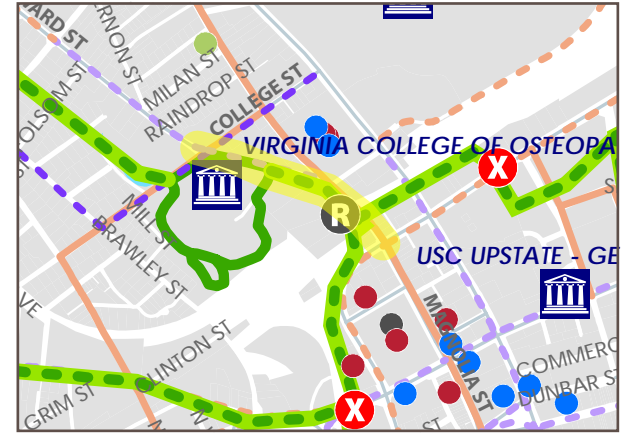
Type: Multi-use Trail

Implementation Strategy: Road Right-of-Way

Description: The community identified trail connections to the Northside neighborhood in downtown Spartanburg as a key priority. In 2010, the Edward Via College of Osteopathic Medicine (VCOM) established a small campus on the south end of the neighborhood. The short trail connection from the Farmers Market site at the Magnolia Street Train Depot to the existing trail within the VCOM campus provides an important link in the overall trail network.

This Plan recommends a multi-use trail within the right of way of Magnolia Street and Howard Street. Further study is needed to identify the most feasible strategy for trail development given the existing right

of way constraints, though collaboration with adjacent property owners to increase the width available or converting the existing bike lanes between Howard Street and the railroad to shared-lane markings are both options. An alternate route exists by following the southern and western edges of the Magnolia Street Cemetery and connecting to the rear of VCOM. Improvements to bicycle and pedestrian safety at the railroad crossing will be necessary in the case of either



PROJECT LOCATION

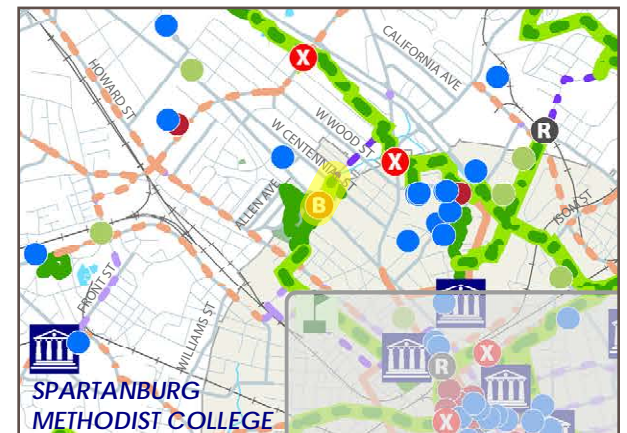
CLEVELAND PARK TO BERRY FIELD

Type: Multi-use Trail

Implementation Strategy: Highway Underpass

Description: The Spartanburg County Parks Department's Cleveland Park currently straddles the Asheville Highway (SC 56). The Cleveland Park Event Center, playground and picnic shelters on the west side of the highway are separated by seven lanes of traffic from the open space and baseball field (Berry Field) on the east side. The neighborhoods adjacent to each side of the park are equally disconnected from one another.

This Plan recommends development of a multi-use trail along the existing creek and underpass beneath the Asheville Highway to rejoin the park. This short segment of trail will connect to existing trail facilities within the park and provide a crucial link in the overall network.



PROJECT LOCATION

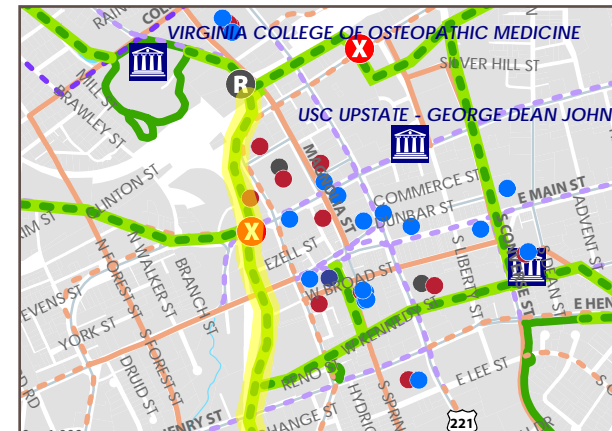


DANIEL MORGAN AVENUE TO CRESCENT AVENUE

Type: Multi-use Trail

Implementation Strategy: Rail with Trail/Road Right-of-way

Description: Connecting signature trail segments within downtown Spartanburg to nearby neighborhoods is crucial for generating usage of the trail network and linking residents to priority destinations. A key opportunity for trail development exists south of Daniel Morgan Avenue near Exchange Street. The CSX Railroad borders the west side of the Hampton Heights neighborhood and provides a rail-with-trail opportunity. The railroad right of way is adjacent to undeveloped wooded areas that frame the neighborhood and to Irwin Park on the southern end of the neighborhood. The neighborhood does not currently have a continuous sidewalk connecting residents to the park. This trail segment will



PROJECT LOCATION



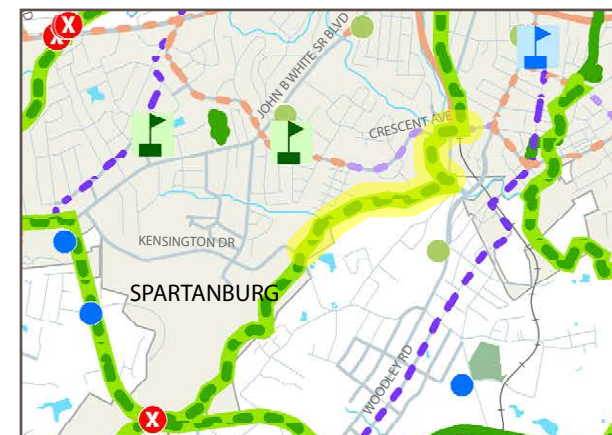
CRESCENT AVENUE TO AIRPORT ROAD

Type: Multi-use Trail

Implementation Strategy: Fairforest Creek riparian buffer

Description: The Spartanburg Downtown Memorial Airport is a large parcel of land bordered to the north and south by largely undevelopable land within airport approach zones. This large tract presents an opportunity for trail development connecting neighborhoods within the southwest quadrant of Spartanburg's metro area to other nearby neighborhoods and, ultimately, to downtown.

This Plan recommends a multi-use trail extending south of Crescent Avenue along Fairforest Creek. North of Burke Street, the trail turns west, following a small stream that forks off of Fairforest Creek until reaching Airport Road



PROJECT LOCATION



STRATEGIES FOR IMPLEMENTATION



Chapter Contents:

Overview

Administrative Structure

Infrastructure Action Steps

Design Guidance

OVERVIEW

This chapter defines a structure for managing the implementation of the Spartanburg Trails & Greenways program. Implementing the recommendations within this plan will require leadership and dedication to trail development on the part of a variety of agencies. Equally critical, and perhaps more challenging, will be meeting the need for a recurring source of revenue. Even small amounts of local funding could be very useful and beneficial when matched with outside sources. Most importantly, Partners for Active Living, who has led this planning effort, and Spartanburg City and County governments need not accomplish the recommendations of this Plan by acting alone; success will be realized through collaboration with state and federal agencies, the private sector, and other non-profit organizations.

Given the present day economic challenges faced by local governments (as well as their state, federal, and private sector partners), it is difficult to know what financial resources will be available to implement this plan. However, there are still important actions to take in advance of major investments, including key organizational steps and the development of strategic lower-cost trail projects. Following through on the actions steps described in this Chapter will allow the key stakeholders to be prepared for community-wide trail development over time while taking advantage of strategic opportunities, both now and as opportunities arise.

ADMINISTRATIVE STRUCTURE

The following is a recommended organizational framework for managing implementation of the trails network. The structure is based on in-depth stakeholder interviews, the results of the Institutional Review described in Chapter 5, and evidence of successful trail implementation strategies from around the southeast and the country. Suggested roles for the core types of stakeholders involved in implementation are described below. Actual roles may vary depending on how this Plan is implemented over time and the ongoing level of interest and involvement by specific stakeholders.

FORM A TRAILS & GREENWAYS ADVISORY COMMITTEE

Leadership from individuals representing key stakeholders is essential to move the trail system from concept to reality. These individuals will help advocate for the trail, and in their professional and personal capacity, they will seek out opportunities to utilize synergies with other projects, individuals, and organizations to keep the trail system a priority in the ever-present competition for resources.

Trails & Greenways Advisory Committee (TGAC) members should be chosen based on representation of key partner groups, key allies in the trail development process, and community leaders who value trails. Members should expect to contribute time, expertise, and resources towards accomplishing the tasks that lie ahead. Board members or key staff of partner non-profits, members of the Project Steering Committee, and representatives of large landowners may be likely candidates to serve on the TGAC. The TGAC should be a forum for leaders to convene periodically to discuss progress, share resources and tools, and otherwise coordinate trail planning and development activities.

*Opposite page:
Downtown Spartanburg, SC*

ADVANCE COMMUNICATIONS EFFORTS

A subgroup of the TGAC should focus on the communications element of trail and greenway development. This involves celebrating successes in new trail construction and otherwise raising awareness of the trail system and its benefits. A key first task of this group is implementation of a consistent and coordinated trail wayfinding system - please refer to Chapter 4: Network Recommendations for more information about proposed trail system signage and wayfinding.

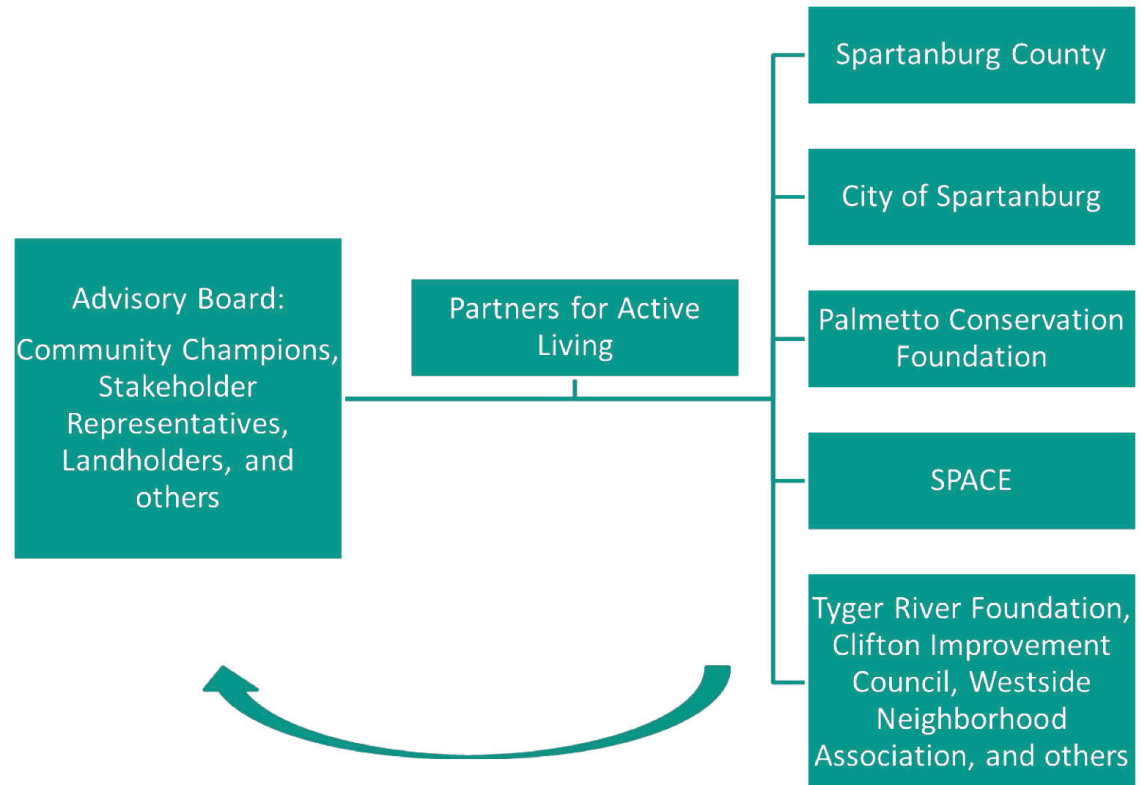
DEVELOP A MONITORING PROGRAM

From the beginning, and continuously through the life of the TGAC, it should brainstorm specific benchmarks to track through a monitoring program and honor their completion with public events and media coverage. Monitoring should be supported by programmatic efforts, where possible, such as conducting annual or bi-annual trail counts or creating an annual Trails & Greenways Report Card. Benchmarks should be revisited and revised periodically as trail development efforts evolve.

ESTABLISH STAKEHOLDERS ROLES

The organizational framework described in this section is presented visually in the chart below, as discussed by the Project Steering Committee. The TGAC, already discussed in this chapter, plays a leading role in this process with a 'convener' serving the function of staff support. Other stakeholders, such as the City and County and nonprofit organizations, are identified as partners. The 'convener' facilitates the work of the TGAC while also coordinating among the many vested partners in this effort. The partners also contribute to the make-up of the TGAC.

For implementation of Spartanburg's Trails & Greenways Plan, Partners for Active Living is identified as the convening agent. The organization is not bound by jurisdictional boundaries (such as city limits), successfully convened a broad range of partners for development of this Plan, and was identified as a valued and respected community organization within the stakeholder interviews (see Chapter 5: Institutional Review). As a small nonprofit, however, Partners for Active Living does not currently have the staff capacity to take on this additional role. The TGAC and trail development partners have a role in assisting Partners for Active Living in the process of identifying resources for added staff capacity. A Trails Coordinator position at Partners for Active Living will provide staff support for the TGAC and help to fulfill the trail development goals of every stakeholder of this Plan.



