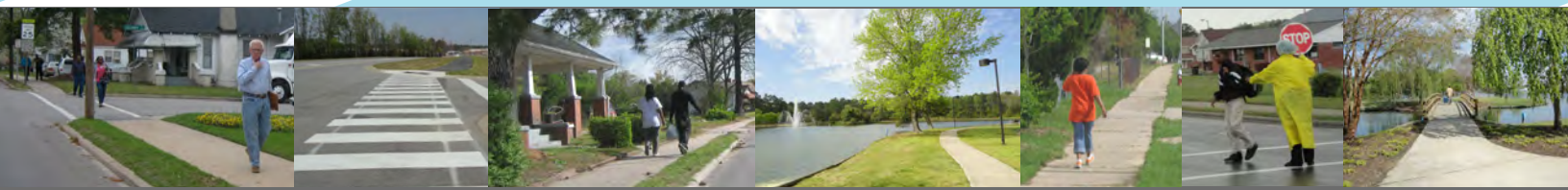


# *the City of Rocky Mount* **PEDESTRIAN PLAN**



**August 2012**



Prepared for: The City of Rocky Mount, North Carolina  
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# ACKNOWLEDGEMENTS

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# CHAPTER ONE: INTRODUCTION



## HISTORY AND BACKGROUND

The City of Rocky Mount, North Carolina has been shaped by transportation from the beginning. The tracks of the Wilmington-Weldon Railroad first reached the City of Rocky Mount in 1839 and the railroad became the main connection for Rocky Mount to the outside world. Historically, the main railroad line, a well-established cotton mill, and productive farmland were major contributors to the area's growth and prosperity. In more recent times, the City has twice been named an "All-American City", by the National Civic League. In 1999, Stephen W. Raper, City Manager of Rocky Mount, declared, "Winning the All-America City designation based on efforts exemplified by all those involved in the three projects adds credibility to the belief that the Rocky Mount area is a great place to live, raise children, work and retire. It is a distinct honor to be named an All-America City."

Rocky Mount continues to be a great place to live, rear children, work and retire and the population of Rocky Mount grew considerably from 1990 to 2010. The population in 2009 was estimated by the U.S. Census to be approximately 59,500 people, an increase of approximately 21.5% from 1990. An increase in population of 21.5% over two decades has a significant impact on the functionality of the transportation system, particularly the pedestrian network. The pedestrian network within Rocky Mount is not adequate to serve the needs of its grow-

ing population potentially leading to the deterioration of the quality of life for Rocky Mount residents.

In an effort to preserve and enhance the quality of life of its residents and to continue its leadership as an "All-American City", the City of Rocky Mount set aside funding to develop this Pedestrian Plan. This Plan builds on the City's past efforts to become a livable community, with new research and analysis, and includes substantial participation and contributions from the citizens of Rocky Mount.

The result is a complete, up-to-date framework for moving forward with tangible pedestrian improvements. This Plan provides guidance for enhancing conditions for pedestrians throughout the City, particularly in areas identified by the project steering committee and local residents. Beyond physical improvements, this Plan also outlines policies, programs and opportunities to help encourage people to walk more often, drive more safely, and to grow as a City with the needs of pedestrians taken into full consideration. The Plan defines short-term and long-term strategies to address connectivity and safety with facility recommendations such as sidewalks, greenways, and crosswalks. The development of this Plan included an open, participatory process, with area residents providing input through public workshops, stakeholder meetings, the project Steering Committee, social media, and an online comment form.

## VISION AND GOALS

The following vision statements and goals were confirmed early in the planning process, during the project Kick-Off meeting. The statements below apply to both the Plan itself, and the desired outcome of its implementation:

### **Rocky Mount's Pedestrian Plan Vision Statements:**

Envisioning a City of Rocky Mount which:

1. Has an inviting, safe and highly connected local and regional pedestrian network
2. Ensures access for pedestrians of all ages, abilities and socio-economic backgrounds
3. Encourages and enables walking to public, community and commercial facilities
4. Provides walking connections to transit and park and rides to enhance employment access
5. Makes sure that the communities with the most need for facilities are well served
6. Works with local schools to educate and encourage students on walking safety skills
7. Integrates comprehensive pedestrian design into all land use planning
8. Makes safety in design a priority, especially at high-crash intersections and railroad tracks
9. Provides guidance to NCDOT to ensure the accommodation of pedestrians on local projects
10. Engages the community in healthy activities through sensible and sustainable design
11. Returns people and confidence to the streets

### **Key Goals for this Planning Process and Pedestrian Plan Implementation:**

1. Reduce Vehicle Miles Traveled (VMTs) and improve air quality by increasing the ratio of pedestrian and bicycle trips to vehicle trips.
2. Decrease the number of pedestrian accidents each year.
3. Increase mileage of sidewalks and greenways.
4. Complete top priority pedestrian projects by 2015.
5. Fill gaps in existing sidewalk network.
6. Increase percentage of children walking to school.
7. Encourage walking through school and employer-based programming.
8. Increase number of bus stops that have sidewalk, benches, and shelter.
9. Create safe pedestrian railroad crossings that do not put pedestrians in the roadway.
10. Increase pedestrian mode-share percentages.
11. Require construction of sidewalks and trails and pedestrian connectivity of residential and commercial areas during all future development.
12. Ensure pedestrian facilities are a part of all future roadway reconstruction and resurfacing projects.
13. Earn designation as a "Walk Friendly Community" through the Pedestrian and Bicycle Information Center by 2016.
14. Launch or participate in three new pedestrian programs in three years.
15. Form Multi-modal Transportation Committee
16. Produce online and hardcopy walking and transit maps
17. Engage local schools to become involved in Safe Routes to School programs.

## PLANNING PROCESS

This planning process began with a ‘kick-off’ meeting in March of 2011, which included a visioning session and map working session with the project staff, steering committee, and consultants. This meeting was followed by the development of a series of working documents that formed the plan. The Plan communicates the current conditions for walking in Rocky Mount, recommends improvements, and outlines strategies to carry out those recommendations. The planning process also included the opportunity for public input with two public workshops and other types of outreach. The consultant team developed numerous products to facilitate public comments that include:

- Online comment form and hardcopy companion (See Appendix E)
- Project website with links to project information
- Facebook page
- Flyers for public workshops
- Newsletters with project updates
- A series of public workshops held in late spring of 2011 to receive input into the process.

## BENEFITS OF A WALKABLE COMMUNITY

When considering the level of dedication in time and valuable resources that it takes to create a walkable community, it is also important to assess the immense value of pedestrian transportation. Henry David Thoreau once said, “*Me thinks that the moment my legs begin to move, my thoughts begin to flow.*”



Henry David Thoreau recognized the benefits of walking.

Throughout history, physical exercise has been accepted as an effective way of managing a person’s mental, emotional and physical state. Walking, in particular, is one of the most highly recommended types of exercise to incorporate into your daily schedule. Some people enjoy the solitude of walking alone. Other people need the stimulation of interacting with others, such as joining a walking or running group. “*Walking is a fundamental activity for physical and mental health, providing physical exercise and relaxation. It is a social and recreational activity. Environments that are conducive to walking are conducive to people*” (VTPI 2011 walkability). Walking helps to improve people’s health and fitness, enhance environmental conditions, decrease traffic congestion, and will contribute to a greater sense of community.



Above: The Pedestrian Plan Kick-Off Meeting

## CITY OF ROCKY MOUNT, NORTH CAROLINA

In a 2011 Community Preference Survey conducted by the National Association of Realtors (NAR), 66% of respondents selected being within walking distance of stores and other community amenities as being important. When given an opportunity to select which community they would most like to live in, a community described as:

*“a mix of single family detached houses, townhouses, apartments and condominiums on various sized lots, with almost all streets having sidewalks, destinations such as shopping, restaurants, a library, and a school are within a few blocks of your home, and where parking is limited when you decide to drive to local stores, restaurants and other places”*

ranked higher and was found to be more desirable than a community described as:

*“only single family houses on large lots, with no sidewalks, destinations such as shopping, restaurants, a library, and a school are within a few miles of your home, limiting your transportation choices to mainly the automobile, but there is enough parking when you drive to these destinations and public transportation, such as bus, subway, light rail, or commuter rail, is distant or unavailable”.*

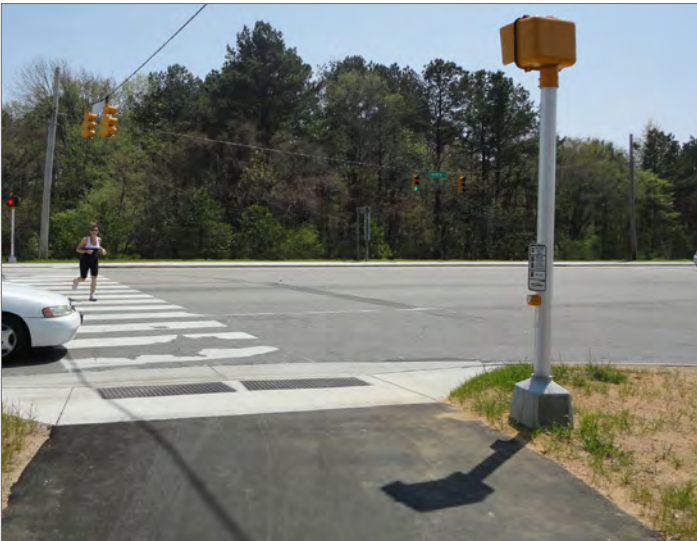
Additionally, the 2011 NAR survey reflected changes in priorities compared to 2004, the last time the survey was conducted. Interest in walkability increased, with 46% saying their community had too few shops and restaurants within easy walking distance, compared to 42% in 2004. In the 2011 survey, 40% said their community needed more sidewalks, compared to 36% in the 2004 survey.

## ECONOMIC BENEFITS

Walking is an affordable form of transportation. A walkable community directly affects a citizen's transportation costs. According to the Pedestrian and Bicycle Information Center (PBIC), of Chapel Hill, NC, the cost of operating a car for a year is approximately \$5,170, while walking is virtually free. The 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). Walking becomes even more attractive from an economic standpoint when the rising price of oil (and decreasing availability) is factored into the equation. The unstable cost of fuel reinforces the idea that local communities should be built to accommodate people-powered transportation, such as walking and biking.

There are also economic benefits of a walkable community from a real estate standpoint. The study by CEO's for Cities “Walking the Walk: How Walkability Raises Home Values in U.S. Cities” estimates how much market value homebuyers implicitly attach to houses with higher “Walk Scores”. The study 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. (CEOs for Cities. (2010) Walking the Walk: How Walkability Raises Home Values in U.S. Cities.)



Above: The trail connecting downtown to the Sports Complex is a good example of how Rocky Mount is already making the community more walkable.

Trails can play a part in making communities more walkable, and they too have a positive economic impact. 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. (National Association of Realtors and National Association of Home Builders. (2002). Consumer's Survey on Smart Choices for Home Buyers.) 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. Findings from the American Planning Association (How Cities Use Parks for Economic Development, 2002), the Rails-to-Trails Conservancy (Economic Benefits of Trails and Greenways, 2005), and the Trust for Public Land (Economic Benefits of Parks and Open Space, 1999) further substantiate the positive connection between walkability and property values across the country.

Transportation investments impact health directly and also indirectly through their impact on land use. According to a 2010 report from the American Public Health Association, *"Investments in transit, walking and bicy-*

*cling facilities support transit use, walking and bicycling directly; they also support the formation of compact, walkable, transit-oriented neighborhoods that in turn support more walking, bicycling and transit and less driving"* (American Public Health Association. (2010) The Hidden Health Costs of Transportation).

According to the Federal Highway Administration, the basic cost of a single mile of urban, four-lane highway is between \$20 million and \$80 million. In urban bottlenecks where congestion is the worst, common restrictions such as the high costs of right of ways and the needs to control high traffic volumes can boost that figure to \$290 million or more (Active Transportation for America: The Case for Federal Investment in Bicycling and Walking; Rails to Trails Conservancy; and Bikes Belong Coalition 2008). By contrast, the costs of bicycle and pedestrian facilities range anywhere from a few thousand dollars per mile to rarely more than \$1 million, with great variability between types of infrastructure local circumstances (Krizek, K.e Guidelines for Analysis of Investments in Bicycle Facilities, 2006). Portland, Oregon has developed a network of bicycle infrastructure at an average per mile cost of \$300,000, with bicycle boulevards and lanes at a fraction of that cost (\$30,000 to \$40,000 per mile). The cost of one mile of sidewalk is about \$100,000 (USDOT, Recommended Guidelines/Priorities for Sidewalks and Walkways, 2002).

### **ENHANCED QUALITY OF LIFE**

Many factors go into determining quality of life for the citizens of a community: the local education system, prevalence of quality employment opportunities, and affordability of housing are all items that are commonly cited. Increasingly however, citizens claim that access to alternative means of transportation and access to quality recreational opportunities such as parks, trails, greenways, and bicycle routes, are important factors for them in determining their overall pleasure

within their community. Communities with such amenities can attract new businesses, industries, and in turn, new residents.

Walking is a fundamental social community activity. Mark Twain is quoted as saying,

*“The true charm of pedestrianism does not lie in the walking, or in the scenery, but in the talking...the scenery and the woodsy smells are good to bear in upon a man an unconscious and unobtrusive charm and solace to eye and soul and sense; but the supreme pleasure comes from the talk.”*



Mark Twain noted the social and personal benefits of walking.

Members of a community who walk to a destination are more likely to meet or make friends or other social or commercial contacts than members of a community who drive to a destination. Provided there are viable alternatives to driving, *“Americans are willing to change their travel habits, as the dramatic increases in gas prices in 2008 have shown. Every day, more commuters switch to public transportation, bicycling and walking in places where prior infrastructure investments have made these options safe and convenient”* (Active Transportation for America: The Case for Federal Investment in Bicycling and Walking. Rails to Trails Conservancy and Bikes Belong Coalition 2008).

Other impacts include a reduction in overall neighborhood noise levels. According to the National Center for Safe Routes to School,

*“Walking or biking to school gives children time for physical activity and a sense of responsibility and independence; allows them to enjoy being outside; and provides them with time to socialize with their parents and friends and to get to know their neighborhoods”* (National Center for Safe Routes to School. (2006). National Center for Safe Routes to School Talking Points).

In a 2004 Centers for Disease Control and Prevention survey, 1,588 adults answered questions about barriers to walking to school for their youngest child aged 5 to 18 years (Centers for Disease Control and Prevention. The Importance of Regular Physical Activity for Children. Accessed in 2005 from [www.cdc.gov/nccdphp/dnpao/index.html](http://www.cdc.gov/nccdphp/dnpao/index.html)). The main reasons cited by parents included distance to school, at 62%, and traffic-related danger, at 30%. Strategic additions to municipal trail systems could shorten the distance from homes to schools, and overall pedestrian and bicycle improvements can improve the safety of our roadways.

### **INCREASED HEALTH and PHYSICAL ACTIVITY**

As mentioned above, many people incorporate walking into their daily routines as a way to manage their mental, emotional and physical state. In a December 2010 article published by the Mayo Clinic, it is suggested that,

*“Walking, like other exercise, can help you achieve a number of important health benefits such as:*

- *Lowered low-density lipoprotein (LDL) cholesterol (the “bad” cholesterol)*
- *Higher high-density lipoprotein (HDL) cholesterol (the “good” cholesterol)*
- *Lowered blood pressure*
- *Reduced risk of or manage type 2 diabetes*

- *Improved mood*
- *Feeling strong and fit*

*Research shows that regular, brisk walking can reduce the risk of heart attack by the same amount as more vigorous exercise, such as jogging.”*

In addition to research by the Mayo Clinic, 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). In short, a diverse trails network will create better opportunities for active lifestyles. The CDC reports that “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.

The increased rate of disease associated with inactivity reduces quality of life for individuals and increases medical costs for families, companies, and local governments. The CDC determined that creating and improving places to be active could result in a 25% increase in the number of people who exercise at least three times a week (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2002). Guide to Community Preventive Services). This is significant 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 network of sidewalks and trails can 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”* (Rails-to-Trails Conservancy. (2006) Health and Wellness Benefits).



*Above: Physical activity would be easier for trail users in Rocky Mount if safe connections were made in strategic locations, such as between the Tar River Trail and the Power Plant/City Lake Trail.*

## ENVIRONMENTAL IMPROVEMENTS

When people choose to get out of their cars and walk, they make a positive environmental impact. They reduce their use of gasoline, which then reduces the volume of pollutants in the air. Other environmental impacts can be a reduction in overall neighborhood noise levels and improvements in local water quality as fewer automobile-related discharges wind up in the local rivers, streams, and lakes.

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



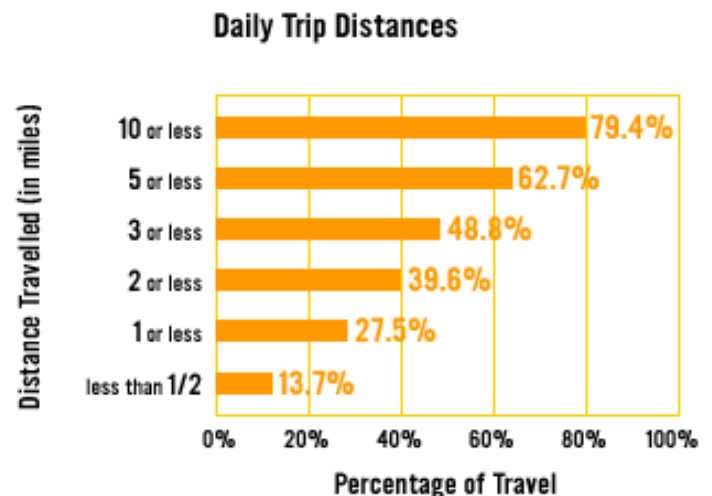
Above: Environmental education opportunities, such as those found at Tree Park, could be enhanced and expanded upon to provide more interpretive signage about the local environment.

## TRANSPORTATION BENEFITS

*“The civilized man has built a coach, but has lost the use of his feet”* (Ralph Waldo Emerson, “Self-Reliance,” 1841).

According to the U.S. Environmental Protection Agency, fewer children walk or bike to school than did so a generation ago. In 1969, 48% of students walked or biked to school, but by 2001, less than 16% of students between 5 and 15 walked or biked to or from school (U.S. EPA. (2003). Travel and Environmental Implications of School Sitting).

A National Household Travel Survey found that roughly 40% of all trips taken by car are less than two miles (see chart below).



Nearly two-thirds of all households say they have satisfactory shopping available within walking distance of their home and 57% of parents with children 13 years or younger live within one mile of a public elementary school (U.S. Census Bureau, American Housing Survey for the United States: 2005, 2006). By replacing short car trips with walking trips, residents can have a positive impact on local traffic and congestion. Traffic congestion reduces mobility, increases auto-operating costs, adds to air pollution, and causes stress in drivers. Furthermore, every car trip replaced with a pedestrian

trip reduces U.S. dependency on fossil fuels, which is a national goal. Currently, out of every dollar drivers spend on gasoline, at least \$0.35 flow into foreign economies (Active Transportation for America: The Case for Federal Investment in Bicycling and Walking. Rails to Trails Conservancy and Bikes Belong Coalition 2008).

According to the Brookings Institution, the number of older Americans is expected to double [between 2000 and 2025]. (Brookings Institution. 2003. The Mobility Needs of Older Americans: Implications for Transportation Reauthorization). All but the most fortunate seniors will confront an array of medical and other constraints in their mobility even as they continue to seek both an active community life, and the ability to age in place. Trails built as part of the pedestrian transportation network generally do not allow for motor vehicles. However, they do accommodate motorized wheelchairs, which is an important asset for the growing number of senior citizens who deserve access to independent mobility.

In 2010, the American Public Health Association reported that,

*“Investments in transit, walking and bicycling facilities support transit use, walking and bicycling directly; they also support the formation of compact, walkable, transit-oriented neighborhoods that in turn support more walking, bicycling and transit and less driving. These built environments have repeatedly been associated with more walking, bicycling and transit use, more overall physical activity, and lower body weights; lower rates of traffic injuries and fatalities, particularly for pedestrians; lower rates of air pollution and greenhouse gas emissions; and better mobility for non-driving populations”*(American Public Health Association. (2010) The Hidden Health Costs of Transportation).

Creating a walkable community provides greater and safer mobility for all residents, especially the non-driving population. According to the U.S. Census Bureau, there are more than 60 million Americans who do not drive because they are not old enough. Another 30 million adults are not licensed to drive for a variety of reasons including economics, age, disability and choice. Eight million Americans above the age of 60 do not have a driver’s license, (U.S. DOT “Distribution of Licensed Drivers 2001) and there are other licensed drivers who just choose not to drive. If there are 90+ million non-drivers in the United States and the cost of one mile of sidewalk (5’ wide, 4” depth on one side of the road) is about \$100,000 and the cost of a rural road, (undivided 2 lane rural road with 5’ paved shoulders) is about \$1,473,000, then providing sidewalks to increase mobility for these 90+ million historically underserved citizens will enhance environmental conditions, decrease traffic congestion, improve overall health and contribute to a greater sense of community (estimated construction costs obtained: <ftp://ftp.dot.state.fl.us/LTS/CO/Estimates/CPM/summary.pdf>).

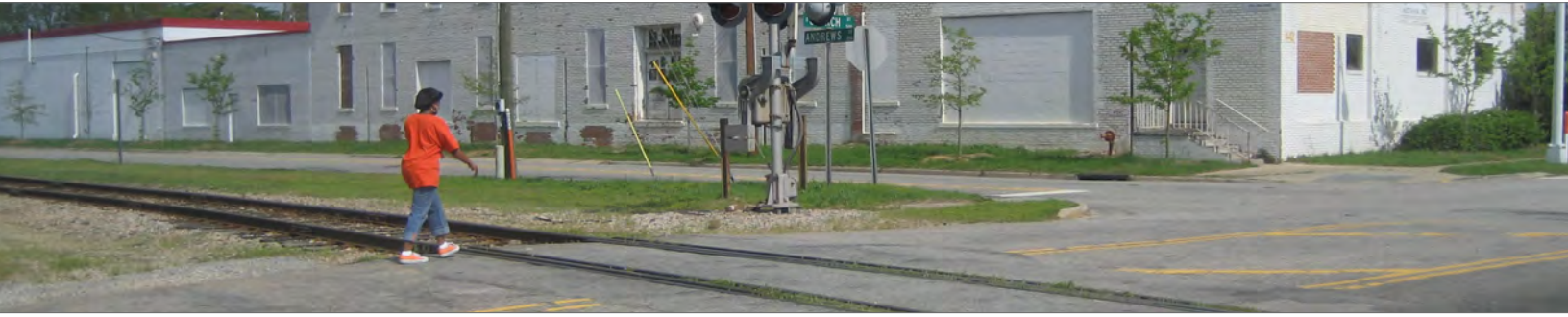
## PLAN COMPONENTS

This Plan document includes the following components:

- This Introduction that presents the background, visions and goals, and the benefits of a walkable city (Chapter 1).
- An assessment of Existing Conditions that overviews existing pedestrian conditions, land use, demographics, and trip attractors of Rocky Mount (Chapter 2).
- A recommended Pedestrian Network that puts forward a framework of recommended facilities (pedestrian corridors, intersection improvement projects, and greenways) (Chapter 3).

- Implementation recommendations that outline specific steps and roles for achieving the plan’s key elements along with facility development methods (Chapter 4).
- Appendices that provide design guidelines, program toolbox, policy recommendations, summary of existing documents, a summary of public input, funding sources, and acquisition strategies.

# CHAPTER TWO: EXISTING CONDITIONS



## OVERVIEW

The City of Rocky Mount, North Carolina is a coastal plains community in eastern North Carolina, located approximately one hour northeast of Raleigh. Rocky Mount is a medium-size community within the Carolinas Gateway Partnership region that can be considered the gateway to the Carolina coast due to its location along US-64. The City straddles both Nash and Edgecombe Counties and is the principal city of the Rocky Mount, North Carolina Metropolitan Statistical Area. The City is known for its close proximity to the Tar River and for the historic significance of the Rocky Mount tobacco market.

Rocky Mount has grown steadily and over the past century, a four-year degree college, two community colleges, and the Rocky Mount – Wilson Airport have been developed as a result of the growth. In the past two decades the City has grown significantly, however, it has not outgrown its friendly, small town charm and appeal. The Downtown remains a very pedestrian-oriented, walkable area

In order to propose a comprehensive pedestrian system for the City of Rocky Mount, it is critical to fully examine the City's existing environment. Characteristics of the City such as demographics, land use, trip attractors and current pedestrian conditions will all be described and analyzed in this Chap-

ter. The City's geographic and population characteristics significantly affect transportation, the environment and everyday decisions made by motorists and pedestrians. This existing conditions analysis led to the development of the Pedestrian Network recommendations (see Chapter 3).

## DEMOGRAPHICS AND SOCIOECONOMIC CHARACTERISTICS

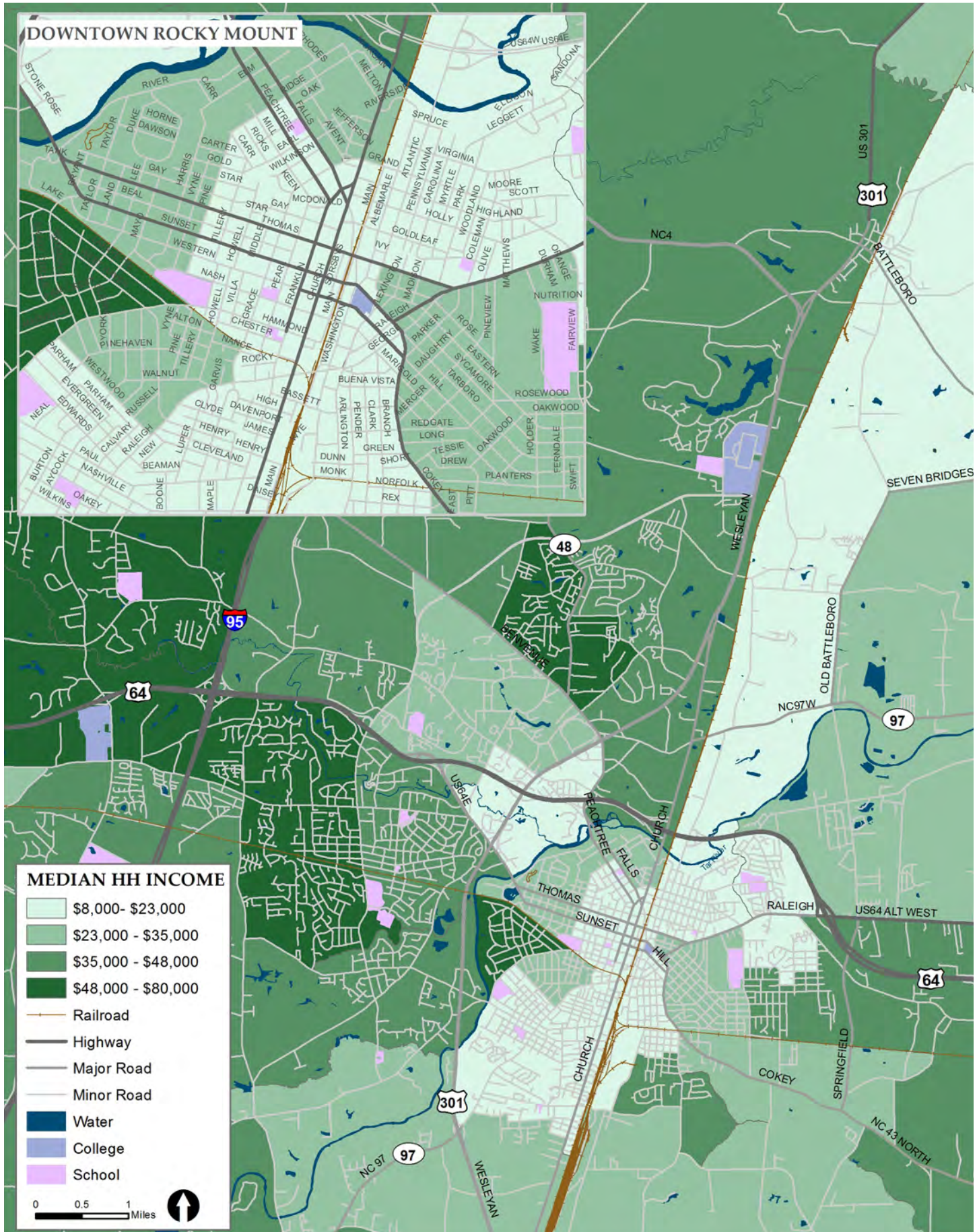
Needs and demands related to walking can be better understood through an analyses of demographic information. US Census demographic data provide geographic information such as the means of transportation to work and the percent of population not owning a vehicle. However, this data is only available from the US Census as estimates for 2000. In 2009, the population of Rocky Mount was approximately 59,500, with females representing 53% of the population and males 47%. Since 1990, the population has increased 21.5%, or 1.2% per year. Almost half of the population falls between the ages of 20 and 55 years old; the median age of Rocky Mount is 36.7, compared to 36.5 for Nash County, 36.2 for Edgecombe County, and 35.3 for North Carolina.

Map 2.1 on page 2-2 shows population density throughout the City. The most densely populated areas are the general neighborhood areas near Church, Thomas, Sunset, Tarboro, Highland, Main, Atlantic, Arlington, Pearl and Clark Streets in the Down-



**MAP 2.2 MEDIAN HOUSEHOLD INCOME**

(Median HH income for NC in 2009 was appx. \$44K)



## CITY OF ROCKY MOUNT, NORTH CAROLINA

town. Incidentally, as shown on Map 2.2 on page 2-3, these general neighborhood areas also have a high concentration of low-income households. From 2005-2007, 22% of people were in poverty. 36% of related children under 18 were below the poverty level, compared with 15% of people 65 years old and over. 17% of all families and 34% of families with a female householder and no husband present had incomes below the poverty level.

Based on 2009 US Census information, approximately 1.7% of the working population over age 16 walked to work or rode public transportation in the City of Rocky Mount. When examined in more detail, the block groups clustered in the general neighborhood areas near Church, Thomas, Sunset, Tarboro, Highland, Main, Atlantic, Arlington, Pearl and Clark Streets in the Downtown, have the highest percentage of people walking to work (note that Map 2.3 features information by block group, which was only available for 2000 at the time of this study). Map 2.4 highlights the block percentages for vehicle ownership. The need for greater pedestrian access and mobility is greater for lower-income communities and high-density areas, where more people would be impacted.

### LAND USE

Rocky Mount experienced significant growth over the past several decades and quickly grew outward from the Downtown core. The land use patterns that have developed as a result of the considerable growth and lack of coordination between land use and transportation planning, have a significant impact on travel behavior and transportation mode choice. At one time, the Downtown core was a thriving central business district to which many residents could walk. The CSX railroad tracks run through the center of Downtown, separating the west side from the east side.

Over time, commercial development, such as retail stores and restaurants, has migrated away from the Downtown core, and out to the major roadway corridors (Sunset Avenue, Wesleyan Boulevard, and Benvenue Road). This migration of development creates an environment in which pedestrian travel for the majority of daily amenities is very limited.

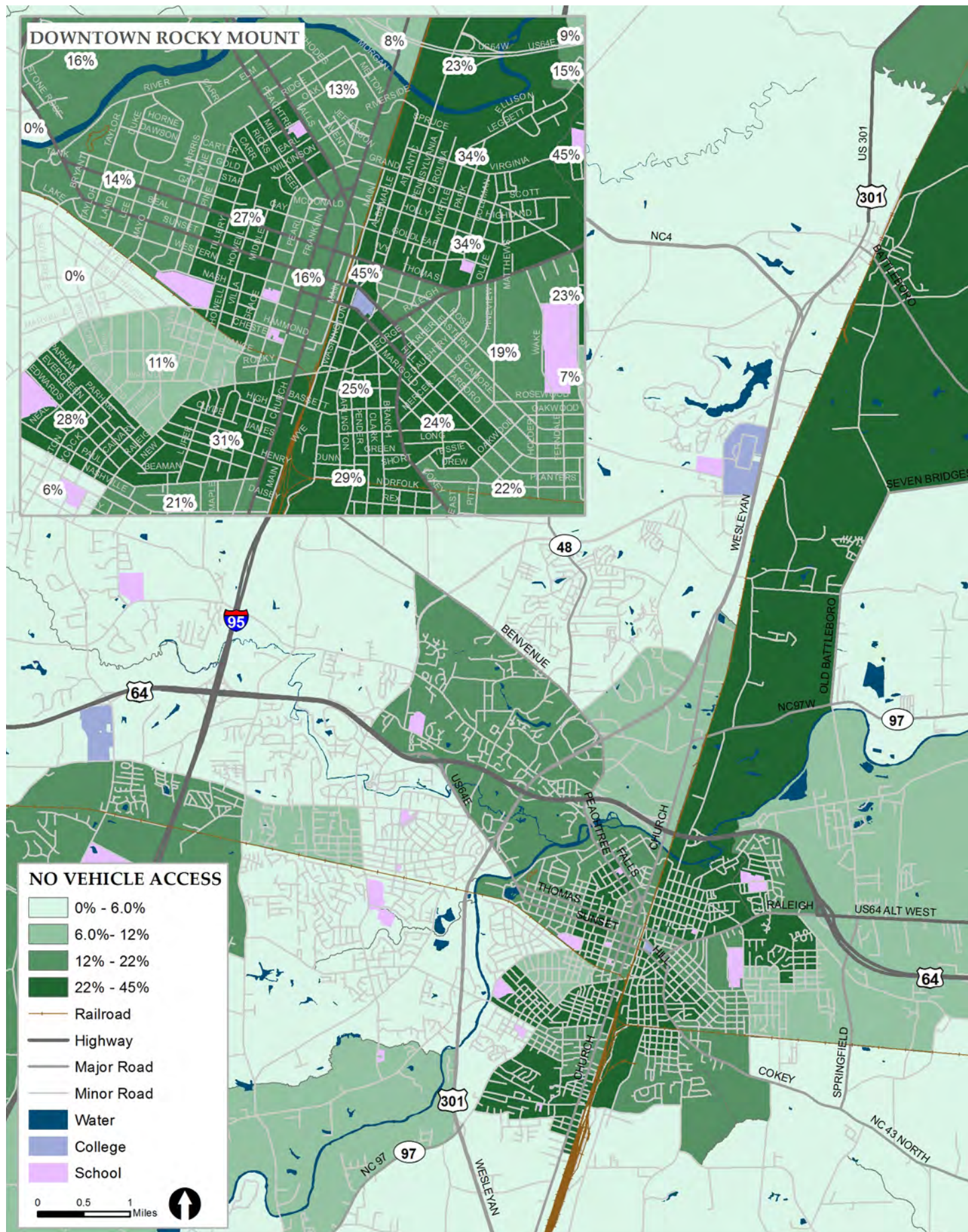
While the City's housing stock is primarily single family, there are multi-family dwelling units comprised of several housing



Above: Downtown Rocky Mount.



**MAP 2.4 PERCENT VEHICLE OWNERSHIP**



complexes in the outlying areas of the City and numerous single-family conversions in the residential areas around the Downtown core. There are many City-owned parks and recreation areas located throughout Rocky Mount's residential neighborhoods. Many of these areas (Marigold Park, Buck Leonard Park, Martin Luther King Jr. Park, Stith Talbert Park, Sunset Park, Jack Laughery Park) are easily accessible for pedestrians.



Above: MLK Park

However, many parks (Thelonius Monk Park, Branch Street Park, Meadowbrook Park, South Rocky Mount Community Center, Southside Park, Eastern Avenue Park) are not connected to the existing sidewalk network.



Above: Branch Street Park

Well-worn footpaths were found around many of the parks that are not connected to the existing sidewalk network.



Above: Footpath at Thelonius Monk Park

## TRIP ATTRACTORS

Residents of Rocky Mount travel to a variety of destinations by walking, biking or driving. These destination points are referred to as “trip attractors” in this Plan and the following primary trip attractors were reviewed and analyzed when determining locations for the physical pedestrian improvements recommended in Chapter 3.

Primary trip attractors in Rocky Mount are:

- City-owned parks
- South Rocky Mount Community Center
- Tar River Trail
- Tar River Transit  
(Bus and Train Station)
- Braswell Memorial Library
- Rocky Mount Sports Complex
- Three Sisters Park trail
- Battle Park
- Downtown
- Golden East Crossing
- Churches
- Imperial Centre
- Pope Elementary School
- Johnson Elementary School
- Baskerville Elementary School
- Williford Elementary School
- Falls Road Baptist School

- Grace Christian School
- Mount Zion Christian Academy
- Edwards Middle School
- Parker Middle School
- Rocky Mount High School



Above: Bus/Train Station



Above: Tree lined sidewalk on Church Street



Above: Sidewalk near Braswell Elementary

### FIELD WORK AND ANALYSIS

The Consultant team conducted a thorough investigation and analysis of existing conditions. The major categories of work are described in this section. The consultant team collected existing GIS data layers and developed new data prior to physical site visits in Rocky Mount. GIS analysis tasks accomplished include:

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

Three, two person teams from Alta/Greenways spent two full days in April of 2011 in the City of Rocky Mount to examine, document, and photo inventory existing pedestrian conditions. Special attention was paid to school areas, Downtown areas, crossings, and other destinations. Site visit accomplishments included:

- 50+ intersections were inventoried and photo inventoried for pedestrian crossing facilities. Recommended pedestrian treatments were developed for each intersection (see Appendix H: Intersection Inventory).
- Over 100 miles of arterial, collector, and local roads were analyzed for possible sidewalk facilities.
- Active pedestrians were monitored and photo-inventoried.
- Existing, exemplary facilities were noted and photo-inventoried.
- Barriers to pedestrian travel were noted.

The results of the field work and GIS analysis are summarized in the pedestrian conditions section of this Chapter. Recommendations have been developed based on these conditions and are presented in Chapter 3.

## PEDESTRIAN CONDITIONS

### Existing Facilities

The majority of pedestrian facilities are found in the Downtown core and in scattered nearby neighborhoods. A table of these facility mileage totals is below and Map 2.5 shows these facilities.

Mileage	Facility Type
75.5	Sidewalk
7.1	Greenways/Trails

In addition to linear facilities, there are many crossing facilities found at intersections. There are 16 intersections with pedestrian signals, 12 of which are countdown signals. Marked crosswalks and curb ramps can be found in the Downtown core but are largely inconsistent from crossing to crossing. Growth that has occurred outside of Downtown has not always provided connected, safe, pedestrian facilities, leaving gaps between Downtown, trip attractors and residential neighborhoods.

Many areas of the City feature high-quality pedestrian environments. These include the following:

**Downtown core:** In the immediate Downtown there is a large network of older, wide sidewalks. Due to the grid road network, short blocks, low traffic speeds, and existing sidewalks/crosswalks, the Downtown is a safe, comfortable environment for pedestrians. Tree plantings along Main Street offer a buffer between the street and the sidewalk and enhance the pedestrian experience. The highest concentration of marked crosswalks and adequate sidewalks is found in Downtown Rocky Mount. Most of the crosswalks in the Downtown feature curb cuts, but curb ramps often lack truncated domes. There is often just one per corner. Pedestrian countdown signalization has been installed at intersections, but more signals are needed to ensure pedestrian safety in the Downtown



Above: Pedestrians on Nashville, near Russell.

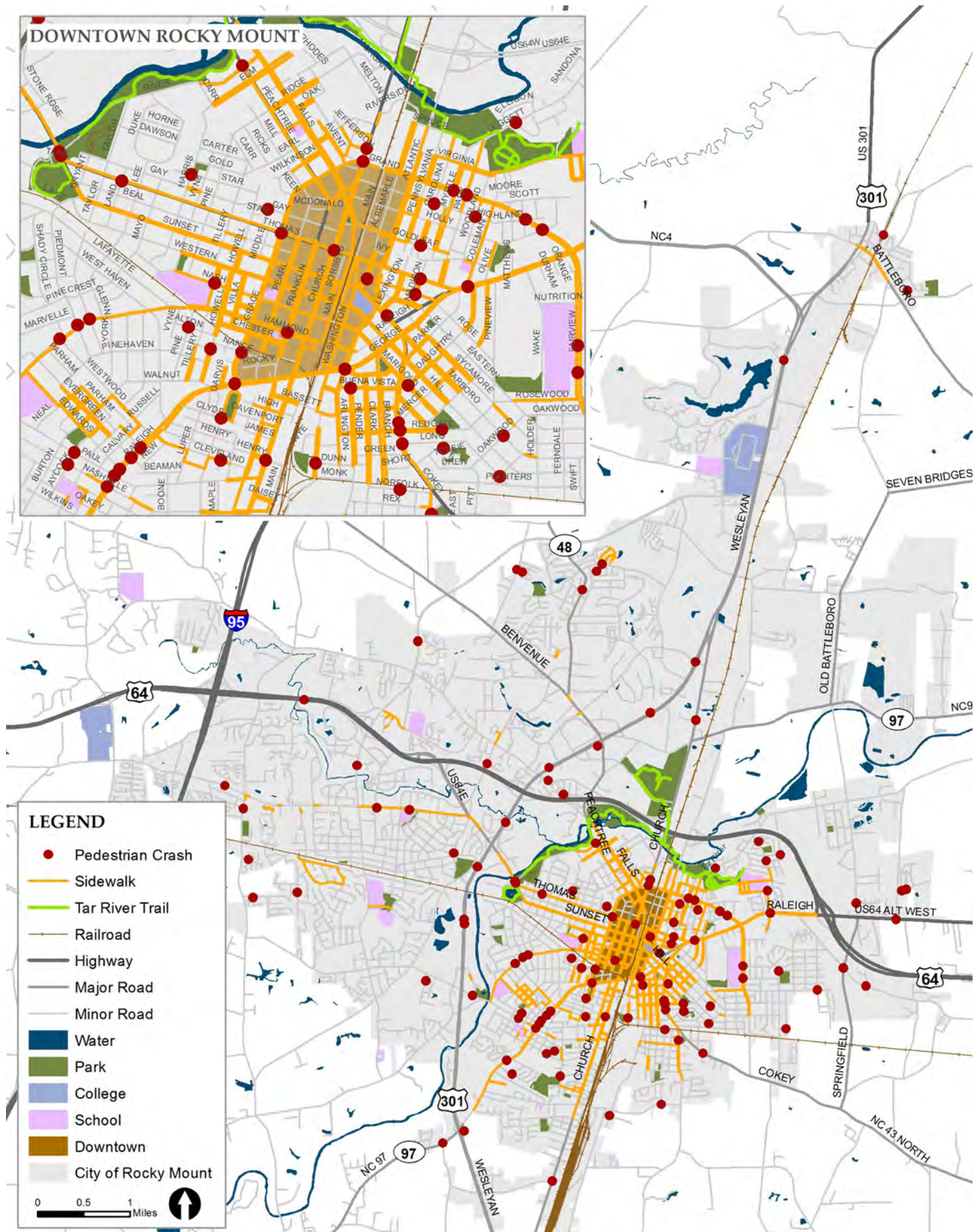


Above: Pedestrians at Sunset and Franklin core.

**Southeast Rocky Mount** (particularly the area contained between Sycamore Street, and Arlington Street): A comprehensive sidewalk network can be found in this area of the City. This network serves an important role of moving pedestrians around the neighborhoods which includes Kite Park, Marigold Park and Thelonius Monk Park. There have been new sidewalks built here as well as other areas as a result of the City's recent sidewalk initiative.

**Northeast Rocky Mount** (particularly the area contained between Thomas Street and Stith Talbert Park / Martin Luther King Jr. Park): A highly operational sidewalk network can be found in this area of the City and connects the Downtown core with The Tar River Trail, via Stith Talbert Park and

**MAP 2.5 EXISTING PEDESTRIAN FACILITIES**



Martin Luther King Jr. Park. As previously discussed, the highest concentrations of residents are near Thomas, Tarboro, Highland, Main, Atlantic, Arlington, Pearl and Clark Streets in the Downtown and the sidewalk network in this area plays a critical role in connecting the City of Rocky Mount Trail System with these more densely populated neighborhoods of Rocky Mount.

Tar River Trail (from City Lake to Martin Luther King Jr. Park): The trail provides a comfortable recreational environment for users, and offers opportunity to travel from City Lake to Martin Luther King Jr. Park in an off-road setting.

There are connections to the trail from Thomas Street, Sunset Avenue and River Drive. Several streets (Atlantic, Pennsylvania, Park, etc) have sidewalks that connect to the trail through Martin Luther King Jr. Park. There is also a suitable trail that connects from the trail to the Rocky Mount Sports Complex.

There are opportunities to extend the trail system along stream and sewer corridors to create a full loop around the City.

### **Physical Barriers to Walking**

In addition to a deficiency of facilities for walking, a number of physical barriers may also deter people from venturing out on foot. The most significant barriers include the following:

**Sidewalk connectivity issues:** There is a lack of sidewalk connectivity between existing facilities and destinations, including major arterial and collector roadways (see Map 2.6). Many sidewalks are incomplete, leaving pedestrians with no other choice but to walk in unsafe conditions alongside busy roadways. In many cases, worn foot paths can be found indicating frequent use by pedestrians.

**Intersections and Inadequate crossing facilities:** Numerous intersections in Rocky Mount need some form of improvement.

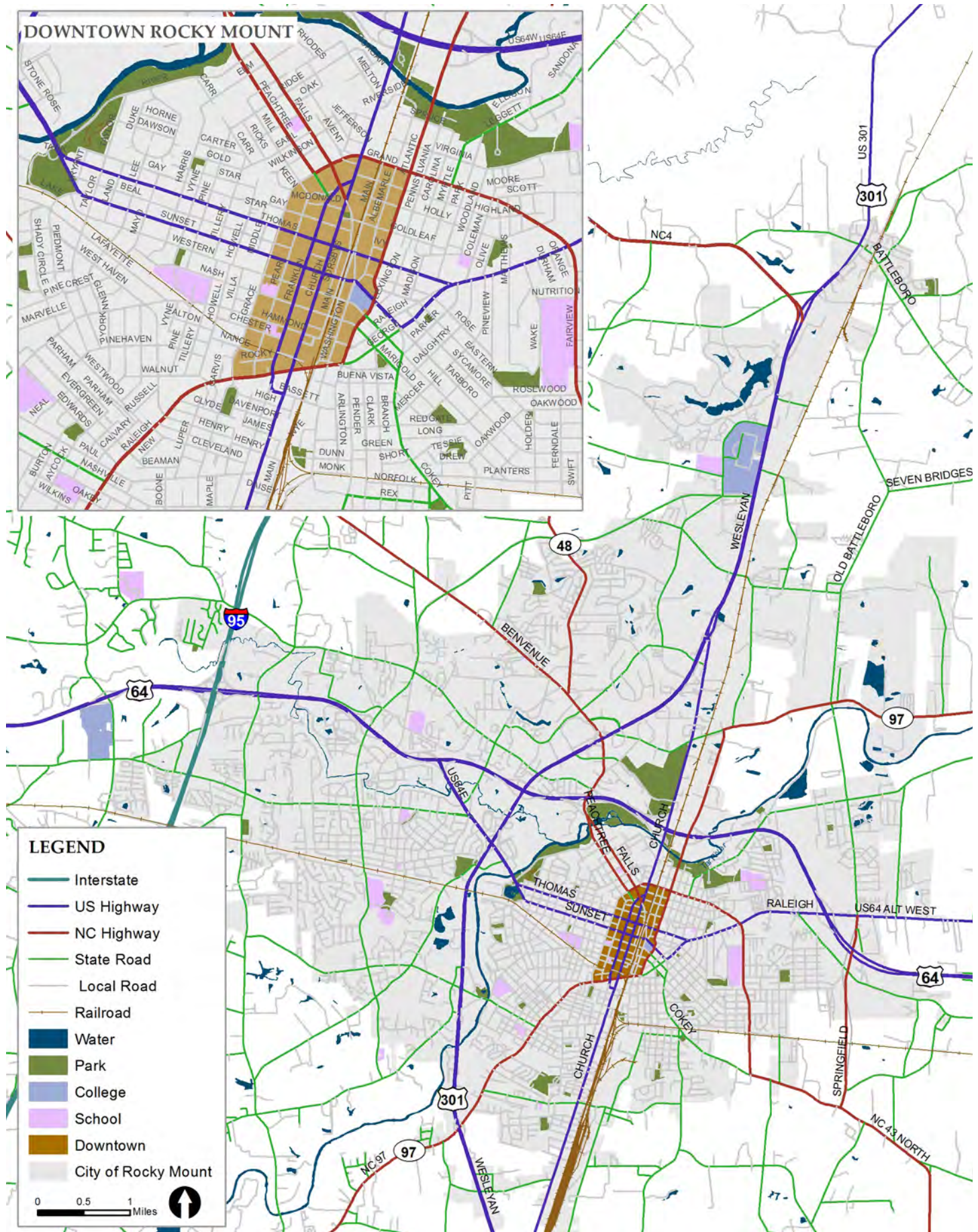
Safe crosswalks are important because there is a much greater risk for a pedestrian when entering the roadway environment. Safe crossing conditions are a necessity at intersections and in high pedestrian activity zones such as Downtown, schools and shopping centers. The majority of midblock crossings in Downtown and near schools are low-visibility, lacking curb ramps, bulb-outs, signage, or median refuges. Most intersections do not feature high-visibility marked crosswalks (Most crosswalks are standard, parallel white stripes). Curb ramps are often incomplete or inadequate and quite variable within each intersection. Where sidewalks exist along arterials and collectors, marked crosswalks and curb ramps are often missing crossing intersecting minor roadways. Intersections outside of Downtown are very deficient in pedestrian crossing features, and in many cases there are no marked crosswalks.

**Railroad crossing access issues:** There is poor access across the railroad tracks that divide Main Street in the Downtown. At-grade crossings are the most common type of crossing throughout the Downtown core and surrounding neighborhoods in south Rocky Mount. Many of these are dangerous for pedestrians because of the uneven surfaces with the roadway and tracks (not to mention the hazards they cause for people with strollers, wheelchairs, or walkers).

The Kingston Avenue and Church Street intersection that is west of the railroad underpass lacks pedestrian crossing facilities. The railroad underpass, located east of Church Street that connects Kingston Avenue with Sutton Road is a major challenge for pedestrians on the south end of the City. There are no pedestrian facilities in this area and no opportunity for foot traffic to pass through the underpass.

**Driveway access management:** High frequencies and sizes of driveways and parking lot curb-cuts present repeated hazards to

## MAP 2.6 EXISTING ROADWAYS



pedestrians as the automobile crosses the pedestrians' path of travel. This is a common issue along major commercial arterial roadways including the following:

- Church St from Union Street to Nash St
- Sunset from Taylor to Main Street
- All major arterial commercial sections (Sunset, Thomas, Falls, Grand, Cokey, Raleigh)

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

Non-pedestrian friendly bus stops: Only forty-five of 250 bus stops provide shelter. Many bus stops feature only a sign with no sidewalk, shelter, or bench. While some stops did feature all of the above, these conditions should be consistent to create safe, accessible, and functional pedestrian spaces.

### **Pedestrian Behavior**

Pedestrian activity is significant throughout Downtown Rocky Mount and in some of the residential neighborhoods. The areas of highest pedestrian activity include lower-income areas (where walking is a transportation necessity), Sunset Avenue, Raleigh Road, Goldrock Road, Benvenue Road and Raleigh Street.

Pedestrians were often seen crossing roads not in the designated marked crosswalk. This is due to the pedestrian's decision to take the shortest route and the pedestrian's false perception that it is safer to cross at another location. Footpaths were noticed in numerous locations which indicate a need for more sidewalks in many areas, especially along Sunset west of the Tar River, in the neighborhood near Thelonius Monk Park, and in the Goldrock/Benvenue area.

### **Perspectives of the Walking Public**

Another expression of existing conditions, need, and demand came from the public involvement process. Public input was gathered through several means, including an online comment form. For the full report, see Appendix E. Key results are shown on pages 2-14 and 2-15.

### **Pedestrian Crashes**

Pedestrian crash data from 2000-2010 was provided by the City of Rocky Mount and geocoded by the Consultant. 126 pedestrian crashes were mapped and can be seen in Map 2.5. The majority of crashes took place in the Downtown region and along arterial roadways with clusters in more rural locations where sidewalks are not present. The roadways with the most crashes are:





- Wesleyan Blvd – 10
- Raleigh Rd – 8
- Church St – 6
- Sunset Ave – 6
- Grace St – 6
- Grand Ave – 5
- Barnes St – 4
- Cokey Rd – 4
- Hammond St – 3
- Raleigh St – 3

### **SUMMARY OF EXISTING DOCUMENTS AND PLANS**

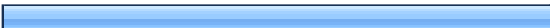

A summary of related plans is found in Appendix D, including the following:

- 2010 Raleigh Rd/Raleigh St Corridor Plan
- 2035 Long Range Transportation Plan (2009)
- 2008 Northern Connector Land Use Plan
- 2007 Comprehensive Bicycle Plan
- 2005 Parks and Recreation Master Plan
- 2003 Comprehensive Plan
- 2004 Sunset Avenue Corridor Plan
- 2004 Collector Street Plan
- 2010 Tar River Transit Community Transportation Service Plan (CTSP)





**1. How do you rate present pedestrian conditions in Rocky Mount? (select one)**

		Response Percent	Response Count
Excellent		2.9%	17
Good		23.3%	138
Fair		42.5%	252
Poor		31.4%	186


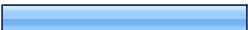










**5. Would you walk more often if more sidewalks, trails, and safe roadway crossings were provided for pedestrians?**

		Response Percent	Response Count
Yes		88.5%	521
No		11.5%	68

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

		Response Percent	Response Count
Fitness or recreation		87.3%	493
Transportation to some destination		31.9%	180
Social visits		29.7%	168
Spending time outdoors		57.9%	327
Other (please specify)			25

### 10. What factors discourage walking? Select all that apply.

		Response Percent	Response Count
Lack of sidewalks and trails		74.3%	423
Lack of crosswalks at traffic signals		39.2%	223
Lack of pedestrian signals at intersections		33.4%	190
Automobile traffic and speed		55.2%	314
Lack of interest		8.4%	48
Lack of time		14.1%	80
Aggressive motorist behavior		40.4%	230
Sidewalks in need of repair		30.8%	175
Lack of nearby destinations		33.6%	191
Criminal activity		59.2%	337
Level of street lighting		34.8%	198
Lack of landscaping and/or buffer between sidewalks and road		28.3%	161

### 11. What do you think are the top roadway corridors most needing new sidewalk?

Road	Number of Responses
Sunset	122
Winstead	72
Benvenue	48
Hunter Hill	40
Hwy 301 (Wesleyan)	31
Jeffreys	25
Country Club	19
Raleigh Rd.	14
Falls	11
Arlington	11

**PHOTO SUMMARY OF EXISTING CONDITIONS**



*Above: The City Lake Park Trail is a great resource utilized by many for recreation and exercise.*



*Above: The Tar River Trail forms an east-west spine utilized for transportation and recreation.*



*Above: The sidewalk in Battleboro, along Battleboro Avenue features street trees and a grass buffer.*



*Above: The Sports Complex trail is a nice, multi-use paved path.*



*Above: The Tar River Trail crossing of Peachtree Street and Falls Road is well signed and marked.*



*Above: A sewer easement at Jeffreys Road provides an excellent opportunity for a trail. There are other opportunities similar to this throughout the City.*



Above: Footpath along Peachtree Street leading from the Tar River Trail towards the Farmers Market.



Above: Footpath along Sunset Avenue, near Halifax Road intersection.



Above: Footpath along Goldrock Road, near the intersection with Cunningham.



Above: Pedestrian with baby stroller along Nashville Road where a sidewalk gap is present.



Above: Bus stop on Sunset Avenue, near Winstead intersection. This stop features no pedestrian accommodation.



Above: Bus stop on Sunset Avenue, just east of bus stop shown on picture to left. This stop features sidewalk, a bench, and a shelter.



*Above: A bicyclist walks his bike across Hill Street at the intersection with George Street. The marked crosswalk is quite faded.*



*Above: The intersection of Redgate Ave and Cokey Road sees significant pedestrian travel daily with the corner grocery store. Intersection enhancements are needed.*



*Above: A pedestrian crossing is barely visible and could be enhanced across Virginia Street at Parker Middle School.*



*Above: Children crossing the Raleigh Street and Stokes Street intersection with the help of a crossing guard.*

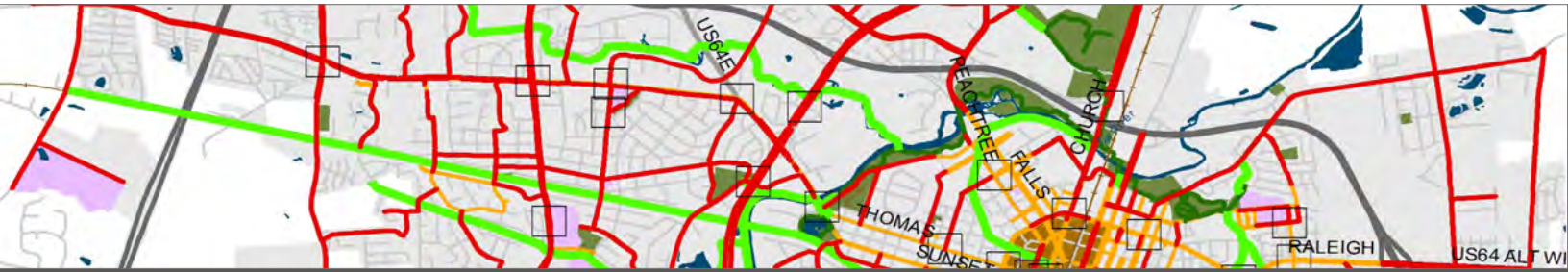


*Above: The sidewalk ends on both sides of the railroad tracks along Grace Street.*



*Above: A pedestrian crossing of Church Street from the Senior Center to the walking track. Curb ramps, high-visibility marked crosswalk, and a median refuge would enhance this crossing.*

# CHAPTER THREE: PEDESTRIAN NETWORK



## OVERVIEW

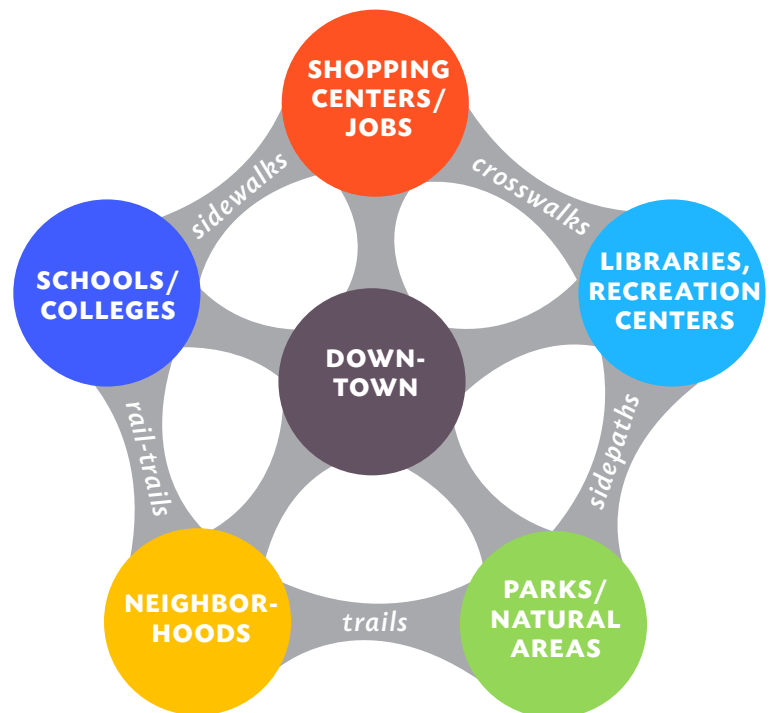
The recommended pedestrian network provides a connected system of sidewalks, trails (multi-use paths), and crossing improvements that connect to schools, parks, community centers, business districts, libraries, shopping centers, and natural resources. The network serves multiple users and interests, and improves access for residents of varying physical capabilities, ages, and skill levels. This chapter introduces the methodology, facility types, maps, and tables to describe the pedestrian network.

## METHODOLOGY

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

The network was generated through a number of inputs including:

- Steering Committee input
- Stakeholder input
- Public input
- Fieldwork
- City staff analysis
- GIS data (Pedestrian crashes, demographic data, sidewalk gap analysis)
- LRTP sidewalk list



## RECOMMENDED PEDESTRIAN NETWORK

The Recommended Pedestrian Network Map (Map 3-1) depicts existing and proposed pedestrian and shared use path facilities. Proposed improvements include filling major gaps in the existing sidewalk system and providing sidewalks on new streets. Although the map does not depict sidewalks on every street, this plan recommends that the City develop a policy to ultimately require or provide sidewalks on both sides of all collector and arterial streets and on at least one side of local streets where warranted by density and/or system connectivity. Other pedestrian system recommendations include shared-use paths and

intersection improvements to accommodate safe and convenient pedestrian crossings.

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

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

**PEDESTRIAN NETWORK  
FACILITY TYPES**

The Proposed Pedestrian Network for the City of Rocky Mount consists of three chief types of projects: sidewalks, crossing improvements, and trails. The addition of these types of facilities is well documented to improve safety. Many of the treatments recommended in this chapter have been proven to reduce crashes, as shown in the 2007 FHWA Crash Reduction Factors Study (<http://safety.fhwa.dot.gov>). The table below shows some typical countermeasures and associated crash reduction factors from that study.

TABLE 3.1 PEDESTRIAN CRASH REDUCTION FACTORS

Countermeasure	Crash Reduction Factor
Install sidewalk	74%
Install countdown signal heads	25%
Install refuge islands	56%
Install marked crosswalks	25%

**Sidewalks**

The recommended sidewalks aim to expand upon the existing network of sidewalks to provide a more connected system that connects destinations along roadways. To complete the sidewalk network along existing streets, special emphasis should be given to completing sidewalk gaps and providing sidewalks on routes serving major pedestrian destinations. One hundred seventy-six (176) miles of new sidewalk are recommended for the City of Rocky Mount and can be seen in Map 3.1

**Intersection Improvements**

This Plan contains an overall strategy to improve intersections and other pedestrian crossings citywide through a variety of treatments (outlined in Appendix A, Design Guidelines). Many intersections throughout Rocky Mount were targeted for enhancements during this study (to improve existing crossing facilities or create new crossing facilities at intersections and mid-blocks). City staff input, residents input, crash data, and fieldwork identified the 50+ locations highlighted on Map 3.1 as having a relatively high level of importance. Recommended intersection improvement projects are provided Appendix H: Intersection Inventory.

**Shared-use Paths/Greenways**

Shared-use paths are proposed for Rocky Mount to provide transportation and recreational alternatives for pedestrian travel. The recommended greenways aim to expand upon a comprehensive off-road system that utilizes stream corridors and easements. Approximately 37 miles of greenways are recommended and can be seen in Map 3.1

## SAFE ROUTES TO SCHOOL IMPROVEMENTS

Pedestrian improvements around schools are critical to creating safe environments for children and parents to walk. Along school routes, increasing the visibility of pedestrians is crucial. School routes should have a complete sidewalk network along primary routes and high visibility-crosswalks with pedestrian push buttons at signals. Crossing treatments can include in-roadway signage, speed zone warnings, accessible curb ramps, and other crossing applications such as curb bulbouts. Crossing guards are also extremely important.

The City of Rocky Mount should work with Nash-Rocky Mount Public Schools to implement a Safe Routes to School (SRTS) Program. Typically, the first phase involves a SRTS parent survey and student tally survey available at the National Safe Routes to School Center website. It also involves a workshop and/or walkabout (also known as a bicycle and pedestrian audit) to assess walking and bicycling conditions of streets adjacent to elementary schools and the creation of a school travel plan. Parents, students, neighbors, and City planners and/or traffic engineers would be invited to join in the walkabout. Safety concerns, issues, and ideas would be recorded. These walkabouts/workshops can build upon the preliminary recommendations shown on the pages that follow.

After the bicycle and pedestrian audit and/or workshop is conducted, maps for each elementary and middle school showing recommended routes to reach school, along with high-traffic intersections and routes to avoid, can be produced and distributed.

As a final step, a school travel plan should be produced for each school, including cost estimates and a prioritized project list.

These infrastructure improvement plans will serve as a blueprint for future investments and can be used to apply for North Carolina Safe Routes to School funding.

Maps on pages 3-39 and 3-40 depict recommended improvements for carefully selected schools in Rocky Mount, based on Safe Routes to School standards.

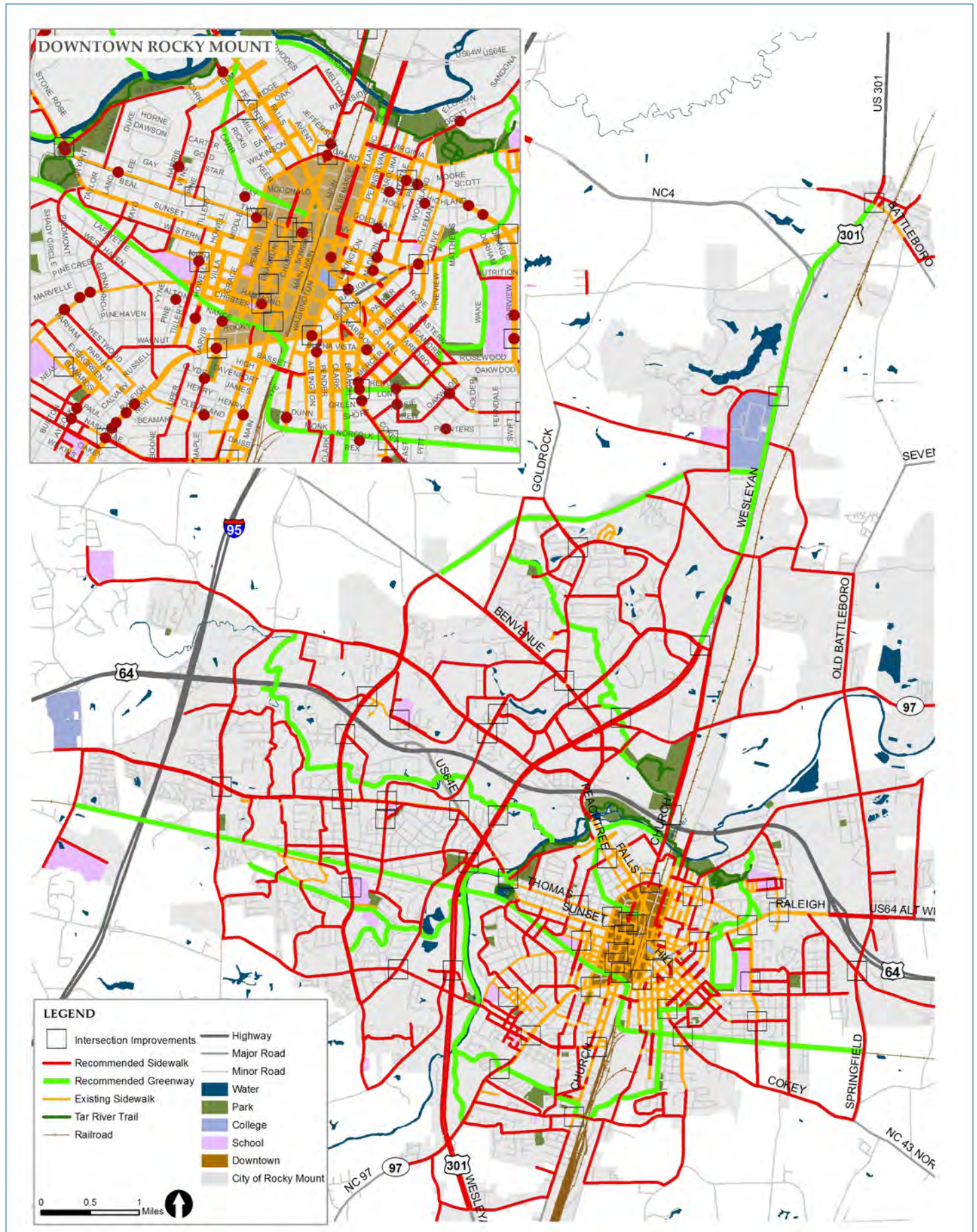
## REGIONAL CONNECTIONS

The City of Rocky Mount should look beyond its boundaries and link multi-use trail and pedestrian facilities to neighboring and regional destinations. It is recommended that the City of Rocky Mount, Nash County, Edgecombe County, and other surrounding jurisdictions coordinate efforts to create long distance connections for alternative transportation and recreation. It will be critical to ensure compatibility and connectivity with ongoing planning efforts and actual multi-use trail facilities that meet at municipality borders.

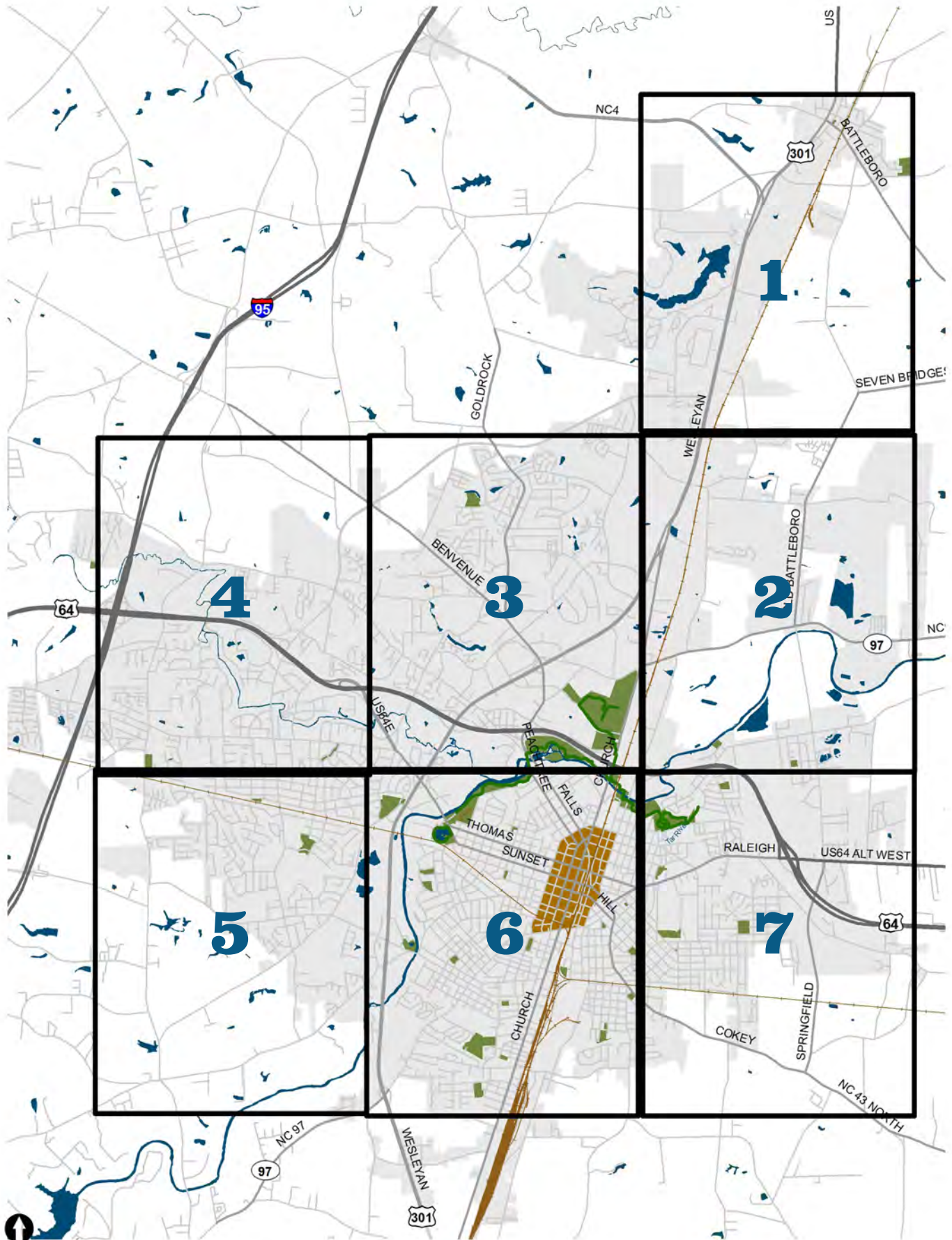
## PEDESTRIAN NETWORK MAPS

The following maps display the overall pedestrian network recommendations (sidewalks, trails, and crossing improvements). Following those are photo visualizations that show examples of what these recommendations would look like on certain streets, intersections and corridors. This chapter concludes with top priority projects, including SRTS projects.