ROLE OF THE CONVENER

As the lead organization for implementation of the recommended trails network, Partners for Active Living will have multiple roles, including the following:

- Appoint a Trails Coordinator staff position. This coordinator would be responsible for implementing this Plan and would work with local government departments and partner nonprofits to seek funding. This coordinator will also manage and facilitate meetings for the TGAC.
- Facilitate the implementation of this Plan by fostering ongoing communication among partners. Encourage trails as a priority for public infrastructure investment among all stakeholders.
- Work with trail development partners to ensure a coordinated approach to operations and maintenance. Operations and maintenance tasks need to be supported by adequate funding and staff levels.
- Remain up-to-date on opportunities for trail development that coincide with other capital or maintenance projects, such as road resurfacing, new commercial or residential developments, new road construction, etc.
- In coordination with the TGAC communications committee, manage public relations for trails in Spartanburg by generating positive and addressing negative media coverage.
- Manage contracts for trail development on an as needed basis; however, construction management responsibilities are expected to fall to partner organizations previously involved in trail construction activities.

ROLE OF THE GREENWAYS ADVISORY COMMITTEE

As mentioned previously, this committee will play a major role in championing the implementation of this Plan. Specifically this group should:

- Advocate for implementing the trails program.
- Facilitate cooperation among government agencies and nonprofit partners for trail development.
- Define and recommend sources of funding for trail development.
- Meet quarterly with an agenda that includes: A) Implementation progress updates from each of the member organizations, B) Confirmation of specific tasks to be completed by specific members before the next meeting, and C) Discussion of new opportunities and constraints and identification of ways to address them.
- Pursue funding including the solicitation of major donors and corporate sponsors
- Build partnerships with land owners for trail development, with special attention given to owners of large or contiguous tracts of land.
- Keep local leaders informed about trail-related issues and developments through direct dialogue and personal e-mail; promote trail development among local leaders through creative approaches, such as organized tours of existing trails.
- Rally public support for key public hearings and coordinate mass e-mail campaigns for special votes.
- Continue communication and build positive relationships with organizations such as the Spartanburg Water System, Duke Energy, Piedmont

Natural Gas, public and private schools, and others that can assist with issues related to potential trail ROW and trail development.

ROLE OF NON-PROFITS

Non-profit organizations can serve a variety of purposes and are already leading many trail development related activities across the Spartanburg community. Specific tasks for non-profits related to the implementation of this Plan include:

- Participate in the activities of the TGAC and, as needed, provide representation on the committee.
- Maintain open dialogue with the TGAC and Partners for Active Living to promote resource and information sharing and reduce duplications of effort.
- Advocate, promote, and encourage the development of trails throughout the community.
- Educate citizens as to the benefits of trails and greenways.
- Play an active role in raising funds for trail development in concert with the TGAC and Partners for Active Living.
- Assist in securing ROW for implementation.
- Help to organize volunteers to assist with implementation and management.
- Sponsor or co-sponsor trail events.
- Manage trail construction projects; for example, the Palmetto Conservation Foundation may oversee development of a trail segment that is part of the statewide Palmetto Trail route.

ROLE OF THE COUNTY AND MUNICIPALITIES

While Spartanburg benefits from a strong network of nonprofit partners in trail development, Spartanburg County and the City of Spartanburg play key roles in facilitating implementation of this Plan. As the network expands outside of the metro area of Spartanburg, municipalities such as Inman and Pacolet have a key role, as well. The role of these entities includes the following municipal and county tasks:

- Participate in the activities of the TGAC and, as needed, provide representation on the committee.
- Maintain open dialogue with the TGAC and Partners for Active Living to promote resource and information sharing and reduce duplications of effort.
- Contribute staff time and expertise to the trail development process.
- Whenever possible, accept ownership of trails developed by other partners and, at minimum, accept responsibility for facility maintenance and operations.
- Where appropriate, assist in securing ROW for implementation.
- Manage trail construction projects.
- Coordinate among county and municipal planners to ensure trail connectivity between jurisdiction borders.

- Ensure that the design guidelines of this plan are used in trail design and aim for uniform standards in trail facilities, such as signage and wayfinding.

Most importantly, prior to the beginning of each fiscal year, the county and local municipalities should **adopt a budget for expenditures of funding that supports the trails program**, even if only for small amounts. Local municipal and county staff should be prepared to provide supporting materials for the budget process, including any trail-related reports, estimates, and benchmarking statistics.

ROLE OF TRANSPORTATION AGENCIES (SCDOT AND SPATS)

SCDOT and SPATS have a key role in implementation of this Plan, including participation in the following tasks:

- The SCDOT District Three should be prepared to provide guidance and technical support to for implementing trail-related facilities, such as multi-use paths in roadway corridors, trail-roadway crossings, and improvements that increase safety for bicyclists and pedestrians crossing bridges on state roadways. This Plan's recommendations to improve the Reidville Road crossing of Interstate 26 and the Mary Black Rail Trail crossing at Henry Street are examples.
- SCDOT should also continue to work with local planners on coordination of upcoming and future roadway projects with trail recommendations. Communication with SPATS, Spartanburg County, the City of Spartanburg, and Partners for Active Living regarding scheduled road maintenance and road construction projects is crucial to trail development.
- SPATS should continue its ongoing inventory of trail, bikeway, and walkway facilities and its coordination among multiple partners to promote development of the biking and walking network. Maintaining open dialogue and information-sharing with the TGAC and Partners for Active Living is essential.
- Identify funding sources for trail development.

INFRASTRUCTURE ACTION STEPS

While establishing the administrative structure described, stakeholders should move forward with infrastructure development by proceeding with the design and construction of priority projects. They should also work to identify funding for longer-term, higher-cost projects.

IDENTIFY FUNDING

Achieving the vision that is defined within this Plan requires, among other things, a stable and recurring source of funding. Communities across the country that have successfully engaged in trail programs have relied on multiple funding sources to achieve their goals. No single source of funding will meet the recommendations identified in this plan. Instead, stakeholders will need to work cooperatively a wide range of private sector, municipality, state, and federal partners to generate funds sufficient to implement the program.

A stable and recurring source of revenue is needed to generate funding that can then be used to leverage grant dollars from state, federal, and private sources. The ability of the local agencies to generate a source of funding for trails depends on a variety of factors, such as taxing capacity, budgetary resources, voter preferences, and political will. It is

very important that these local agencies explore the ability to establish a stable and recurring source of revenue for trails.

Donations from individuals or companies are another potential source of local funding. Recommended funding sources are included in Appendix B: Potential Funding Sources.

LEVERAGE OPPORTUNITIES

In the course of seeking funding opportunities, consider partnerships with developers and non-traditional trail development partners. Implementing a community-wide trails system is an iterative process often well served by opportunistic chances. Several properties near or adjacent to segments of the trail network are undeveloped, vacant, or for sale. These properties present a potential opportunity to partner with a commercial or residential developer. By involving the landowner or developer early in the trail development process, they have the opportunity to share in the discussions of the specific trail alignment and trail features, ultimately creating a transportation and recreation corridor that directly contributes to the economic potential of the developed property.

Proposed trail segments that abut existing developments may also present opportunities to leverage investments. Coordination with the property owner may generate opportunities to improve parking lot landscaping and overall curb appeal of a business. These synergies should be explored wherever possible and may open the door for involvement of other groups, such as the PRIDE Task Force or local gardening or beautification clubs.

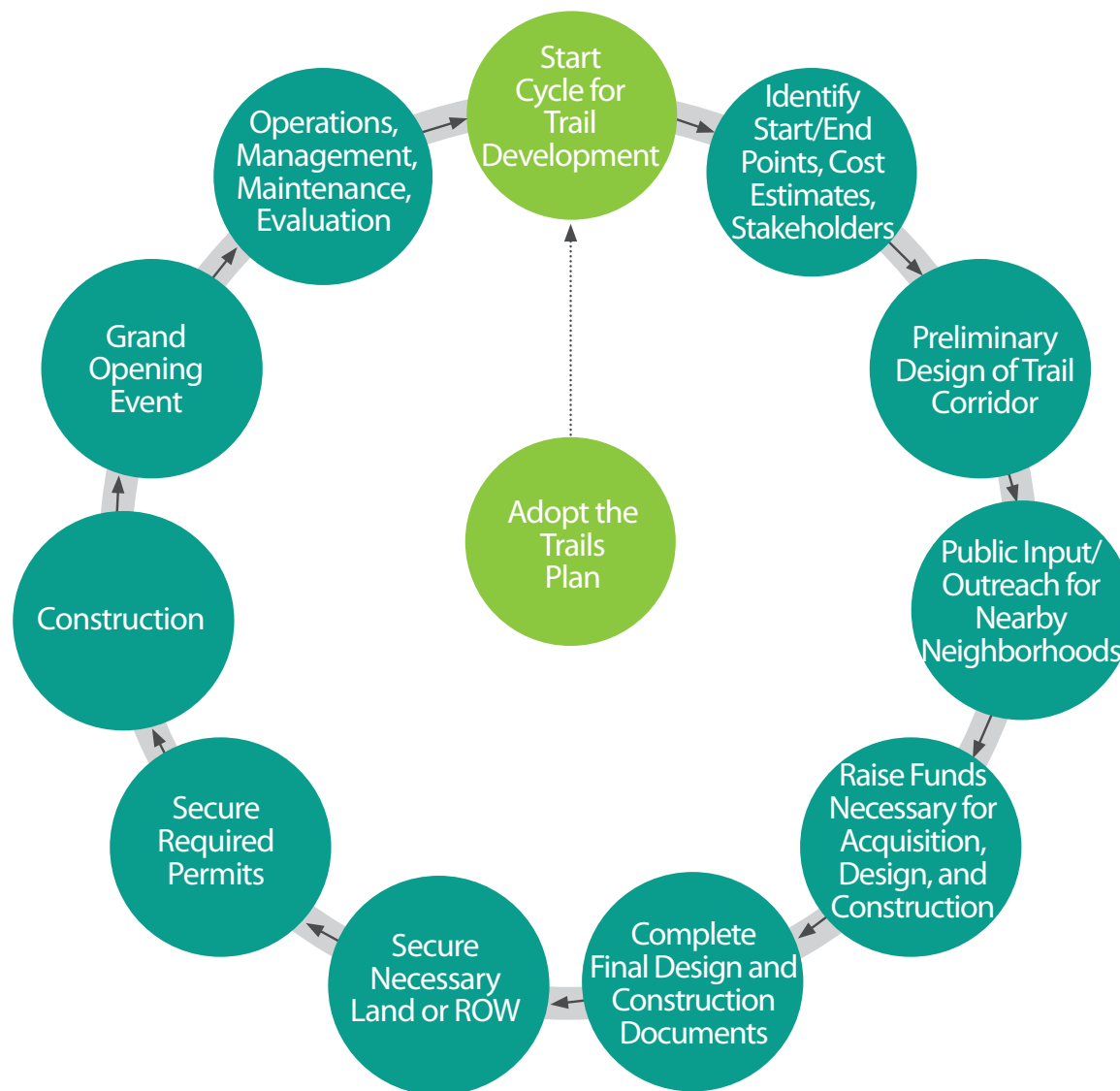
COMPLETE PRIORITY TRAIL PROJECTS

By moving forward quickly on priority trail projects, stakeholders of this Plan will demonstrate their commitment to carrying out the Plan and will better sustain enthusiasm generated during the public outreach stages of the planning process. Chapter 6: Project Prioritization and Cost Estimates identifies priority trail projects.

DESIGN, CONSTRUCT, AND MAINTAIN TRAILS

Once a trail segment is selected and land is acquired, trail design typically follows. For this Plan, some trails will require signage and limited construction activities. Other segments will require varying degrees of clearing and natural surface grading, but still may be able to be implemented without design or construction documents. Preliminary design plans should be reviewed by multiple stakeholders, including emergency service personnel and the local police department, so they can offer suggestions and have their voices heard from the very beginning. There is sometimes a disconnect between the designer and operating staff. Designs that are pleasing to the eye are not always conducive to good and inexpensive maintenance. Therefore, it is imperative that cost saving should be a part of any design, with a thorough review of the plans while they are still in a preliminary stage.

Annual operations and maintenance costs vary, depending upon the facility to be maintained, level of use, location, and standard of maintenance. Operations and maintenance budgets should take into account routine and remedial maintenance over the life cycle of the improvements and on-going administrative costs for the operations and maintenance program.

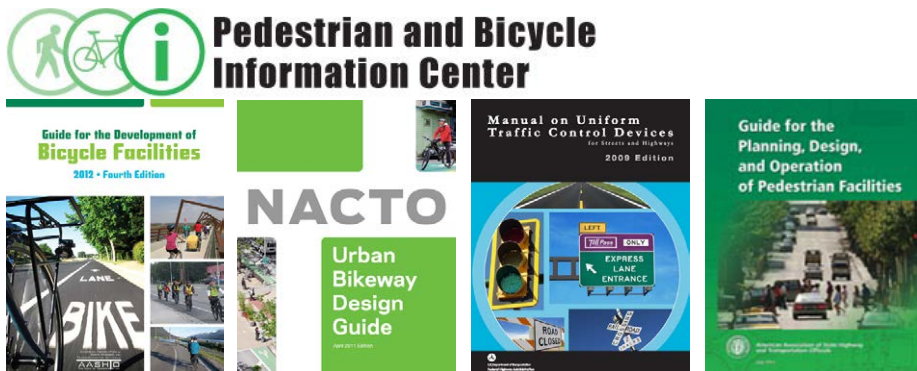
TYPICAL GREENWAY
DEVELOPMENT PROCESS

DESIGN GUIDANCE

The sections that follow serve as a sampling of greenway and trail design treatments and provide guidelines for their development. These treatments and design guidelines are important because they represent the tools for creating a pedestrian-friendly, safe, accessible trail network. The guidelines are not, however, a substitute for a more thorough evaluation by a landscape architect or engineer upon implementation of facility improvements. Some improvements may also require cooperation with the SCDOT for specific design solutions. The following standards and guidelines are referred to in this guide.

- The Federal Highway Administration's [Manual on Uniform Traffic Control Devices \(MUTCD\)](#) is the primary source for guidance on lane striping requirements, signal warrants and recommended signage and pavement markings.
- American Association of State Highway and Transportation Officials (AASHTO) [Guide for the Development of Bicycle Facilities](#), updated in June 2012 and the [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#) provides guidance on dimensions, use and layout of specific bicycle and pedestrian facilities.
- The National Association of City Transportation Officials' (NACTO) 2012 [Urban Bikeway Design Guide](#) is the newest publication of nationally recognized bikeway design standards, and offers guidance on the current state of the practice designs, including Neighborhood Greenways. All of the NACTO Urban Bikeway Design Guide treatments are in use internationally and in many cities around the US.
- Meeting the requirements of the Americans with Disabilities Act (ADA) is an important part of any bicycle facility project. The United States Access Board's proposed [Public Rights-of-Way Accessibility Guidelines \(PROWAG\)](#) and the [2010 ADA Standards for Accessible Design \(2010 Standards\)](#) contain standards and guidance for the construction of accessible facilities.

Should the national standards be revised in the future and result in discrepancies with this chapter, the national standards should prevail for all design decisions.

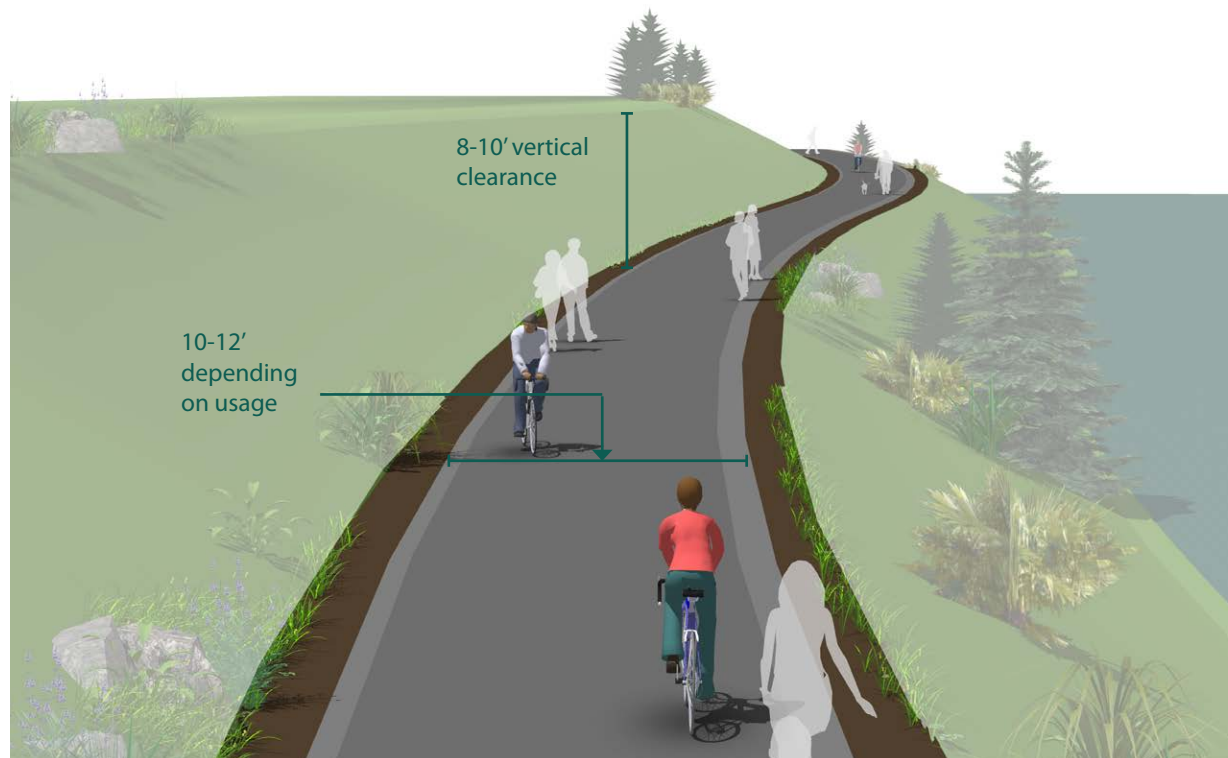


The Pedestrian and Bicycle Information Center, NACTO, AASHTO, the MUTCD, nationally recognized bikeway standards, and other sources have all informed the content of this chapter.

MULTI-USE PATHS

DESCRIPTION

Multi-use paths can provide a desirable facility, particularly for recreation, and users of all skill levels preferring separation from traffic. Multi-use paths generally provide directional travel opportunities not provided by existing roadways.



DISCUSSION

The AASHTO Guide for the Development of Bicycle Facilities generally recommends against the development of shared use paths along roadways. Also known as “sidepaths”, these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic and can result in wrong-way riding when either entering or exiting the path.

GUIDANCE

WIDTH

- 10 feet is recommended in most situations and will be adequate for moderate to heavy use. (8 ft absolute minimum in low traffic situations.)
- 12 feet is recommended for heavy use situations with high concentrations of multiple users. A separate track (5' minimum) can be provided for pedestrian use.

LATERAL CLEARANCE

- A 2 foot or greater shoulder on both sides of the path should be provided. An additional foot of lateral clearance (total of 3') is required by the MUTCD for the installation of signage or other furnishings.
- If bollards are used at intersections and access points, they should be colored brightly and/or supplemented with reflective materials to be visible at night.

STRIPING

- When striping is required, use a 4 inch dashed yellow centerline stripe with 4 inch solid white edge lines.
- Solid centerlines can be provided on tight or blind corners and on the approaches to roadway crossings.

MATERIALS AND MAINTENANCE

Asphalt is the most common surface for multi-use paths. The use of concrete for paths has proven to be more durable over the long term. Saw cut concrete joints rather than troweled improve the experience of path users.

ADDITIONAL REFERENCES AND GUIDELINES

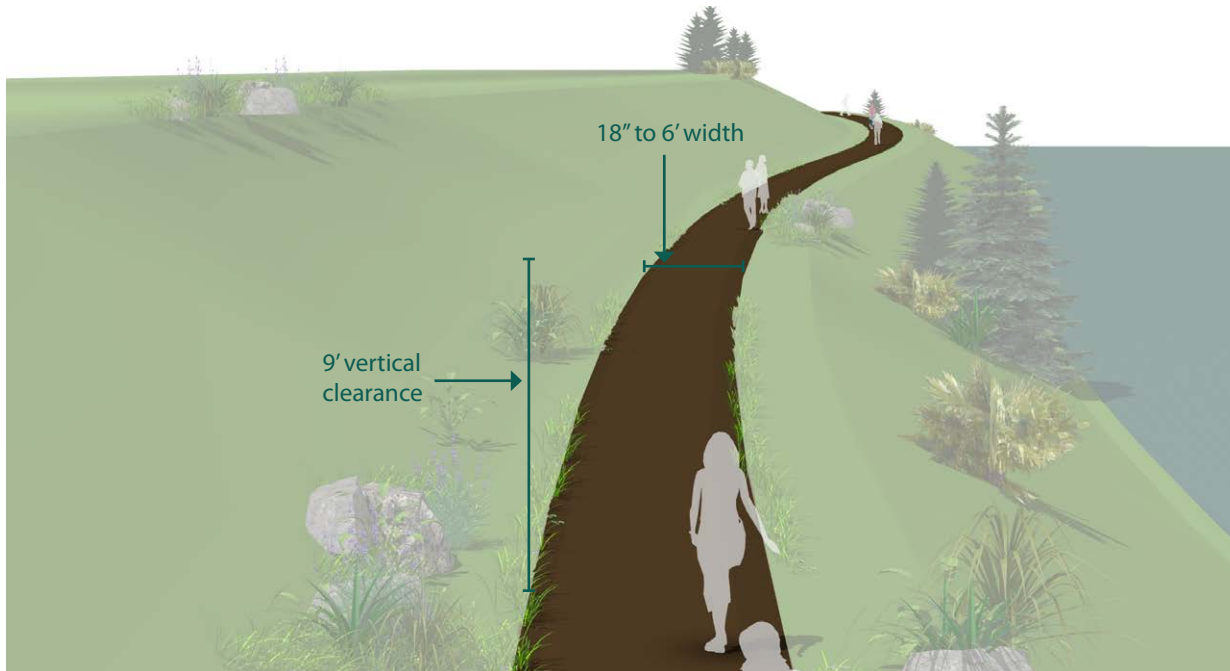
AASHTO. (2012). Guide for the Development of Bicycle Facilities. FHWA. (2009). Manual on Uniform Traffic Control Devices. Flink, C. (1993). Greenways: A Guide To Planning Design And Development.

NATURAL (OR SOFT) SURFACE TRAILS

DESCRIPTION

Soft surface trails are 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 or where a more primitive experience is desired.

Guidance presented in this section does not include considerations for bicycles. Natural surface trails designed for bicycles are typically known as single track trails.



DISCUSSION

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.

GUIDANCE

- Trails can vary in width from 18 inches to 6 feet or greater; vertical clearance should be maintained at nine-feet above grade.
- Base 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.
- Provide positive drainage for trail tread without extensive removal of existing vegetation; maximum slope is five percent (typical).

MATERIALS AND MAINTENANCE

Consider implications for accessibility when weighing options for surface treatments.

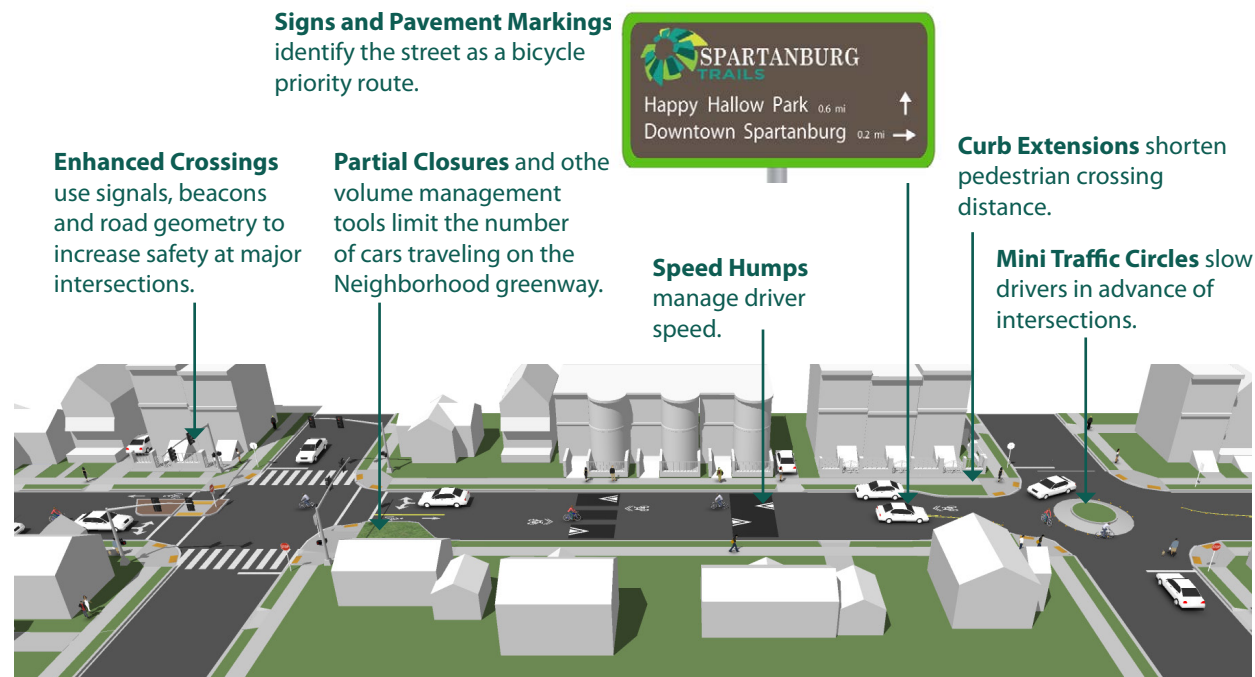
ADDITIONAL REFERENCES AND GUIDELINES

Flink, C. (1993). Greenways: A Guide To Planning Design And Development.

NEIGHBORHOOD GREENWAYS

DESCRIPTION

Neighborhood greenways are low-volume, low-speed streets modified to enhance pedestrian and bicyclist comfort by using treatments such as signage, pavement markings, traffic calming and/or traffic reduction and intersection modifications. These treatments allow through movements of bicyclists and pedestrians while discouraging similar through-trips by non-local motorized traffic.



DISCUSSION

Neighborhood greenway retrofits to local streets are typically located on streets without existing signalized accommodation at crossings of collector and arterial roadways. Without treatments for pedestrians and bicyclists, these intersections can become major barriers along the neighborhood greenway and compromise safety.

Traffic calming can deter motorists from driving on a street. Anticipate and monitor vehicle volumes on adjacent streets to determine whether traffic calming results in inappropriate volumes. Traffic calming can be implemented on a trial basis.

GUIDANCE

- Signs and pavement markings are the minimum treatments necessary to designate a street as a neighborhood greenway.
- Neighborhood greenways should have a maximum posted speed of 25 mph. Use traffic calming to maintain an 85th percentile speed below 22 mph.
- Implement volume control treatments based on the context of the neighborhood greenway, using engineering judgment. Target motor vehicle volumes range from 1,000 to 3,000 vehicles per day.
- Intersection crossings should be designed to enhance safety and minimize delay for bicyclists and pedestrians.
- Crossing timing and gap analysis should consider the needs of both pedestrians and bicyclists.

MATERIALS AND MAINTENANCE

Vegetation should be regularly trimmed to maintain visibility and attractiveness.