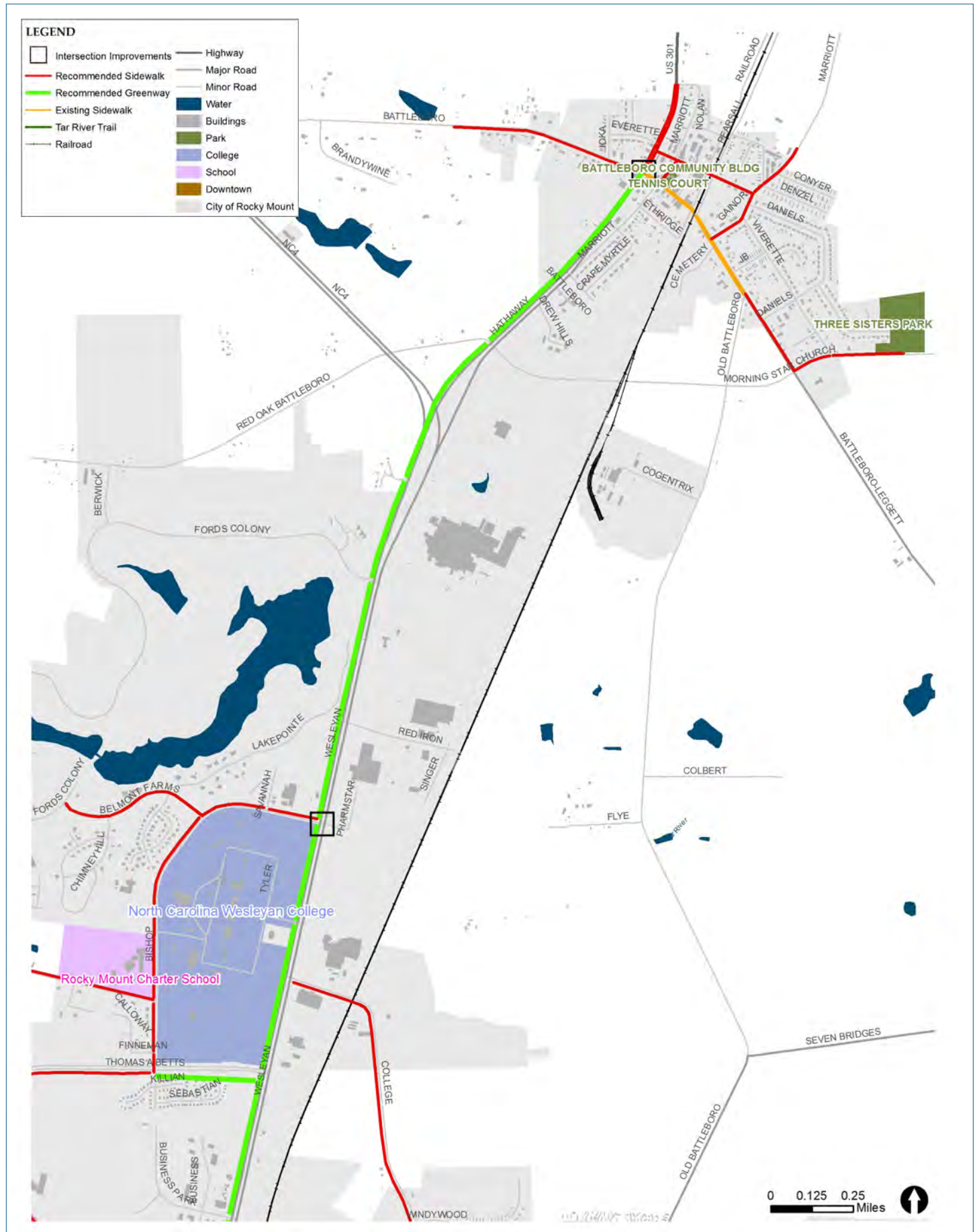
**MAP 3.1 OVERALL PEDESTRIAN NETWORK**



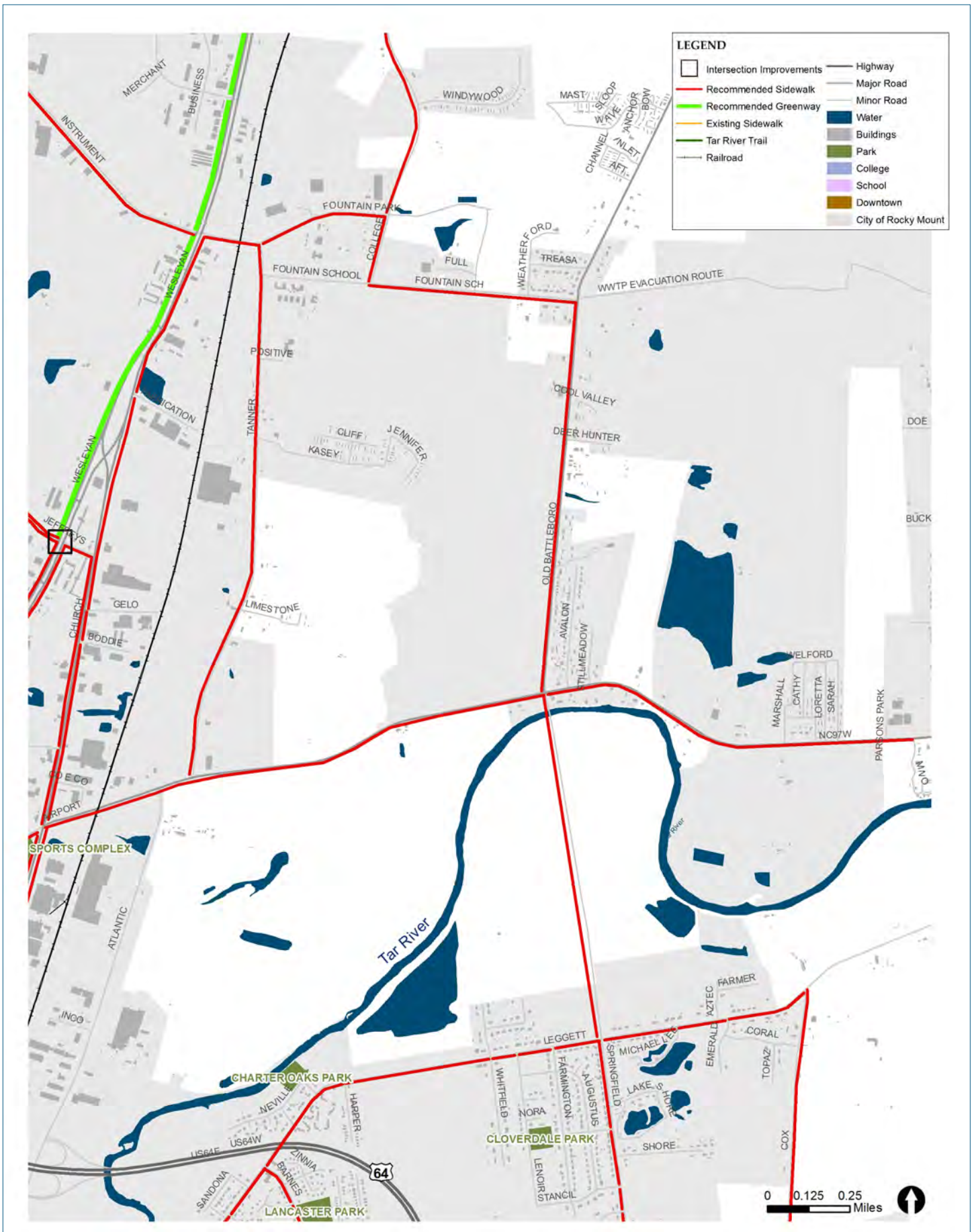
**MAP 3.2 PEDESTRIAN NETWORK GRID MAP**



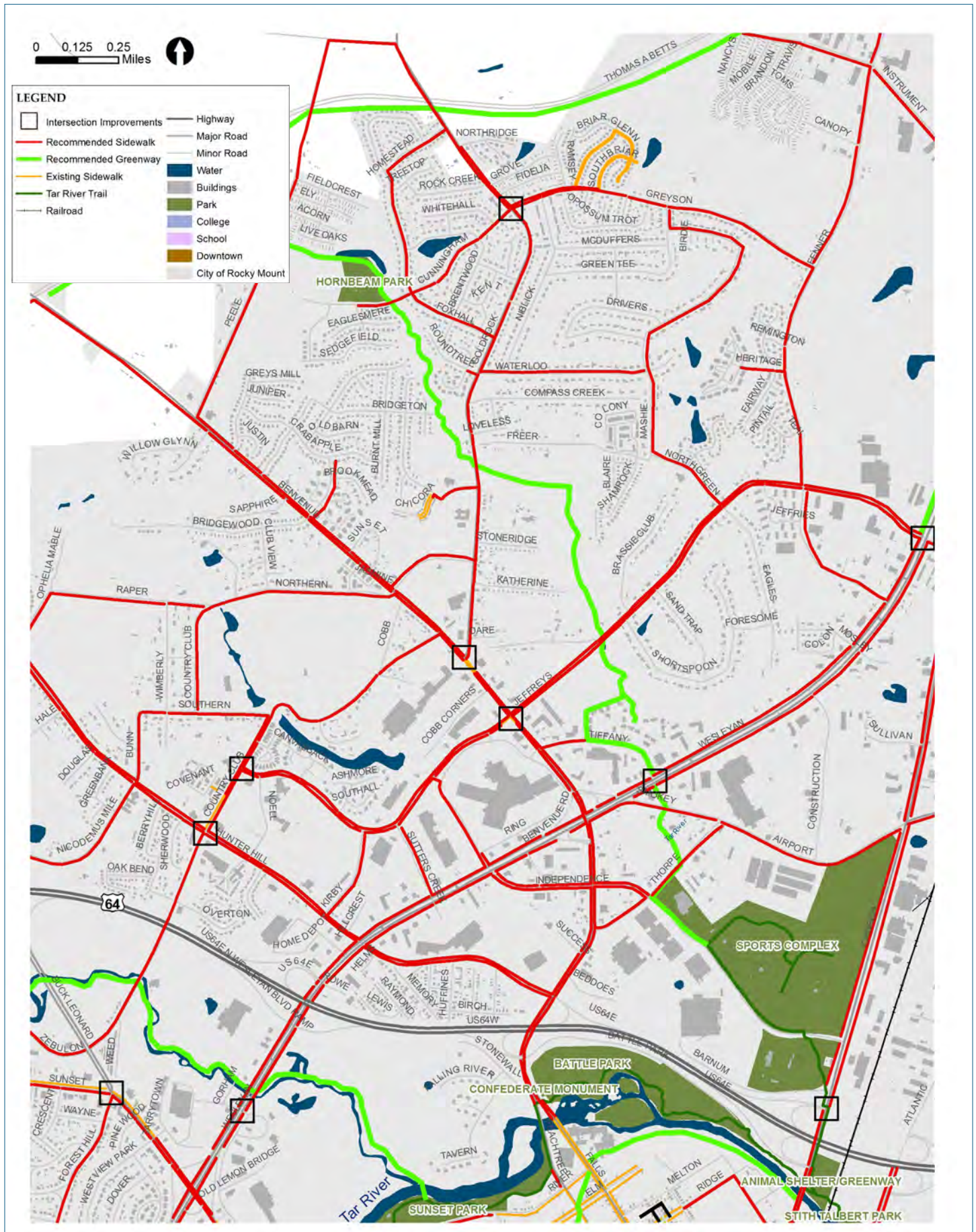
MAP 3.3 PEDESTRIAN NETWORK GRID #1



MAP 3.4 PEDESTRIAN NETWORK GRID #2



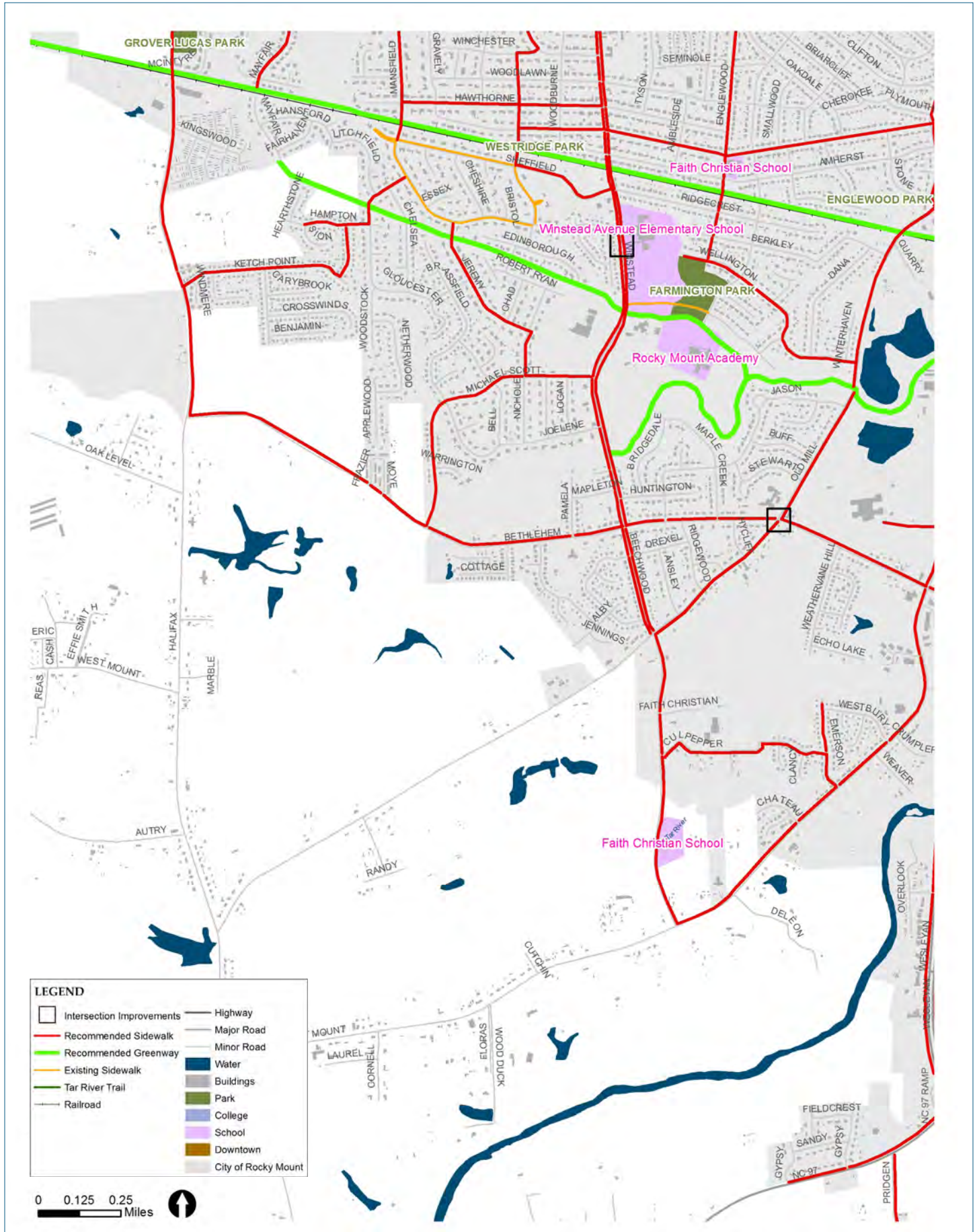
**MAP 3.5 PEDESTRIAN NETWORK GRID #3**

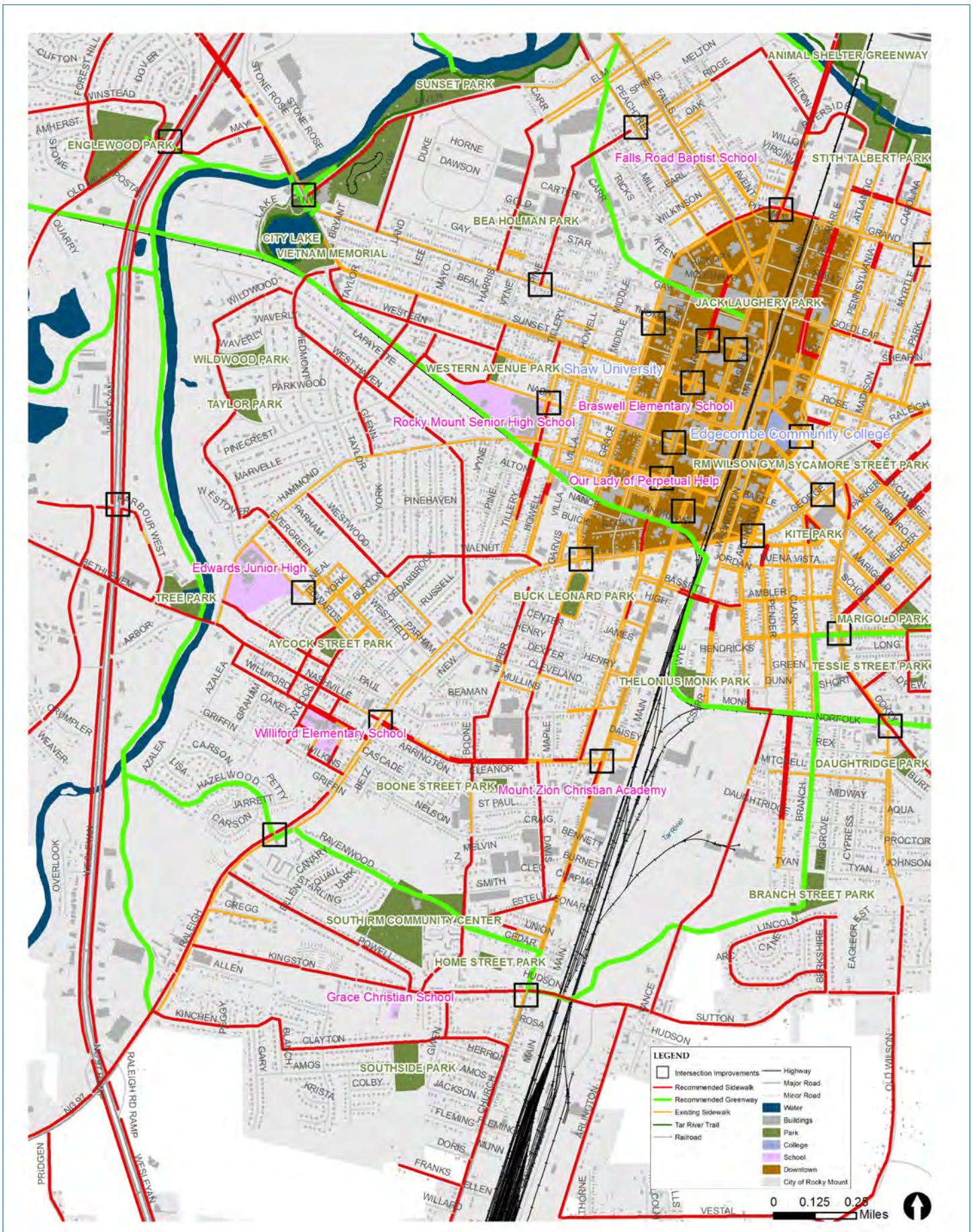


**LEGEND**

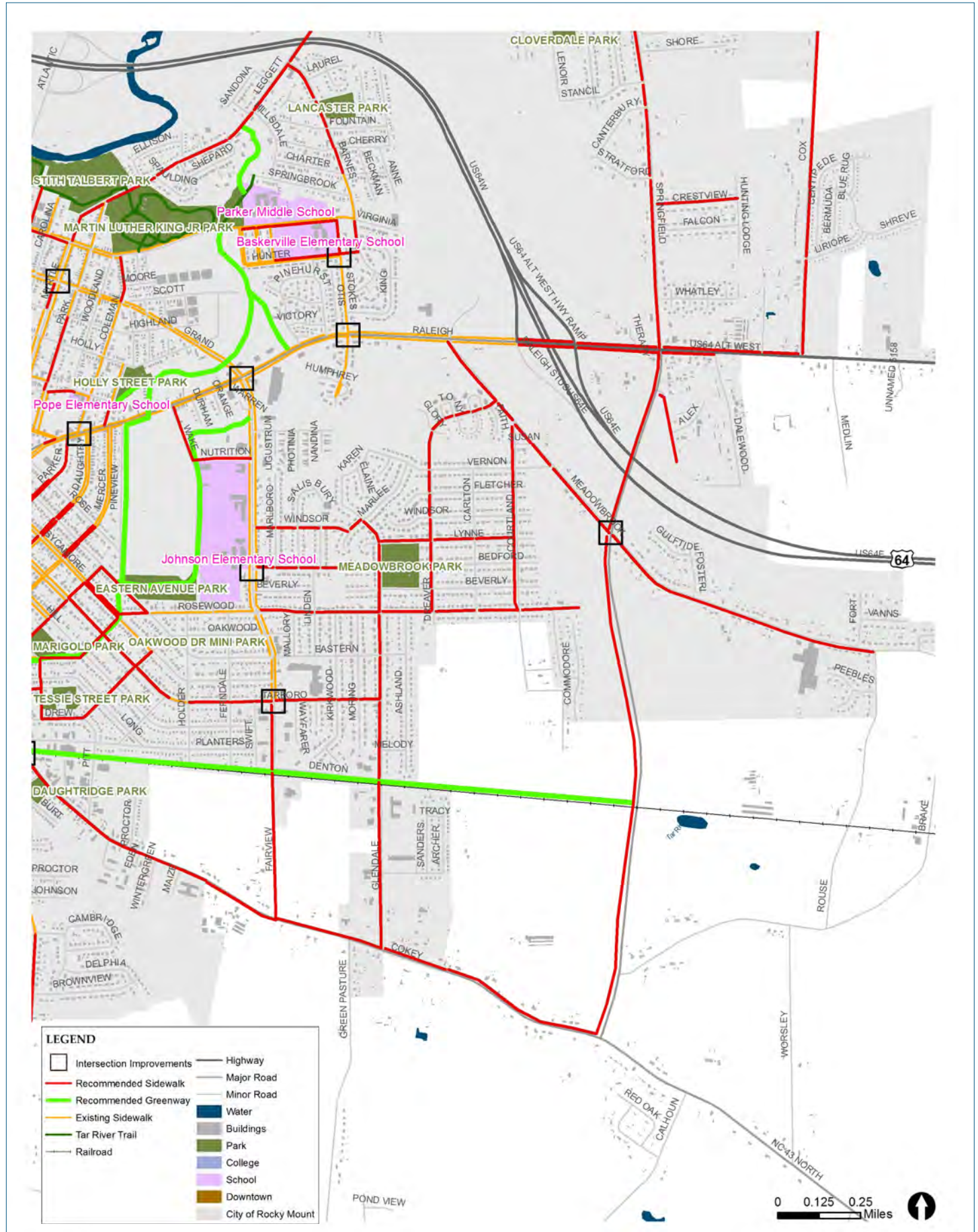
- Intersection Improvements
- Recommended Sidewalk
- Recommended Greenway
- Existing Sidewalk
- Tar River Trail
- Railroad
- Highway
- Major Road
- Minor Road
- Water
- Buildings
- Park
- College
- School
- Downtown
- City of Rocky Mount

**MAP 3.7 PEDESTRIAN NETWORK GRID #5**



**MAP 3.8 PEDESTRIAN NETWORK GRID #6**


MAP 3.9 PEDESTRIAN NETWORK GRID #7



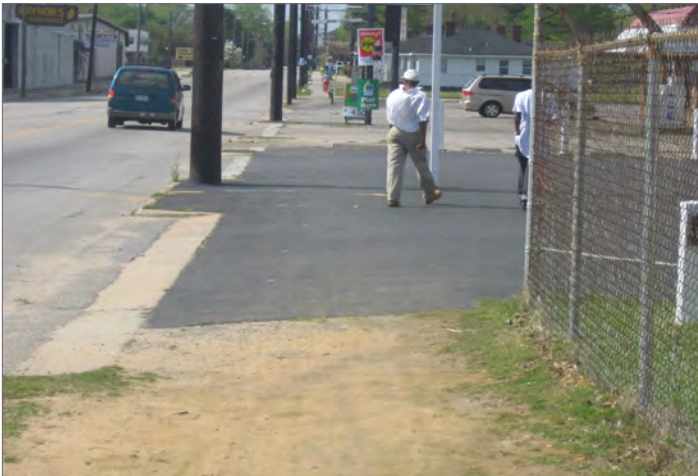
## PHOTO RENDERINGS



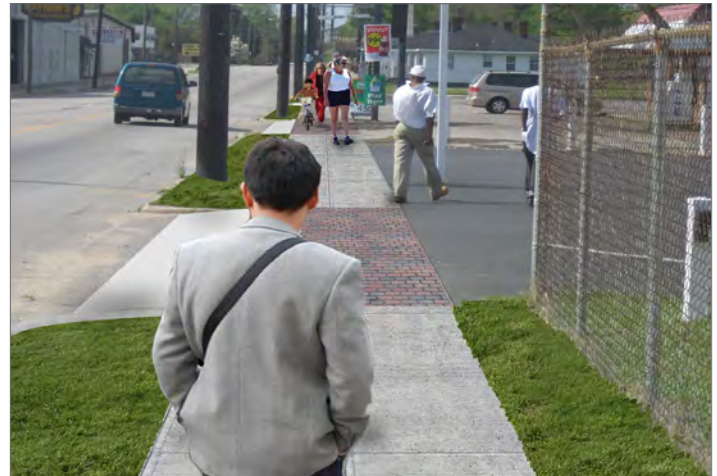
Above: Existing conditions at Benvenue and Goldrock



Above: Proposed improvements.



Above: Existing conditions along Church Street.



Above: Proposed improvements.



Above: Existing conditions at Rocky Mount High School on Nash Street.



Above: Proposed improvements.



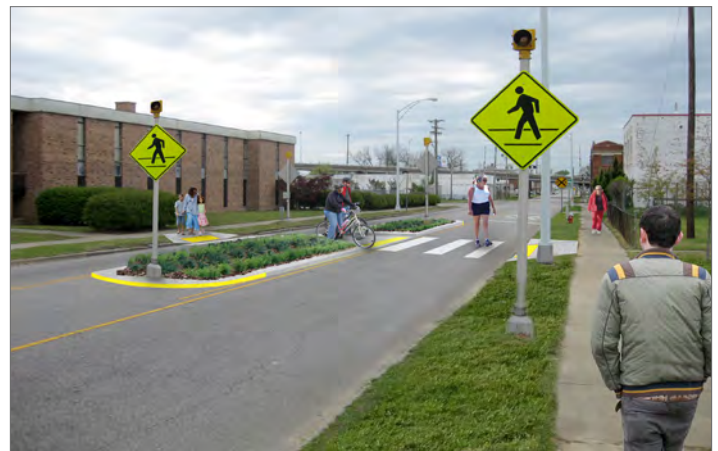
*Above: Existing conditions at Hathaway & Battleboro.*



*Above: Proposed improvements at Hathaway & Battleboro.*



*Above: Existing conditions near the Senior Center on Church Street.*



*Above: Proposed improvements.*



Above: Existing conditions at Winstead & Sunset.

Below: Proposed improvements.



Above: Existing conditions at Redgate & Cokey.



Above: Proposed improvements.



*Above: Existing conditions at George & Hill.*



*Above: Proposed improvements at George & Hill.*



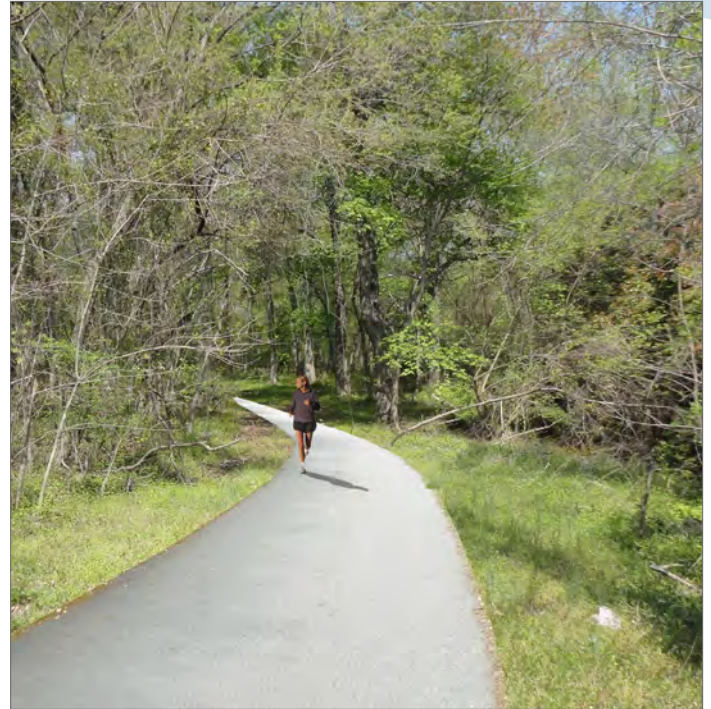
*Above: Existing conditions along Peachtree Street near the Tar River Trail.*



*Above: Proposed improvements.*



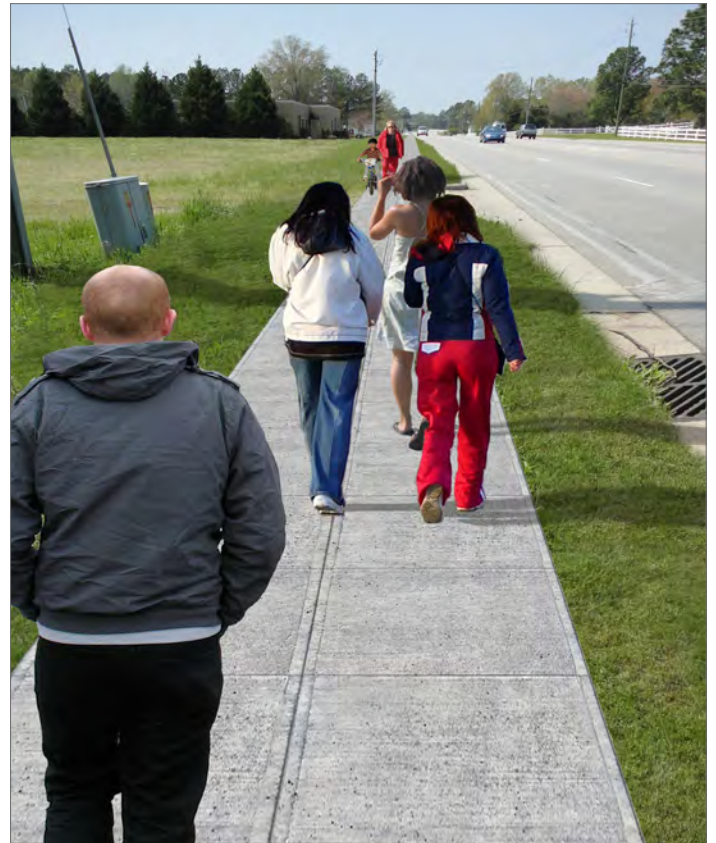
*Above: Existing conditions at Jeffrey's Road trail crossing.*



*Above: Proposed improvements.*



*Above: Existing conditions on Sunset Avenue.*



*Above: Proposed improvements.*

## PEDESTRIAN PRIORITY PROJECTS

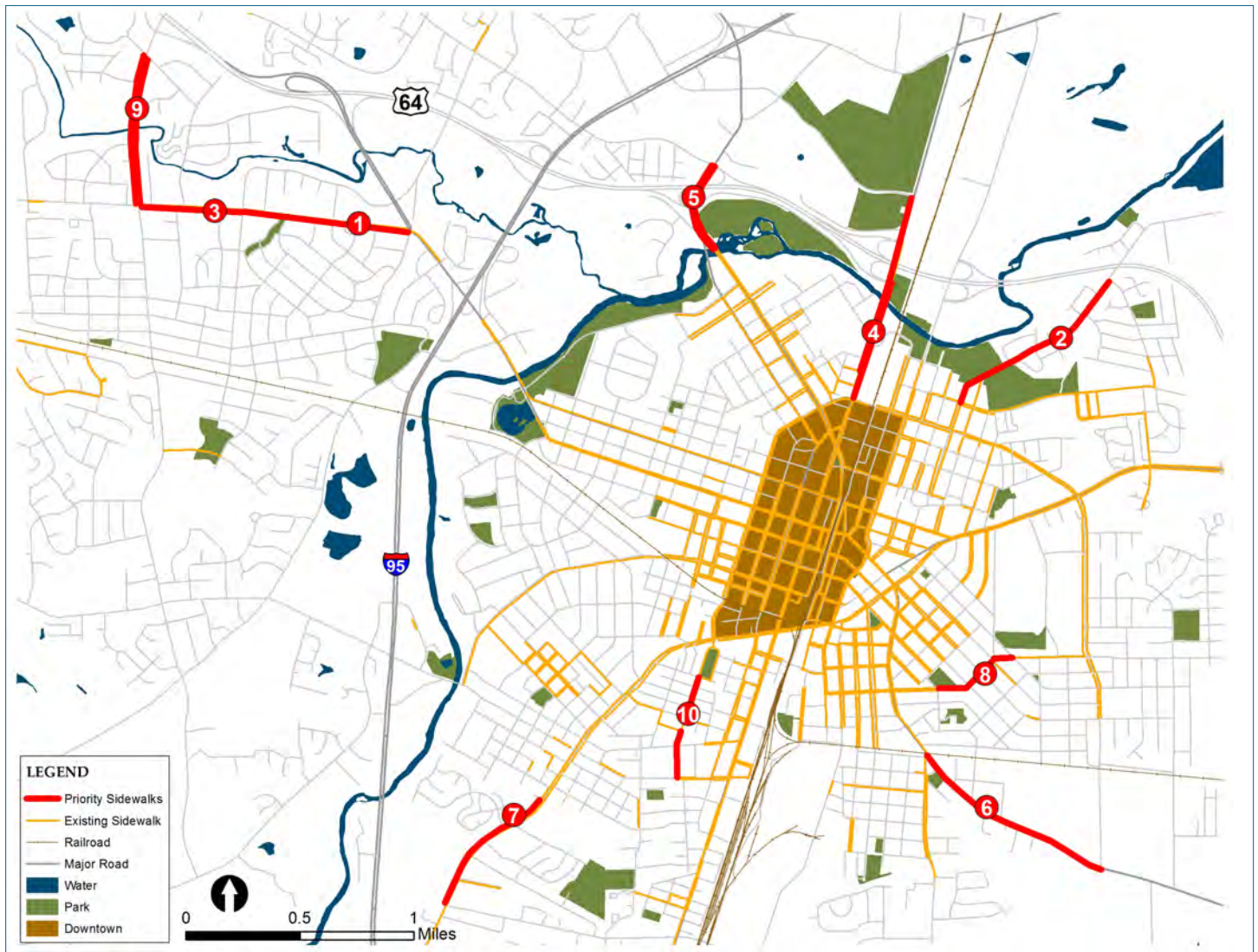
The recommended network was divided into project segments and prioritized. The segments were scored by factors that fall within the following main categories:

- Online Survey Results
- School Proximity
- Parks & Recreation
- Transportation
- Destinations

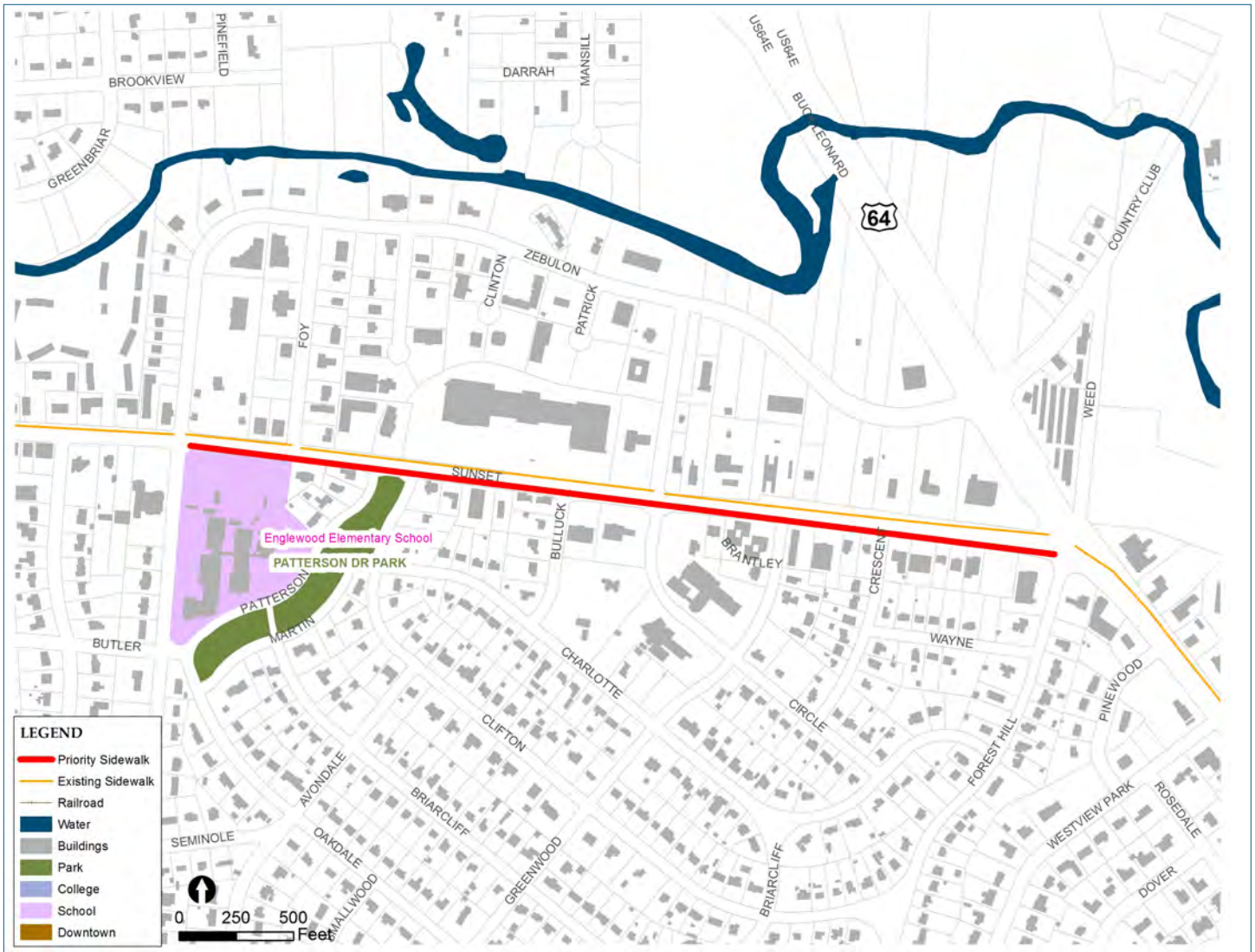
The ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding, changes in site conditions, and local development opportunities. For more on this topic, please refer to Appendix I: Prioritization.

The map below shows the general location of the projects that scored the highest. The following pages show each of these projects in greater detail, including a map and brief description of each.

**MAP 3.10 PRIORITY SIDEWALK MAP**



# PRIORITY SIDEWALK **1** SUNSET AVE



From: Englewood Dr.

To: Buck Leonard Blvd.

No. of Sides: 1

Total length: 0.7miles or 3700ft

Cost Estimate: \$148,000 (\$40/linear foot)

Importance: Connects existing sidewalk to Englewood Elementary School, Patterson Dr. Park, bus stops, multiple commercial and residential locations

## PRIORITY SIDEWALK 2 LEGGETT ROAD



From: E. Virginia St.

To: Barnes St.

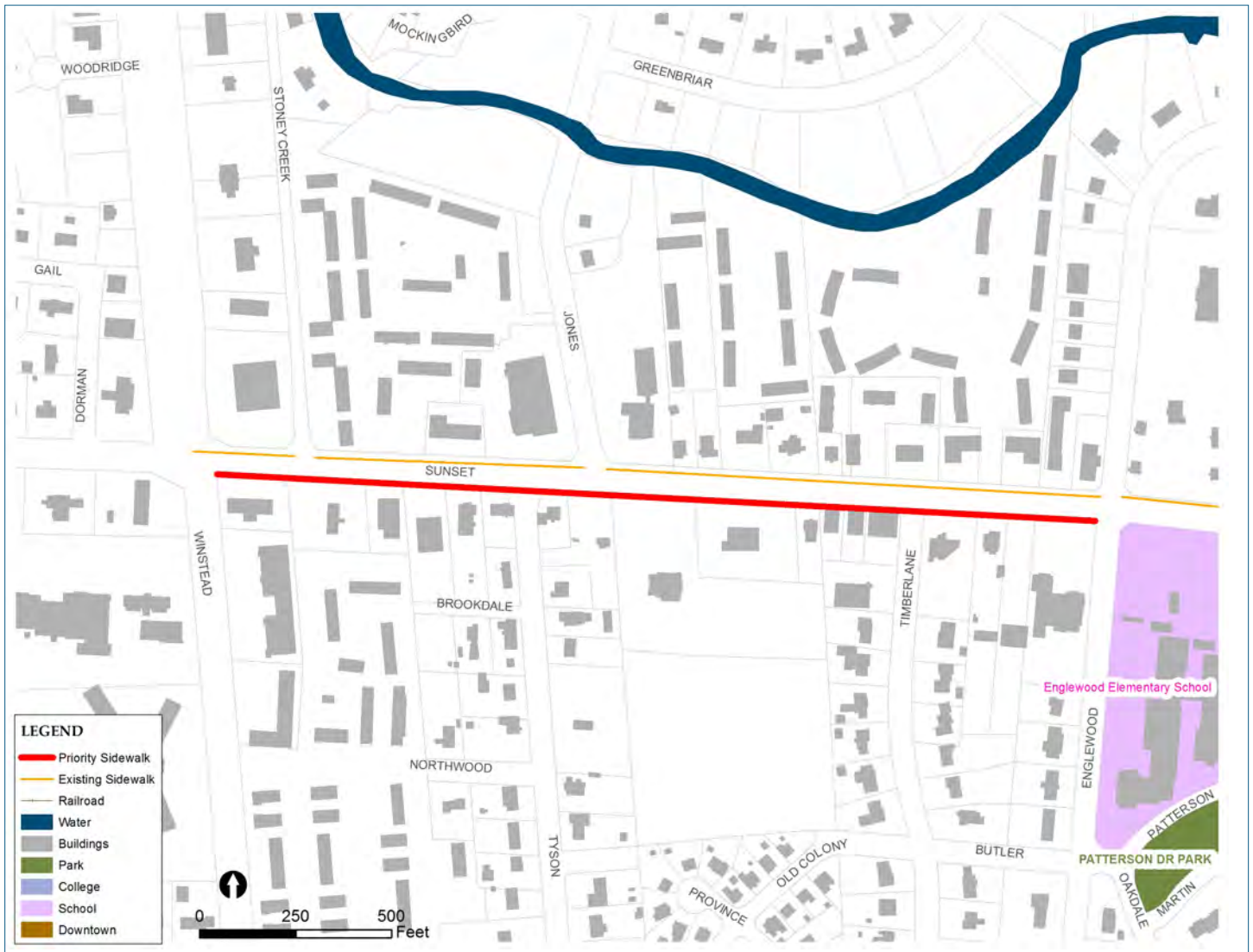
No. of Sides: 1

Total length: 0.8miles or 4200ft

Cost Estimate: \$169,000 (\$40/linear foot)

Importance: Connects to trail system, Talbert Park, Martin Luther King Jr. Park, Parker Middle School, proposed trail, and residential areas

## PRIORITY SIDEWALK **3** SUNSET AVE



From: Winstead Ave.