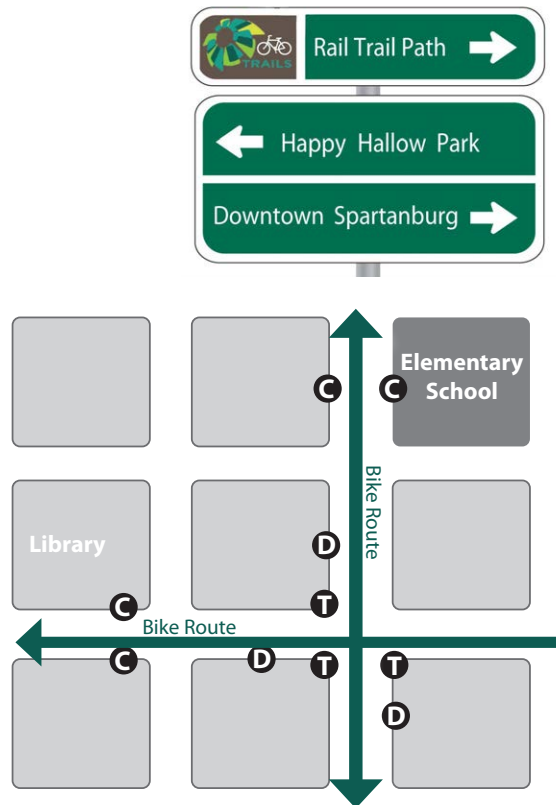
ADDITIONAL REFERENCES AND GUIDELINES

- Alta Planning + Design and IBPI. (2009). Neighborhood greenway Planning and Design Handbook.
- BikeSafe. (No Date). Bicycle countermeasure selection system.
- Ewing, Reid. (1999). Traffic Calming: State of the Practice.
- Ewing, Reid and Brown, Steven. (2009). U.S. Traffic Calming Manual.

WAYFINDING SIGN TYPES AND PLACEMENT

DESCRIPTION

A trail and greenway wayfinding system consists of comprehensive signing and/or pavement markings to guide users to their destinations along preferred routes. Signs are typically placed at decision points along routes – typically at the intersection of two or more greenways and at other key locations leading to and along routes.



T

Turn Signs indicate where a route turns from one street onto another street. Can be used with pavement markings. Include destinations and arrows.



Standard MUTCD style shown

C

Confirmation Signs indicate to users that they are on a designated route and make motorists aware of the route. These signs can include destinations and distance/time. Do not include arrows.

D

Decisions Signs mark the junction of two or more routes.



GUIDANCE

Placement locations by sign type:

Confirmation Signs:

Place every ¼ to ½ mile on off-street facilities and every 2 to 3 blocks along on-street facilities, unless another type of sign is used (e.g., within 150 ft of a turn or decision sign). They should be placed soon after turns to confirm destination(s). Pavement markings can also act as confirmation that a bicyclist is on a preferred route.

Turn Signs:

Place on the near-side of intersections where routes turn (e.g., where the street ceases to be a bicycle route or does not go through). Pavement markings can also indicate the need to turn to the bicyclist.

Decisions Signs:

Place these signs on the near-side of intersections in advance of a junction with another route, or along a route to indicate a nearby destination. These signs also inform users of the designated bike route to access key destinations. Destinations and arrows, distances and travel times are optional but recommended.

MATERIALS AND MAINTENANCE

Maintenance needs for wayfinding signs are similar to other signs and will need periodic replacement due to wear.

ADDITIONAL REFERENCES AND GUIDELINES

AASHTO. (2012). Guide for the Development of Bicycle Facilities.
FHWA. (2009). Manual on Uniform Traffic Control Devices.
NACTO. (2012). Urban Bikeway Design Guide.

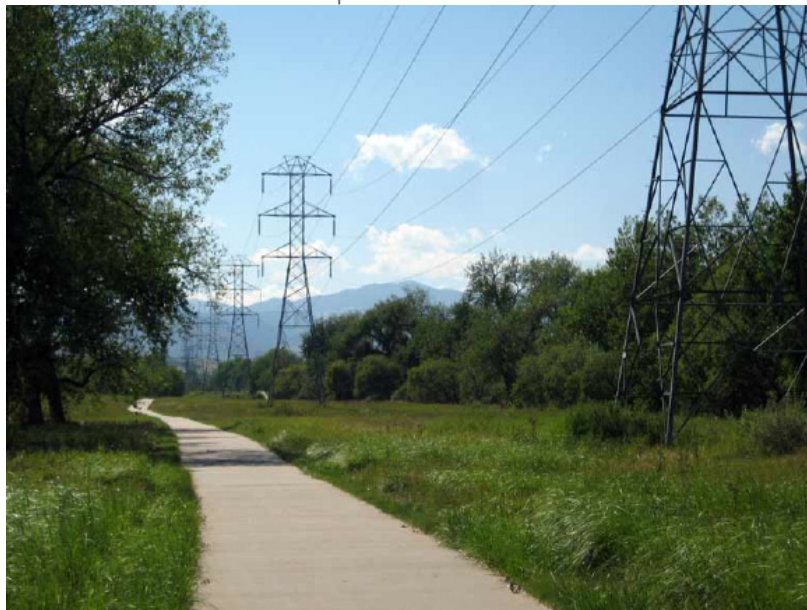
DISCUSSION

There is no standard color for bicycle/pedestrian wayfinding signage. Section 1A.12 of the MUTCD establishes the general meaning for signage colors. Green is the color used for directional guidance and is the most common color of wayfinding signage in the US, including those in the MUTCD.

TRAILS WITHIN DUKE ENERGY EASEMENTS

DISCUSSION

The current Duke Energy Electric Transmission Rights-of-Way Guidelines/Restrictions for North Carolina and South Carolina details rights-of-way restrictions in Duke Energy's electric transmission rights-of-way. The guidelines are available online at: <http://www.duke-energy.com/safety/right-of-way-management/transmission-restrictions.asp>. Remember that Duke Energy typically does not own the land on which its electrical right-of-way is located; therefore, an agreement with the landowner allowing a multiuse trail would also be required.



CONTACT

For additional information regarding Duke Energy's Electric Transmission Rights-of-Way Guidelines in Spartanburg, please contact:

Steven Pryor

Duke Energy

Asset Protection Specialist Southern Region

E-Mail: Steven.Pryor@Duke-Energy.com

Telephone: (864) 948-5610

Mail:

Steven Pryor

920 Beaumont Ave.

Spartanburg, SC 29303

SUMMARY

The following is a summary of Duke Energy's guidelines in its rights-of-way:

- Structures, such as: buildings, signs, benches, trash receptacles, walls, bridges, bicycle racks and boardwalks are not allowed within the rights-of-way limits.
- Fences may not parallel the right-of-way centerline but may cross from one side to the other at any angle not less than 30 degrees with the centerline. If a fence crosses the right-of-way, a gate must be installed to allow access by Duke Energy equipment.
- Trails may not parallel the right-of-way centerline, but may cross from one side to the other, at any angle not less than 30 degrees with the centerline.
- All construction must remain 25 feet or more from all electrical structures, including poles, towers and guy anchors.
- Grading (cuts or fill) shall be no closer than 25 feet from a pole or tower leg and the slope shall not exceed 4:1 in the right-of-way.
- Plants and trees with maximum height of 15 feet at maturity are allowed.

Left: Cherry Creek Trail (Denver, CO) and Right: Van Bibber Creek Trail (Jefferson County, CO) are both examples of trails along electric transmission rights-of-way. Photo Credit: <http://www.americantrails.org>



COMPLETE REVIEW OF EXISTING PLANNING EFFORTS

Appendix Contents:

Summary of Relevant Plans

Other Relevant Planning Efforts

SUMMARY OF RELEVANT PLANS

PARKS ENHANCEMENT PLAN

Year: 2012

Description: The purpose of this paper is to present policy recommendations for consideration of the Spartanburg County Council, for priority park investments to occur beginning in FY 12/13 and continuing through fiscal year FY 16/17.

Our Mission: Spartanburg County Parks Department facilities and programs will be fun, safe, attractive, accessible and family friendly – offering both active and passive recreation opportunities – to promote an active, healthy lifestyle for people of all ages and abilities.

Recommendations:

- Funding for: A trail system in the City of Woodruff and Re-decking of a bike and pedestrian bridge in Edwin M. Griffin nature Preserve
- Look to the Trails Master Plan (this planning process) to provide guidance for future trail investments
- Berry Field- desirable investment includes pedestrian/bicycle access beneath Asheville Highway to Cleveland Park. Connection is feasible and could be important linkage in an exercise path running from downtown, through neighborhoods, through Berry Field and Cleveland Park and back to downtown.
- Cleveland Park-Glenn Park walking trail
- Park Standards Manual – includes in-park wayfinding
- Park Beautification/Landscaping Plan
- Criteria for trails investment identified (page 33)
- Donate \$15,000 to SPACE for re-decking of bicycle and pedestrian bridge in Edwin M. Griffin Nature Preserve

Opposite page:

*Virginia College of Osteopathic Medicine near downtown
Spartanburg*

CITY OF SPARTANBURG NEIGHBORHOOD TRAFFIC CALMING PROGRAM

Year: 2012

Description: In recent years, the City of Spartanburg has received numerous requests to address cut-through and speeding traffic within neighborhoods. The City is committed to being a supporting partner in helping neighbors devise creative and workable ways to restore and preserve safe and peaceful streets. The City believes that this can be achieved through “traffic calming.” The City, subject to the traffic calming program criteria, may install speed humps intended to mitigate traffic problems. Other traffic calming measures are addressed separately through the City’s Traffic Engineering Division.

The mission of the program is to enhance neighborhood safety and livability by working closely with neighborhoods to implement effective transportation solutions in our residential areas.

Eligibility Criteria: The City has categorized roadways into different types or classes, characterized by the nature and types of trips that take place, the length of the trip and general traffic volume conditions. Streets are placed in the following categories: Arterial Roadways, Collector Roadways and Residential (Local) Streets. To be considered for the program, a roadway must:

- Have a functional classification of residential street or minor collector roadway
- Have a posted speed of 30 MPH or less
- Be two-lanes wide
- Have a volume not greater than of 4,000 vehicles per day, with limited case by case exception

SPATS PROJECT FUNDING TRANSPORTATION IMPROVEMENT PROGRAM, FY 2010-2015

Year: 2010

Description: The SPATS Transportation Improvement Program (TIP) contains all approved federally funded transportation projects within the Spartanburg County urban area. This program is revised annually by the SPATS Policy Committee, the decision-making board of the Spartanburg Area Transportation Study. For the fiscal years 2010-2015, one SAFETEA-LU Earmark Project – Hub City Connector, Bicycle and Pedestrian Improvements as part of the Palmetto Trail- was identified, with an earmark of \$1,360,000.

FLOOD DAMAGE PREVENTION ORDINANCE

Year: 2010

Description: This document amends sections of the county code to include additional definitions and to reference areas

of special flood hazard identified by the Federal Emergency Management agency in its flood insurance study in January 2011. The ordinance is administered by the Spartanburg County Engineer. The document is primarily concerned with the construction of structures in the floodplain. In the definitions, a development is any man-made change to improved or unimproved real estate, including, but no limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling options, or storage of equipment or materials.

This would presumably include any trail work that occurred within flood hazard areas.

SPATS BICYCLE & PEDESTRIAN MASTER PLAN

Year: 2009

Description: In January 2009, SPATS, Spartanburg County and the City of Spartanburg began developing a countywide comprehensive bicycle and pedestrian plan. This Plan seeks to build upon what has already been accomplished and create action towards implementation, project, program and policy development. The plan addresses the entire county, including incorporated areas and non-incorporated areas.

Recommendations:

- Building on the Enhancement Master Plan and amended with further recommendations, over 200 miles are recommended in the off-road greenway system (page 63)
- Map 4.1 Spartanburg County: Bicycle Recommendations (page 69) and Map 4.2 Metro Spartanburg Bicycle Recommendations (page 70) includes Enhancement Master Plan projects
- Ensure that regional connections and regional greenway corridors are established and enhanced (page 72)
- Map 5.1 Spartanburg County: Pedestrian Recommendations (page 76) and Map 5.2 Metro Spartanburg Pedestrian Recommendations (page 77) includes Enhancement Master Plan projects
- Map 6.1 and 6.2 identify the Top 25 priority bicycle and pedestrian recommendations, respectively, for the City of Spartanburg (pages 88-89)
- Policy Recommendations (page 139-147)
- Host a National Trails Day along the Palmetto Trail
- Develop a Greenway Master Plan to address the hundreds of miles of greenway recommended throughout the County as part of the Enhancement Plan (page 192)
- Create a sidewalk/bicycle lane/greenway request form for residents to use
- Greenway Trail design guidance (page 210-212)
- Section 10.3 Trail Design Standards (page 233-261)



CITY OF SPARTANBURG DOWNTOWN MASTER PLAN

Year: 2008

Description: Downtown Spartanburg has long been the geographic, cultural, governmental and emotional center of the Hub City. The Plan encompasses more than 960 acres and includes elements necessary to ensure the area's long term sustainability including recommendations for connectivity and circulation, new housing, mixed-use redevelopment and infill, urban design and pedestrian orientation.

The Public Kickoff Workshop attendees identified 12 strategic action areas, of which #5 was to “Plan for Multi-modal Transportation/Connectivity”

RECOMMENDATIONS:

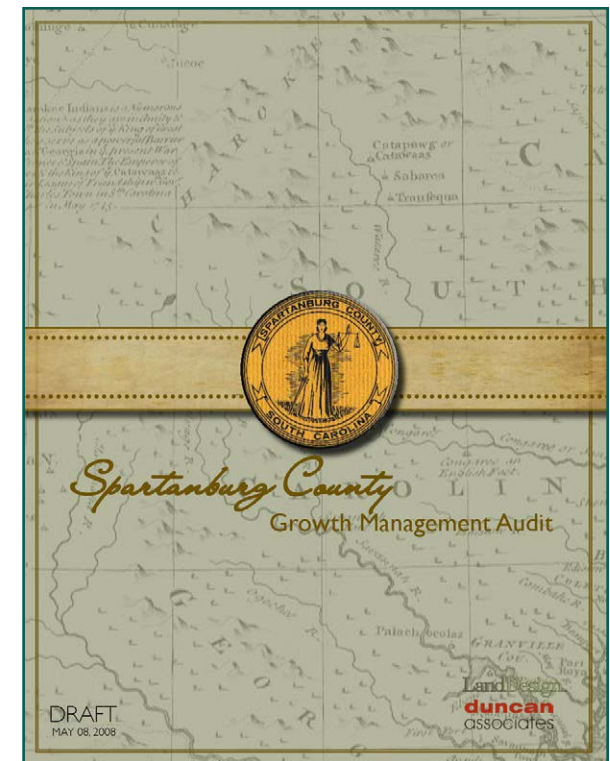
- Improved streetscapes with wider sidewalks and landscaping along the primary pedestrian corridors (Church Street, Converse Street, Liberty Street, East Main Street, Broad Street, Kennedy Street)
- Connect Palmetto Trail through downtown Spartanburg. This project is a must for the City to attain its desired bicycle-friendly status. In order to achieve this goal, the City should clearly delineate a safe, signed-bike path/route through the urban core.
- Extend Lawson's Fork trail north toward Beaumont Mill area. There exists a great potential to extend the Lawson's Fork hiking trail to the Beaumont Mill area as a multi-use path/greenway.
- Map of proposed bicycle facility improvements identifies the trail projects above, as well as special intersection enhancements, one of which is where the Palmetto Trail transitions to an on-street route (page 111)
- A comprehensive wayfinding system for downtown area

SPARTANBURG COUNTY GROWTH MANAGEMENT AUDIT

Year: 2008

Description: The purpose of this document is to review is to evaluate Spartanburg County's current Unified Land Management Ordinance in the context of the adopted Comprehensive Plan and more recent policy studies and recommendations from a variety of governmental and non-profit organizations. Key points include:

- Connectivity is essential to creating a pedestrian-friendly community. Cul-de-sacs and loop roads with limited connections create very long pedestrian trip lengths, discouraging people from walking.
- Connectivity for pedestrians involves more than street connectivity, however. There must also be actual pedestrian connections. Simply constructing sidewalks in a new subdivision, with no connections to other sidewalks or trails, serves only limited purposes – allowing pedestrians to walk for exercise in their neighborhoods and to walk (and allow their children to walk) to neighboring homes to visit. Thus, the concept of connectivity for pedestrians



requires interconnections among pedestrian ways to create an entire system for pedestrian movement.

- Pedestrian safety is important. Safety for pedestrians involves many elements. Safe ways to cross arterial roads and highways are essential.
- Lighting that sits high on poles to light large areas of street may not provide adequate ground-level lighting to allow pedestrians to see obstacles in sidewalks or to avoid potentially dangerous situations.

RECOMMENDATIONS:

To implement the “Alternate Mobility Plan” for developing areas of the county and to make the county pedestrian and bicyclist-friendly, the county should seriously consider all of the following changes to its regulations:

- Require appropriate pedestrian and bicycle facilities along arterial roads. Such facilities may involve Shared pedestrian/bicycle trails along the right-of-way but separated from the vehicular lanes;
- Where new development includes the routes of proposed trails or greenways, require that developers dedicate the rights-of-way for such trails or greenways; the cost implications to developers can be mitigated by calculating permitted density on the gross site area, so that a developer suffers no reduction in potential development yield from such dedication;
- Where a new development will clearly generate users for trails or greenways passing through it (residential development, neighborhood shopping centers, institutional uses will all generate users), require that the developer complete construction of the trails,

Informative Brochure with Biking, Walking, Hiking and Blueway Trails in Spartanburg County. Included in the SPATS LRTP

SPARTANBURG COUNTY, SOUTH CAROLINA
PUBLIC BIKE, WALKING & HIKING TRAILS AND BLUEWAYS

compiled by USC Update Trail

Existing Bike Tours and Routes

Name	Length
Downtown Loop	9.8mi/ 15.8km
Tour de Schools	18.9mi/ 30.4km
Textile Town Tour	30.7mi/ 49.4km
Neighborhood Tour	6.3mi/ 10.1km
Westside History Loop	11.1mi/ 17.9km
Cedar Springs Loop	10.8mi/ 17.4km
Duncan Park Ride	3.0mi/ 4.8km
Converse Heights Ride	5.6mi/ 9km

Mountain Bike Trails

Name	Length
Reckville Road (SC-295)	5mi/ 8km
Hudson Barkdale	1mi/ 1.6km
US 221 near downtown Chesnee	0.25mi/ 0.4km
SC 101	8mi/ 12.9km
SC 295	5mi/ 8km
Evins and Cummings St.	0.6mi/ 1km
SC 290	6mi/ 9.7km
Spring Street/ Marion St.	1.2mi/ 1.9km
SC 62 (Main St. in Redville)	0.1mi/ 0.16km

Hiking and Biking

Name	Length
Mountain Bike Trails at Croft State Park	14.1mi/ 22.7km
BMX track at North Spartanburg Complex	0.25mi/ 0.4km
Liberty Trail	0.4mi/ 0.6km
Blue Wall Passage	14mi/ 22.9km
The SC School for the Deaf and the Blind	1mi/ 1.6km
Stratton Trail	1mi/ 1.6km
Glenn Springs	5mi/ 8km
Mary Black Rail Trail	1.9mi/ 3.1km
USC Update	3.2mi/ 5.2km
Chinquapin Creek Trail at Hospice House	1.6mi/ 2.6km
Croft Passage	10mi/ 16.1km
SC 295	5.0mi/ 8.1km

Hiking and Walking Trails and Routes

Name	Length
Pride Trail	2mi/ 3.2km
Peter's Creek	3.6mi/ 5.8km
Cottonwood Trail Preserve	5mi/ 8.1km
Hatcher Garden	2mi/ 3.2km
Duncan Park Trail	1.8mi/ 2.9km
River Birch Trail	0.6mi/ 1km
Cleveland Park	1.5mi/ 2.4km
Nature Trail at Croft State Park	1.4mi/ 2.3km
Hopson Craig Trail at Croft State Park	1mi/ 1.6km
Pacolet River Preserve Trail	1.5mi/ 2.4km
Boiling Springs Community Park Trail	0.27mi/ 0.4km
SCALE Trail in Duncan	2mi/ 3.2km
Salvation Army Trail	1mi/ 1.6km
Glendale Shulds	1mi/ 1.6km
Mary Wright Greenway	1.1mi/ 1.8km

Projects in the Near Future

Name	Length
Wadsworth Trail	2.24mi/ 3.6km
Leadership Spartanburg Trail	0.1mi/ 0.2km
Mean Green Trail at Pine Street Elementary	0.05mi/ 0.08km
Va Du Mar Park Trail	1.5mi/ 2.4km
Town of Pacolet Nature Trail	1.5mi/ 2.4km
Barnet Park	2mi/ 3.2km
Converse College and Converse Heights	2.3mi/ 3.7km
Historic Hampton Heights Home Tour and Rail Trail	1.45mi/ or 3.15mi/ 2.3km or 5.1km
Downtown Steeple Chase	2.8mi/ 4.5km
Daniel's Downtown Delight	2mi/ 3.2km

There are well over 200 miles/ 300 km of public trails & pathways in Spartanburg!

Organizations that provided information for this report:

- Spartanburg Area Conservancy
- South Carolina Department of Natural Resources
- Hatcher Garden and Woodland Preserve
- City of Spartanburg
- Spartanburg County Parks and Recreation
- Spartanburg County Parks and Recreation Commission
- Spartanburg Convention and Visitor's Bureau
- South Carolina Information Highway
- District Five Schools of Spartanburg County
- Pacolet River Preserve
- Palmetto Conservancy
- South Carolina Department of Transportation

SPATS LONG RANGE TRANSPORTATION PLAN

Year: 2008

Description: Completed in November 2008, the SPATS Long Range Transportation Plan is a multi-modal and fiscally constrained document that outlines transportation priorities and proposed projects to the year 2035. Project priorities are based upon growth patterns, population and employment projections and a transportation model that forecasts traffic and transportation needs to the year 2035. The total projects costs within the plan cannot exceed what SPATS is expected to accumulate by the year 2035, and inclusion in the plan is a prerequisite before funding can be committed within the SPATS Transportation Improvement Program (TIP).

Of the Goals identified in the LRTP, Goals 3, 4 and 6 are most relevant.

- Goal 3: Increase Accessibility and Mobility Options.
 - ♦ Objectives include: Maintain, enhance and expand existing multi-use trails and bicycle facilities, with emphasis on developing an interconnected network of pedestrian and bicycle facilities.

SPARTANBURG TRAILS & GREENWAYS PLAN

- Goal 4: Enhance Intermodal Connectivity and Integration
 - ♦ Objectives include: Facilitate the development of integrated multi-modal transportation system.
- Goal 6: Protect and Enhance the Environment
 - ♦ Objectives include: Identify ways to improve air quality; develop strategies to reduce emissions, ensure equity in the benefits of transportation system, protect recreational and other environmentally sensitive areas, promote consistency of transportation improvements with state and local plans.

The document also includes 26 pages on the SPATS Active Community Story.

RECOMMENDATIONS:

- Spartanburg County Existing Bikeways and Recommendations WORKING DRAFT MAP (page 116)
- SPATS 2005 Walkable Community Workshop Plans with project priorities (page 118-124)

SPARTANBURG COUNTY COMPREHENSIVE PLAN 1998-2015

Year: 1998

Description: This Comprehensive Plan Update is designed and intended to promote within Spartanburg County an arrangement of land use, circulation and services which will encourage and contribute to the economic, social and physical health, safety, welfare and convenience of the residents.

On transportation, the document notes that, surface transportation facilities consist of all public streets and roads, pedestrian, bicycle and transit facilities/systems and freight movement. Each of these elements has been studied and planned cooperatively and comprehensively in Spartanburg County by local, state and federal agencies. The results are contained in a document entitled: SPATS LONG-RANGE PLAN, 1995, which study is hereby adopted by reference and made an integral part of this Comprehensive Plan.

Relevant Goals include:

- (1) Population. Create an “age sensitive” environment – meet and accommodate changes in age and gender composition of county residents.
- (3) Economic Development. Create new economic markets to cash in on South Carolina’s emerging Recreation-Retirement Image.
- (6) Community Facilities. Provide alternative means of transportation that can be used to reduce congestion on existing streets and roads and add to the general quality of life in the county.

RECOMMENDATIONS:

- Provide pedestrian and/or public transportation linkages.
- Adapt the environment to meet changing needs of the elderly. Universal design is a significant innovation within the housing sector; the same approach should be applied to the community at large in building design, site planning and land uses.
- Economic development efforts should be expanded to include tourist and retiree markets. The state has placed great emphasis on promoting South Carolina as a tourist destination and retirement place.
- Projects for Bicycle and Pedestrian Facilities (Page 6-18). Includes some pedestrian pathways, bike/ped path, greenways and trails.

SPARTANBURG COUNTY UNIFIED LAND MANAGEMENT ORDINANCE

Year: 1999 (last amended 2004)

Description: An ordinance of Spartanburg County, South Carolina regulating, among other things, the use of certain buildings, structures and land, the height of buildings and structures, the development of flood plain areas, land subdivisions and other land developments, the erection of signs and storm water runoff.

Article 1 describes the types of applications for processing matters subject to the requirements of this Ordinance including Applications to Develop or Alter the Use of Land. This includes all land use and development activity covered by this Ordinance. Applications to develop or alter the use of land are classified for administrative purposes into five (5) categories. Category Four, (4) Minor Land Development covers any land development or land altering activity requiring a permit from the County other than a subdivision or Major Land Development.

Required Permits/Certificates are included in Section 1.12 Grading (Land Disturbing) Permit (page 1-12). A grading permit approved by the Spartanburg County Public Works Department, Engineering Division shall be required prior to ANY land disturbing activity covered by the Spartanburg County Storm Water Management Ordinance of Spartanburg County (No. O-09-02). This requirement applies to all land disturbing activities covered by this Unified Land Management Ordinance. No grading permit shall be issued in the absence of an approved Storm Water Management Plan. (Amended 5/15/2000)

Article 2, Section 2.02-4 discusses Common Open Space. The types of common open space which may be provided to satisfy the requirements of this Ordinance together with the maintenance required for each includes Greenways, defined as linear green belts linking residential areas with other open space areas. These greenways may contain bicycle paths, footpaths and bridle paths. Connecting greenways between residences and recreational areas are encouraged.

SPATS ENHANCEMENT MASTER PLAN

Year: 2004

Description: The Long-Range Enhancement Master Plan provides Spartanburg Area Transportation Study (SPATS) recommendations for alternate mobility solutions as well as beautification opportunities. SPATS initiated the Master Plan as a tool to coordinate alternative mobility and enhancement projects on the basis of anticipated Federal funds.

The purpose of this Master Plan was to identify and prioritize alternative mobility opportunities using natural resources, overland connectors and abandoned rail-lines and landscape enhancement projects within primary gateways, roadways, corridors, landmarks and open spaces throughout the County.

The Vision statement for Alternate Mobility is “To work with the community at large to provide safe, accessible bike and pedestrian accommodations for recreation and transportation throughout Spartanburg County while promoting mutual respect of each mode.”

The purpose and objectives of the mobility element of the Plan were further defined to apply to pedestrian and bicycle “trails” that are, for the most part, located outside of the rights-of-way of the County’s roadway system. In other words, the intent was defined to focus on a “greenways” trail system to the extent possible.