To: Englewood Dr.

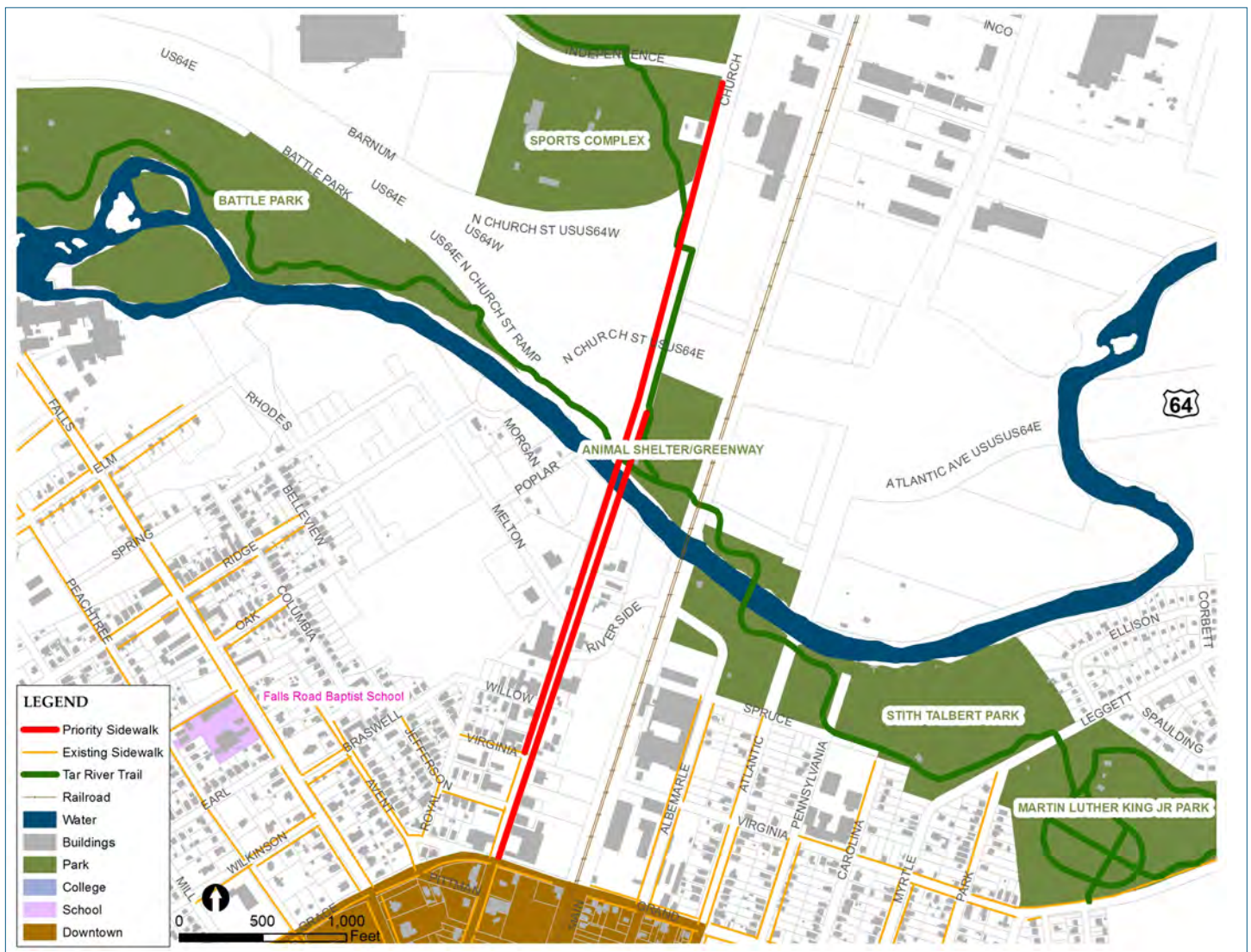
No. of Sides: 1

Total length: 0.4miles or 2100ft

Cost Estimate: \$85,000 (\$40/linear foot)

Importance: Connects to Englewood Elementary School, Patterson Dr. Park, multiple bus stops, multiple commercial and residential locations, including multi-family residential

## PRIORITY SIDEWALK 4 N. CHURCH STREET



From: Grand Ave.

To: Independence Dr.

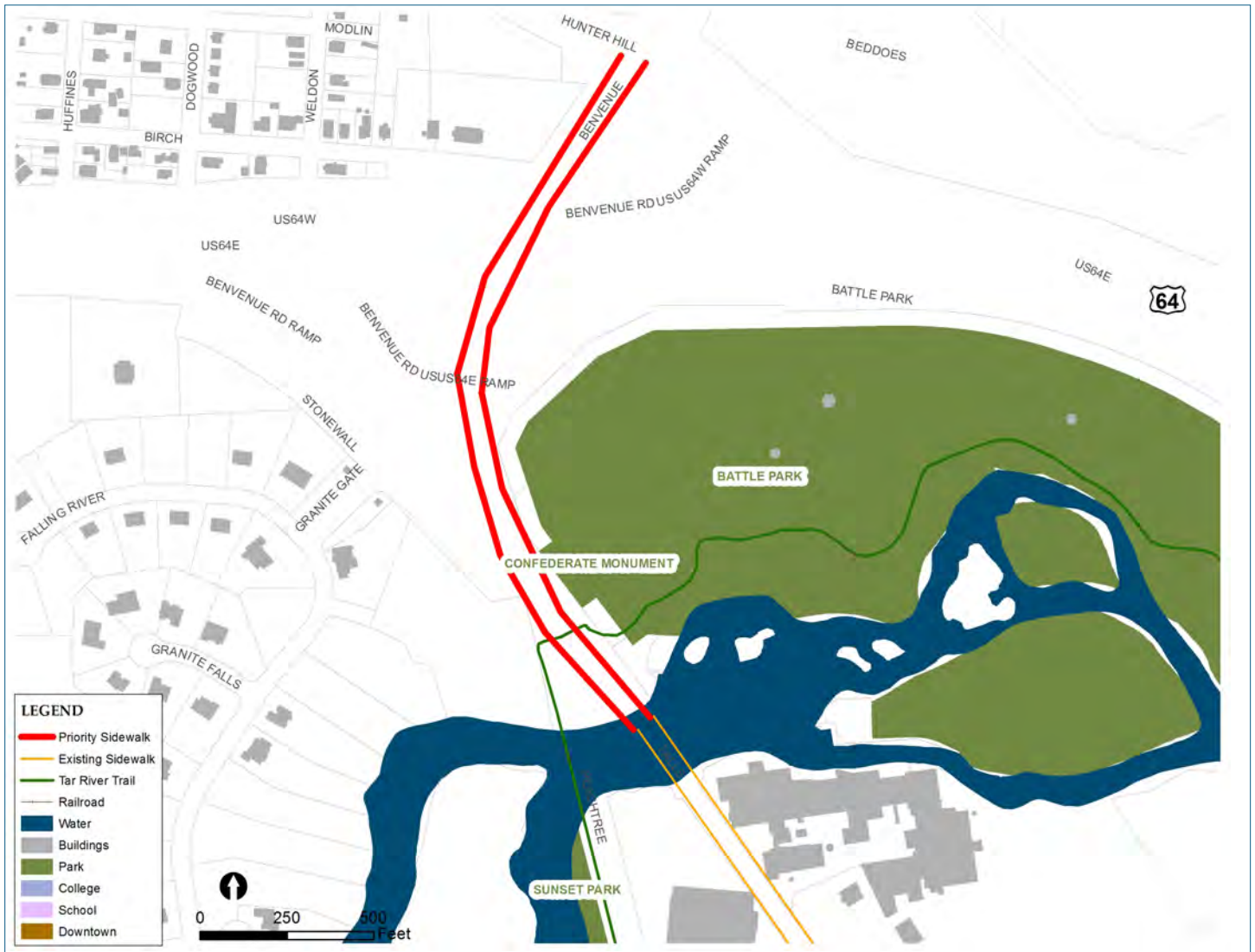
No. of Sides: 2

Total length: 1.1 miles or 5800ft

Cost Estimate: \$232,000 (\$40/linear foot)

Importance: Connects Downtown to Tar River Trail, Sports Complex along commercial roadway

## PRIORITY SIDEWALK **5** BENVENUE ROAD



From: Hunter Hill Rd.

To: River Dr.

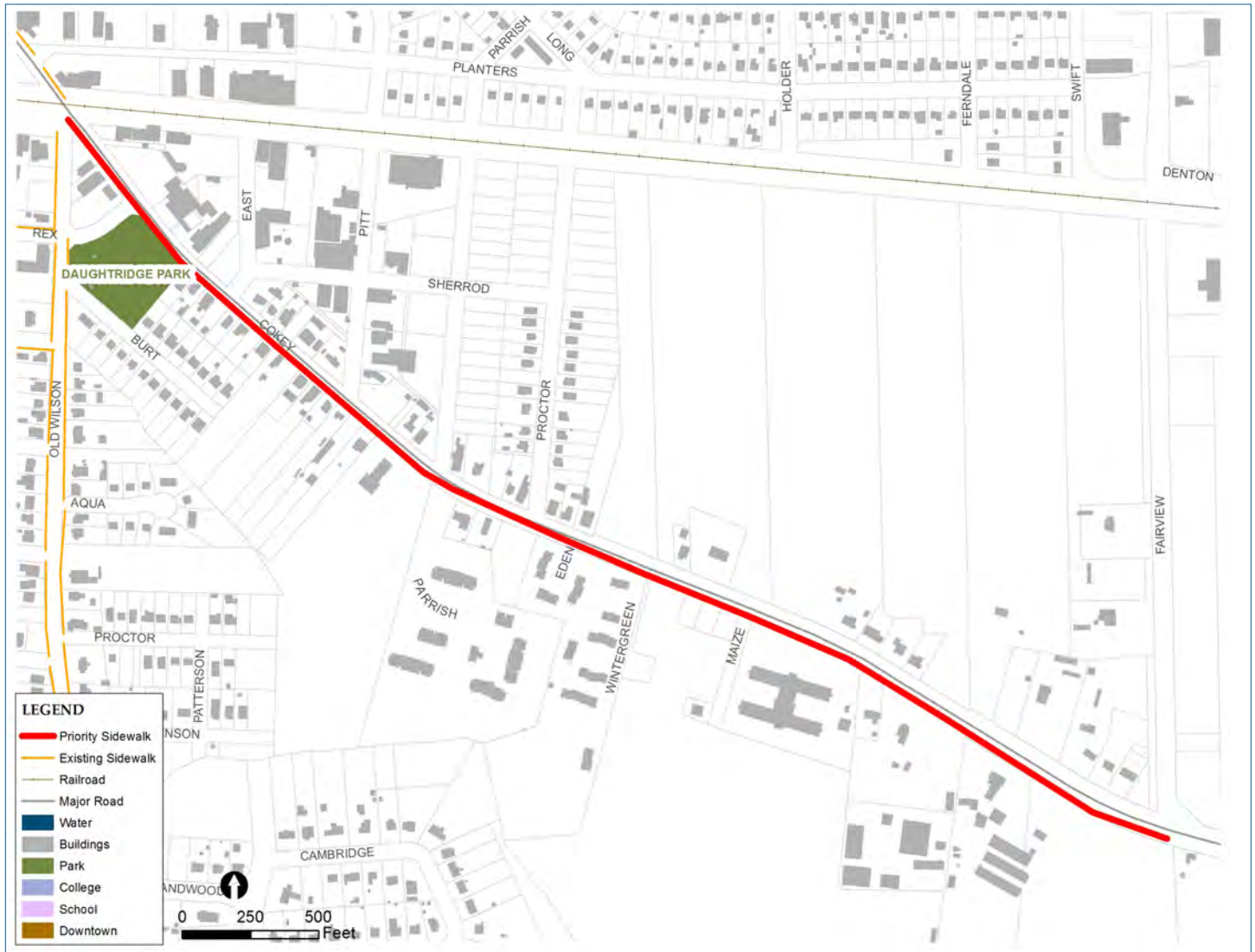
No. of Sides: 2

Total length: 0.83 miles or 4400ft

Cost Estimate: \$176,000 (\$40/linear foot)

Importance: Connects to Tar River Trail, Battle Park, areas north of Tar River, Farmers Market area

**PRIORITY SIDEWALK 6 COKEY ROAD**



From: Old Wilson Rd.

To: S. Fairview Rd.

No. of Sides: 1

Total length: 0.9miles or 4750ft

Cost Estimate: \$190,000 (\$40/linear foot)

Importance: Connects southern residences into existing sidewalk heading into Downtown, connects Daughtridge Park

## PRIORITY SIDEWALK **7** RALEIGH ROAD



From: Kingston Ave.

To: Griffin St.

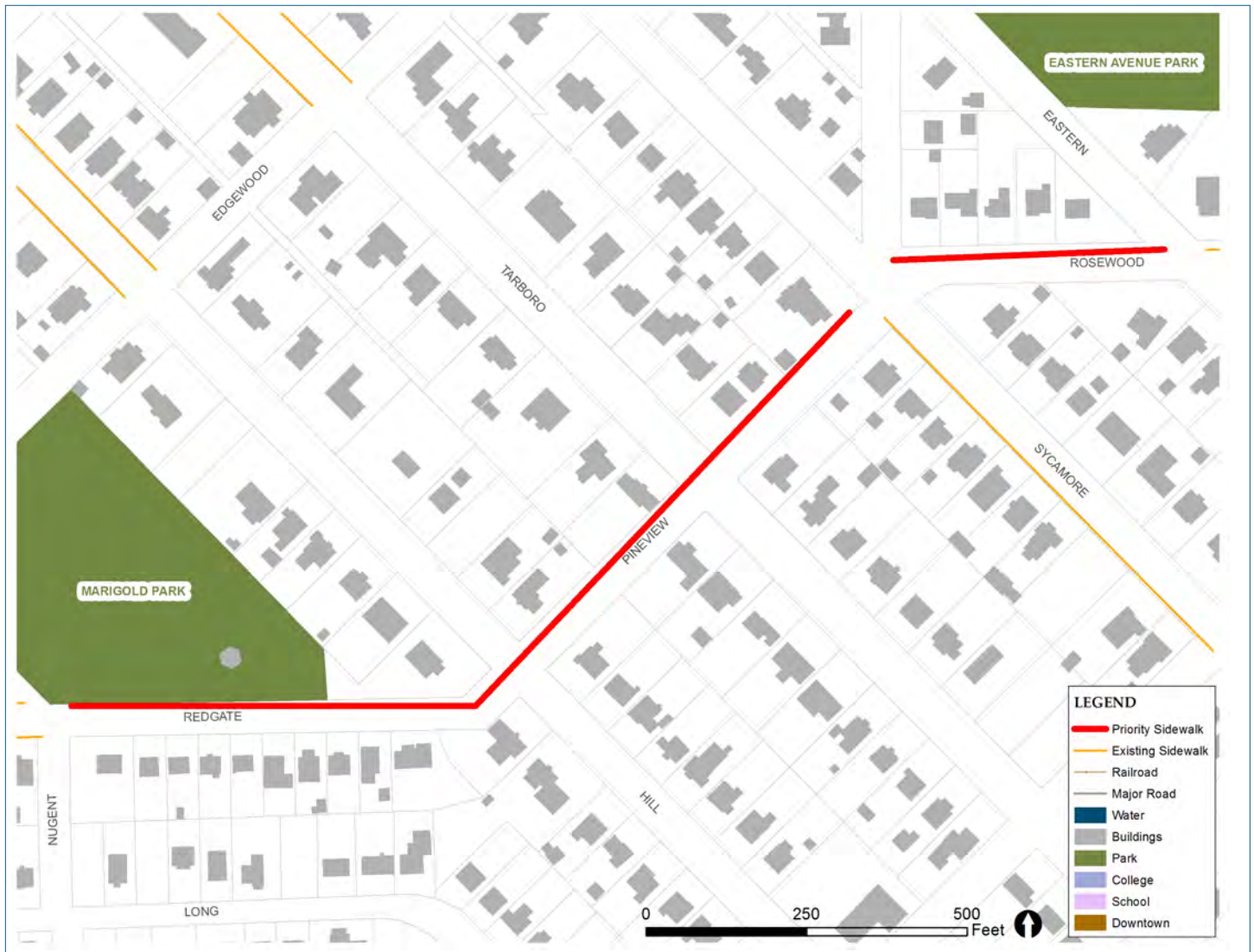
No. of Sides: 1

Total length: 0.6miles or 3200ft

Cost Estimate: \$128,000 (\$40/linear foot)

Importance: Extends existing sidewalk to lower-income communities

**PRIORITY SIDEWALK 8 REDGATE AVE/N PINEVIEW ST./ROSEWOOD AVE.**



From: Nugent St.

To: Eastern Ave.

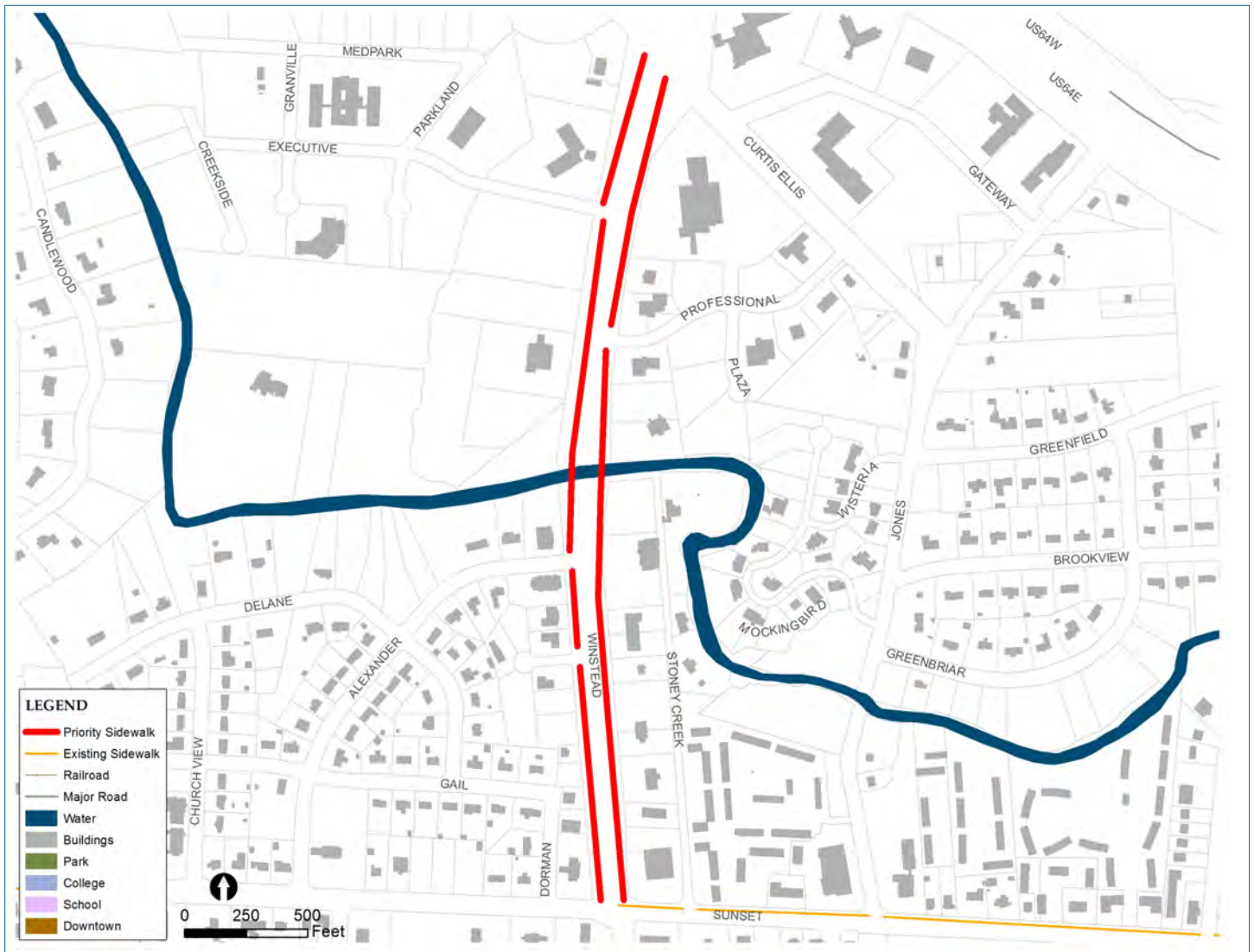
No. of Sides: 1

Total length: 0.4miles or 2100ft

Cost Estimate: \$85,000 (\$40/linear foot)

Importance: Fills gap in existing sidewalk connecting residences to Marigold Park, Eastern Avenue Park, and Johnson Elementary School

## PRIORITY SIDEWALK 9 N. WINSTEAD AVENUE



From: Curtis Ellis Dr.

To: Sunset Ave.

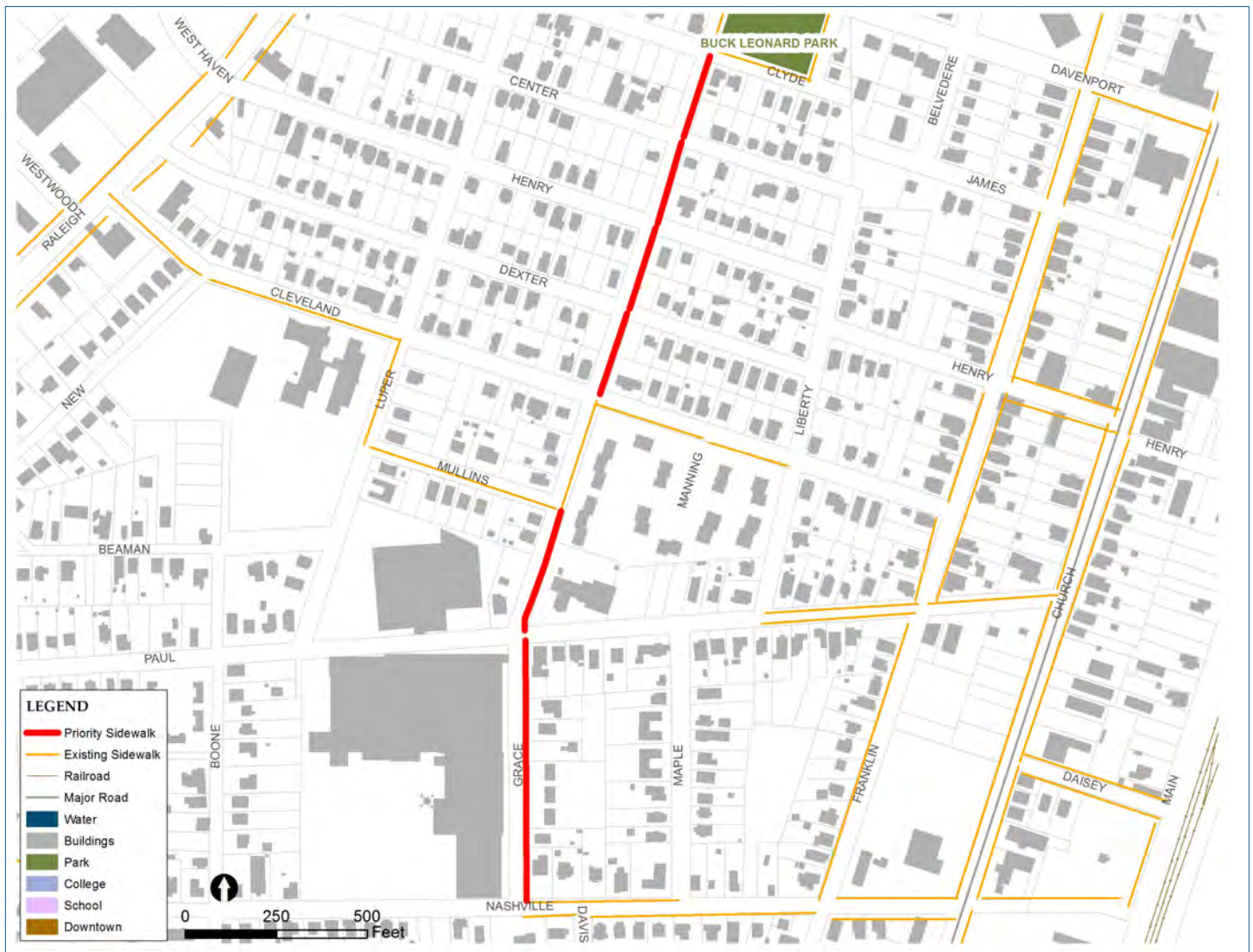
No. of Sides: 2

Total length: 1.2miles or 6300ft

Cost Estimate: \$253,000 (\$40/linear foot)

Importance: Connects to Sunset/Winstead commercial corridors and residential areas to the Medical Center and other points north

## PRIORITY SIDEWALK **10** S. GRACE STREET



From: Nashville Rd.

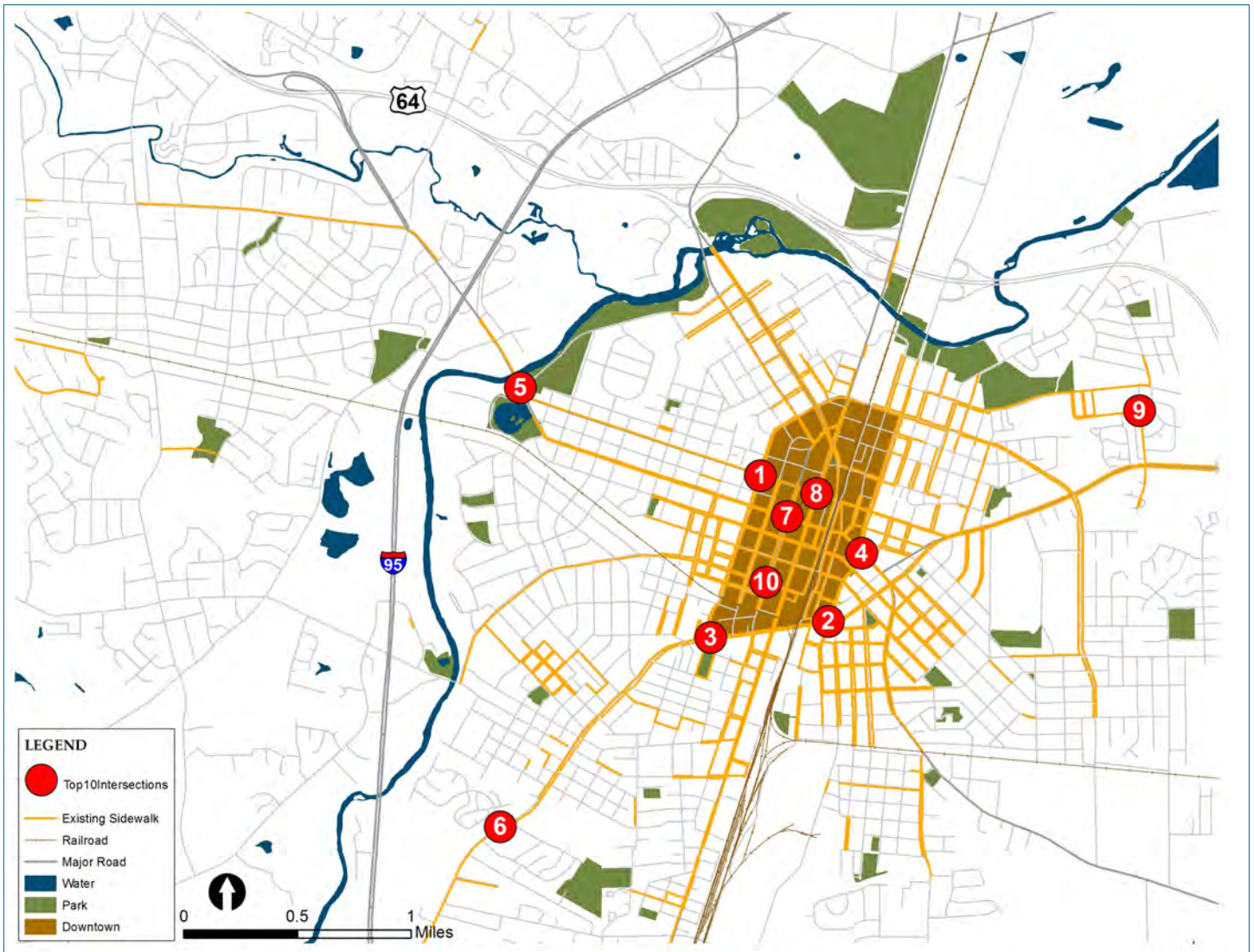
To: Clyde St.

No. of Sides: 1

Total length: 0.4miles or 2100ft

Cost Estimate: \$85,000 (\$40/linear foot)

Importance: Connects gaps in sidewalk along Grace through multiple residential areas, connects to Buck Leonard Park

**MAP 3.11 PRIORITY INTERSECTIONS MAP**

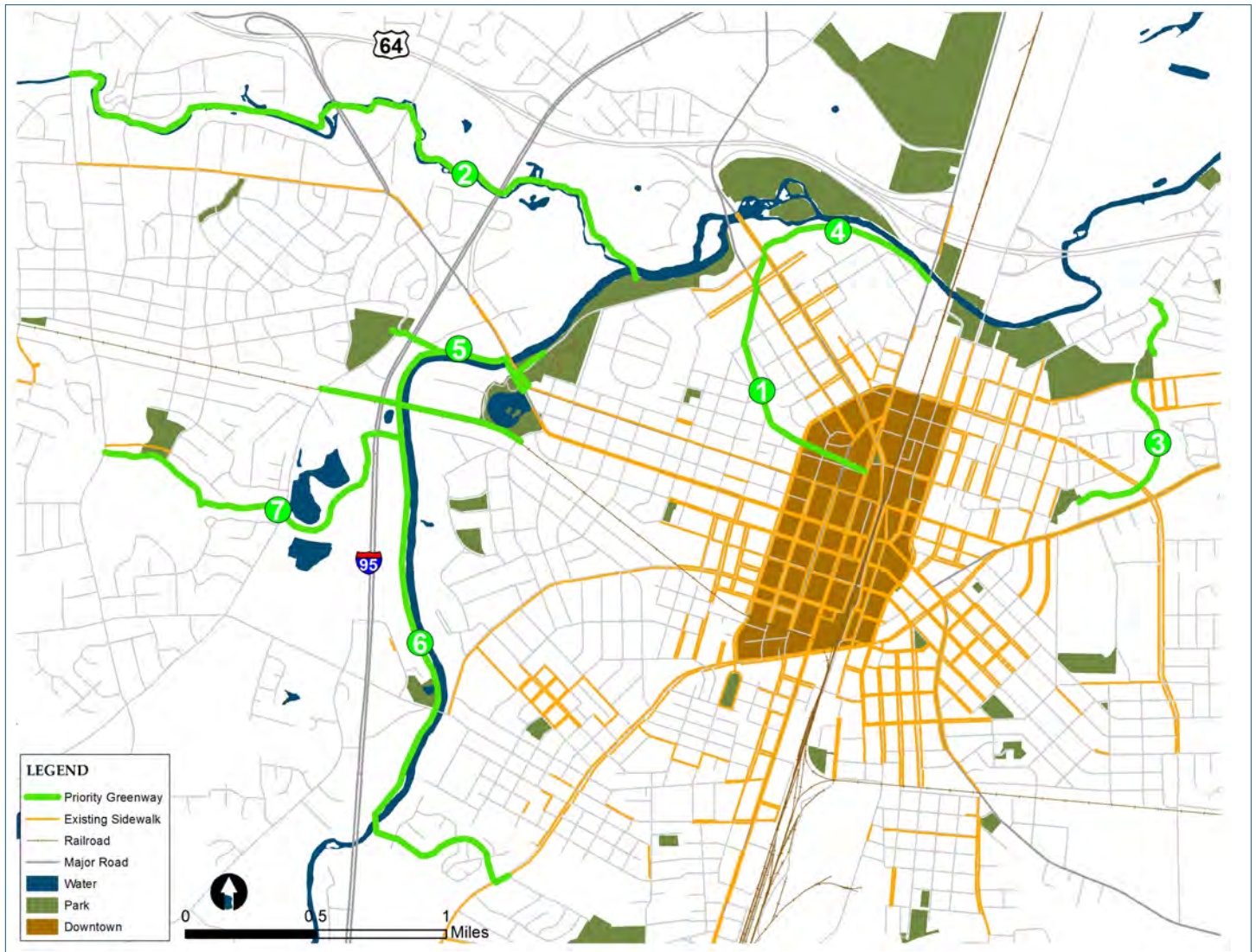
1. Grace and Thomas (\$10,000)

- Restripe faded marked crosswalks and use continental or ladder-style crosswalks (high-visibility)
- Add countdown signals
- Improve curb ramps
- Improve driveway slopes and reduce entrance size
- Consider pedestrian warning signage

2. Arlington and George/Edgecombe/Raleigh (\$20,000)

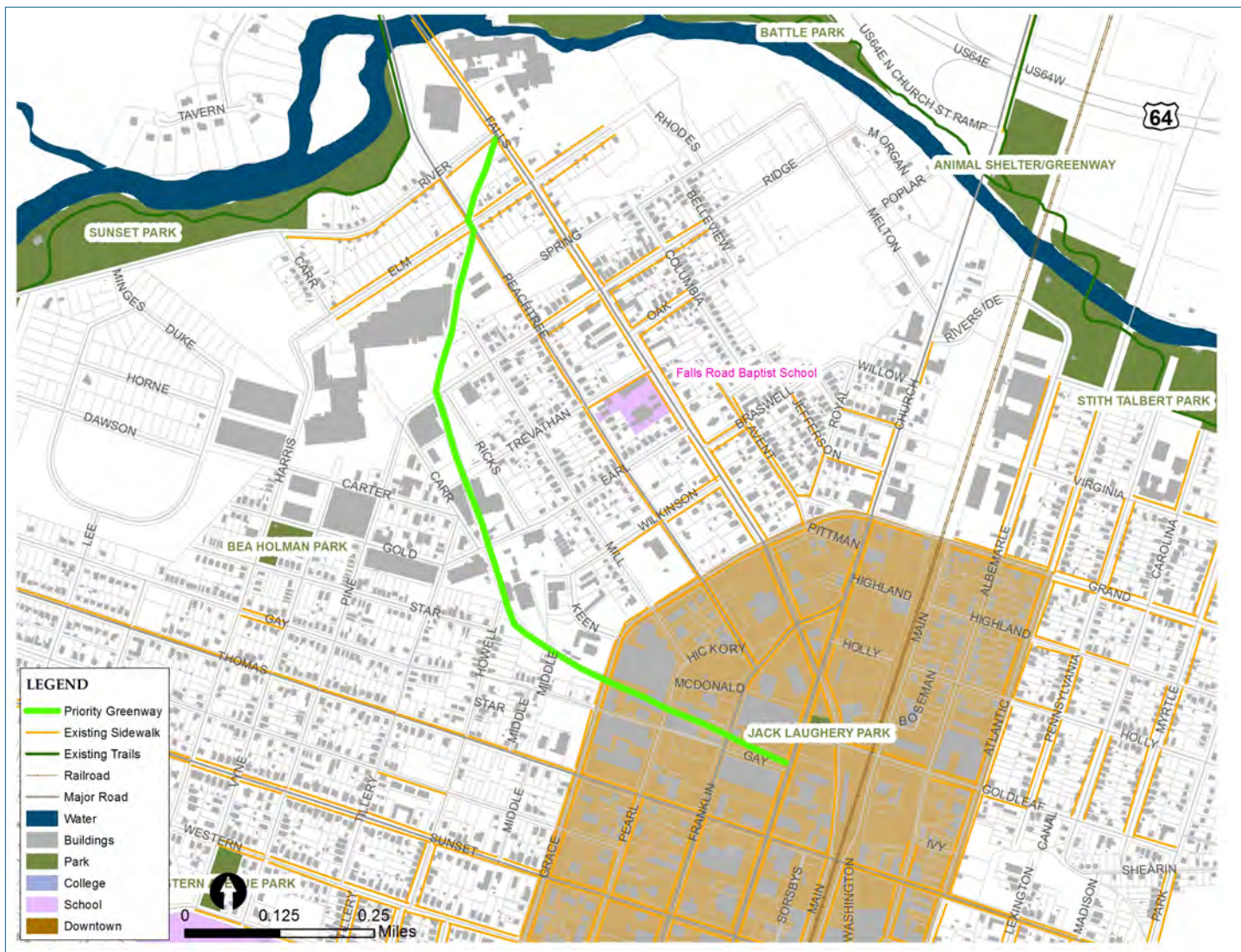
- Update marked crosswalk to continental or ladder-style crosswalks (high-visibility)
- Create pedestrian refuges with pork chop island space and median island space
- Construct new and improve existing curb ramps
- Add countdown signals
- Consider pedestrian warning signage

3. Grace/Raleigh (\$3,000)
  - Update marked crosswalk to continental or ladder-style crosswalks (high-visibility)
  - Improve existing curb ramps
  - Consider pedestrian warning signage
4. Arlington and Tarboro (\$7,500)
  - Update to continental or ladder-style crosswalks (high-visibility)
  - Improve existing curb ramps
  - Add countdown signals
  - Consider pedestrian warning signage
5. Sunset and River (With HAWK, \$150,000; Without HAWK, \$25,000)
  - HAWK signal or other pedestrian-activated flashing lights
  - Stripe new continental or ladder-style crosswalks (high-visibility)
  - Median refuge island
  - Pedestrian warning signage
6. Raleigh and Hazelwood (\$17,000)
  - Stripe new continental or ladder-style crosswalks (high-visibility)
  - Construct new and improve existing curb ramps
  - Median refuge island
  - Consider reducing speed limit
  - Pedestrian warning signage
  - Consider HAWK signal
7. Sunset and Franklin (\$6,000)
  - Update to continental or ladder-style crosswalks (high-visibility)
  - Add countdown signals
8. Thomas and Church (\$3,500)
  - Update to continental or ladder-style crosswalks (high-visibility)
  - Improve existing curb ramps
9. Stokes and Hunter (\$4,500)
  - Stripe new continental or ladder-style crosswalks (high-visibility), with advanced stop lines
  - Construct new and improve existing curb ramps
  - Consider pedestrian warning signage
  - \*\*Midblock crosswalks across Hunter need curb ramps, high-visibility marked crosswalks, and in-roadway crossing signage
10. Hammond and Franklin (\$9,000)
  - Update to continental or ladder-style crosswalks (high-visibility)
  - Improve existing curb ramps
  - Add countdown signals
  - Consider pedestrian warning signage

**MAP 3.12 PRIORITY GREENWAYS MAP**

The priority greenways were generated by the City of Rocky Mount Parks & Recreation Staff, based on a number of factors, including the Prioritization Matrix (Appendix I), feasibility, and need. Priority projects are described in more detail with individual maps on the following pages. Cost estimates are planning-level only as there are many factors that can lead to higher costs at time of construction.