The initial guidelines for identifying potential corridors for trail development were as follows (in no particular order):

- Utilize natural features, such as rivers and streams, where possible.
- Utilize utility easements, such as power lines and gas lines, where possible.
- Create connections to cultural amenities such as schools and universities.
- Create an interconnected system throughout the entire study area.
- Build on connections to existing parks/trails, recreation centers and preserves.
- Create linkages to residential, shopping and employment areas.

The overall goal of the trail network is to improve the quality of life for the citizens and visitors of the Spartanburg area by increasing recreational opportunities and promoting economic development, while at the same time endorsing the area’s unique heritage. Trail and greenways also seek to preserve open space and improve environmental quality of life. With this in mind, the interconnected system of trails and greenways would provide a basis for connecting the area’s population centers, as well as linking diverse cultural and natural resources.

Recommendations:

- Alternate Mobility Master Plan Map (page 1-4/page 6-5) identifies 30 Greenways/trails (total length = 154 miles), with 12 identified as High Priority/Feasibility
- Alternate Mobility Opportunities Map (page 6-2)
- Evaluation Criteria (page 6-3)
- Table 6-1 Greenway/Trail Priority List (page 6-4)
- Trail surfacing types (page 6-6)
- Trail description sheets (page 6-8 through 6-42) for all 30 Greenways/Trails identified on map
- Establish a local committee to lead the community in the implementation of the trail/greenway system

OTHER RELEVANT PLANNING EFFORTS**SAFE ROUTES TO SCHOOL**

Year: 2012

Description: The SCDOT Safe Routes to School Resource Center led the development of Safe Routes to School Travel Plans for McCracken Middle and Mary H. Wright Elementary Schools, and a Walkability Assessment for Jesse Boyd Elementary School. Development of the plans involves participation from school administrators, parents, teachers, public safety professionals and traffic and transportation professionals.

Recommendations:

In addition to programmatic recommendations, the plans proposed the following:

- At McCracken – pedestrian improvements for crossings and intersections along Webber Road and Main Street; sidewalks and pedestrian improvements along Winfield Drive and Ransdell Drive
- At Mary H Wright – sidewalks on Millster Street and pedestrian improvements for crossings and intersections along Marion Avenue, Church Street, Caulder Avenue and Hudson L Barksdale Boulevard
- At Jesse Boyd – pedestrian improvements at multiple locations and a new trail connection to the Cottonwood Trail via Clemson Street or a powerline right-of-way behind the school

COTTONWOOD TRAIL – TRAIL DEVELOPMENT PLAN

Year: 2011

Description: The Spartanburg Area Conservancy commissioned a study of the feasibility of extending the Cottonwood Trail from its easternmost terminus to the Glendale community. The proposed route follows Lawson's Fork Creek. The Study refines the proposed route, addresses design challenges and provides limited cost opinions.

Recommendations: The recommended Cottonwood Trail route is reflected in the map of existing conditions of this Plan.

SPARTANBURG COUNTY TOURISM ACTION PLAN

Year: 2011

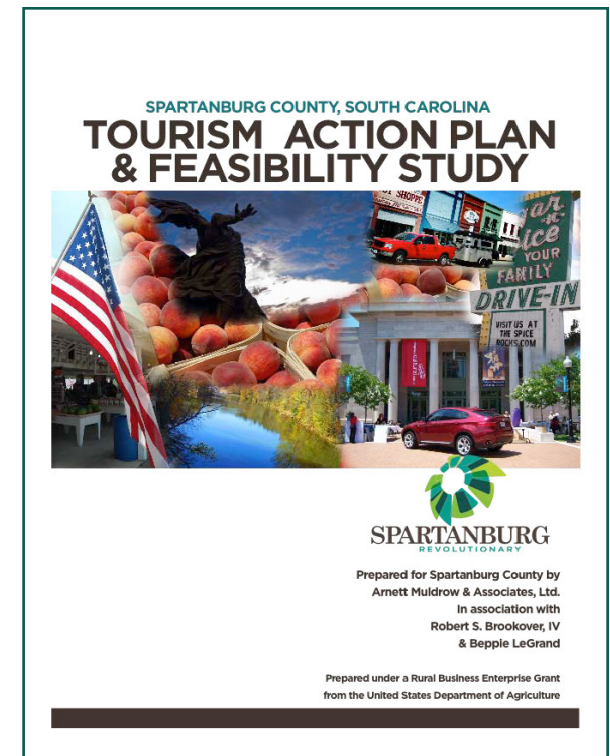
Description: This plan was developed to become eligible for certain grant funding. The Mission is “To enhance the economic, social and cultural progress of Spartanburg County and to enrich its quality of life through implementing sustainable tourism; to encourage excellence in collaborations and partnerships; to facilitate greater access to Spartanburg’s history, agriculture, recreation and manufacturing; and to preserve our natural and cultural heritage.”

The Plan documents existing outdoor recreation facilities, including: Palmetto Trail, Cottonwood Trail, Mary Black Rail Trail, Over-Mountain Victory Trail, Pride Trail, River Birch Trail, SCALE Trail – all identified on Map 7 Outdoor Recreation Resources (page 86) and Map 8 Spartanburg County Trail System (page 87)

Though not formally adopted by County Council, the Plan was endorsed as a guide for tourism planning in the County and referred to the Convention and Visitors Bureau for implementation.

Recommendations:

- Continue to link biking/hiking trails throughout the county. The existing trails should be marketed to visitors in partnership with the Convention and Visitors Corporation.
- Fully develop the Geographic Information (GIS) Systems database for Spartanburg County. Some recommendations for completing the data are:
- Collect any pertinent data layers that are not currently in-house. These might include:
 - ♦ South Carolina State Parks polygon shapefile;
 - ♦ Current Palmetto Trail line shapefile;
 - ♦ Blueways including put-ins and take-outs.
- Consolidation and Coordination of GIS data.



CITY PARKS & RECREATION PLAN

Year: 2007

Description: In 2007, the City completed a Parks & Recreation Master Plan. Though never formally adopted by Council, the Plan serves as a useful inventory of existing facilities (at the time of the Plan) and a menu of potential improvements to existing facilities.

Recommendations: N/a

SPARTANBURG AREA ACTIVE LIVING ASSESSMENT

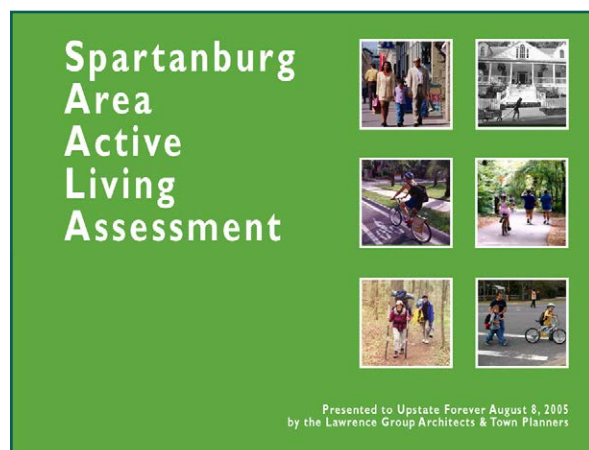
Year: 2005

Description: Upstate Forever retained The Lawrence Group to conduct an “active living assessment” of the land development regulations and plans for Spartanburg County and the City of Spartanburg and to identify “provisions that impede the development of active living neighborhoods and communities” -- neighborhoods that allow and encourage people to engage in regular physical activity, such as bicycling and walking, as part of their daily routine. This report provides a framework for revising City and County regulations and policies to support active living and recommends an action agenda for implementation.

The matrix (page iii-viii) lists the 70 major recommendations in the report and attempts to organize and prioritize them based on the factors that will most likely impact their implementation.

Recommendations:

- Link open space dedication to existing and planned park/greenway system (Section 2.3, 4.1)
 - ♦ Action Step: develop a bikeway master plan to identify ways to expand trails and connections. Create corridors of open space that can be used as recreational greenways.
 - ♦ Action Step: Build trails through neighborhoods to connect homes with schools so children can ride bikes or walk to school without having to cross major roadways.
- Establish connectivity plan/program (Sections 4.1, 2.3)
- Develop multi-modal active transportation maps (Section 3.2)
- Coordinate trails master plan with bicycle and pedestrian master plans (Section 2.3)
- Coordinate greenway implementation with connectivity projects (Section 2.2)



PALMETTO TRAIL

Year: Ongoing

Description: The Palmetto Trail is South Carolina's Mountains-to-the-Sea Trail and the signature project of the statewide nonprofit, the Palmetto Conservation Foundation. Once complete, the trail will extend roughly 425 miles from Awendaw, South Carolina at the Intracoastal Waterway to Oconee State Park at the trail's northern terminus, passing through the heart of Spartanburg County. Completed sections of the Palmetto Trail passing through Spartanburg include the Blue Wall Passage, the Mary Black Foundation Rail Trail, the South Carolina School for the Deaf and Blind Braille Trail and portions of trails within Croft State Natural Area. In aggregate, the trails are dubbed the "Hub City Connector." The Palmetto Conservation Foundation continues to advance trail development within Spartanburg County to connect the Palmetto Trail segments.

Recommendations: The recommended Palmetto Trail route is reflected in the map of existing conditions of this Plan.

A GREENWAY FOR SPARTANBURG

Year: 1978

Description: This Plan represents Spartanburg's first concerted effort to envision a trail network. Commissioned by the City of Spartanburg, the Plan identifies priority greenway corridors and offers design guidelines and strategies for implementation.

Recommendations: Eighteen greenways are recommended within four types of corridors: parks or open space; flood plains; railroad rights of way; utility right of way. Implemented greenways include the Mary H Wright Greenway (called the Arrowhead Trail and the Carolina Trail in the Plan), the Mary Black Foundation Rail Trail (called the Greengate Trail in the Plan) and an extension of the Cottonwood Trail near Woodburn Road (called Dukes Trail in the Plan).

Page Intentionally Left Blank



SUMMARY OF PUBLIC INPUT



Appendix Contents:

Online Comments

ONLINE COMMENTS

In order to gain local knowledge and input, a public outreach component was included as an integral part of planning efforts for the Spartanburg Trails & Greenways Plan. Public input was gathered through several different means including the project website. This offered residents and visitors of Spartanburg opportunity to contribute to the Plan's development. The following includes a summary of the comments received thorough the online comment form available at the project's website: <http://www.spartanburgtrails.org/>

TRAILS & GREENWAYS NETWORK

- I am happy that Spartanburg is making the effort to develop a trail system! I lived in Minneapolis for four years and loved the extensive bike and trail system. Please, let's bring this kind of improvement to our area.
- We need more trails.
- I appreciate the work you are doing. If Spartanburg could get say 15 miles of a continuous safe trail to bicyce or walk, that would be awesome.
- Has there been any thought for the future of developing a rail to trail from Saluda to Spartanburg.
- Am interested in talking with someone about the possibilities of having a rail to trail here.
- I am thrilled to hear about the possibility of more trails in Spartanburg. I especially like the idea of connecting the Mary Black Rail Trail to the Cottonwood and also to downtown.
- The plan to connect the existing trails and expand the network should be a top priority.
- Our family often uses the Rail Trail, Cottonwood Trail and Duncan Park Trail, and would like to be able to connect to other parts of Town. We find ourselves using these assets less because we get board of trails that are so short. If we could go farther we would use these trails much more often instead of loading up the bikes and traveling out of town to ride. It seems strange to live in the City Center and have to leave town to get in a good ride. We usually take all three trails and then wind our way through Downtown, by VCOM, through Wofford and then home because we really don't have other options that are safe for Children. Some of the areas getting through Downtown are a litte scary for kids too.
- I am glad to see the interest in expanding the trails around Spartanburg. I would like to see some hard surface trails for road cyclists. It would be wonderful to have a trail system surrounding Spartanburg county that eventually connects to Greenville's trail system.
- I love the idea of a system of trails linking Spartanburg together. I would use them as walking and running trails. What about including more on the westside, Wadsworth and the Tyger River and Reidville Road.

Opposite page:
Palmetto Trail

- I would like to see the hard surface trails not be all concrete because that surface is very hard on runners. I like how the new Charlotte trail has concrete borders with an asphalt middle so it prevents maintenance issues with asphalt edges (bermuda grass encroachment, breakdown of edges over time). Also like how the Swamp Rabbit trail has a narrow lane of rubberized surface on one side in some areas.
- I like the focus on off-street facilities (like greenways). I believe people are much more comfortable and willing to use those facilities (see Rail Trail). I think connecting the Rail Trail to downtown, connecting Cottonwood to Glendale and connecting the Westside to downtown are the most important priorities.

SAFETY CONCERNS

- I would also suggest putting some lighting in. I run the rail trail often in the morning when it is still pitch black out with the running club. There are a ton of bikers, walkers and other runners that use it in the dark. It would be good and safer if you could get even a light every 1/2 mile or so on that trail so that people can see.
- One stretch of road that I think needs some consideration is Wodburn Road from Country Club Rd to Fernwood Drive. This stretch is a connector for bicyclist coming from east side neighborhoods to Converse Heights/ Duncan Park/ Downtown areas. It is a pretty scary stretch to ride your bike. Curvy, blind turns, narrow in spots.

INFRASTRUCTURE NEEDS

- It doesn't appear that there are any plans for a trail in the northern portion of our county near Lake Bowen. I believe this is a tremendous oversight given that Highway 9 is being expanded from 2 to 4 lanes beginning at Walmart shopping center and continuing to the Lake. This expansion includes sidewalks and a bike lane. While a bike lane will be wonderful, why not begin planning on a trail that connects to this bike lane and would allow for travel around portions of the lake and through lake neighborhoods? As a member of the lake-side community I can assure you that there is a terrific amount of support for seeing a project that would safely open and connect so many terrifically beautiful sites that have both mountain and lake views.
- Just one comment is that we prefer bike lanes to sidepaths on the arterial streets. One example is Southport Rd which we ride out to the west side.
- Regarding the rumble stripes on route 29 (Main St) from Gaffney to Spartanburg. The shoulder is way too narrow for rumble stripes. The FHWA recommends only rumble striping 4' shoulder roadways. We assume this was done by SCDOT, but if you have any influence there, you should tell them this doesn't make for a bicycle friendly state.
- I would like to see a lane closing project revisited; Main St from Pine St west to the downtown area with adjacent bicycle lanes. That would help to beautify the entrance to the city as well as slow traffic.
- Has there been any discussion of a soft-surface trail similar to what Greenville has done with one end of the Swamp Rabbit? The softer surface would be wonderful for the runners and walkers among us, especially seniors.
- Reestablishing the historical connection b/w downtown and Glendale Mill is great. My understanding is that it

used to be a tradition to take the trolley from downtown to the Glendale Mills falls for a picnic lunch on Sundays.

- A dedicated bike lane on Country Club Road to connect the end of the Palmetto rail trail by Ingles to Glendale Mill would be greatly appreciated (Country Club Road is not safe at all for biking right now).

AMENITIES & GENERAL COMMENTS

- It would be nice if the trails offered wireless for ipod users.
- We are Ohio residents but have family in Spartanburg and visit twice a year. We bike on the roads around east Spartanburg, out to Camp Croft and south of town. We are making use of the new bike lanes and bike trails in town and on Pine St. We have borrowed the bikes from B Cycle and this helped us in evaluating similar plans in Columbus, Ohio.
- Great job making Spartanburg more bike friendly.
- My husband and I go at least once a year to Abingdon, VA to ride The Virginia Creeper. Abingdon and Demascus VA are solely tourists towns (restaurants, b&b's, bike shops, bike rental and transportation to the top of the mountain to just ride down for those who want just a fun, easy ride.
- I use the Mary Black Rail Trail & Cottonwood several times a week and I'm never alone on either one. To quote a familiar movie line, "If you build it, they will come."
- Thanks for all that you do for Spartanburg.
- I think it is a grand plan. All of your work is much appreciated.
- Thank you for your leadership in this project.
- Thanks for what you are doing to promote trails.
- As a runner who enjoys using trails, I am very happy this plan is being made. And as a citizen, I am excited about the positive health, community and economic impacts these facilities will have. I look forward to many of these trails being developed--hopefully in the near future.



POTENTIAL FUNDING SOURCES

FUNDING OVERVIEW

The following section outlines sources of funding for bicycle and pedestrian projects in Spartanburg. When considering possible funding sources for Spartanburg trails and greenways, it is important to remember that not all construction activities will be accomplished with a single funding source. Acquiring funding for projects and programs is considerably more likely if it can be leveraged with a variety of local, state, federal and private sources. The following section identifies potential matching and major funding sources and their criteria for bicycle and pedestrian projects and programs.

EXISTING AND POTENTIAL FUNDING SOURCES

The following descriptions are intended to provide an overview of available options and do not represent a comprehensive list. Funding sources can be used for a variety of activities, including: planning, design, implementation and maintenance. It should be noted that this section reflects the funding available at the time of writing. The funding amounts, fund cycles and even the programs themselves are susceptible to change without notice.

FEDERAL FUNDING SOURCES

Federal funding is typically directed through state agencies to local governments either in the form of grants or direct appropriations, independent from state budgets. Federal funding typically requires a local match of 20%, although there are sometimes exceptions, such as the recent American Recovery and Reinvestment Act stimulus funds, which did not require a match.

The following is a list of possible Federal funding sources that could be used to support construction of many pedestrian and bicycle improvements. Most of these are competitive and involve the completion of extensive applications with clear documentation of the project need, costs and benefits. The user demand and benefits analysis provided in Chapter 2: Benefits of Trails & Greenways of this Plan provides useful measurements of bicycle and pedestrian project benefits specific to Spartanburg. It should be noted that the FHWA encourages the construction of pedestrian and bicycle facilities as an incidental element of larger ongoing projects. Examples include providing paved shoulders on new and reconstructed roads, or building sidewalks, on-street bikeways, trails and marked crosswalks as part of new highways.

Appendix Contents:

Funding Overview

Existing and Potential Funding Sources

Federal Funding Sources

State Funding Sources

Local Government Founding Sources

Private Sector Funding Sources

Other Funding Sources

Opposite page:

Spartanburg Plaza.

Source: City of Spartanbug Images

MOVING AHEAD FOR PROGRESS IN THE TWENTY-FIRST CENTURY (MAP-21)

The largest source of federal funding for bicyclists and pedestrians is the US DOT's Federal-Aid Highway Program, which Congress has reauthorized roughly every six years since the passage of the Federal-Aid Road Act of 1916. The latest act, Moving Ahead for Progress in the Twenty-First Century (MAP-21) was enacted in July 2012 as Public Law 112-141. The Act replaces the Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU), which was valid from August 2005 – June 2012.

MAP-21 authorizes funding for federal surface transportation programs including highways and transit for the 27 month period between July 2012 and September 2014. It is not possible to guarantee the continued availability of any listed MAP-21 programs, or to predict their future funding levels or policy guidance. Nevertheless, many of these programs have been included in some form since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 and thus may continue to provide capital for active transportation projects and programs.

In South Carolina, federal monies are administered through the South Carolina Department of Transportation (SCDOT) and Metropolitan Planning Organizations (MPOs). Most, but not all, of these programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing intermodal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

There are a number of programs identified within MAP-21 that are applicable to bicycle and pedestrian projects. These programs are discussed below.

More information: <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>

TRANSPORTATION ALTERNATIVES

Transportation Alternatives (TA) is a new funding source under MAP-21 that consolidates three formerly separate programs under SAFETEA-LU: Transportation Enhancements (TE), Safe Routes to School (SR2S) and the Recreational Trails Program (RTP). These funds may be used for a variety of pedestrian, bicycle and streetscape projects including sidewalks, bikeways, multi-use paths and rail-trails. TA funds may also be used for selected education and encouragement programming such as Safe Routes to School, despite the fact that TA does not provide a guaranteed set-aside for this activity as SAFETEA-LU did. South Carolina's Governor Nikki Haley did not opt out of the Recreational Trails Program funds, ensuring that dedicated funds for recreational trails continue to be provided as a subset of TA. MAP-21 provides \$85 million nationally for the RTP.

Complete eligibilities for TA include:

1. **Transportation Alternatives** as defined by Section 1103 (a)(29). This category includes the construction, planning, and design of a range of bicycle and pedestrian infrastructure including “on-road and off-road trail facilities for pedestrians, bicyclists, and other active forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990.” Infrastructure projects and systems that provide “Safe Routes for Non-Drivers” is a new eligible activity.

For the complete list of eligible activities, visit: http://www.fhwa.dot.gov/environment/transportation_enhancements/legislation/map21.cfm

2. **Recreational Trails.** TA funds may be used to develop and maintain recreational trails and trail-related facilities for both active and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other active and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a state's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's funds)

Under MAP-21, dedicated funding for the RTP continues at FY 2009 levels – roughly \$85 million annually. South Carolina will receive \$1,211,220 in RTP funds per year through FY2014 (http://www.fhwa.dot.gov/environment/recreational_trails/funding/apportionments_obligations/recfunds_2009.cfm).

3. **Safe Routes to School.** The purpose of the Safe Routes to Schools eligibility is to promote safe, healthy alternatives to riding the bus or being driven to school. All projects must be within two miles of primary or middle schools (K-8).

Eligible projects may include:

- Engineering improvements. These physical improvements are designed to reduce potential bicycle and pedestrian conflicts with motor vehicles. Physical improvements may also reduce motor vehicle traffic volumes around schools, establish safer and more accessible crossings, or construct walkways, trails or bikeways. Eligible improvements include sidewalk improvements, traffic calming/speed reduction, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle and pedestrian facilities, and secure bicycle parking facilities.
- Education and Encouragement Efforts. These programs are designed to teach children safe bicycling and

walking skills while educating them about the health benefits, and environmental impacts. Projects and programs may include creation, distribution and implementation of educational materials; safety based field trips; interactive bicycle/pedestrian safety video games; and promotional events and activities (e.g., assemblies, bicycle rodeos, walking school buses).

- Enforcement Efforts. These programs aim to ensure that traffic laws near schools are obeyed. Law enforcement activities apply to cyclists, pedestrians and motor vehicles alike. Projects may include development of a crossing guard program, enforcement equipment, photo enforcement, and pedestrian sting operations.

4. **Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways.** At the time of writing, detailed guidance from the Federal Highway Administration on this new eligible activity was not available.

Average annual funds available through TA over the life of MAP-21 equal \$814 million nationally, which is based on a 2% set-aside of total MAP-21 authorizations. Projected apportionments for South Carolina total \$606,647,974 for FY 2013 and \$611,847,012 for FY 2014 (<http://www.fhwa.dot.gov/MAP21/funding.cfm>). State DOTs may elect to transfer up to 50% of TA funds to other highway programs, so the amount listed above represents the maximum potential funding.

50% of TA funds for the Spartanburg region are automatically allocated directly to the Spartanburg Area Transportation Study (SPATS) based on population. SPATS distributes funds to local communities through a competitive grant program. TA funds require a 20 percent local match and must be administered by either SCDOT or a qualified Local Public Agency (LPA).

SURFACE TRANSPORTATION PROGRAM (GUIDESHARE)

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of highway, road, bridge, and transit projects. A wide variety of bicycle and pedestrian improvements are eligible, including on-street bicycle facilities, off-street trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. Modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is also an eligible activity. Unlike most highway projects, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. Fifty percent of each state's STP funds are suballocated geographically by population. These funds are funneled through SCDOT to the MPOs in the state. The remaining 50% may be spent in any area of the state. In South Carolina, STP is known as Guideshare.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

MAP-21 doubles the amount of funding available through the Highway Safety Improvement Program (HSIP) relative to SAFETEA-LU. HSIP provides \$2.4 billion nationally for projects and programs that help communities achieve significant

reductions in traffic fatalities and serious injuries on all public roads, bikeways, and walkways. MAP-21 preserves the Railway-Highway Crossings Program within HSIP but discontinues the High-Risk Rural roads set-aside unless safety statistics demonstrate that fatalities are increasing on these roads HSIP is a data-driven funding program and eligible projects must be identified through analysis of crash experience, crash potential, crash rate, or other similar metrics. . Infrastructure and non-infrastructure projects are eligible for HSIP funds. Bicycle and pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan. Last updated in 2007, the SCDOT SHSP is located here: http://www.scdot.org/inside/pdfs/Multimodal/Road_Map.pdf

CONGESTION MITIGATION/AIR QUALITY PROGRAM

The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions. States with no nonattainment areas may use their CMAQ funds for any CMAQ or STP eligible project. These federal dollars can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Purely recreational facilities generally are not eligible. Spartanburg is not currently a non-attainment or maintenance area and is not eligible for these funds.

NEW FREEDOM INITIATIVE

MAP-21 continues a formula grant program that provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act. Examples of pedestrian/ accessibility projects funded in other communities through the New Freedom Initiative include installing Accessible Pedestrian Signals (APS), enhancing transit stops to improve accessibility, and establishing a mobility coordinator position.

More information: <http://www.hhs.gov/newfreedom/>

PILOT TRANSIT-ORIENTED DEVELOPMENT PLANNING

MAP-21 establishes a new pilot program to promote planning for Transit-Oriented Development. At the time of writing the details of this program are not fully clear, although the bill text states that the Secretary of Transportation may make grants available for the planning of projects that seek to “facilitate multimodal connectivity and accessibility,” and “increase access to transit hubs for pedestrian and bicycle traffic.”

PARTNERSHIP FOR SUSTAINABLE COMMUNITIES

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD) and the U.S. Department of Transportation (USDOT). The partnership aims to “improve access to affordable housing, more transportation options and lower transportation costs while protecting the environment in communities nationwide.” The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure (“Provide more transportation choices: Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health”).

The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants). Spartanburg should track Partnership communications and be prepared to respond proactively to announcements of new grant programs. Initiatives that speak to multiple livability goals (such as partnerships with Spartanburg Area Regional Transit Agency [SPARTA]), or with affordable housing groups) are more likely to score well than initiatives that are narrowly limited in scope to bicycle and pedestrian efforts. This is also true in the reverse – the scope of transit, affordable housing, or other programs will be viewed favorably when broadened to include bicycle and pedestrian efforts.

More information: <http://www.epa.gov/smartgrowth/partnership/>

RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service (NPS) program providing technical assistance via direct NPS staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria including conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments. This program may benefit trail development in Spartanburg indirectly through technical assistance, particularly for community organizations, but should not be considered a future capital funding source.

More information: <http://www.nps.gov/pwro/rtca/who-we-are.htm>

COMMUNITY DEVELOPMENT BLOCK GRANTS

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may “use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”

Trails and greenway projects that enhance accessibility are the best fit for this funding source. CDBG funds could also be used to write an ADA Transition Plan for the city. As an entitlement community, Spartanburg City and County receive CDBG funds annually for local disbursement.

More information: www.hud.gov/cdbg

COMMUNITY TRANSFORMATION GRANTS

Community Transformation Grants administered through the Center for Disease Control support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if the benefits of such improvements accrue to population groups experiencing the greatest burden of chronic disease.

More info: <http://www.cdc.gov/communitytransformation/>

LAND AND WATER CONSERVATION FUND (LWCF)

The Land and Water Conservation Fund (LWCF) provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. The program is administered by the South Carolina Department of Parks, Recreation & Tourism as a grant program. Any Trails and Greenways Plan projects located in future parks could benefit from planning and land acquisition funding through the LWCF. Trail corridor acquisition can be funded with LWCF grants as well.

More information: <http://www.tn.gov/environment/recreation/grants.shtml>

RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service (NPS) program providing technical assistance via direct NPS staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria including conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments. This program may benefit trail development in Spartanburg indirectly through technical assistance, particularly for community organizations, but should not be considered a future capital funding source.