## PRIORITY GREENWAY 1 DOUGLAS BLK - RM MILLS RAIL TO TRAIL



From: Falls Road

To: Church Street

Total length: 1.1 miles or 5800ft

Total Cost Estimate: \$580,000 (\$100/linear foot)

Middle Street to N. Church Street (0.4 miles): \$210,900

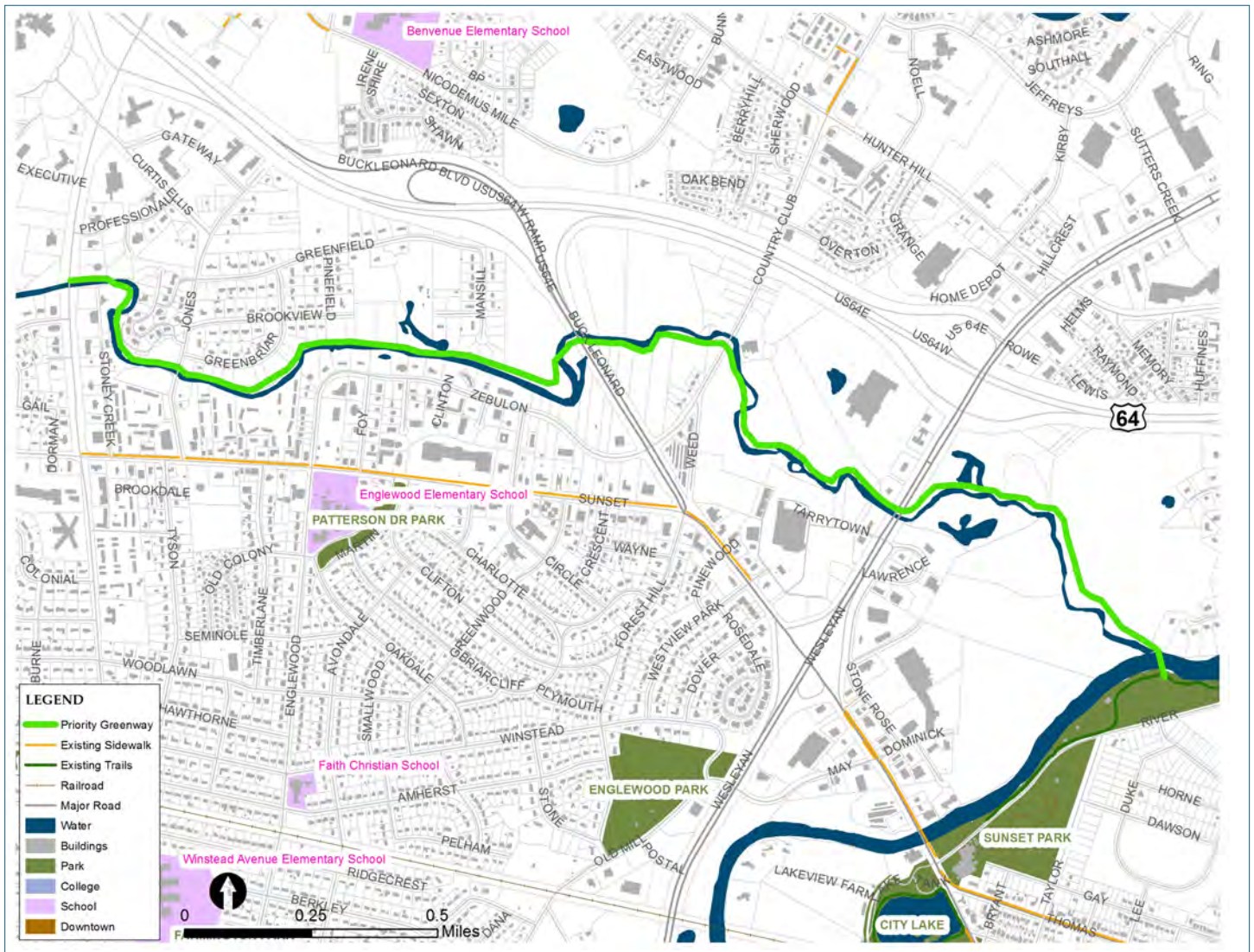
Ridge Street to Middle Street (0.3 miles): \$158,200

Falls Road to Ridge Street (0.4 miles): \$210,900

Importance: Utilizes old railroad line. Opportunity for historic interpretation.

Additional Notes: Will require rail removal.

## PRIORITY GREENWAY 2 SUNSET PARK - HOSPITAL AREA



From: Winstead Ave.

To: Tar River Trail

Total length: 3.0 miles or 15,840ft

Total Cost Estimate: \$1,584,000 (\$100/linear foot)

N Wesleyan Blvd to Tar River Trail (0.8 miles): \$422,400

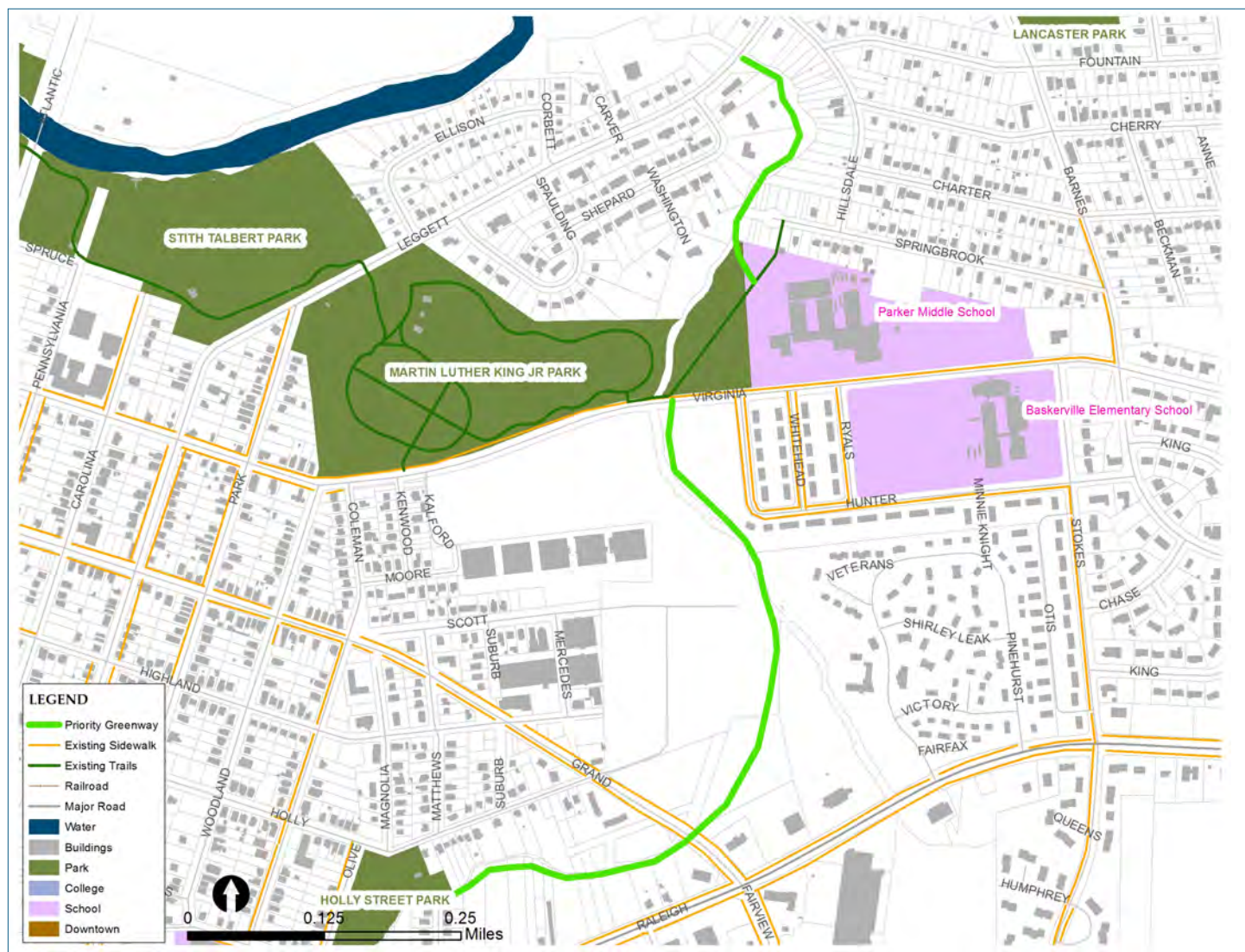
Buck Leonard Blvd to N Wesleyan Blvd (0.9 miles): \$475,200

Winstead Ave to Buck Leonard Blvd (1.3 miles): \$686,400

Importance: Connects Tar River Trail north and west to the hospital area.

Additional Notes: Further study needed to determine number of river crossings and wetland issues. The cost could increase dramatically with more bridges and boardwalk.

## PRIORITY GREENWAY 3 COWLICK BRANCH TRAIL



From: Holly Street Park

To: Leggett Road

Total length: 1.0 miles or 5280ft

Total Cost Estimate: \$528,000 (\$100/linear foot)

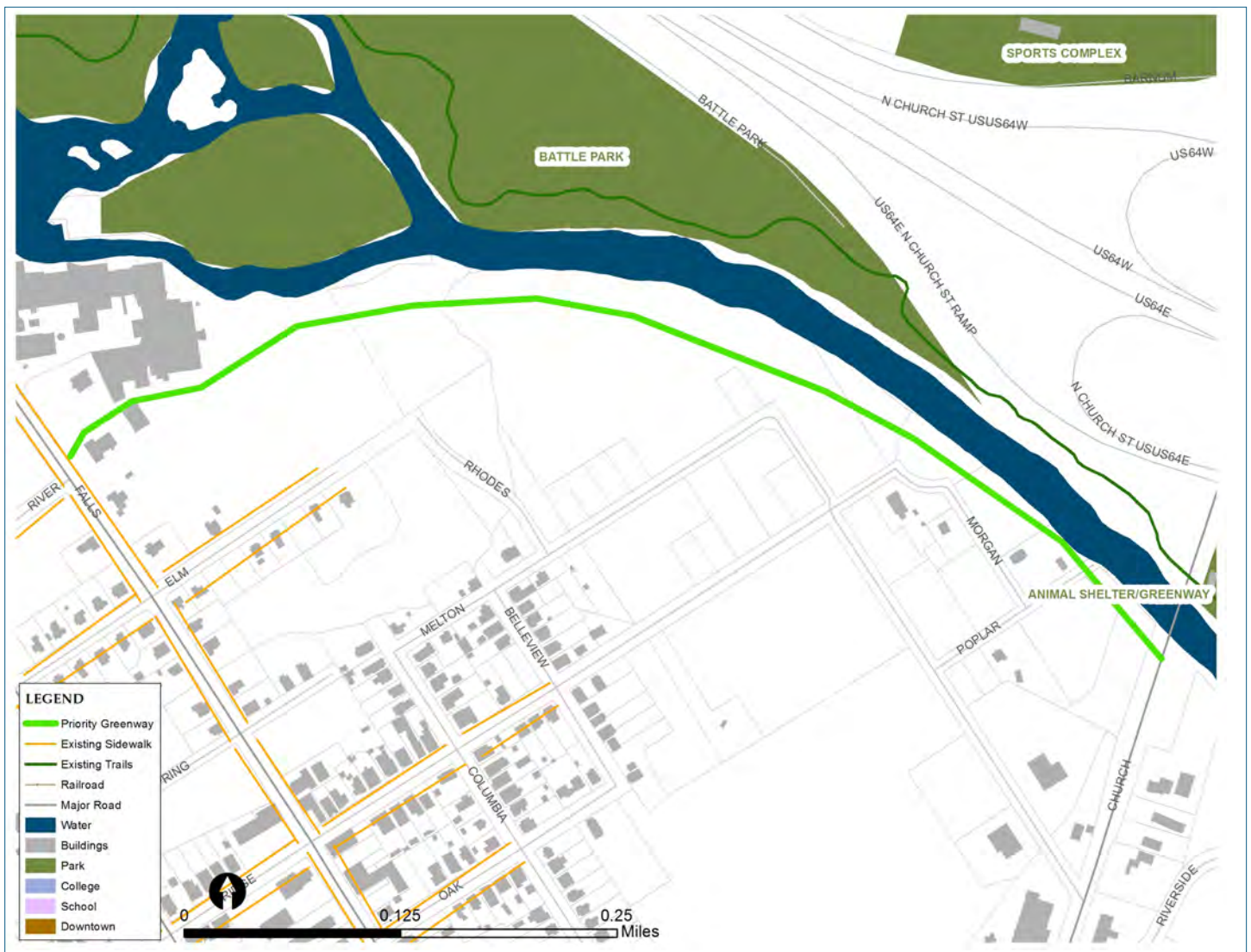
Holly St Park to Martin Luther King Jr Park (0.7 miles): \$369,600

Martin Luther King Jr Park to Leggett Rd (0.3 miles): \$158,400

Importance: Connects Parker Middle School/Baskerville Elementary School, Martin Luther King Jr Park, and Holly Street Park.

Additional Notes: Further study needed to determine extent of wetland issues. The cost could increase dramatically with more bridges and boardwalk.

## PRIORITY GREENWAY 4 BBQ PARK



From: Church Street

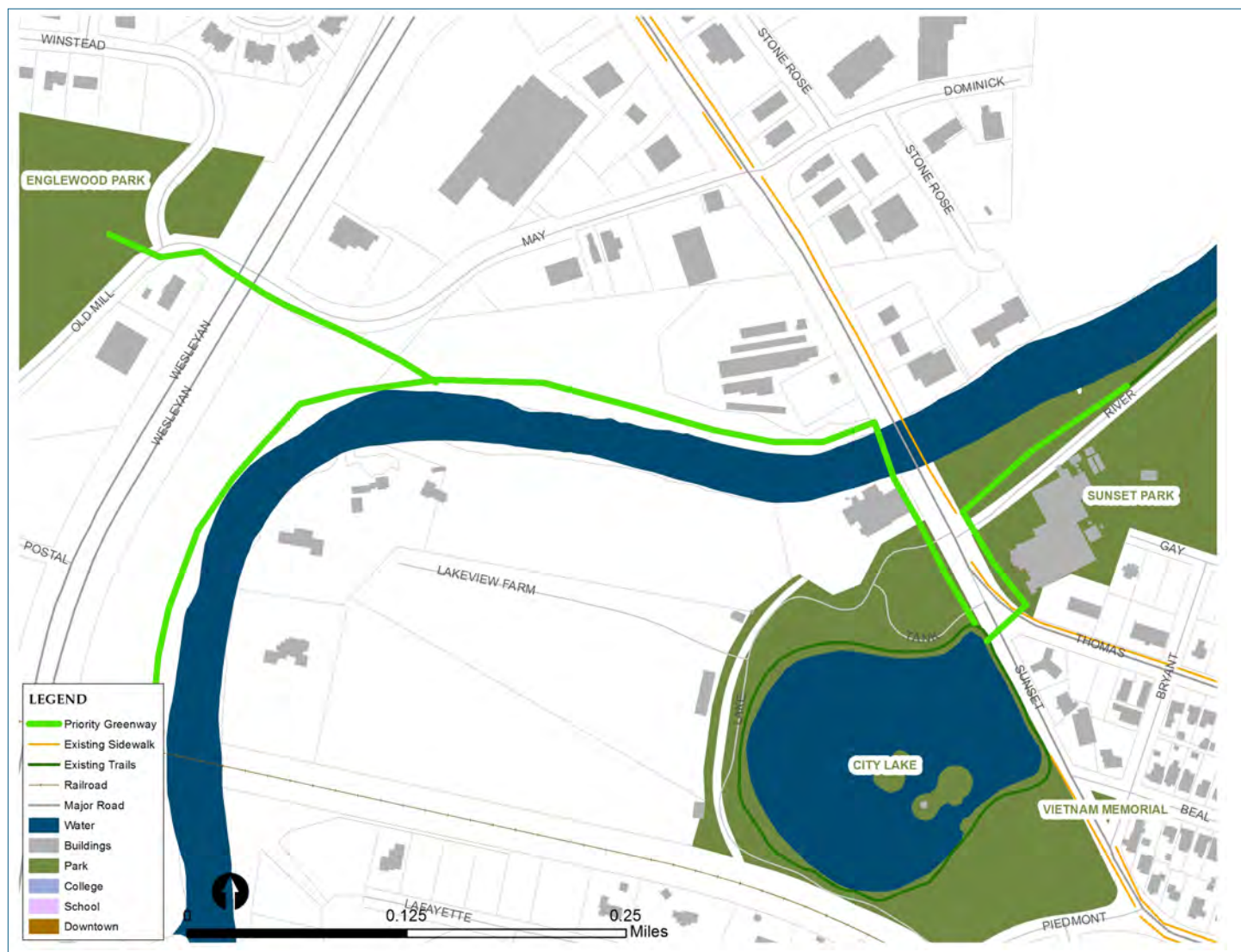
To: Falls Road

Total length: 0.7 miles or 6300ft

Cost Estimate: \$369,600 (\$100/linear foot)

Importance: Connects Sports Complex Trail and N. Church Street to the mills and farmers market area.

## PRIORITY GREENWAY 5 SUNSET PARK - ENGLEWOOD PARK CONNECTOR



From: Tar River Trail

To: Englewood Park

Total length: 1.1 miles or 5800ft

Total Cost Estimate: \$580,000 (\$100/linear foot)

Tar River Trail to Sunset Ave (0.2 miles): \$105,600

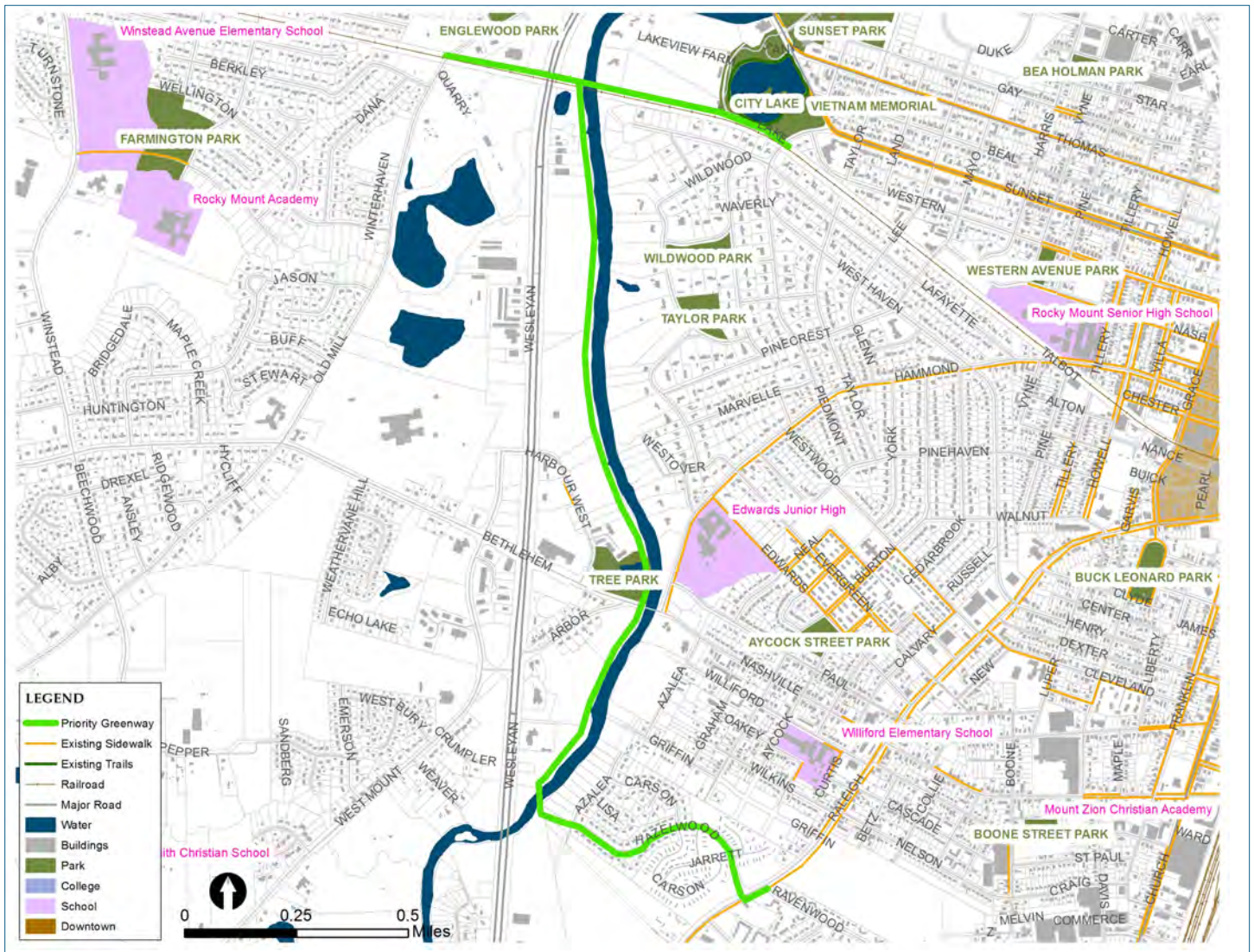
Sunset Ave to Rail line (0.7 miles): \$369,600

Old Mill Rd to Tar River Trail Extension (0.2 miles): \$105,600

Importance: Connects Sunset Park and Tar River Trail to Englewood Park.

Additional Notes: Will require significant pedestrian crossing upgrade at Sunset/Thomas (City Lake Park). A HAWK signal should be considered at this location. See page 3-30 and Appendix H for more information.

## PRIORITY GREENWAY 6 PARALLEL 301, ENGLEWOOD PARK - SRMCC



From: Curtis Ellis Dr.

To: Sunset Ave.

Total length: 3.2 miles or 16,900ft

Total Cost Estimate: \$1,690,000 (\$100/linear foot)

Old Mill Road to Piedmont Avenue/City Lake Park (0.8 miles): \$422,400

Lafayette Avenue to Bethlehem Road (1.2 miles): \$633,600

Bethlehem Road to S. Community Center Connector (0.5 miles): \$264,000

Tar River Trail Extension to Raleigh Road (0.7 miles): \$369,600

Importance: North-south connection that is parallel to US 301.



## SAFE ROUTES TO SCHOOL PROJECTS

Williford Elementary and Baskerville Elementary/Parker Middle Schools were selected by the City of Rocky Mount for priority improvements. Each map presents a series of recommended pedestrian improvements. In general, all roads leading to schools should have sidewalks. Crossings should have high-visibility marked crosswalks, curb ramps, signage, and curb bulbouts where feasible. Crossing guards can be utilized for key road crossings.

## Williford Elementary Key Project Elements

## Sidewalk

Curtis Street (Williford Street to Wilkins Street) (west side)  
 Wilkins Street (Curtis Street to Russell Street) (north side)  
 Russell Street (Wilkins Street to Oakley Street) (east side)  
 Williford Street (Azalea Street to Curtis Street) (south side)  
 Aycock Street (Williford Street to Nashville Road) (east side)

## Crossings

Raleigh Road (at Williford) - Crossing guard; high-visibility marked crosswalk; curb ramps; crossing signage; consider small median refuge

Williford Street (at Russell) - High-visibility marked crosswalk; curb ramps; crossing signage; curb bulbouts



## Baskerville Elementary/Parker Middle Key Project Elements

### Sidewalk

Barnes Street (Leggett Road to Charter Street) (west side)

Stokes Street (in front of Baskerville School on west side)

Virginia Street (Stokes Street to Ryals Street) (south side)

### Crossings

Virginia crossings (at Ryals, Whitehead, and midblock) - Enhance existing crosswalks, with high-visibility marked crosswalk, in-roadway pedestrian crossing signage, curb ramps, and curb bulbouts

Hunter midblock - Enhance existing crosswalk with high-visibility marked crosswalk, in-roadway pedestrian crossing signage, curb ramps, and curb bulbouts



# CHAPTER FOUR: IMPLEMENTATION



## OVERVIEW

The three main ways to improve pedestrian conditions in Rocky Mount are through facility construction, program implementation, and policy enforcement. This chapter outlines the implementation priorities, key partners in implementation, facility development methods, and over 40 specific action steps.

The following action steps are integral to achieving the goals and vision of this Plan. As guiding recommendations and the clearest representation of specific items to accomplish, they should be referred to often. Table 4.1 summarizes these action steps, along with all other recommendations made throughout the plan, and defines recommended actions, responsible agencies, and phasing. Finally, this plan's appendices provide a variety of in-depth resources for assisting in carrying out these tasks.

## KEY ACTION STEPS

### Adopt This Plan

Before any other action takes place, the City of Rocky Mount should adopt this plan. This should be considered the first step in implementation. Through adoption of this plan and its accompanying maps as the City's official pedestrian transportation plan, Rocky Mount will be better able to shape transportation and development decisions so that they fit with the goals of this plan. Most importantly, having an adopted plan is extremely helpful in secur-

ing funding from state, federal, and private agencies. Adopting this plan does not commit the City to dedicate or allocate funds, but rather indicates the intent of the City to implement this plan over time, starting with these action steps.

### Designate Staff

Designate staff to oversee the implementation of this plan and the proper maintenance of the facilities that are developed. It is recommended that a combination of existing Transportation Planning (MPO), Planning and Development, Engineering, Parks and Recreation, and Public Works staff oversee the day-to-day implementation of this plan. In many municipalities, this task is covered by a full-time pedestrian coordinator, but in Rocky Mount, it may make more sense to fold these responsibilities into current staff responsibilities. In the long term, a full-time MPO multi-modal Coordinator position should be considered.

### Create a Multi-modal Transportation Committee

The City of Rocky Mount should form a Multi-modal Transportation Committee (MTC) to assist in the implementation of this Plan and the Bicycle Plan. The MTC could start largely with the members of the Pedestrian Plan Steering Committee. The MTC should also have representation from active pedestrians and commuting and recreational cyclists, and should champion the recommendations of this Plan. The

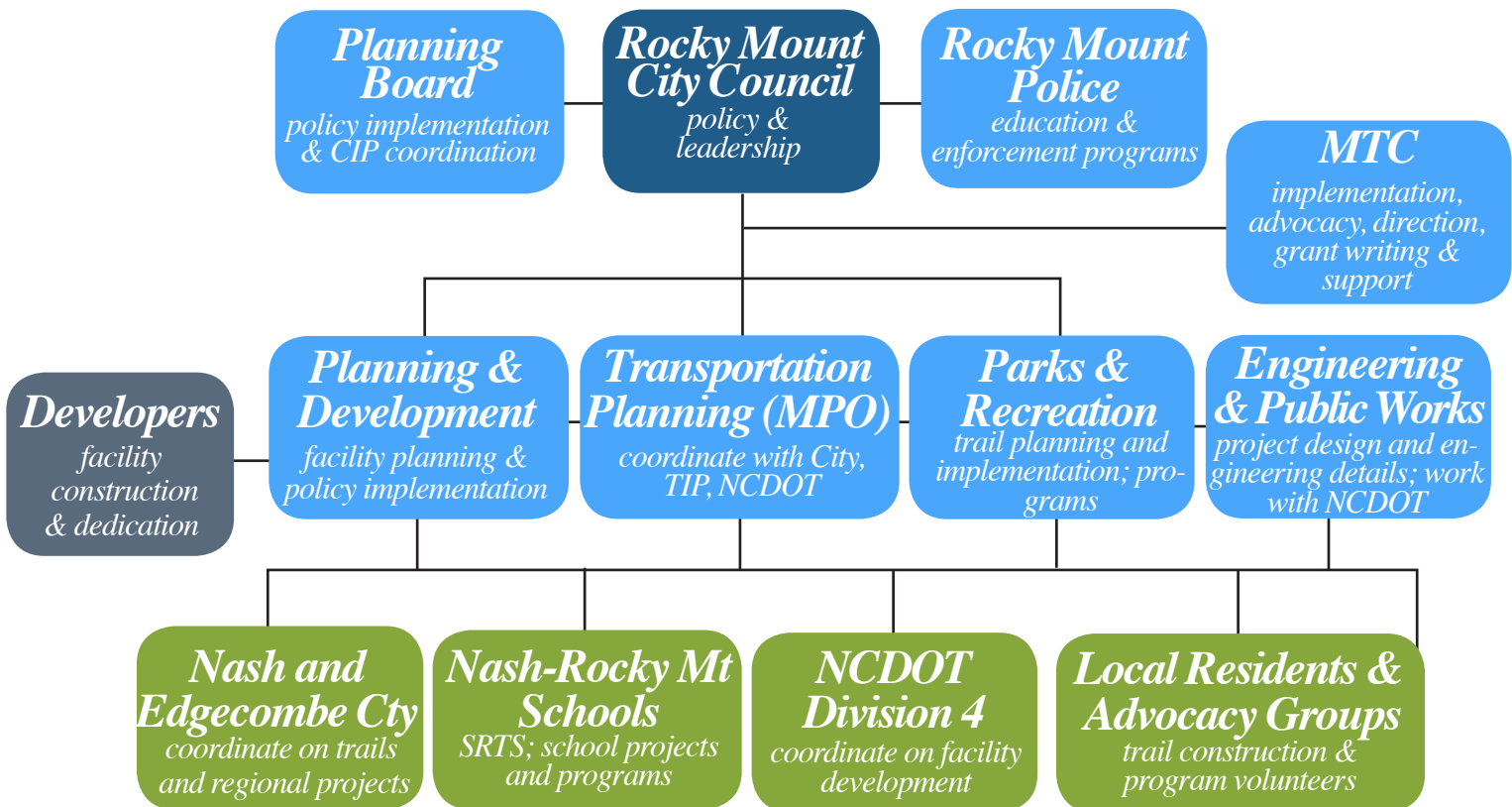
existence of this group represents a significant step in becoming designated as a Walk Friendly Community (see page 4-4). The MTC should continue to provide a communications link between the citizens of the community, the City government, and the MPO. They should also continue to meet periodically, and be tasked with assisting the City staff in community outreach, marketing, and educational activities recommended by this Plan.

### **Begin Quarterly Meeting With Key Project Partners**

Coordination between key project partners will establish a system of checks and balances, provide a level of accountability, and ensure that recommendations are implemented. This meeting should be organized by the designated City staff, and should include

representatives from the Organizational Chart shown below. The purpose of the meeting should be to ensure that this Plan's recommendations are integrated with other transportation planning efforts in the region, as well as long-range and current land use planning, economic development planning, and environmental planning. Attendees should work together to identify and secure funding necessary to immediately begin the first year's work, and start working on a funding strategy that will allow the City to incrementally complete each of the suggested physical improvements, policy changes and programs over a 5-10 year period. A brief progress benchmark report should be a product of these meetings, and goals for the year should be reconfirmed by participants. The meetings could also occasionally feature special training sessions on bicycle, pedestrian, and trail issues.

## ORGANIZATIONAL FRAMEWORK FOR PEDESTRIAN PLAN IMPLEMENTATION



### **Seek Multiple Funding Sources and Facility Development Options**

Multiple approaches should be taken to support pedestrian facility development and programming. It is important to secure the funding necessary to undertake priority projects but also to develop a long-term funding strategy to allow continued development of the overall system. A priority action is to immediately evaluate the recommendations against transportation projects that are currently programmed in the Transportation Improvement Program (TIP) to see where projects overlap, compliment, or conflict with each other. The City should also evaluate which of the proposed projects could be added to future TIP updates.

Capital and local funds for pedestrian facilities and trail construction should be set aside every year, even if only for a small amount. Small amounts of local funding can be matched to outside funding sources or could be used to enhance NCDOT projects with bicycle or pedestrian features that may otherwise not be budgeted for by the state. A variety of local, state, and federal options and sources exist and should be pursued. These funding options are described in Appendix F: Funding.

### **Improve Pedestrian Policies**

While the Rocky Mount Code of Ordinances addresses non-motorized transportation in a number of important ways, some policy updates are recommended to ensure future development provides pedestrian and bicycle facilities and improves bicycle/pedestrian friendliness. Suggested policy changes are included in Appendix C: Policy Recommendations.

### **Develop Sidewalk & Trail Construction Documents**

City engineers could prepare these in-house to save resources, using the design guidelines of this plan and the project cut-sheets as starting points. The public should have an opportunity to comment on the design of new facilities.

### **Launch Programs as New Projects are Built**

Through cooperation with the City of Rocky Mount, the Multi-modal Transportation Committee, and groups such as walking clubs, strong education, encouragement, and enforcement campaigns could occur as new facilities are built. When an improvement has been made, the roadway environment has changed and proper interaction between motorists and pedestrians is critical for the safety of all users. A campaign through local television, on-site enforcement, education events, and other methods will bring attention to the new facility, and educate, encourage, and enforce proper use and behavior. Appendix B: Program Toolbox provides program ideas for the City and the Multi-modal Transportation Committee to choose from, many of which are also included in the action steps table at the end of this chapter.

### **Offer Training for Enforcement**

Law enforcement officers have many important responsibilities, yet pedestrians and bicyclists remain the most vulnerable forms of traffic. The Rocky Mount Police Department should be involved in implementation. In many cases, citizens (and even sometimes officers) are not fully aware of state and local laws related to bicyclists and pedestrians. Training on this topic can lead to additional education and enforcement programs that promote safety. Training for Rocky Mount' officers could be done through free online resources available from the National Highway Traffic Safety Administration (NHTSA) (see links at [www.bicyclinginfo.org/enforcement/training.cfm](http://www.bicyclinginfo.org/enforcement/training.cfm)) and through webinars available through the Association of Pedestrian and Bicycle Professionals (APBP).

### **Become Designated as a Walk Friendly Community**

One of the goals for this Pedestrian Plan is to transform Rocky Mount into a “Walk Friendly Community” (WFC). The Walk Friendly Community Campaign is an awards program that recognizes municipalities that actively support pedestrian activity and safety. A Walk Friendly Community provides safe accommodation for walking and encourages its residents to walk for transportation and recreation. The program is maintained by the UNC Highway Safety Research Center, with support from a variety of national partners.

The development and implementation of this Plan is an essential first step in eventually becoming a Walk Friendly Community. Being the first year of this award (2011), Rocky Mount has an opportunity to become an early award winner. With ongoing efforts and the short term work program recommended here, the City should be in a position to apply for and receive WFC status within two years. An introduction to Walk Friendly Communities can be found at: [www.walkfriendly.org/webinar.cfm](http://www.walkfriendly.org/webinar.cfm).

## **KEY PARTNERS IN IMPLEMENTATION**

### **Role of Rocky Mount City Council**

The City Council will be responsible for adopting this plan. Through adoption, the City’s leadership is further recognizing the value of pedestrian transportation and is putting forth a well-thought out set of recommendations for improving public safety and overall quality of life (see the ‘Benefits of a Walkable Community’ section starting on page 1-3). By adopting this Plan, the City Council is also signifying that they are prepared to support the efforts of other key partners in the plan’s implementation, including the work of City departments and the local NCDOT, Division 4.

Adoption of this Plan is in line with public support. Rocky Mount’s online comment form (which yielded 593 responses) showed strong support for improving pedestrian conditions. Though not a statistical survey, the comment form results do represent the opinions of hundreds of local residents. The comment form asked, “How important to you is improving walking conditions in Rocky Mount?” Over 80% responded “important” or “very important”. See Appendix E on Public Involvement for more information.

### **Role Of The City of Rocky Mount Planning Board**

The City of Rocky Mount Planning Board serves as an advisory board to the Council on matters of planning and zoning. The Planning Commission should be prepared to:

- Become familiar with the recommendations of this Plan, and support its implementation.
- Learn about pedestrian-related policy in Appendix C of this Plan.

### **Role Of The Rocky Mount (MPO)**

The Rocky Mount Urban Area MPO is the transportation planning agency serving the City of Rocky Mount, portions of Edgecombe and Nash Counties, and the Town of Nashville. The City of Rocky Mount has served as the Lead Planning Agency for the MPO. Local governments are represented by an elected official on the Transportation Advisory Committee (TAC) and staff members, NCDOT, and FHWA staff comprise the Technical Coordinating Committee (TCC). The City of Rocky Mount, as lead agency for the MPO should be prepared to:

- Become familiar with the recommendations of this Plan, and support its implementation.
- Serve as lead coordinator and planner for a newly formed Multi-modal Transporta-

tion Committee and for quarterly meetings with project partners.

- Ensure recommendations from this Pedestrian Plan are integrated into regional planning and project implementation.
- Produce updates to the Long Range Transportation Plan (LRTP) that incorporate recommendations from this Pedestrian Plan.
- Ensure that TIP projects are updated with recommendations from this Plan.
- Follow upcoming roadway reconstruction and resurfacing projects and work early in the design process with City and NCDOT to ensure pedestrian facilities are incorporated into the design.
- Keep up-to-date on current and changing funding sources and opportunities such as Safe Routes to School.

### **Role of the City of Rocky Mount Engineering Department**

The Engineering Department manages improvements to the city's infrastructure and manages construction inspections, traffic engineering, traffic signals, and street signage. The department should be prepared to:

- Become familiar with the recommendations of this Plan, and support its implementation.
- Become familiar with the standards set forth in Appendix A of this Plan, as well as state and national standards for pedestrian facility design.
- Prepare sidewalk, trail, and pedestrian crossing striping and construction documents following design standards in Appendix A.
- Assist with local roadway projects and ensure pedestrian accommodations are being made.
- Work with NCDOT to ensure pedestrian accommodations are properly implemented and are compatible and connected with existing pedestrian facilities.