More info: <http://www.nps.gov/pwro/rtca/who-we-are.htm>

ADDITIONAL FEDERAL FUNDING

The landscape of federal funding opportunities for bicycle and pedestrian programs and projects is always changing. A number of Federal agencies, including the Bureau of Land Management, the Department of Health and Human Services, the Department of Energy and the Environmental Protection Agency have offered grant programs amenable to bicycle and pedestrian planning and implementation and may do so again in the future.

For up-to-date information about grant programs through all federal agencies, see: <http://www.grants.gov/>

STATE FUNDING SOURCES

The following is a list of possible State funding sources that could be used to support construction of many pedestrian and bicycle improvements in Spartanburg.

SOUTH CAROLINA TRANSPORTATION INFRASTRUCTURE BANK

The South Carolina Transportation Infrastructure Bank (SCTIB) is a statewide revolving loan fund designed in 1997 to assist major transportation projects in excess of \$100 million in value. The SCTIB has since approved more than \$4.5 billion in financial assistance and is arguably the largest and most active State Infrastructure Bank in the country. SCTIB funded development of the Palmetto Parkway in Aiken County, which included development of a roughly five mile multi-use trail within the parkway's right of way.

More information: http://www.scdot.org/inside/SIB_board.aspx

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION – CAPITAL PROJECTS

Spartanburg should work closely with SCDOT to include bicycle and pedestrian improvements as part of major projects. The two groups should cooperate on a regular basis to identify opportunities for implementation of the Spartanburg Trails and Greenways Plan.

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION – MAINTENANCE PROGRAM

The South Carolina Department of Transportation carries out a number of road resurfacing maintenance projects annually. There may be opportunities for road restriping to be completed as part of regular roadway maintenance. This will require coordination between Spartanburg, the SCDOT District Traffic Engineer and the local maintenance office to ensure that the pavement marking design is appropriate and safe for cyclists and drivers.

SOUTH CAROLINA PARKS AND RECREATION DEVELOPMENT FUND

The PARD grant program is a state funded non-competitive reimbursable grant program for eligible local governments or special purposes district entities within each county which provide recreational opportunities.

- Monthly grant cycle
- Non-competitive program available to eligible local governmental entities within each county area for development of new public recreation facilities or enhancement/renovations to existing facilities
- Projects need endorsement of majority weighted vote factor of County Legislative Delegation Members
- This is an 80-20 match program
- Application Deadline is the 10th of each month

More information: <http://www.scprt.com/our-partners/grants/pard.aspx>.

LOCAL GOVERNMENT FUNDING SOURCES

Local funding sources that would support bike facility project construction will most likely be limited but should be explored to support Spartanburg trails and greenways.

METROPOLITAN PLANNING ORGANIZATION

Metropolitan Planning Organizations (MPOs) are federally required regional transportation planning organizations. MPOs are responsible for planning and prioritizing all federally funded transportation improvements within an urbanized area.

The Spartanburg Area Transportation Study (SPATS) is the Metropolitan Planning Organization (MPO) for the Spartanburg urban area (<http://spatsmpo.org/>). MPOs are a partnership between local and state government that makes decisions about transportation planning in urbanized areas and meets planning requirements established by federally authorizing legislation for transportation funding. SPATS works cooperatively with SCDOT to develop transportation plans, travel models, transit plans and bicycle and pedestrian plans. SPATS works with the state on funding issues for transportation improvements, project planning issues and other issues such as environmental and air quality concerns. SPATS also works with local governments to coordinate land use and transportation planning.

MPOs maintain a long-range transportation plan (LRTP) and develop a transportation improvement program (TIP) to develop a fiscally constrained program based on the long-range transportation plan and designed to serve the region's goals while using spending, regulating, operating, management and financial tools. It is suggested that Spartanburg work closely with SPATS on getting trails and greenways 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.

MUNICIPAL CAPITAL IMPROVEMENT PROGRAMMING AND RESERVE FUNDS

Spartanburg may have funding available to support some elements of construction or repair. It will be important to meet with City Council representatives and City Managers to judge the availability of this funding.

LOCAL BOND MEASURES

Local bond measures, or levies, are usually general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for engineering, design and construction of trails, greenways and pedestrian and bicycle facilities. A bond issued in Denver, Colorado funded \$5 million for trail development and also funded the City's bike planner for several years. In 2012, voters in Austin, Texas approved a \$143 million bond to fund a variety of mobility and active transportation projects: http://www.scdot.org/inside/SIB_board.aspx.

STORMWATER UTILITY FEES

Stormwater charges are typically based on an estimate of the amount of impervious surface on a user's property. Impervious surfaces (such as rooftops and paved areas) increase both the amount and rate of stormwater runoff compared to natural conditions. Such surfaces cause runoff that directly or indirectly discharges into public storm drainage facilities and creates a need for stormwater management services. Thus, users with more impervious surface are charged more for stormwater service than users with less impervious surface.

The rates, fees and charges collected for stormwater management services may not exceed the costs incurred to provide these services. The costs that may be recovered through the stormwater rates, fees and charges includes any costs necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and state laws, regulations and rules. Open space may be purchased with stormwater fees, if the property in question is used to mitigate floodwater or filter pollutants.

SYSTEM DEVELOPMENT CHARGES/DEVELOPER IMPACT FEES

System Development Charges (SDCs), also known as Developer Impact Fees, represent another potential local funding source. SDCs are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk (or use transit, if available) rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

STREET USER FEES

Many cities administer street user fees through residents' monthly water or other utility bills. The revenue generated by the fee can be used for operations and maintenance of the street system, and priorities would be established by the Public Works Department. Revenue from this fund can be used to maintain on-street bicycle and pedestrian facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.

IN LIEU OF FEES

Developers often dedicate open space or greenways in exchange for waiving fees associated with park and open space allocation requirements in respect to proposed development. These types of requirements are presented within local municipal codes and ordinances.

UTILITY LEASE REVENUE

A method to generate revenues from land leased to utilities for locating utility infrastructure on municipally owned parcels. This can improve capital budgets and support financial interest in property that would not otherwise create revenue for the government.

LOCAL IMPROVEMENT DISTRICTS (LIDS)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation. Based on South Carolina's Municipal Improvements Act of 1999, LIDs can include a Municipal Improvement District (MID), a County Public Works Improvement District (CPWID) or a Residential Improvement District (RID).

Several cities have successfully used LID funds to make improvements on residential streets and for large scale arterial projects. LIDs formed to finance commercial street development can be "full cost," in which the property assessments are entirely borne by the property owners.

BUSINESS IMPROVEMENT AREA OR DISTRICT (BIA OR BID)

Trail development and pedestrian and bicycle improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Areas collect levies on businesses in order to fund area wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, including as wider sidewalks, landscaping and ADA compliance.

SALES TAX

Local governments that choose to exercise a local option sales tax use the tax revenues to provide funding for a wide variety of projects and activities. Spartanburg's greenway and trail projects can be funded by a portion of local sales tax revenue or from a voter approved sales tax increase. The City of Colorado Springs implemented a TOPS tax (Trails, Open Space and Parks) to administer the ordinance passed by voters in April of 1997. The sales tax, 1/10th of one percent, generates about \$6 million annually for trails, open space and parks. Any increase in the sales tax, even if applying to a single county, must gain approval of the state legislature. In 2004, Charleston County voters approved a ½ cent sales tax for the purpose of financing transportation and greenbelt projects. Voters approved a second referendum in 2006 (see: <http://roads.charlestoncounty.org/about.php>)

BIKE TAX

A bike tax can be used to provide funding for a municipality's greenways and trails. The bike tax generates revenue by collecting the tax at the point of sale of new bikes and/or bike parts. The City of Colorado Springs has a \$4.00 per bike tax to provide funding for bikeway improvements. The tax generates nearly \$100,000 annually and has been used for both on- and off-street projects. It is used primarily to provide a local match for other grants such as the Colorado State Trails Program and, in some jurisdictions, federal grants. Implementation of a bike tax may require a public vote.

PROPERTY TAX

Property taxes generally support a significant portion of a local government's activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance open space system acquisitions. Because of limits imposed on tax rates, use of property taxes to fund open space could limit the county's or a municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden. In other parts of the country, this mechanism has been popular with voters as long as the increase is restricted to parks and open space. Note, other public agencies compete vigorously for these funds, and taxpayers are generally concerned about high property tax rates.

EXCISE TAXES

Excise taxes are taxes on specific goods and services. These taxes require special legislation and the use of the funds generated through the tax are limited to specific uses. Examples include lodging, food and beverage taxes that generate funds for promotion of tourism and the gas tax that generates revenues for transportation-related activities.

TAX INCREMENT FINANCING (TIF)

Tax Increment Financing is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., shared use trail) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to support the debt created by the original public improvement project.

PRIVATE SECTOR FUNDING SOURCES

Many communities have solicited greenway funding assistance from private foundations and other conservation-minded benefactors. Below are several examples of private funding opportunities available.

BIKES BELONG GRANT PROGRAM

The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

More information: <http://www.bikesbelong.org/grants/>

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

Spartanburg has received a Healthy Kids Healthy Communities grant from the Robert Wood Johnson Foundation through the work of Partners for Active Living and the Hub City Farmers Market. Spartanburg may have the opportunity to leverage this relationship for future grant opportunities.

More information: <http://www.rwjf.org/applications/>

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.

More information: <http://www.bankofamerica.com/foundation>

THE WALMART FOUNDATION

The Walmart Foundation offers a Local, State and National Giving Program. The Local Giving Program awards grants of \$250 to \$5,000 through local Walmart and Sam's Club Stores. Application opportunities are announced annually in February with a final deadline for applications in December. The State Giving Program provides grants of \$25,000 to \$250,000 to 501c3 nonprofits working within one of five focus areas: Hunger Relief & Nutrition, Education, Environmental Sustainability, Women's Economic Empowerment, or Workforce Development. The program has two application cycles per year: January through March and June through August. The Walmart Foundation's National Giving Program awards grants of \$250,000 and more, but does not accept unsolicited applications.

More information: <http://foundation.walmart.com/apply-for-grants>

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.

More information: <http://www.duke-energy.com/community/foundation.asp>

THE KODAK AMERICAN GREENWAYS PROGRAM

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.

More information: <http://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.

More information: <http://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 active transportation 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. The Alliance does not look 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.

More information: <http://www.conservationalliance.com/index.m>

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.

More information: <http://www.nfwf.org/AM/Template.cfm?Section=Grants>

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. Also, TPL is the leading organization helping agencies and communities identify and create funds for conservation from federal, state, local and philanthropic sources.

Since 1996, TPL has helped states and communities craft and pass over 382 successful ballot measures, generating \$34 billion in new conservation-related funding.

More information: <http://www.tpl.org/what-we-do/services/conservation-finance/>

THE CINERGY FOUNDATION

The Cinergy Foundation places special emphasis on projects that help communities help themselves. The Foundation supports local community, civic and leadership development projects. The Cinergy Foundation also views community foundations as positive vehicles for sustaining the long-term health of a community and promoting philanthropic causes. Infrastructure needs by a community will not be considered.

The Cinergy Foundation supports health and social service programs which promote healthy life styles and preventative medical care. United Way campaigns are included in Health and Social Services funding.

More information: <http://www.cinergy.com/foundation/categories.asp>

COMMUNITY ACTION FOR A RENEWED ENVIRONMENT (CARE)

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to reduce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and "smart-growth" types of projects are eligible. Grants range between \$90,000 and \$275,000.

More information: <http://www.epa.gov/care/>

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.

CORPORATE DONATIONS

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bike and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

MARY BLACK FOUNDATION

The Mary Black Foundation, which gives its name to the highly popular rail trail in Spartanburg, is an independent grantmaking organization focused on improving the health and wellness of the people and communities of Spartanburg County, SC. The Foundation's priority focus areas are active living, healthy eating and early childhood development. In addition to its priority areas, the Foundation allocates a smaller portion of its grantmaking to the Community Health Fund to support general health and wellness.

More information: <http://www.maryblackfoundation.org/>

OTHER SOURCES

VOLUNTEER WORK AND PUBLIC-PRIVATE PARTNERSHIPS

It is expected that many citizens will be excited about the development of Spartanburg's trails and greenways. 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 fundraising, maintenance and programming needs. Local schools or community groups may use the bikeway projects as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right-of-way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations 'adopt' a bikeway and help construct and maintain the facility.

PRIVATE INDIVIDUAL DONATIONS

Private individual donations can come in the form of liquid investments (i.e. cash, stock, bonds) or land. Municipalities typically create funds to facilitate and simplify a transaction from an individual's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

FUNDRAISING / CAMPAIGN DRIVES

Organizations and individuals can participate in a fundraiser or a campaign drive. It is essential to market the purpose of a fundraiser to rally support and financial backing. Oftentimes fundraising satisfies the need for public awareness, public education and financial support.

LAND TRUST ACQUISITION AND DONATION

Land trusts are held by a third party other than the primary holder and the beneficiaries. This land is oftentimes held in a corporation for facilitating the transfer between two parties. For conservation purposes, land is often held in a land trust and received through a land trust. A land trust typically has a specific purpose such as conservation and is used so land will be preserved as the primary holder had originally intended. Both the Spartanburg Area Conservancy (SPACE) and Upstate Forever are examples of land trusts in the Spartanburg area.

ADOPT A TRAIL PROGRAM

A challenge grant program with local businesses may be a good source of local funding, where corporations 'adopt' a trail and help maintain the facility. Foundation grants, volunteer work and donations of in-kind services, equipment, labor or materials are other sources of support that can play a supporting role in gathering resources to design and build new bicycle and pedestrian facilities.

Residents and other community members are excellent resources for garnering support and enthusiasm for a trail, and Spartanburg should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a goal for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new trail or maintain existing facilities where needed. Resident support for and volunteer maintenance of the Wadsworth Trail on Spartanburg's Westside is a good example of this in-kind model. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The stakeholders of this Plan should look to its residents for additional funding ideas to expedite completion of the bicycle and pedestrian system.