### **Role of the City of Rocky Mount Public Works Department**

The Public Works Department handles the responsibility for the construction and maintenance of pedestrian facilities on City-owned and maintained roadways, as well as on NCDOT roadways, where encroachment agreements are secured. The department should be prepared to:

- Communicate and coordinate with other City departments and the MTC on priority pedestrian projects.
- Become familiar with the standards set forth in Appendix A of this Plan, as well as state and national standards for pedestrian facility design.
- Secure encroachment agreements for work on NCDOT-owned and maintained roadways.
- Construct and maintain pedestrian facilities.
- Communicate and coordinate with NCDOT Division 4 on this Plan's recommendations for NCDOT-owned and maintained roadways. Provide comment and reminders about this Plan's recommendations no later than the design phase.
- Work with Division 4 to ensure that when NCDOT-owned and maintained roadways in Rocky Mount are resurfaced or reconstructed, that this Plan's adopted recommendations for pedestrian facilities are included on those streets. If a compromise to the original recommendation is needed, then contact NCDOT Division of Bicycle and Pedestrian Transportation

for guidance on appropriate alternatives.

### **Role of the City of Rocky Mount Planning and Development Department**

The planning staff will take primary responsibility for the contact with new development to implement the plan (with support from the Engineering and Public Works Department). For example, the staff should be prepared to:

- Communicate and coordinate with local developers on adopted recommendations for pedestrian facilities, including paved multi-use trails.
- Assist the Public Works Department in communicating with NCDOT and regional partners
- Refer often to Appendix C: Policy Resources for information that may apply to bicycle and pedestrian facility development in Rocky Mount.
- Work to apply recommended policy revisions in Appendix C of this Plan.

### **Role of the City of Rocky Mount Parks & Recreation Department**

The City of Rocky Mount Parks and Recreation Department operates the recreation, athletic, and special event programs for the citizens of Rocky Mount. They also lead implementation and maintain a variety of community, neighborhood, greenway, and natural park areas. The Parks and Recreation Department should be prepared to:

- Meet with the MTC; provide progress updates for plan implementation and gather input regarding pedestrian and trail-related issues.
- Pursue grants for funding priority projects and priority programs.
- Select and carry out walking-related programs; Work with locale advocacy

groups and the MTC to assist in organizing walking/running events, educational activities, and enforcement programs.

- Communicate and coordinate with the City of Rocky Mount Transportation Planning and neighboring municipalities and counties on regional trail facilities; partner for joint-funding opportunities.
- Identify safety concerns and work with citizens to improve trail safety and the perception of safety.

### **Role Of The Multi-modal Transportation Committee**

See pages 4-1 and 4-3 for more information. The Committee should be prepared to:

- Meet with staff from the MPO, Engineering, Parks and Recreation, Planning and Development, and the Public Works Department; evaluate progress of the plan's implementation and offer input regarding pedestrian and trail-related issues.
- Assist City staff in applying for grants and organizing pedestrian-related events and educational activities.
- Build upon current levels of local support for pedestrian issues and advocate for local project funding.

### **Role of the Local NCDOT, Division 4**

Division 4 of the NCDOT is responsible for the construction and maintenance of pedestrian facilities on NCDOT-owned and maintained roadways in the City of Rocky Mount, OR is expected to allow for the City to do so with encroachment agreements. Division 4 should be prepared to:

- Recognize this Plan as not only an adopted plan of the City of Rocky Mount, but also as an approved plan of the NCDOT.
- Become familiar with the pedestrian facility recommendations for NCDOT

roadways in this Plan (Chapter 3); take initiative in incorporating this plan's recommendations into the Division's schedule of improvements whenever possible.

- Become familiar with the standards set forth in Appendix A of this Plan, as well as state and national standards for pedestrian facility design; construct and maintain pedestrian facilities using the highest standards allowed by the State (including the use of innovative treatments on a trial-basis).
- Notify the City of Rocky Mount MPO, Engineering, and Public Works Departments of all upcoming roadway reconstruction or resurfacing/restriping projects in Rocky Mount, no later than the design phase; Provide sufficient time for comments from the planning staff.
- If needed, seek guidance and direction from the NCDOT Division of Bicycle and Pedestrian Transportation on issues related to this Plan and its implementation.

### **Role of the City of Rocky Mount Police Department**

The City of Rocky Mount Police Department is responsible for providing the community the highest quality law enforcement service and protection to ensure the safety of the citizens and visitors to the City of Rocky Mount. The Police Department should be prepared to:

- Become experts on pedestrian-related laws in North Carolina (see: [www.ncdot.gov/bikeped/lawspolicies/laws/](http://www.ncdot.gov/bikeped/lawspolicies/laws/) )
- Continue to enforce not only pedestrian-related laws, but also motorist laws that affect walking, such as speeding, running red lights, aggressive driving, etc.
- Participate in pedestrian-related education programs.

- Review safety considerations with the Public Works Department before projects are implemented.

### **Role of Developers**

Developers in Rocky Mount can play an important role in facility development whenever a project requires the enhancement of transportation facilities or the dedication and development of sidewalks, trails or crossing facilities. Developers should be prepared to:

- Become familiar with the benefits, both financial and otherwise, of providing amenities for walking and biking (including trails) in residential and commercial developments.
- Become familiar with the standards set forth in Appendix A of this Plan, as well as state and national standards for pedestrian facility design.
- Be prepared to account for bicycle and pedestrian circulation and connectivity in future developments

### **Role of Local & Regional Stakeholders**

Stakeholders for pedestrian facility development and related programs, such as Nash County, Edgecombe County, Nash/Rocky Mount Public Schools, local colleges, and local economic development organizations play important roles in the implementation of this plan. Local and regional stakeholders should be prepared to:

- Become familiar with the recommendations of this Plan, and communicate & coordinate with the City for implementation, specifically in relation to funding opportunities, such as grant writing and developing local matches for facility construction.
- Nash and Edgecombe Counties should coordinate with the City on regional trail

development and SRTS grants.

- The local school system and school leaders should assist in carrying out SRTS workshops, programs, and walkability audits, and also assist in SRTS grant applications.

### **Role of Local Residents, Clubs and Advocacy Groups**

Local residents, clubs and advocacy groups play a critical role in the success of this plan. They should be prepared to:

- Continue offering input regarding pedestrian issues in Rocky Mount.
- Assist City staff and MTC by volunteering for pedestrian-related events and educational activities and/or participate in such activities.
- Assist City staff and MTC by speaking at City Council meetings and advocating for local pedestrian project and program funding.

### **Role of Volunteers**

Services from volunteers, student labor, and senior assistance, or donations of material and equipment may be provided in-kind, to offset construction and maintenance costs. Formalized maintenance agreements, such as adopt-a-trail/greenway or adopt-a-highway can be used to provide a regulated service agreement with volunteers. Other efforts and projects can be coordinated as needed with senior class projects, scout projects, interested organizations, clubs or a neighborhood's community service to provide for many of the program ideas outlined in Appendix B of this plan. Advantages of utilizing volunteers include reduced or donated planning and construction costs, community pride and personal connections to the City of Rocky Mount Trail System and pedestrian networks.

## **PERFORMANCE MEASURES (EVALUATION AND MONITORING)**

The City of Rocky Mount should establish performance measures to benchmark progress towards fulfilling the recommendations of this Plan. These performance measures should be stated in an official report within two years after the Plan is adopted. The purpose for evaluation is to determine the City's success and failures in implementing this Plan and making Rocky Mount more walkable. Performance measures were derived from this Plan's goals listed in Chapter 1 and should address the following aspects of pedestrian transportation and recreation in Rocky Mount:

**Safety.** Measures of pedestrian crashes and injuries or speeding in City.

**Facilities.** Measures of how many pedestrian facilities have been funded and constructed since the Plan's adoption.

**Maintenance.** Measures of existing sidewalk/crosswalk deficiency or maintenance needs

**Counts.** Measures of pedestrian traffic at specific locations throughout City including schools.

**Education, Encouragement and Enforcement Programs.** Measures of the number of people who have participated in a pedestrian program since the Plan's adoption.

## **FACILITY DEVELOPMENT METHODS**

This section describes different construction methods for the proposed pedestrian network outlined in Chapter 3. Note that many types of transportation facility construction and maintenance projects can be used to create new pedestrian facilities. It is much more cost-effective to provide pedestrian facilities during roadway construction and re-construction projects than to initiate the improvements later as "retrofit" projects.

To take advantage of upcoming opportunities and to incorporate pedestrian facilities into routine transportation and utility projects, the City should keep track of NCDOT's projects and any other local transportation improvements. While doing this, the City should be aware of the different procedures for local and state roads.

### **NCDOT Transportation Improvement Program**

The Transportation Improvement Program (TIP) is an ongoing program at NCDOT which includes a process asking localities to present their transportation needs to state government. Pedestrian facility and safety needs are an important part of this process. Every other year, a series of TIP meetings are scheduled around the state. Following the conclusion of these meetings, all requests are evaluated. Pedestrian improvement requests, which meet project selection criteria, are then scheduled into a four-year program as part of the state's long-term transportation program.

There are two types of projects in the TIP: incidental and independent. Incidental projects are those that can be incorporated into a scheduled roadway improvement project. Independent are those that can stand alone such as a trail project, not related to a particular roadway.

The City of Rocky Mount, guided by the priority projects within this plan, should present pedestrian projects along state roads to the MPO and NCDOT. Local requests for small pedestrian projects, such as crosswalks and smaller segments of sidewalk, can be directed to the MPO or the local NCDOT Division 4 office. Further information, including the criteria evaluated can be found at: [http://www.ncdot.org/transit/bicycle/funding/funding\\_TIP.html](http://www.ncdot.org/transit/bicycle/funding/funding_TIP.html)

### **Local Roadway Construction or Reconstruction**

Pedestrians should be accommodated any time a new road is constructed or an existing road is reconstructed. All new roads with moderate to heavy motor vehicle traffic should have sidewalks and safe intersections. The City of Rocky Mount should take advantage of any upcoming construction projects, including roadway projects outlined in local comprehensive and transportation plans. Also, case law surrounding the ADA has found that roadway resurfacing constitutes an alteration, which requires the addition of curb ramps at intersections where they do not yet exist.

### **Residential and Commercial Development**

The construction of sidewalks and safe crosswalks should be required during development. Construction of pedestrian facilities that corresponds with site construction is more cost-effective than retro-fitting. In commercial development, emphasis should also be focused on safe pedestrian access into, within, and through large parking lots. This ensures the future growth of the pedestrian network and the development of safe communities.

### **Retrofit Roadways with New Pedestrian Facilities**

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

### **Bridge Construction or Replacement**

Provisions should always be made to include a walking facility as a part of vehicular bridges, underpasses, or tunnels. All new or replacement bridges should accom-

moderate pedestrians with wide sidewalks on both sides of the bridge. Even though bridge construction and replacement does not occur regularly, it is important to consider these policies for long-term pedestrian planning. NCDOT bridge policy states that sidewalks shall be included on new NCDOT road bridges with curb and gutter approach roadways. A determination of providing sidewalks on one or both sides is made during the planning process. Sidewalks across a new bridge shall be a minimum of five to six feet wide with a minimum handrail height of 42”.

### **Signage and Wayfinding Projects**

As more pedestrian facilities are constructed, the City should consider developing and adopting a signage style policy and procedure, to be applied throughout the entire community, to make it easier for people to find destinations. Mile markers or signs for the City’s trails are one example of these wayfinding signs, and they can be installed along routes as a part of a comprehensive wayfinding improvement project. For a step-by-step guide to help non-professionals participate in the process of developing and designing a signage system, as well as information on the range of signage types, visit the Project for Public Places website: [www.pps.org/info/amenities\\_bb/signage\\_guide](http://www.pps.org/info/amenities_bb/signage_guide)

### **Existing City Easements**

The City may have several existing easements offering an opportunity for trail facilities. Sewer easements are very commonly used for this purpose; offering cleared and graded corridors that easily accommodate trails. This approach avoids the difficulties associated with acquiring land, and it utilizes the City’s existing resources.

## Action Steps Table

TABLE 4.1 POLICY, PROGRAM, AND ADMINISTRATIVE ACTION STEPS TABLE

No.	Task	Lead Agency	Support	Details	Phase
Presentations and Adoptions					
1	Present Plan to City Council	Project Consultants	MPO	Presentation to City Council in Fall 2011	Fall 2011
2	Adopt this plan	City Council	MPO, Project Consultants	Through adoption, the Plan becomes an official planning document of the City. Adoption shows that the City of Rocky Mount has undergone a successful, supported planning process.	Fall 2011-Spring 2012
3	Involve media to spread word to public and elected officials.	Public Affairs	MPO	The Public Affairs Department, with support from the MPO, should utilize the media to announce the adoption of the Pedestrian Plan. Media would include all local newspapers, websites, and local television. When significant trails and facilities are constructed, the media should be notified in order to spread the word to the public. This will help build upon successes.	Ongoing/ Beginning Fall 2011
4	Present this Plan to other local and regional bodies and agencies.	MPO, MTC	Planning & Development, Engineering	This Plan should be presented to other local and regional bodies and agencies. Possible groups to receive a presentation might include: Nash County, Edgecombe County, regional transportation planners, health clubs and fitness facilities, schools and youth organizations, environmental clubs, major employers, and large neighborhood groups.	Short Term (2012)
Staffing					
5	Designate Staff	City Council, CMO	Leadership of City Departments	Designate staff to oversee the implementation of this plan and the proper maintenance of the facilities that are developed. It is recommended that a combination of existing staff from Transportation Planning (MPO), Engineering, Parks and Recreation, and Planning & Development oversee the day-to-day implementation of this plan.	Short Term (2012)
6	Form Multi-modal Transportation Committee (MTC)	City Council, MPO	MTC	Confirm goals of the MTC to include assistance in the implementation of this Pedestrian Plan.	Short Term (2012)
7	Designate department staff representatives and local stakeholders/citizens to participate in the MTC.	CMO	Planning & Development, Engineering, Parks and Recreation, Public Works, NCDOT, Human Relations, etc.	Each City department should designate a staff member to participate in MTC. These staff will provide updates on pedestrian-related topics and keep informed on implementations	Short Term (2012)
8	Explore possibility of a regional multimodal coordinator	MPO	MTC, Nash County, Edgecombe County, Nashville	Currently, the Transportation Planner handles all MPO responsibilities, including bicycle and pedestrian issues. A fulltime position should be considered to handle all multi-modal concerns. The “keeping” of this Plan would be the Coordinator’s primary responsibility, including working closely with NCDOT, and surrounding jurisdictions to ensure its implementation, review, and regular update. The Coordinator would also serve as “staff” to the MTC and report MTC progress as appropriate to the Technical and Policy Committees of the MPO.	Mid Term (2012-2014)

No.	Task	Lead Agency	Support	Details	Phase
Local and Regional Coordination					
9	Begin Quarterly Meeting With Key Project Partners	MPO, MTC	Planning & Development, Engineering, Parks and Recreation, Public Works, NCDOT, and local & regional stakeholders	Key project partners (see org. chart on page 4-2) should meet on a quarterly basis, with one meeting per year reserved to evaluate the implementation of this Plan. Meetings should also occasionally include on-site tours of locations where facilities are recommended.	Ongoing/ Beginning Fall 2011
10	Ensure planning efforts are integrated regionally	MPO, MTC	Nash County, Edgecombe County, Nashville, NCDOT	Combining resources and efforts with surrounding municipalities, regional entities, and stakeholders is mutually beneficial, especially with trail development. Communicate and coordinate with the regional partners on regional trails and pedestrian facilities; partner for joint-funding opportunities. After adoption by the City, this document should also be recognized in regional transportation plans.	Ongoing/ Beginning Fall 2011
11	Become familiar with the pedestrian facility recommendations for NCDOT roadways in this Plan (Chapter 3); take initiative in incorporating this plan's recommendations into the Division's schedule of improvements.	NCDOT Division 4	MPO, Engineering, MTC, Public Works, NCDOT Bike/Ped Division	Construct and maintain pedestrian facilities using the highest standards allowed by the State (including the possibility of using innovative treatments on a trial-basis). Seek guidance and direction from the NCDOT Division of Pedestrian and Pedestrian Transportation on issues related to this Plan and its implementation.	Ongoing/ Beginning Fall 2011
12	Notify the MPO and Engineering of all upcoming roadway reconstruction or resurfacing/restripping projects, no later than the design phase.	NCDOT Division 4, MPO	Engineering, NCDOT Bike/Ped Division, Public Works	Provide sufficient time for comments; Incorporate pedestrian recommendations from this Plan. If a compromise to the original recommendation is needed, then contact NCDOT Division of Pedestrian and Pedestrian Transportation for guidance on appropriate alternatives.	Ongoing/ Beginning Fall 2011
13	Explore pedestrian topics at neighborhood presidents meeting	Human Relations, Neighborhood Presidents Group	MPO, MTC	Pedestrian issues should be a topic at least annually during the neighborhood presidents meeting. A representative from the MPO and/or MTC should provide the group with updates and hear feedback on pedestrian issues	Ongoing/ Beginning Spring 2012
14	Work with adjacent jurisdictions and counties on regional trail system planning	MPO, Parks and Recreation	MTC, Nash County, Edgecombe County, other regional agencies	Regional trail systems are becoming increasingly popular across North Carolina (example Carolina Thread Trail). The City of Rocky Mount should begin exploring the development of a regional trails plan.	Ongoing/ Beginning Spring 2012
Infrastructure Improvements					
15	Seek Multiple Funding Sources and Facility Development Options. Identify funding for top priority projects.	MPO	Engineering, Parks and Recreation, Planning and Development, MTC, local & regional stakeholders	Chapter 3 contains project cost estimates for priority projects and Appendix F contains potential funding opportunities. Effort should be made to incorporate priority pedestrian projects into TIP and/or City capital improvement program.	Ongoing/ Beginning Fall 2011
16	Complete top priority projects	MPO, Engineering, and NCDOT Division 4	NCDOT Bike/Ped Division	Chapter 3 provides a list of projects with a general priority ranking. Immediate attention to the higher ranking projects will instantly have a large impact on pedestrian conditions in Rocky Mount. Aim to complete at least three of these pedestrian projects by the end of 2012.	Mid Term (2015)
17	Design Orientation	Engineering, Public Works, MPO, and NCDOT Division 4	NCDOT Bike/Ped Division	Become familiar with the standards set forth in Appendix A of this Plan, as well as state and national standards for pedestrian facility design.	Short Term (2012)

No.	Task	Lead Agency	Support	Details	Phase
18	Develop Pedestrian Facility Construction Documents	Engineering	Public Works, Planning and Development, NCDOT	City engineers could prepare these in-house to save resources using the design guidelines of this plan and the project cut-sheets as starting points. Specifically, the resources listed on page A-3 will be very useful in drafting such documents.	Ongoing/ Beginning Fall 2011
19	Develop a long term funding strategy	MPO, MTC	City Council, Planning and Development, Engineering	To allow continued development of the overall system, capital and Powell Bill funds for pedestrian facility construction should be set aside every year, even if only for a small amount (small amounts of local funding can be matched to outside funding sources). Funding for an ongoing maintenance program should also be included in the City's operating budget.	Short Term (2012)
20	Maintain pedestrian facilities	Public Works, NCDOT Division 4	MTC & General Public (for reporting maintenance needs)	Public Works and NCDOT should make improvements to faded crosswalks and address crosswalks that are missing (see table 2.1)	Ongoing/ Beginning Fall 2011
21	Be open to creative solutions.	MPO, Engineering	MTC, Planning and Development, Parks and Recreation, Public Works	In many cases, the most ideal pedestrian scenario (such as a complete street of sidewalks) will not be achievable because of ROW issues, homeowners issues, etc. Consider alternative, creative means such as traffic calming techniques (speed humps, chicanes, bulb-outs, and speed limit reductions).	Continuous/ ongoing
22	Consider speed limit reductions at locations throughout Rocky Mount.	MPO, Engineering	NCDOT	Speed was a common concern of the public during this planning process. Speed limit reduction should be considered, especially in areas of heavy pedestrian use. The authority to lower speeds is set out in NC General Statute 20-141(f) - Local municipalities may request speed limit reductions on NCDOT roads.	Continuous/ ongoing
23	Re-evaluate to determine and complete "Phase 2" projects	MPO, Engineering	MTC, Planning and Development, Parks and Recreation, Public Works	In 2012 and 2013, reevaluate priorities based on what has been completed thus far by creating a new agenda of "Phase 2" projects. Consider including priority projects that were not completed and consider updating certain aspects of the plan's design standards, programs, and policies based on innovations and new ideas since 2011.	Mid Term (2012-2014)
24	Re-evaluate to determine and complete "Phase 3" projects	MPO, Engineering	MTC, Planning and Development, Parks and Recreation, Public Works	In 2015, reassess projects and reevaluate priorities and phases. Consider updating the entire plan.	Long Term (2015-2019)
<b>Policies</b>					
25	Improve Pedestrian Policies	City Council	Planning and Development	Suggested policy revisions to the City of Rocky Mount UDO are outlined in Appendix C. The changes suggested clarify some basic policy positions regarding future development and the provision of pedestrian facilities. Some changes are also suggested for terminology that is more inclusive and 'Complete Streets' oriented.	Ongoing/ Beginning Spring 2012
26	Incorporate this Pedestrian Master Plan into regional planning documents such as the LRTP and local comprehensive plan.	MPO, Planning and Development	NCDOT	The Rocky Mount Pedestrian Plan should become a component of the LRTP and local comprehensive plans. This step will make clear the importance of these documents working together in future development and transportation decisions.	Fall 2011

No.	Task	Lead Agency	Support	Details	Phase
27	Policy Orientation	All Stakeholders	NCDOT Bike/Ped Division	Become familiar with State and Federal bicycle and pedestrian policies, as outlined in Appendix C.	Short Term (2012)
28	Consider Complete Streets policy	City Council, Planning and Development	MPO, Engineering, MTC	The City of Rocky Mount should consider Complete Streets policy guidance language to ensure commitment to developing roadways that accommodate all users.	Short Term (2012)
<b>Programs</b>					
29	Launch Programs as New Projects are Built	MTC	MPO, Parks and Recreation	Assist in the coordination of programs, such as those described in Appendix B: Program Resources. As described in Appendix B, begin pilot education/encouragement/enforcement campaign immediately following the completion of a major pedestrian project.	Short Term (2012)
30	Offer Training for Enforcement	Rocky Mount Police Department	MTC, National Highway Traffic Safety Administration (NHTSA) or Association of Pedestrian and Bicycle Professionals (APBP)	Training for Rocky Mount' officers could be done through free online resources, such as APBP webinars. If the City is able to find and secure grants for education, the City could also seek instructor-led courses offered by the NHTSA or groups such as the League of American Bicyclists (LAB).	Short Term (2012)
31	Provide police officers with educational material to hand out with warnings	Police Department	NCDOT Bike/Ped Division	Provide officers with an informational handout to be used during bicycle and pedestrian-related citations and warnings.	Short Term (2012)
32	Attend a pedestrian planning and design training session	Engineering, Public Works, MPO, MTC	Planning and Development	Sponsor at least one planner, one engineer, and one MTC member to attend a bicycle and pedestrian planning and design training session. NCDOT, in partnership with the Institute for Transportation Research and Education (ITRE), offers pedestrian planning and design workshops for practicing professionals. Free or inexpensive webinars are also available online through such groups as the Association of Pedestrian and Bicycle Professionals (APBP).	Opportunity-Based
33	Become Designated as a Walk Friendly Community	MTC	MPO, Parks and Recreation, Engineering	Rocky Mount should make progress in accomplishing the goals of this Plan, and then apply for Walk Friendly Community status. See page 4-4 for more information.	Long Term (2016)
34	Pursue Safe Routes to School (SRTS) projects and programs. Apply for SRTS Grants and Infrastructure Funding	MPO, MTC	Engineering, Nash-Rocky Mount Public Schools, NCDOT Division 4	Establish 'bike-to-school' groups, 'walking school buses' or other similar activities for children through the Safe Routes to School Program. Re-apply for pedestrian infrastructure funding for projects within 1.5 miles of schools through NCDOT Division 4.	Ongoing/Beginning Fall 2011
35	Create a user-friendly pedestrian walking map	Parks and Recreation, MTC	MPO	Produce and distribute a user-friendly pedestrian map of Rocky Mount, and consider the advantages of adding bicycling routes. Provide basic safety information, commuting information, trail etiquette, transit information, and a list of local resources on the back side of the map.	Mid-Term (2013-2014)
36	Celebrate and promote awareness days and events such as Walk to Work and Walk to School Days.	Parks and Recreation, MTC	MPO	Awareness days provide an opportunity to encourage new walkers in a group setting with entertainment, prizes, and media attention.	Mid-Term (2013-2014)

No.	Task	Lead Agency	Support	Details	Phase
37	Begin enforcement campaign.	Police Department	General Public (for reporting enforcement issues/violation incidents)	Target and enforce all illegal motorist, pedestrian, and bicyclist behavior that may jeopardize public safety and the success of the Pedestrian Network.	Mid-Term (2013-2014)
Further Studies					
38	Perform bus stop access improvement study.	Tar River Transit	MPO, MTC	Continue assessing the need for and recommend sidewalk connections and safe crossings in the vicinity of bus stops. Additionally, comfortable facilities (e.g., shelters, benches, etc.) for people waiting for the bus should also be recommended.	Short Term (2012)
39	Conduct a study of all roadway railroad crossings and examine for pedestrian safety and ADA accessibility.	MPO, MTC, Engineering	NCDOT, Public Works	As discussed in Chapter 2, many pedestrian crossings of railroad tracks throughout the study area are not safe or accessible. An examination of these crossings and priority improvements should be developed as part of this study.	Mid-Term (2012-2013)
40	Conduct a study on traffic calming needs and opportunities on local roads.	MPO, Engineering	MTC, NCDOT	Traffic calming is critical to create safe walking environments. In many cases, where sidewalk isn't feasible, treatments such as speed humps can still improve safety by slowing traffic. Roadways should be identified and prioritized for improvements.	Mid-Term (2012-2013)
41	Conduct a study on existing driveway access issues such as high frequency and large sizes.	MPO, Engineering	MTC, Public Works, Local businesses and landowners	As discussed in Chapter 2, some roadways feature an excess of driveway entrances. An examination of driveways should be conducted with the end-goal of retrofitting improvements to create safer separated spaces for pedestrians.	Mid-Term (2012-2013)
Evaluation and Databases					
42	Update bicycle and pedestrian database and establish central holding place for data.	MPO, City GIS staff	Engineering	Continuous updating of bicycle and pedestrian facility GIS database as new facilities come online and new crash data is published. The City GIS staff should lead this effort.	Continuous/ongoing
43	Publish Annual Performance Report	MPO, MTC	Parks and Recreation, Engineering, Public Works, Planning and Development	Publish an annual report to provide an update on progress made during that year to advance pedestrian modes. The MPO should lead this effort, but all the City departments must coordinate. This report will provide an objective measurement of progress.	Annually
44	Develop pedestrian count program to occur at least annually.	MPO	MTC, Engineering, Parks and Recreation	A key method to evaluate pedestrian use and needs is to conduct professional counts. This will serve as a baseline each year and would be a key part of an annual performance report.	Annually
45	Continually support and evaluate implementation of this plan	MPO, MTC	Parks and Recreation, Engineering, Public Works, Planning and Development	The different city departments and boards and MTC representatives should meet quarterly to assess implementation and evaluate progress.	Continuous/Ongoing
46	Online form for pedestrian facility and maintenance request	Public Works	MPO	Provide a web-based service that allows residents to request pedestrian facilities or maintenance/repair.	Mid-Term (2012-2013)

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for double-sided printing]*

# APPENDIX A: DESIGN RESOURCES



## DESIGN RESOURCES CONTENTS

### Overview

A-2

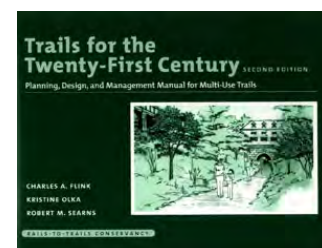
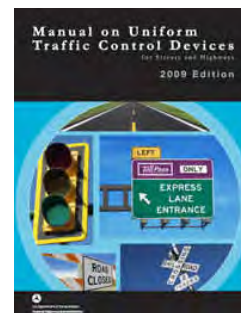
### Pedestrian Facilities & Related Streetscape Improvements

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*Below: These resources  
(and those listed on A-2)  
can be consulted for more infor-  
mation on design standards.*



## OVERVIEW

These guidelines should be used with the understanding that design adjustments will be necessary in certain situations in order to achieve the best results. Facility installation and improvements should be evaluated on a case-by-case basis, in consultation with local or state bicycle/pedestrian coordinators, and/or a qualified engineer or landscape architect. Some new treatments may require formal applications to the North Carolina Department of Transportation (NCDOT) and the Federal Highway Administration (FHWA) for approval as experimental uses. Should national standards be revised in the future and result in discrepancies with this report, those standards should be consulted for design decisions.

*On facilities maintained by NCDOT, the State's design guidelines will apply. The City of Rocky Mount has the potential to exceed minimum guidelines where conditions warrant (within its*

*Manual on Uniform Traffic Control Devices (MUTCD) U. S. Department of Transportation, Washington, DC, 2009 - <http://mutcd.fhwa.dot.gov>*

*Policy on Geometric Design of Streets and Highways. American Association of State Highway Transportation Officials, 2001 - <http://transportation.org>*

*Universal Access to Outdoor Recreation: A Design Guide. PLAÉ, Inc., Berkeley, CA, 1993.*

*Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities: An ITE Proposed Recommended Practice [www.ite.org/css](http://www.ite.org/css)*

## Design Resources:

*NCDOT "Typical" Highway Cross Sections - The comprehensive planning and design "typical" highway cross sections have been updated to support the NCDOT's "Complete Streets" policy that was adopted in 2009. The guidance in the updated cross sections establishes design elements that emphasize safety, mobility, and accessibility for multiple modes of travel. For more information, contact the State Roadway Design Engineer, or visit:*

*[www.nccompletestreets.org](http://www.nccompletestreets.org)*

*Greenways: A Guide to Planning, Design and Development. Island Press, 1993. Authors: Flink and Searns*

*Trails for the Twenty-First Century Island Press, 2nd ed. 2001. Authors: Flink, Searns, Olka*

*Pedestrian and Bicycle Information Center - [www.walkinginfo.org](http://www.walkinginfo.org) and [www.bicyclinginfo.org](http://www.bicyclinginfo.org)*

## MARKED CROSSWALKS

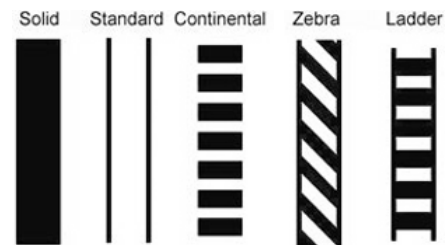
A marked crosswalk designates a pedestrian right-of-way across a street. It is often installed at controlled intersections or at key locations along the street (a.k.a. mid-block crossings). Every attempt should be made to install crossings at the specific point at which pedestrians are most likely to cross: a well-designed traffic calming location is not effective if pedestrians are instead using more seemingly convenient and potentially dangerous locations to cross the street. Marked pedestrian crosswalks may be used under the following conditions: 1) At locations with stop signs or traffic signals, 2) At non-signalized street crossing locations in designated school zones, and 3) At non-signalized locations where engineering judgment dictates that the use of specifically designated crosswalks are desirable.

There is a variety of form, pattern, and materials to choose from when creating a marked crosswalk. It is important however to provide crosswalks that are not slippery, free of tripping hazards, and free of obstacles that make it difficult to maneuver (e.g., a median island that is difficult to mount in a wheel chair). Although attractive materials such as inlaid stone or certain types of brick may provide character and aesthetic value, the crosswalk can become slippery. Potential materials can be vetted by requesting case studies from suppliers regarding where the materials have been successfully applied. Also, as some materials degrade from use or if they are improperly installed, they may become a hazard for the mobility or vision impaired.

### Crosswalk Guidelines:

- Should not be installed in an uncontrolled environment [at intersections without traffic signals] where speeds exceed 40 mph. (AASHTO, 2004)
- Crosswalks alone may not be enough and should be used in conjunction with other measures to improve pedestrian crossing safety, particularly on roads with average daily traffic (ADT) above 10,000
- Width of marked crosswalk should be at least six feet; ideally ten feet or wider in downtown areas.
- Curb ramps and other sloped areas should be fully contained within the markings.

- Crosswalk markings should extend the full length of the crossings.
- Crosswalk markings should be white per MUTCD.
- Either the 'continental' or 'ladder' patterns are recommended for intersection improvements for aesthetic and visibility purposes. Lines should be one to two feet wide and spaced one to five feet apart.



A variety of patterns are possible in designating a crosswalk; an example of a 'continental' design is shown below.



American Association of State Highway and Transportation Officials. (2004). *Guide for the Planning, Design, and Operation of Pedestrian Facilities*.

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center: [www.oregonmetro.gov](http://www.oregonmetro.gov)

## SIDEWALKS AND WALKWAYS

Sidewalks and walkways are extremely important public right-of-way components often times adjacent to, but separate from automobile traffic. In many ways, they act as the seam between private residences, stores, businesses, and the street.

There are a number of options for different settings, for both downtown and more rural and/or suburban areas. From a wide promenade to, in the case of a more rural environment, a simple asphalt or crushed stone path next to a secondary road, walkway form and topography can vary greatly. In general, sidewalks are constructed of concrete although there are some successful examples where other materials such as asphalt, crushed stone, or other slip resistant material have been used. The width of the walkways should correspond to the conditions present in any given location (i.e. level of pedestrian traffic, building setbacks, or other important natural or cultural features). FHWA (Federal Highway Administration) and the Institute of Transportation Engineers both suggest five feet as the minimum width for a sidewalk. This is considered ample room for two people to walk abreast or for two pedestrians to pass each other. Often downtown areas, near schools, transit stops, or other areas of high pedestrian activity call for much wider sidewalks.

### Sidewalks and Walkway Guidelines:

- Concrete is preferred surface, providing the longest service life and requiring the least maintenance. Permeable pavement such as porous concrete may be considered to improve water quality.
- Sidewalks should be built as flat as possible to accommodate all pedestrians; they should have a running grade of five percent or less; with a two percent maximum cross-slope.
- Concrete sidewalks should be built to minimum depth of four inches; eight inches at driveways.
- Residential sidewalks should be a minimum of 5 ft in width.
- 8 to 10 ft is desirable where sidewalk is flush against the curb.



*Sidewalk with a vegetated buffer zone. Notice the sense of enclosure created by the large canopy street trees. (Image from <http://www.walkinginfo.org>)*

- In CBD areas, the desirable sidewalk is 10 feet. In areas where high pedestrian volumes are expected, 10-15 feet can be appropriate.
- The slope should be 1/4" per ft.
- See the Landscaping section later in this chapter for shade and buffer opportunities of trees and shrubs.
- Motor vehicle access points should be kept to minimum to reduce conflict points between pedestrians and vehicles.
- If a sidewalk with buffer on both sides is not feasible due to topography and right-of-way constraints, then a sidewalk on one side is better than no facility. Each site should be examined in detail to determine placement options.

### Sidewalk Guideline Sources:

*American Association of State Highway and Transportation Officials. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.*

*Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. [www.oregonmetro.gov](http://www.oregonmetro.gov)*

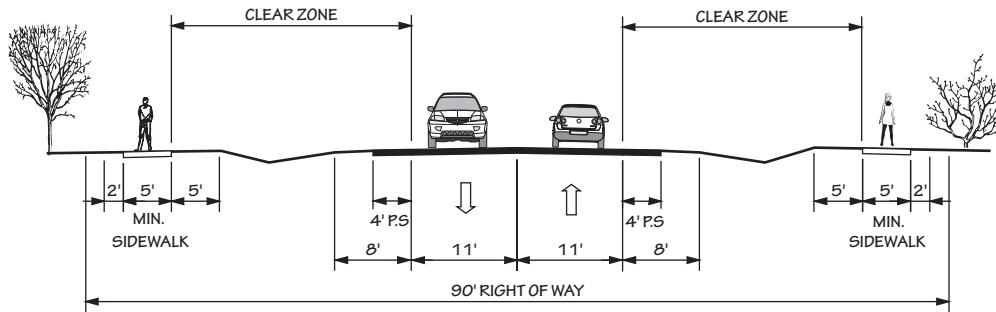
*NCDOT "Typical" Highway Cross Sections*

## Sidewalks in NCDOT's Typical Highway Cross Sections

Images below and on the following pages show all the cross sections that include sidewalks from NCDOT's "Typical Highway Cross Sections":

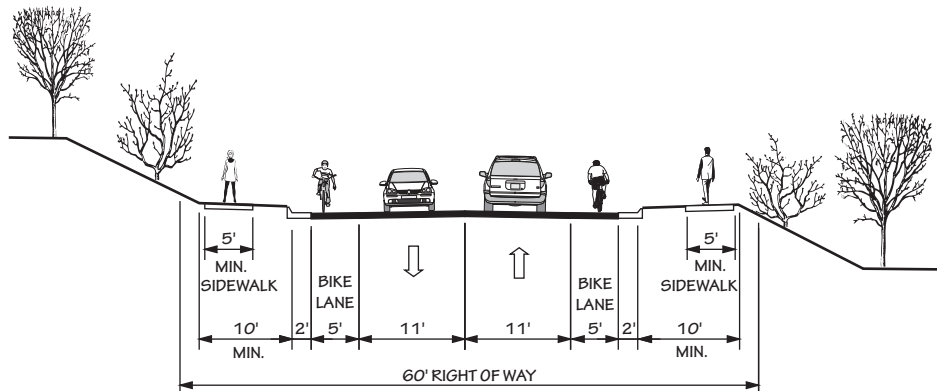
### 2 D

#### SIDEWALK PLACEMENT BEHIND A ROADWAY DITCH



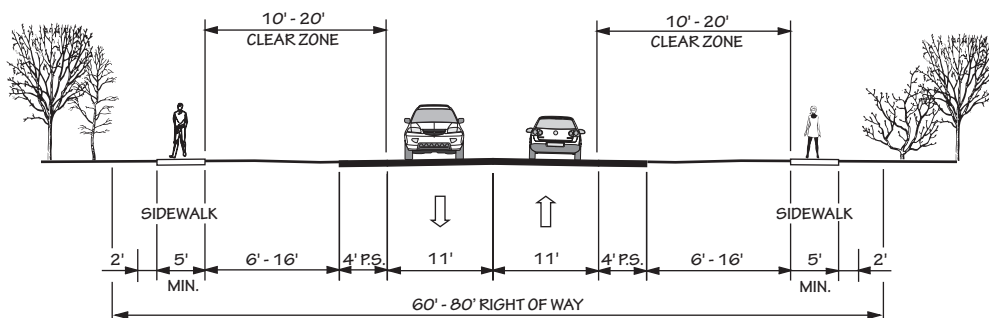
### 2 E

#### CURB AND GUTTER WITH BIKE LANES AND SIDEWALKS



### 2 F

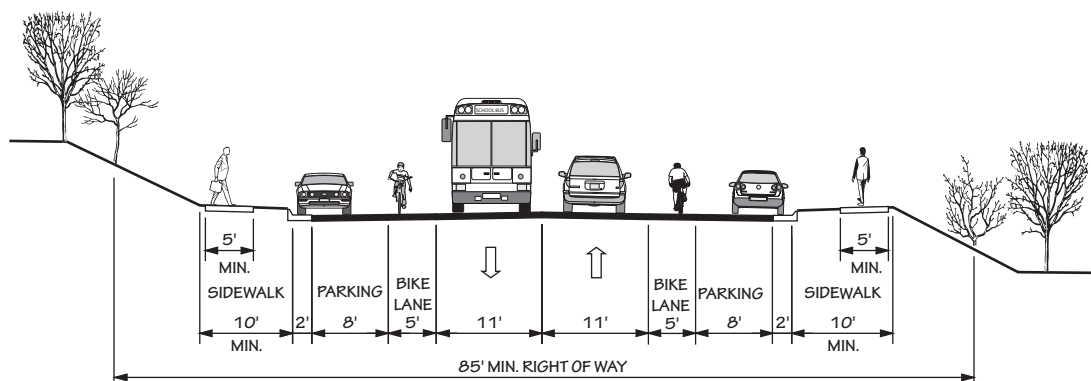
#### BUFFERS AND SIDEWALKS WITHOUT A ROADWAY DITCH (20 MPH TO 45 MPH) (TYPICALLY COASTAL AREA MANAGEMENT ACT COUNTIES)



**Sidewalks in NCDOT's Typical Highway Cross Sections** *(continued):*

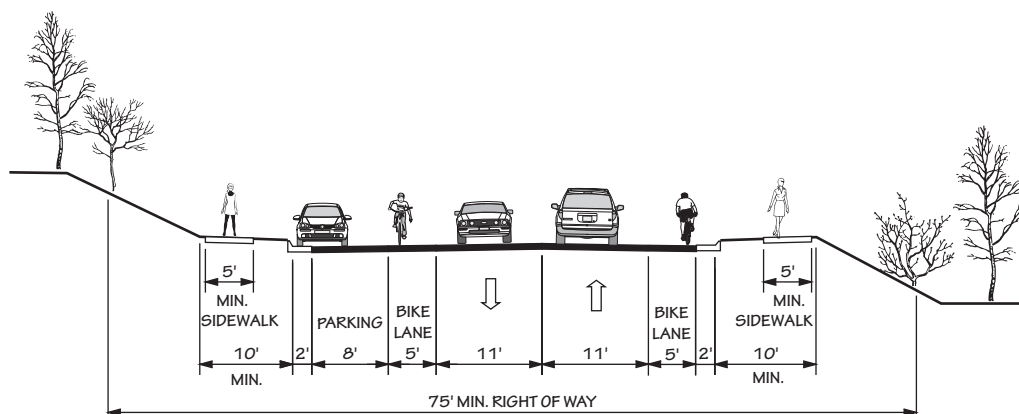
2 G

**CURB & GUTTER - PARKING ON EACH SIDE**



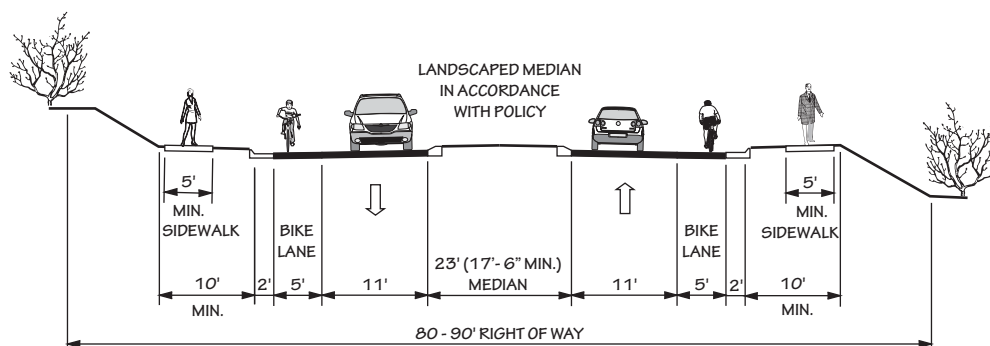
2 H

**CURB & GUTTER - PARKING ON ONE SIDE**



2 I

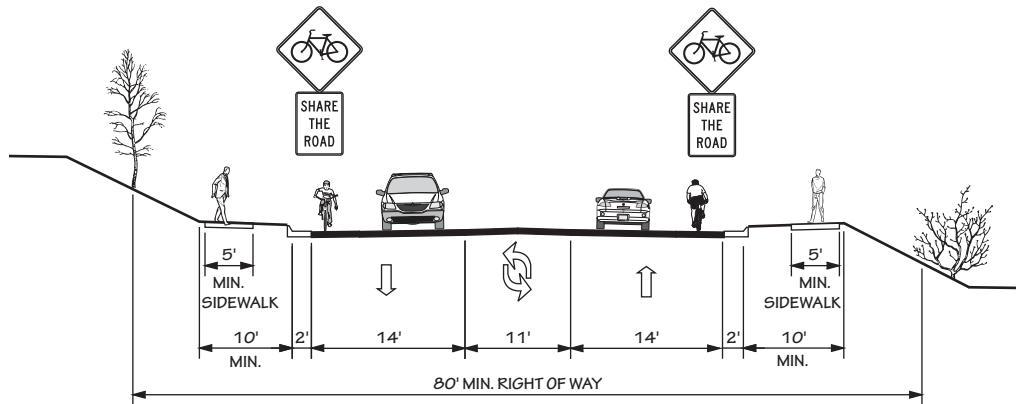
**RAISED MEDIAN WITH CURB & GUTTER**



# Sidewalks in NCDOT's Typical Highway Cross Sections (continued):

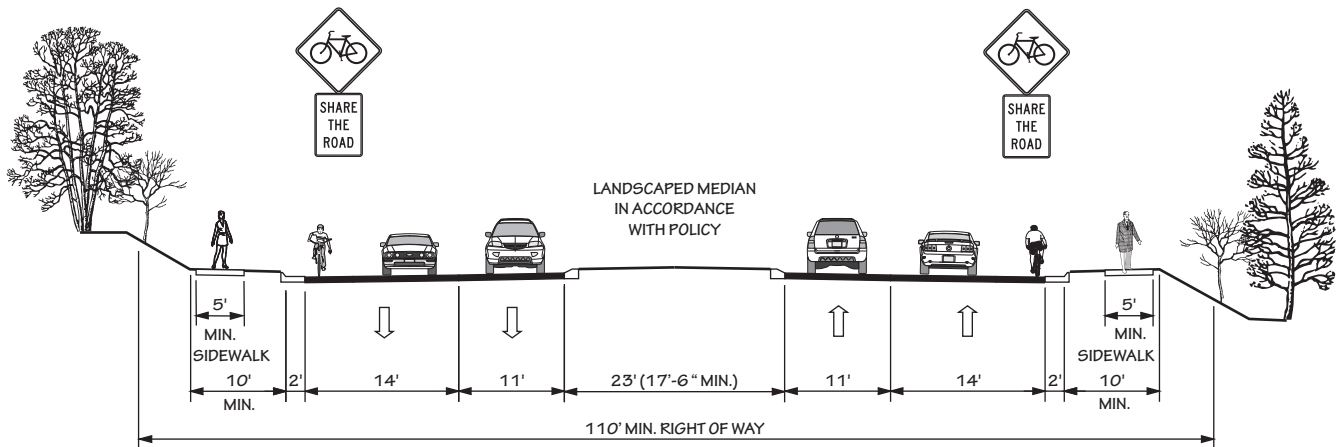
## 3 B

### CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



## 4 C

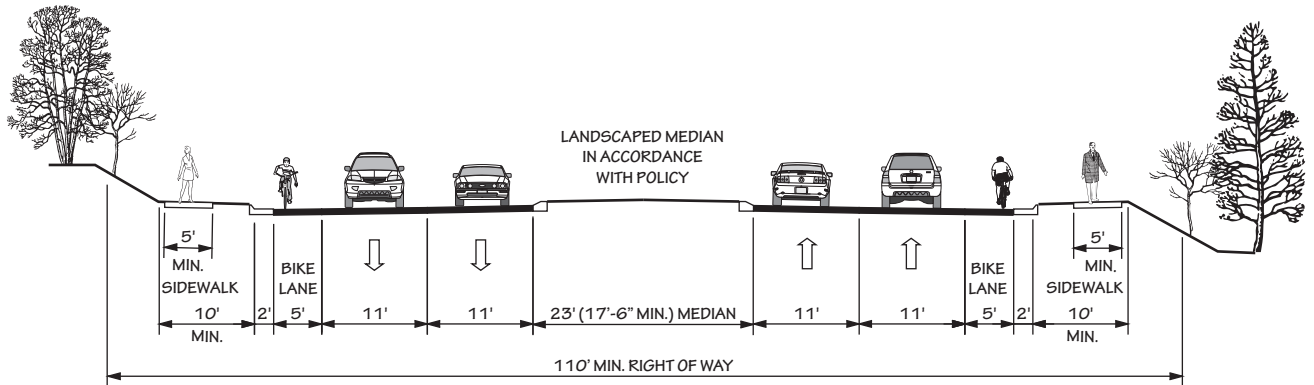
### RAISED MEDIAN WITH WIDE OUTSIDE LANES AND SIDEWALKS



Sidewalks in NCDOT's Typical Highway Cross Sections (continued):

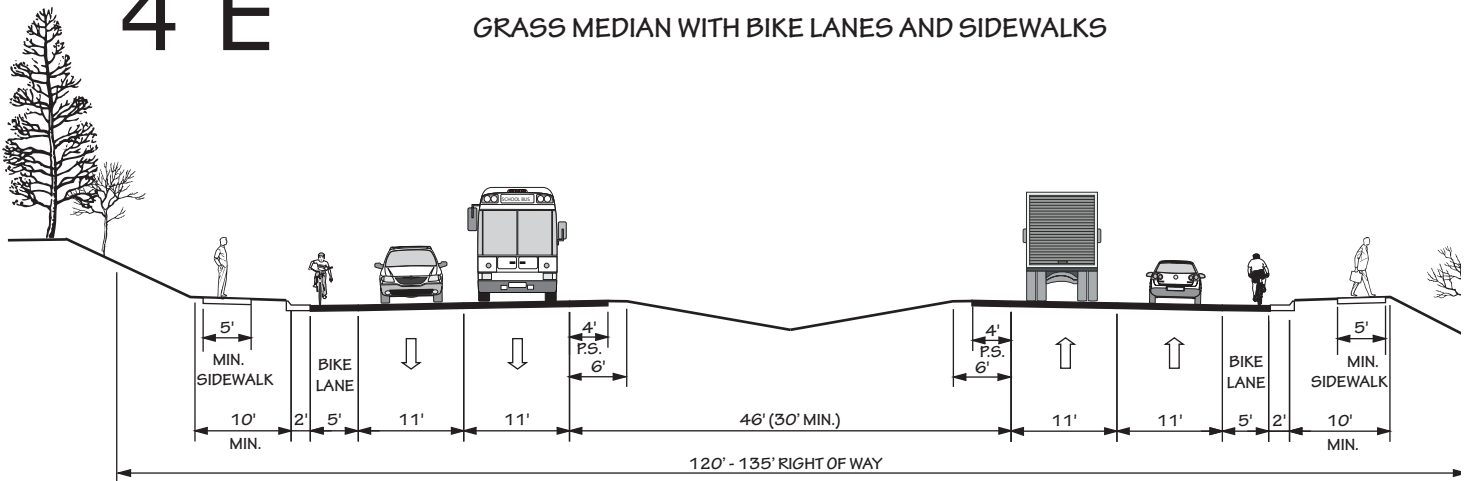
4 D

RAISED MEDIAN - CURB & GUTTER WITH BIKE LANES AND SIDEWALKS



4 E

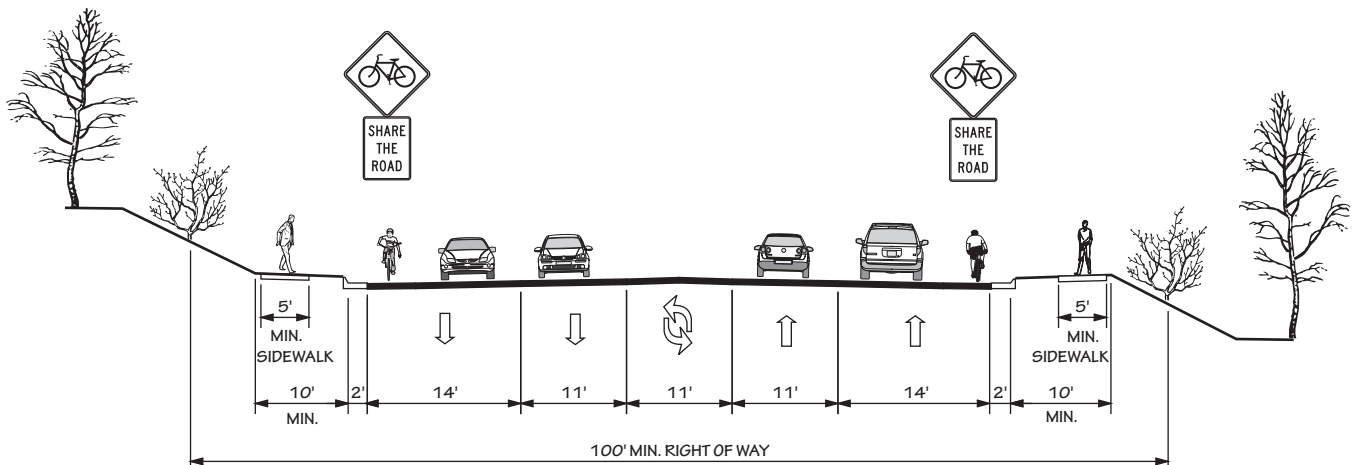
GRASS MEDIAN WITH BIKE LANES AND SIDEWALKS



5 LANES

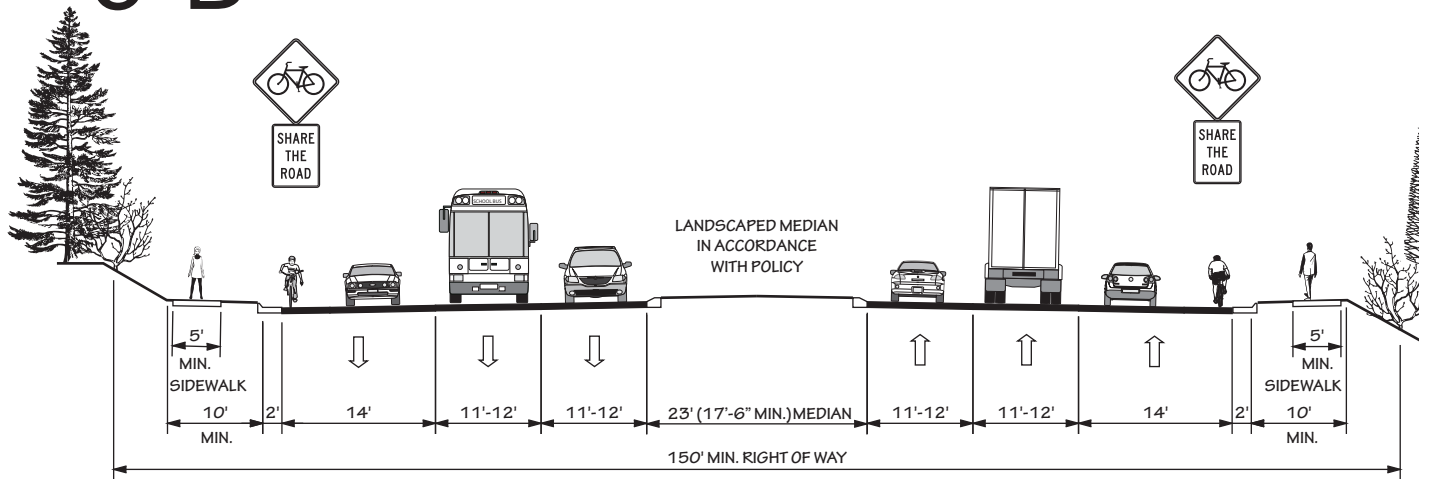
5 A

WIDE OUTSIDE LANES



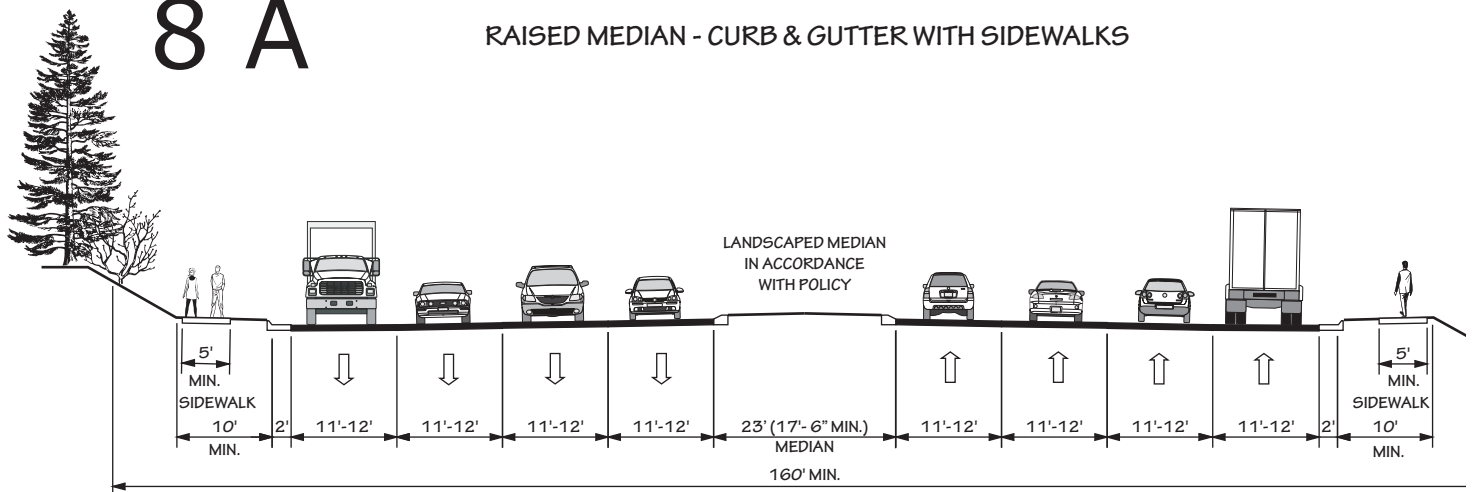
**Sidewalks in NCDOT's Typical Highway Cross Sections** (continued):

# **6 B** RAISED MEDIAN - CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



## **8 LANES**

# **8 A** RAISED MEDIAN - CURB & GUTTER WITH SIDEWALKS



## CURB RAMPS

Curb ramps are critical features that provide access between the sidewalk and roadway for wheelchair users, people using walkers, crutches, or handcarts, people pushing bicycles or strollers, and pedestrians with mobility or other physical impairments. In accordance with the 1973 Federal Rehabilitation Act and to comply with the 1990 Federal ADA requirements, curb ramps must be installed at all intersections and mid-block locations where pedestrian crossings exist (Pedestrian and Bicycle Information Center: [www.walkinginfo.org/engineering/roadway-ramps.cfm](http://www.walkinginfo.org/engineering/roadway-ramps.cfm)). In addition, these federal regulations require that all new constructed or altered roadways include curb ramps.

Two separate curb ramps should be provided at each intersection (see image below). With only one large curb ramp serving the entire corner, there is not safe connectivity for the pedestrian. Dangerous conditions exist when the single, large curb ramp inadvertently directs a pedestrian into the center of the intersection, or in front of an unsuspecting, turning vehicle.

### Curb Ramp Guidelines:

- Two separate curb ramps, one for each crosswalk, should be provided at each corner of an intersection.
- Curb ramps should have a slope no greater than 1:12 (8.33%). Side flares should not exceed 1:10 (10%); it is recommended that much less steep slopes be used whenever possible.



*The use of texture and bright color at curb ramps helps the visually impaired to cross safely.*

### Curb Ramp Guideline Sources:

Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center. <http://www.oregonmetro.gov>

For additional information on curb ramps see *Accessible Rights-of-Way: A Design Guide*, by the U.S. Access Board and the Federal Highway Administration, and *Designing Sidewalks and Trails for Access, Parts I and II*, by the Federal Highway Administration. Visit: [www.access-board.gov](http://www.access-board.gov) for the Access board's right-of-way report.



*Above: The corner shown has two separate ramps leading across the intersection (Image from <http://www.walkinginfo.org>).*

## CURB EXTENSIONS/BULB-OUTS

Curb extensions extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street.

### Curb Extension/Bulb-Out Guidelines

(Source: *Bicycle and Pedestrian Information Center*).

- Curb extensions are only appropriate where there is an on-street parking lane.
- Curb extensions must not extend into travel lanes, bicycle lanes, or shoulders (curb extensions should not extend more than 1.8 m (6 ft) from the curb).
- The turning needs of larger vehicles, such as school buses, need to be considered in curb extension design. However, it is important to take into consideration that those vehicles should not be going at high speeds, and most can make a tight turn at slow speeds. In some situations, curb bulb-outs can actually make it easier for trucks to turn by bringing them out, away from the curb, thereby giving them a better angle to enter the receiving lane.
- It is not necessary for a roadway to be designed so that a vehicle can turn from a curb lane to a curb lane. Vehicles can often encroach into adjacent lanes safely where volumes are low and/or speeds are slow. Speeds should be slower in a pedestrian environment.
- Emergency access is often improved through the use of curb extensions if intersections are kept clear of parked cars. Fire engines and other emergency vehicles can climb a curb where they would not be able to move a parked car. At midblock locations, curb extensions can keep fire hydrants clear of parked cars and make them more accessible.
- Ensure that curb extension design facilitates adequate drainage.



Top: curb radius reduction example;  
Above: Curb extension/bulb-out examples

## MEDIANS & CROSSING ISLANDS

Medians are barriers in the center portion of a street or roadway. When used in conjunction with mid-block or intersection crossings, they can be used as a crossing island to provide a place of refuge for pedestrians. They also provide opportunities for landscaping that in turn can help to slow traffic. A center turn lane can be converted into a raised or lowered median thus increasing motorist safety.

A continuous median can present several problems when used inappropriately. If all left-turn opportunities are removed, there runs a possibility for increased traffic speeds and unsafe U-turns at intersections. Additionally, the space occupied may be taking up room that could be used for bike lanes or other treatments. An alternative to the continuous median is to create a segmented median with left turn opportunities.

Raised or lowered medians are best suited for high-volume, high-speed roads, and they should provide ample cues for people with visual impairments to identify the boundary between the crossing island and the roadway.

### Crossing Island Guidelines:

- Where midblock or intersection crosswalks are installed at uncontrolled locations (i.e., where no traffic signals or stop signs exist), crossing islands should be considered as a supplement to the crosswalk.
- Crossing islands are appropriate at signalized crossings though they should never be used to create a two-phased pedestrian crossing at a signalized intersection (don't leave pedestrian stuck on a crossing island between moving lanes of traffic)
- Bicycle lanes (or shoulders, or whatever space is being used for bicycle travel) must not be eliminated or squeezed in order to create the curb extensions or islands.
- Illuminate or highlight islands with street lights, signs, and/or reflectors to ensure that motorists see them.
- Design islands to accommodate pedestrians in wheelchairs.
- Crossing islands at intersections or near driveways may affect left-turn access.

- Medians can incorporate trees and plantings to change the character of the street and reduce motor vehicle speed. However, landscaping should not obstruct the visibility between motorists and pedestrians.
- Median crossings should provide ramps or cut-throughs for ease of accessibility for all pedestrians.
- Median crossings should be at least 6 feet wide in order to accommodate more than one pedestrian, while a width of 8 feet (where feasible) should be provided for bicycles, wheelchairs, and groups of pedestrians.
- Median crossings should possess a minimum of a 4 foot square level landing to provide a rest point for wheelchair users.



*Median & Crossing Island Resources:*

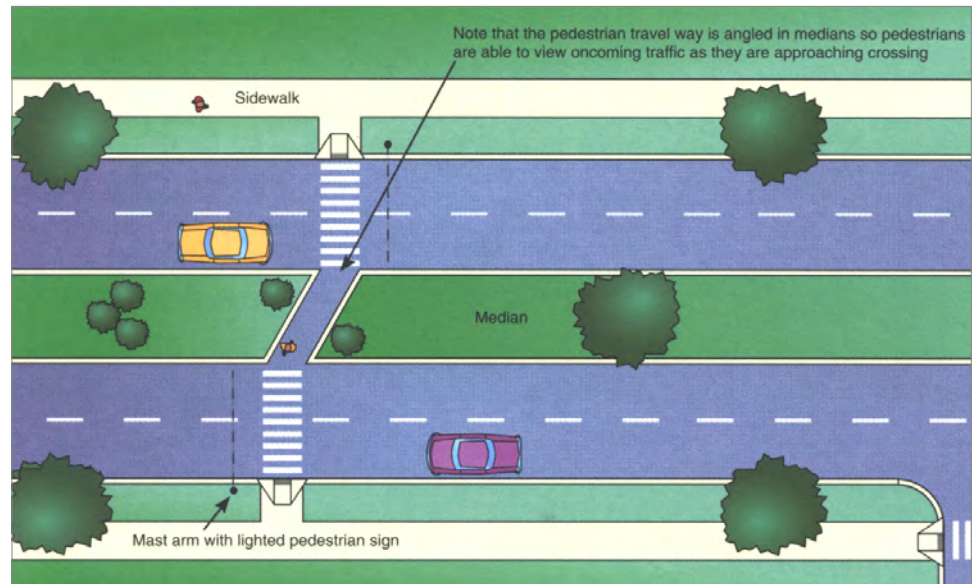
*Bicycle and Pedestrian Information Center*

*American Association of State Highway and Transportation Officials. (2004). Guide for the Planning, Design, and Operation of Pedestrian Facilities.*

*Metro Regional Government. (2005). Portland, Oregon: Transportation Information Center.*  
<http://www.oregonmetro.gov>



*A median used in conjunction with mid-block crossing, serving as a refuge for pedestrians. (Image above from Greenville, NC, image at right from AASHTO).*



## PEDESTRIAN SIGNALS

There are a host of traffic signal features and enhancements that can greatly improve the safety and flow of pedestrian traffic. Some include countdown signals, the size of traffic signals, positioning of traffic signals, audible cues, and timing intervals which are discussed below (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).

As of 2008, new federal policy requires all new pedestrian signals to be of the countdown variety. In addition, all existing signals must be updated to countdown within 10 years (updated in MUTCD). Countdown signals have proven to be an effective measure of crash reduction (25% crash reduction in 2007 FHWA study).

Countdown signals are pedestrian signals that show how many seconds the pedestrian has remaining to cross the street. The countdown can begin at the beginning of the WALK phase, per-

haps flashing white or yellow, or at the beginning of the clearance, or DON'T WALK phase, flashing yellow as it counts down. Audible cues can also be used to pulse along with a countdown signal.

Signals should be of adequate size, clearly visible, and, in some circumstances, accompanied by an audible pulse or other messages to make crossing safe for all pedestrians. Consideration should be paid to the noise impact on the surrounding neighborhoods when deciding to use audible signals.

The timing of these or other pedestrian signals needs to be adapted to a given situation. In general, shorter cycle lengths and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best. Pedestrian pushbuttons may be installed at locations where pedestrians

are expected intermittently. Quick response to the pushbutton or feedback to the pedestrian (e.g.- indicator light comes on) should be programmed into the system. When used, pushbuttons should be well-signed and within reach and operable from a flat surface for pedestrians in wheelchairs and with visual disabilities. They should be conveniently placed in the area where pedestrians wait to cross. Section 4E.09 within the MUTCD provides detailed guidance for the placement of pushbuttons to ensure accessibility (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).

There are three types of signal timing generally used: concurrent, exclusive, and leading pedestrian interval (LPI). The strengths and weaknesses of each will be discussed with an emphasis on when they are best employed.

When high-volume turning situations conflict with pedestrian movements, the exclusive pedestrian interval is the preferred solution. The exclusive pedestrian intervals stop traffic in all directions. In order to keep traffic flowing regularly, there is often a greater pedestrian wait time associated with this system. Although it has been shown that pedestrian crashes have been reduced by 50% in some areas by using these intervals, the long wait times can encourage some to cross when there is a lull in traffic (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-signals.cfm>).

An LPI gives pedestrians an advance walk signal before the motorists get a green light, giving the pedestrian several seconds to start in the crosswalk where there is a concurrent signal. This makes pedestrians more visible to motorists and motorists more likely to yield to them. This advance crossing phase approach has been used successfully in several places, such as New York City, for two decades and studies have demonstrated reduced conflicts for pedestrians. The advance pedestrian phase is particularly effective where there is a two-lane turning movement. There are some situations where an exclusive pedestrian phase may be preferable to an LPI, such as where there are high-volume turning movements that conflict with the pedestrians crossing.

The use of infrared or microwave pedestrian detectors has increased in many cities worldwide. These devices replace the traditional push-button system. They appear to be improving pedestrian signal compliance as well as reducing the number of pedestrian and vehicle conflicts. The best use of these devices is when they are employed to extend crossing time for slower moving pedestrians.



*International symbols used in a crosswalk to designate WALK and DON'T WALK (Image from [www.walkinginfo.org](http://www.walkinginfo.org)).*



*Audible cues can also be used to pulse along with a countdown signal.*

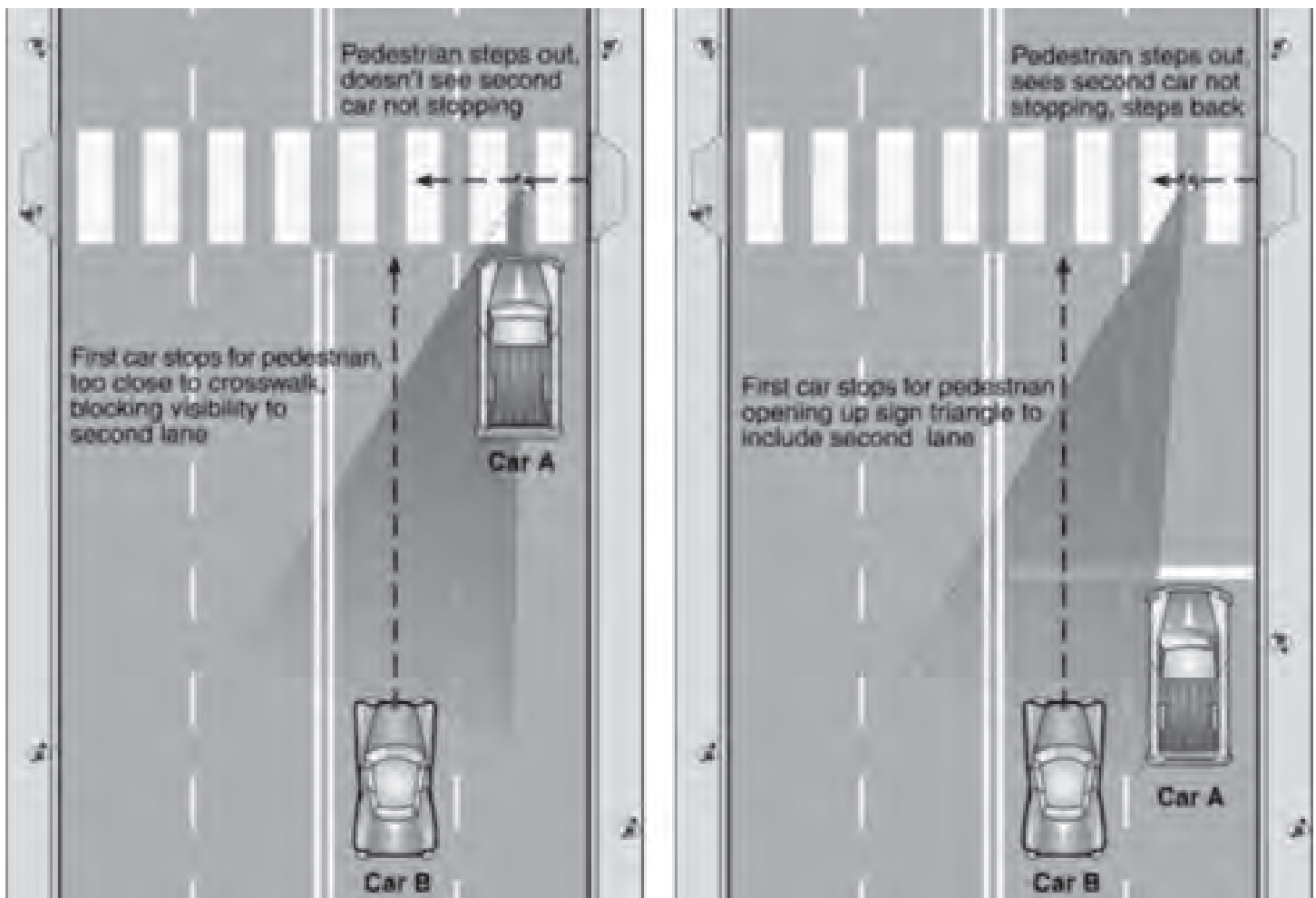
### Pedestrian Signal Guidelines:

- Pedestrian signals should be placed in locations that are clearly visible to all pedestrians.
- Larger pedestrian signals should be utilized on wider roadways, to ensure readability.
- Pedestrian signal pushbuttons should be well-signed and visible.
- Pedestrian signal pushbuttons should clearly indicate which crossing direction they control.
- Pedestrian signal pushbuttons should be reachable from a flat surface, at a maximum height of 3.5 feet and be located on a level landing to ensure ease of operation by pedestrians in wheelchairs.
- Walk intervals should be provided during every cycle, especially in high pedestrian traffic areas.

### ADVANCE STOP BARS

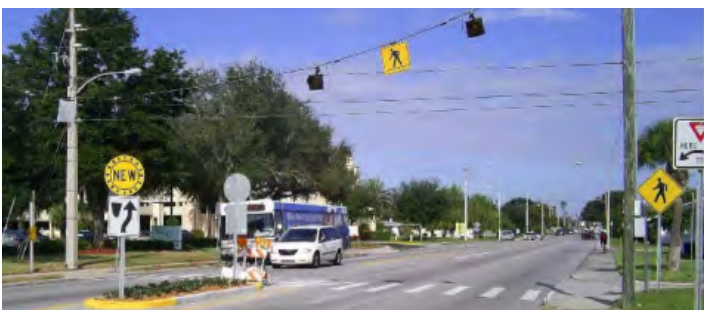
Moving the vehicle stop bar 15–30 feet back from the pedestrian crosswalk at signalized crossings and mid-block crossings increases vehicle and pedestrian visibility. Advance stop bars are 1–2 feet wide and they extend across all approach lanes at intersections. The time and distance created allows a buffer in which the pedestrian and motorist can interpret each other's intentions. Studies have shown that this distance translates directly into increased safety for both motorist and pedestrian. One study in particular claims that by simply adding a “Stop Here for Pedestrians” sign reduced pedestrian motorist conflict by 67%. When this was used in conjunction with advance stop lines, it increased to 90% (Pedestrian and Bicycle Information Center: <http://www.walkinginfo.org/engineering/crossings-enhancements.cfm>).

*Below: Advance stop bars enhance visibility for pedestrians (Image from [www.walkinginfo.org](http://www.walkinginfo.org)).*



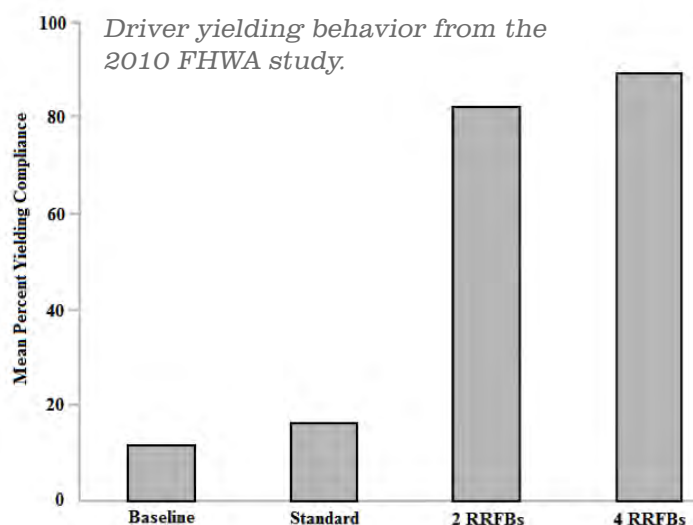
## HIGH INTENSITY ACTIVATED CROSSWALK (HAWK)

The FHWA's Office of Safety Research recently completed a report on the High Intensity Activated Crosswalk (HAWK)— also known as the Pedestrian Hybrid Signal in the Manual on Uniform Traffic Control Devices (MUTCD). The HAWK is a pedestrian activated beacon located on the roadside and on mast arms over major approaches to an intersection. The HAWK signal head consists of two red lenses over a single yellow lens. It displays a red indication to drivers when activated, which creates a gap for pedestrians to use to cross a major roadway. The HAWK is not illuminated until it is activated by a pedestrian, triggering the warning flashing yellow lens on the major street. From the evaluation that considered data for 21 HAWK sites and 102 unsignalized intersections, the following changes in crashes were found after the HAWK was installed: a 29 percent reduction in total crashes, a 15 percent reduction in severe crashes, and a 69 percent reduction in pedestrian crashes. The HAWK is now an MUTCD approved device, so a request for experimentation is not necessary. For more details, visit this website: <http://mutcd.fhwa.dot.gov/htm/2009/part4/part4f.htm> (Source: FHWA Office of Safety, Pedestrian Forum, Fall 2010)



## RECTANGULAR RAPID FLASHING BEACONS (RRFB)

The Federal Highway Administration (FHWA) issued an interim approval for the optional use of rectangular rapid flashing beacons (RRFBs, shown below, left) as warning beacons supplementing pedestrian crossing or school crossing warning signs at crossings across uncontrolled approaches. Studies have found them to have much higher levels of effectiveness in making drivers yield at crosswalks than the standard over-head and side-mount round flashing beacons. See the study “Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks” (FHWA, 2010), which showed installation of the two-beacon system increased yielding compliance from 18 to 81 percent, which was statistically significant.



Left: HAWK signal.

Right: RRFB with two forward-facing LED flashers and a side-mounted LED flasher.

Left: standard overhead beacon system

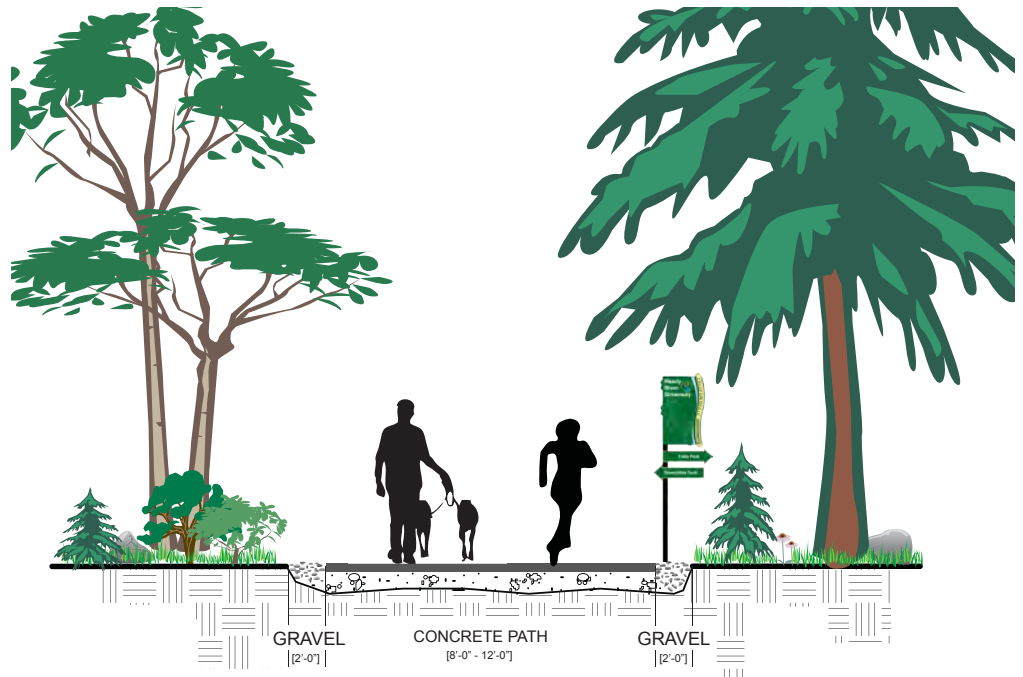


## MULTI-USE TRAILS / GREENWAYS

### Paved Multi-Use Trail: Overview

Multi-use paths are completely separated from motorized vehicular traffic and are constructed in their own corridor, often within an open-space area. Multi-use trails typically have a concrete or paved asphalt surface and are capable of being constructed within flood-prone landscapes as well as upland corridors.

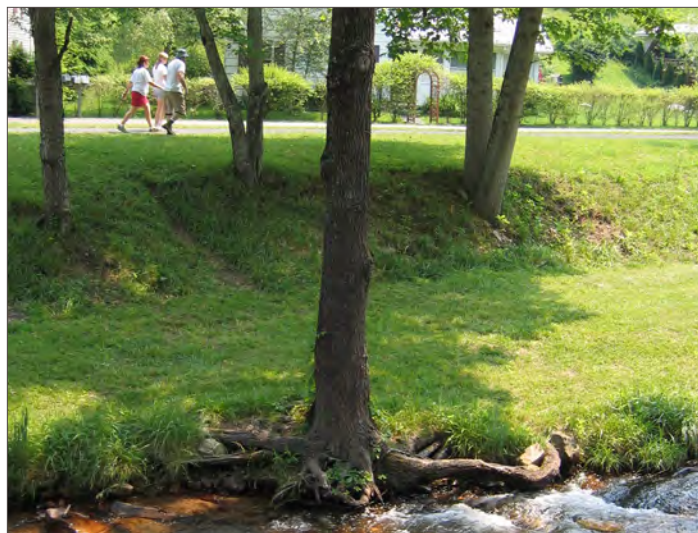
- Concrete is the recommended surface treatment. Paved asphalt or permeable paving can be used as alternatives.
  1. It is recommended that concrete be used for its superior durability and lower maintenance requirements—especially in areas prone to frequent flooding, and for intensive urban applications; Consider using high albedo pavement in place of conventional concrete surfaces (it reflects sunlight, reducing radiated heat).
  2. As an alternative to concrete, paved asphalt trails offer substantial durability for the cost of installation and maintenance. As a flexible pavement, asphalt can also be considered for installing a paved trail on slopes.
  3. Consider the following for permeable paving: a) It can be twice the cost of asphalt, b) A maintenance schedule for vacuuming debris is required to retain permeability, and c) Not suitable in the floodplain,
- or in areas without proper drainage (sheet flow or pooling of water with sediment clogs pours).
- Proper trail foundation will increase the longevity of the trail; two inches of surfacing material over four inches (min.) of base course gravel over geotextile fabric is recommended. Soil borings may need to be conducted to determine adequate material depths; it should be designed to withstand the loading requirements of occasional maintenance and emergency vehicles.
- Typically 10' wide, 2% cross slope, with two-foot wide graded shoulders; the shoulders help prevent edges from crumbling and provide an alternate walking and jogging surface.
- Centerline stripes should be considered for trails that generate substantial amounts of traffic, and are particularly useful along curving sections of trail.
- Trail landscaping and maintenance should enhance conditions for wildlife by planting only native species in the trail corridor, removing invasive species when possible, and avoiding harmful pesticides and herbicides. The overall shape of protected natural landscapes along trail corridors also influences wildlife: single, large, contiguous natural areas are more beneficial to wildlife than the same acreage split into smaller segments.



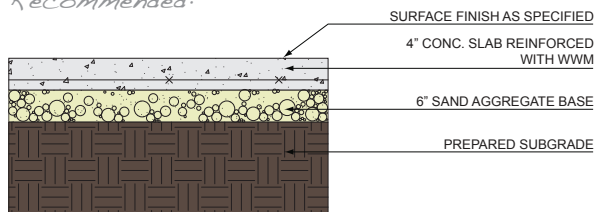
## Multi-Use Trails in Floodplain Areas

'Paved Multi-use Trail' guidelines apply, with the following considerations and exceptions:

- Typically positioned outside the floodway, within the floodplain; significant vegetative buffer between the stream and trail should be left intact.
- Use existing cleared corridors for trail routing whenever possible, to avoid unnecessary vegetative clearing.
- Subject to occasional flooding, during large storm events.
- Concrete recommended, though an aggregate stone surface may be adequate in some locations.

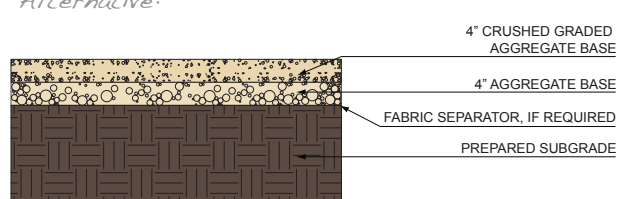


*Recommended:*



CONCRETE PAVING ON AGGREGATE

*Alternative:*



GRAVEL PAVING ON AGGREGATE

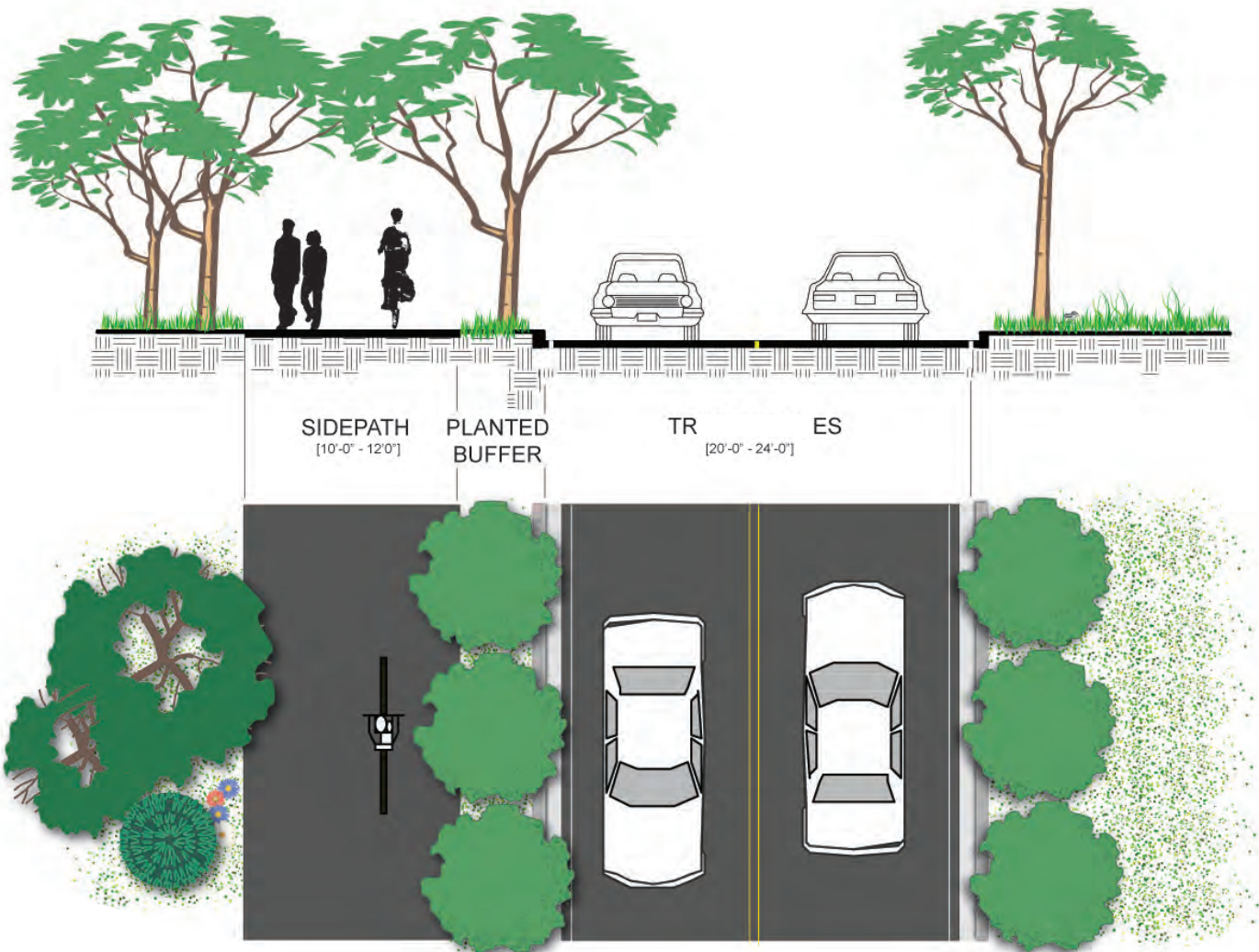
### Multi-Use Trails in Roadway Corridors

Multi-use trails located within the roadway corridor right-of-way, or adjacent to roads, are sometimes called 'Sidepaths'. Sidepaths provide a comfortable walking space for pedestrians and enables children and recreational bicyclists to ride without the discomfort of riding in a busy street.

This configuration works best along roadways with limited driveway crossings and with services primarily located on one side of the roadway, or along a riverfront or other natural feature. *Not recommended in areas with frequent driveways or cross streets.*

- A minimum 10' width is necessary on sidepaths for bicyclists to pass one another safely (12' for areas expecting high use)
- A minimum 6-8' planting strip is desirable between the sidepath and arterial roadways outside CBD areas.

- Roadway corridors where sidepaths are recommended should also have adequate on-road bicycle facilities (such as shared lane markings, paved shoulders, or bicycle lanes), so that all levels of bicyclists are accommodated.
- Well-designed transitions from sidepaths to on-road facilities will direct bicyclists to the correct side of the roadway (see guidelines for Trail-Roadway Intersections)



## NATURAL SURFACE TRAILS

Sometimes referred to as footpaths or hiking trails, the natural surface trail is used along corridors that are environmentally-sensitive but can support bare earth, wood chip, or board-walk trails. Natural surface trails are a low-impact solution and found in areas with limited development.

- The trail can vary in width from 18-inches to 6-feet; vertical clearance should be maintained at nine-feet above grade.
- Preparation varies from machine-worked surfaces to those worn only by usage.
- Trail surface can be made of dirt, rock, soil, forest litter, or other native materials. Some trails use crushed stone (a.k.a. “crush and run”) that contains about 4% fines by weight, and compacts with use.
- At the time of this writing, a new, environmentally sound trail surface is being researched in Greenville County, SC. The organic soil stabilizer, called Roadzyme, is non-toxic, made from sugar beet extract.
- Provide positive drainage for trail tread without extensive removal of existing vegetation; maximum slope is five percent (typical).

- Trail erosion control measures include edging along the low side of the trail, steps and terraces to contain surface material, and water bars to direct surface water off the trail; use bedrock surface where possible to reduce erosion.
- Consider implications for accessibility when weighing options for surface treatments.
- For the purposes of this Plan, ‘Natural Surface Trails’ do not include bicycles.



*Natural surface trails provide options in areas that are environmentally sensitive.*

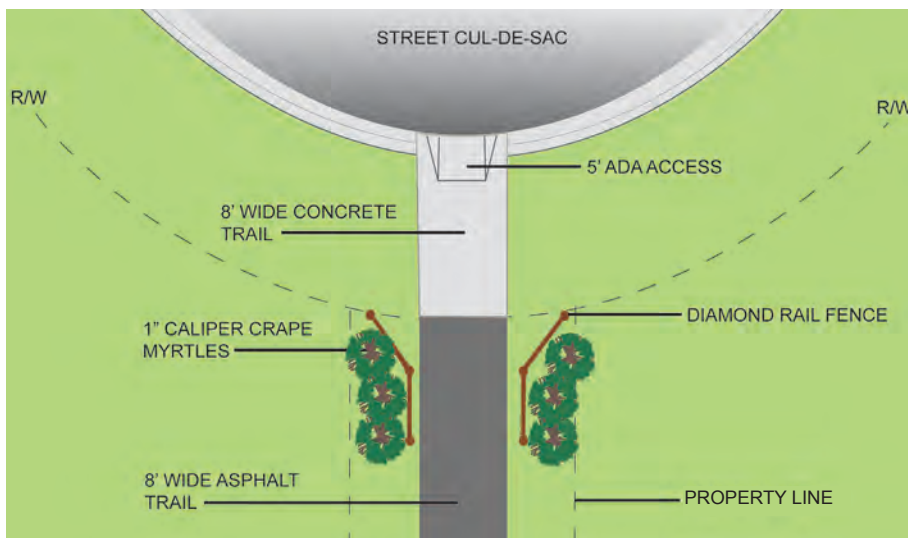


## NEIGHBORHOOD SPUR TRAIL

Neighborhood spur trails provide residential areas with direct bicycle and pedestrian access to parks, trails, greenspaces, and other recreational areas. They most often serve as small trail connections to and from the larger trail network, typically having their own rights-of-way and easements. Additionally, these smaller trails can be used to provide bicycle and pedestrian connections between dead-end streets, culs-de-sac, and access to nearby destinations not provided by the overall street network. Neighborhood and homeowner association groups are encouraged to identify locations where such connects would be desirable.

- Neighborhood spur trails should remain open to the public.
- Trail pavement shall be at least 8' wide to accommodate emergency and maintenance vehicles, meet ADA requirements and be considered suitable for multi-use.
- Trail widths should be designed to be less than 8' wide only when necessary to protect large mature native trees over 18" in caliper, wetlands or other ecologically sensitive areas.
- Access trails should meander whenever possible.
- Landscaping shall be included at the street frontage of the access trail based upon input from the residents of the cul-de-sac or dead-end street. If the access is not in a cul-de-sac, the adjacent property owners and property owners directly across from the access trail will be invited to provide landscape design input. See page A-23 related to landscaping.
- Two sections of diamond rail fencing should be included on each side of the trail near the street frontage. Diamond rail will not be included if the respective neighborhood deeds and covenants do not permit it.

*Neighborhood entrance trail diagram.*



*Example of a neighborhood entrance trail, featuring landscape signage.*



## CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

CPTED is the proper design and effective use of the built environment which may lead to a reduction in the fear and incidence of crime, and an improvement of the quality of life. CPTED is realized for trail design in many ways, some of which are described below and at right.

### Natural Surveillance

For trails and greenways, natural surveillance occurs through increased numbers of trail users, creating an environment where behavior on the trail is monitored by trail users themselves. This type of surveillance can, of course, be supplemented with a volunteer-based trail patrol group, park service staff, or the local police (often on bicycle, horseback, and electric cart respectively).

### Emergency Call Boxes

Call boxes can be installed at various locations on trails so that trail users can contact the police in case of an emergency. Often, these are voice call boxes using a mobile phone service, and solar-powered so no wiring need be extended to the middle of a remote location.

### Lighting in Select Areas

Most trails operate as linear parks, officially closing at dusk. Certain high-use areas of trails are sometimes kept open after dark to serve the needs of trail commuters who use the trail after dark. For sections of the trail open after dark, lighting can serve as a tool of CPTED.

### 911 Trail Address Locations

There are several key factors involved in properly developing a 911 trail address system:

- *Awareness:* Ensure trail users understand 911 address marking system and how to use it
- *Visibility:* 911 Address Marking should be easy to see and understand but NOT interfere or overwhelm natural ambience of trail environment
- *Cooperation:* Critical to have cooperation among: Trail System Management, 911 Call Center, and Emergency Services
- *Integration:* 911 Trail Addresses MUST be properly and promptly integrated into 911 Emergency System – Addresses are useless if not incorporated into system

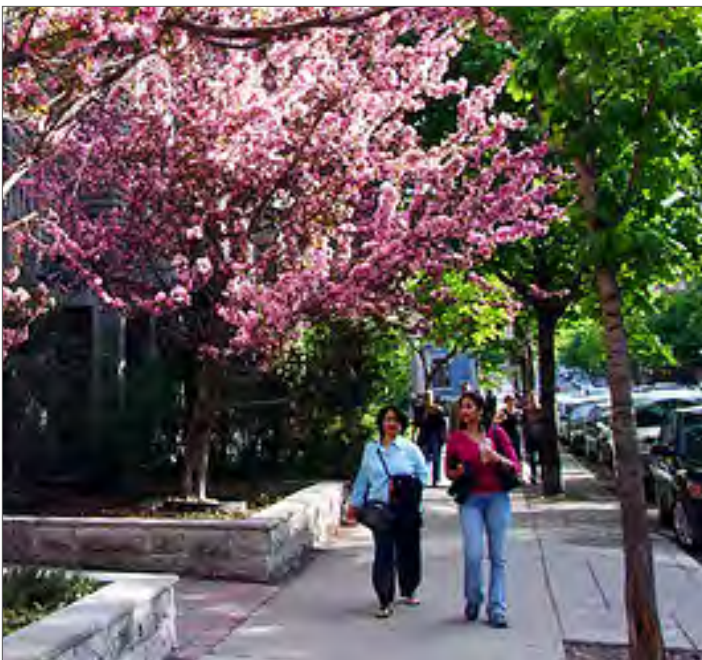
Model Case Study Community:  
Cedar Valley Trails 911 Signs Project  
Black Hawk County, Iowa  
Improving Multi-Use Recreational Trail Safety  
through a Coordinated 911 Sign Project  
[www.americantrails.org/awards/NTS06awards/TECH06.html](http://www.americantrails.org/awards/NTS06awards/TECH06.html)



## VEGETATION BUFFER, LANDSCAPING & STREET TREES

Vegetated buffers are used to separate trails not only for floodplain protection and noise from the road, but also, where desired, to screen trail corridors from nearby properties.

- Use native plant species and plants appropriate to the region that are already adapted to the local soil and climate, reducing overall maintenance costs and enhancing local identity. Landscape materials should be installed during the appropriate planting season for the particular species.
- Design the buffer with a combination of evergreen and deciduous plants for year-round interest.
- Plant buffers with a combination of trees and large shrubs, understory plantings, and ground cover.
- Keep the vegetation buffer maintained so that it does not impede views or interfere with trail circulation.
- Avoid vegetation “walls” that box-in trail users.
- Select and place trail vegetation to provide seasonal comfort: shade on trails in the warmer months and warming sunlight on trails in colder months.
- Street and sidewalk landscaping can be used to provide a separation buffer between pedestrians and motorists (see image at left), reduce the width of a roadway, calm traffic by creating a visual narrowing of the roadway, enhance the street environment, and help to generate a desired setting.
- Growth patterns and space for maturation, particularly with larger tree plantings, are important to avoid cracking sidewalks and creating other pedestrian obstructions.
- Islands of vegetation can be created to collect and filter stormwater from nearby streets and buildings. These islands are referred to as constructed wetlands, rain gardens, and/or bioswales. When these devices are employed, the benefits listed above are coupled with economic and ecologic benefits of treating stormwater at its source. See Seattle’s Green Streets Program as a model.



*Street trees and other plantings provide comfort, a sense of place, and a more natural and inviting setting for pedestrians.*

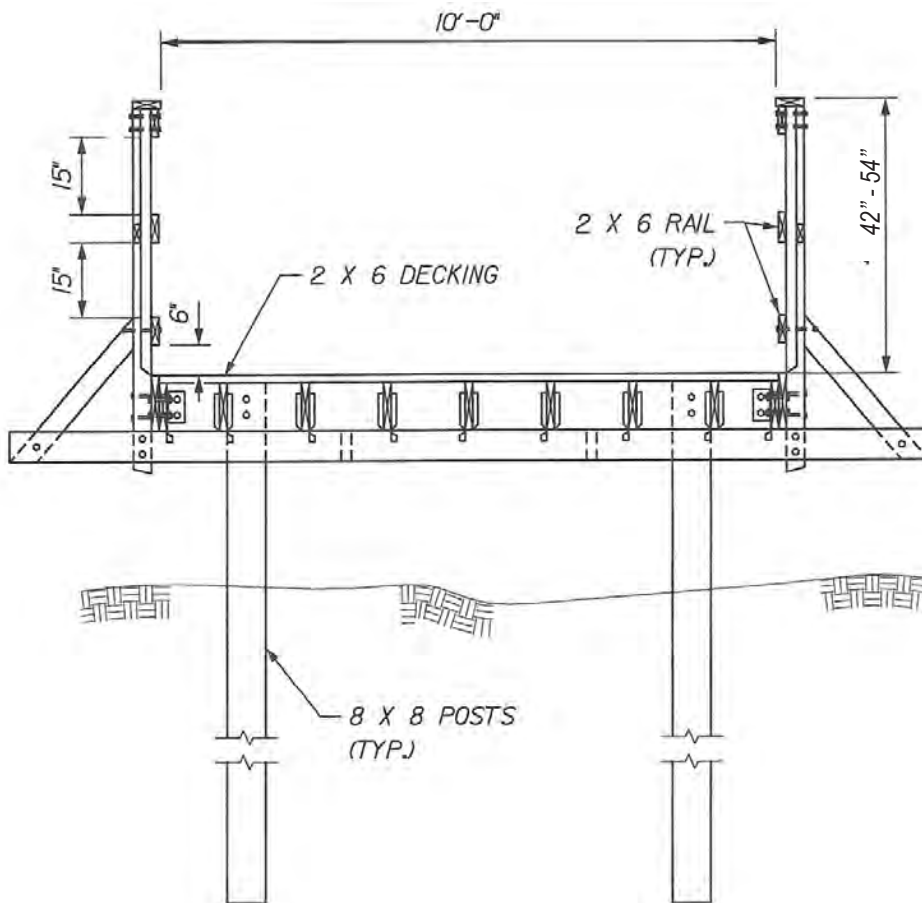
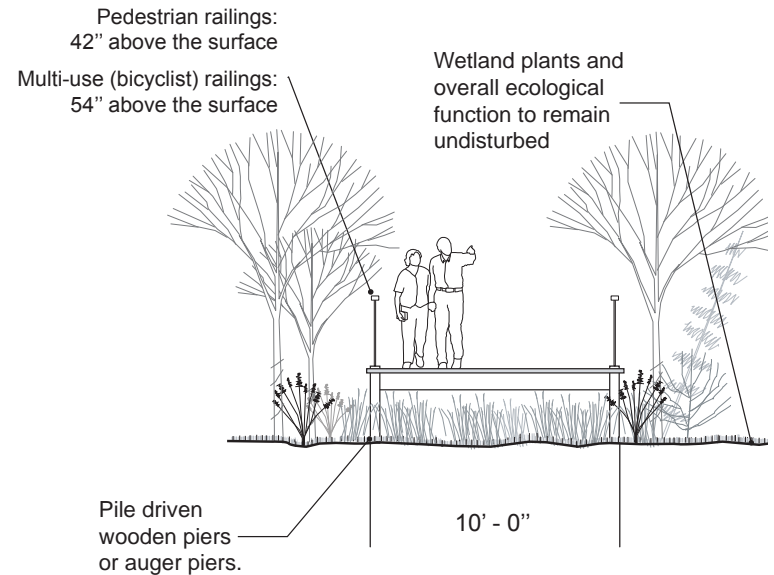


*Landscaping used on the Capital Crescent Trail, Washington DC, shows how stormwater treatment can be tied to aesthetically pleasing plantings.*

## BOARDWALK

Boardwalk or wood surface trails are typically required when crossing wetlands or other poorly drained areas. They are constructed of wooden planks or recycled material planks that form the top layer of the boardwalk. The recycled material has gained popularity in recent years since it lasts much longer than wood, especially in wet conditions. A number of low-impact support systems are also available that reduce the disturbance within wetland areas to the greatest extent possible.

- Opportunities exist to build seating and signage into boardwalks.
- In general, building in wetlands should be avoided.
- Note: muddy bicycle tires may be slick on wood surfaces.



*A boardwalk allows for travel through wet areas.*

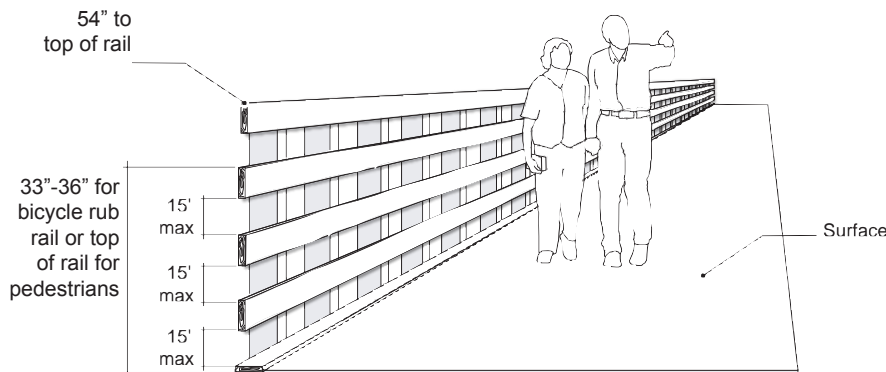
## RAILINGS AND FENCES

Railing and fences are important features on bridges, some boardwalks, or in areas where there may be a hazardous drop-off or hazardous adjacent land uses (such as active rail lines).

- At a minimum, railings and fences should consist of a top, bottom, and middle rail. Picket style fencing should be avoided as it presents a safety hazard for bicyclists.
- A pedestrian railing should be 42-inches above the surface.
- A bicyclist railing should be 54-inches above the surface.
- The middle railing functions as a “rub rail” for bicyclists and should be located 33 to 36 inches above the surface.
- Local, state, and/or federal regulations and building codes should be consulted to determine when it is appropriate to install a railing.



Example image of fence used along a rail with trail (Grand Rounds Parkway).



Left and above: Bicycle wheel gutters on stairs.

## INNOVATIVE ACCESSWAYS

There are also other innovative ways to provide direct access, particularly in topographically constrained areas (e.g., on steep hills, over waterways, etc.) Stairs, alleyways, bridges, and elevators can provide quick and direct connections throughout the city and can be designed so they are safe, inviting, and accessible to most trail users. For example, stairways can have wheel gutters so that bicyclists can easily roll their bicycles up and down the incline and boardwalks can provide access through sensitive wet areas and across small waterways.



Below: A boardwalk bridge

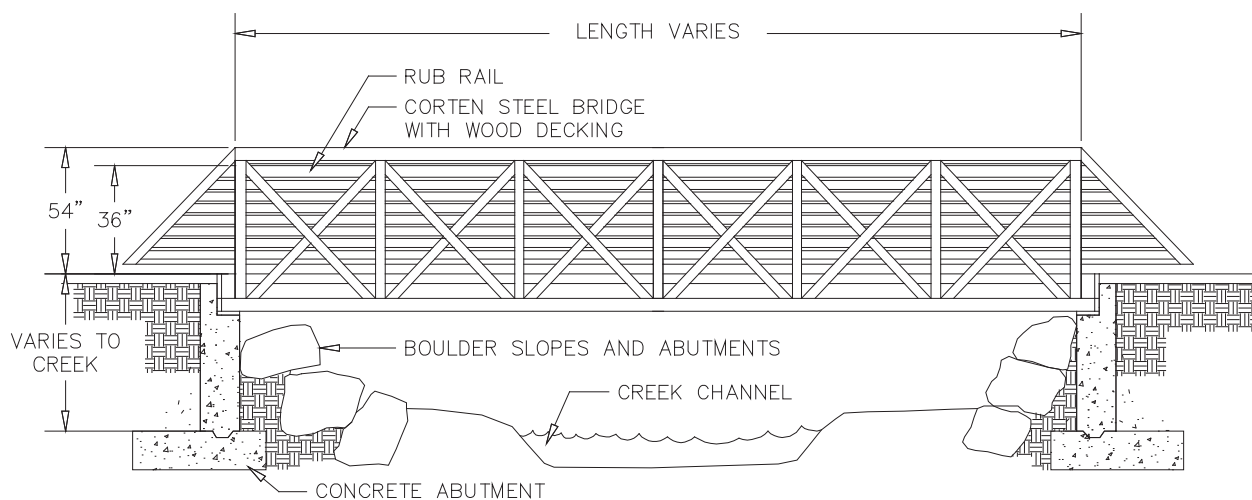


## TRAIL BRIDGES, OVERPASSES AND UNDERPASSES

### Trail Bridges

Multi-use trail bridges (also 'bicycle/pedestrian bridges' or 'footbridges') are most often used to provide trail access over natural features such as streams and rivers, where a culvert is not an option. The type and size of bridges can vary widely depending on the trail type and specific site requirements. Some bridges often used for multi-use trails include suspension bridges, prefabricated span bridges and simple log bridges. When determining a bridge design for multi-use trails, it is important to consider emergency and maintenance vehicle access.

- If a corridor already contains a bridge such as an abandoned rail bridge, an engineer should be consulted to assess the structural integrity before deciding to remove or reuse it.
- A trail bridge should support 6.25 tons. Information about the load-bearing capacity of bridges can be found in the American Association of State Highways and Transportation Officials (AASHTO) Standard Specifications for Highway Bridges.
- There are many options in terms of high quality, prefabricated pedestrian bridges available. Prefabricated bridges are recommended because of their relative low cost, minimal disturbance to the project site, and usually, simple installation.
- All abutment design should be sealed by a qualified structural engineer and all relevant permits should be filed.



### Trail Overpass

Trail overpasses are most often used to provide trail access over large man-made features such as highways and railroads.

- Overpasses work best when existing topography allows for smooth transitions.
- Safety should be the primary consideration in bridge/overpass design.
- Specific design and construction specifications will vary for each bridge and can be determined only after all site-specific criteria are known.
- Always consult a structural engineer before completing bridge design plans, before making alterations or additions to an existing bridge, and prior to installing a new bridge.
- A ‘signature’ bridge should be considered in areas of high visibility, such as over major roadways. While often more expensive, a more artistic overpass will draw more attention to the trail system in general, and could serve as a regional landmark.
- For shared-use facilities, a minimum width of 14’ is recommended.
- Trail overpasses are prohibitively expensive and should only be placed in areas of substantial need.

### “Vehicular” Bridges And Underpasses

All new or replacement bridges and tunnels should accommodate pedestrians and bicyclists. Even though bridge replacements do not occur regularly, it is important to consider these in longer-term pedestrian planning.

- Sidewalks should be included on roadway bridges on both sides, minimum 5’ wide, with minimum handrail height of 42"
- Sufficient bridge deck width should be provided on new bridges, including approaches, to accommodate bicyclists
- In roadway underpasses, where vertical clearance allows, the pedestrian walkway should be separated from the roadway by more than a standard curb height.
- On bridges built for controlled access roadways, a separated, multi-use sidepath should be provided, minimum 12’ wide, with connections made to bike/ped facilities on both sides of the bridge.



### Trail Underpass

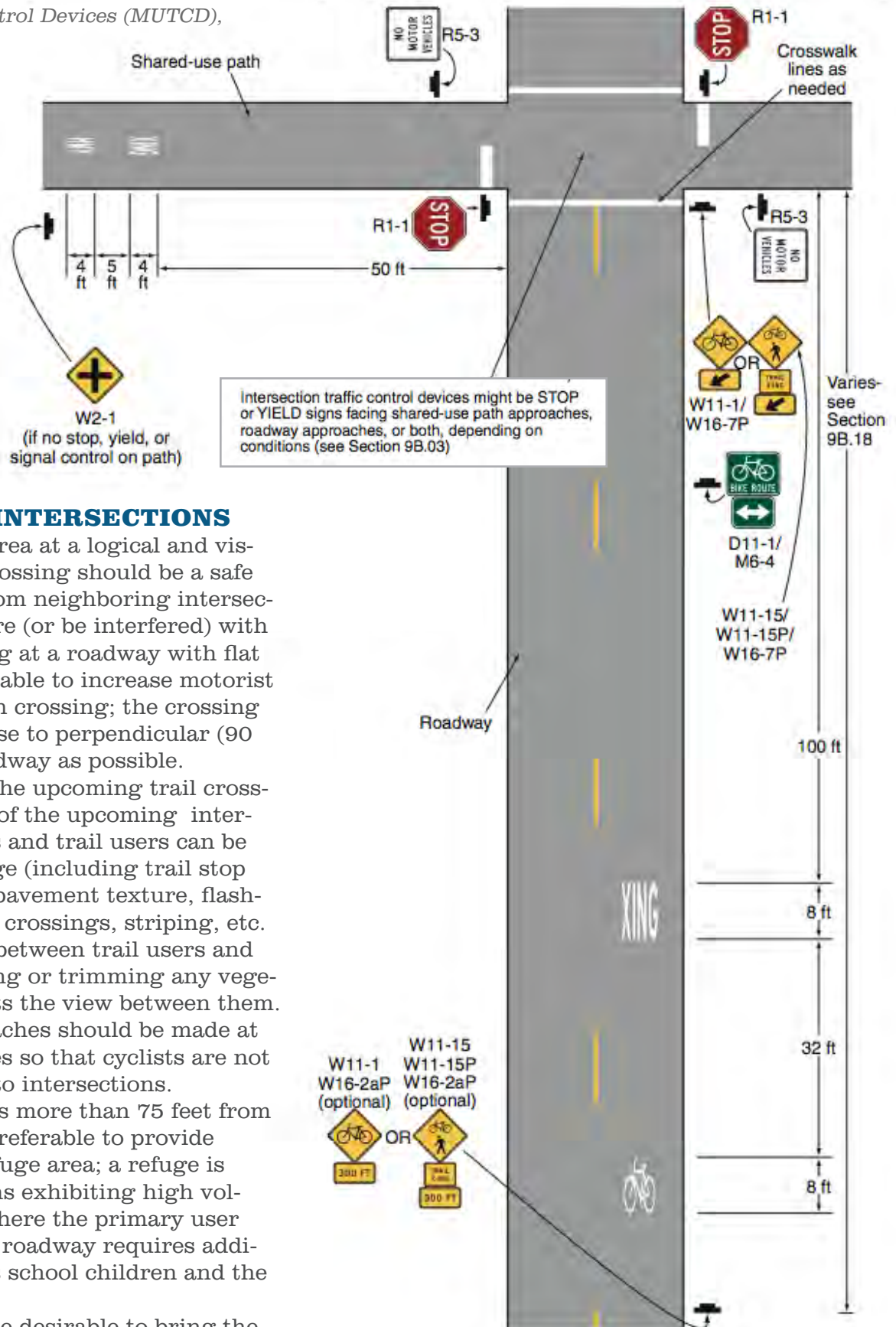
- Over and underpasses should be considered only for crossing arterials with greater than 20,000 vehicle trips per day and speeds 35 - 40 mph and over.
- Underpasses work best with favorable topography when they are open and accessible, and exhibit a sense of safety.
- Underpasses should have a daytime illuminance minimum of 10 fc achievable through artificial and/or natural light provided through an open gap to sky between the two sets of highway lanes, and a night time level of 4 foot-candle.
- Typically utilize existing overhead roadway bridges adjacent to streams or culverts under the roadway that are large enough to accommodate trail users
- Vertical clearance of the underpass is ideally at least 10'; minimum clearance is 8'.
- Width of the underpass is ideally at least 12'; minimum width is 10'.
- Proper drainage must be established to avoid pooling of stormwater, however, some underpasses can be designed to flood periodically (after significant rainfall, for instance). See image below, at top right, as an example).



*Curb-cut used for drainage.*



The diagram on this page is from the 2009 Manual on Urban Traffic Control Devices (MUTCD), page 803, Figure 9B-7.



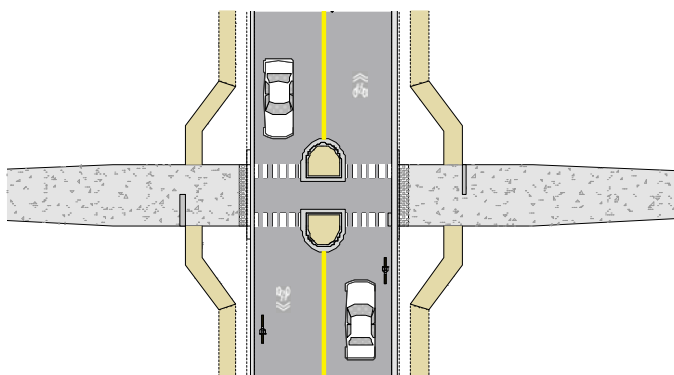
## TRAIL-ROADWAY INTERSECTIONS

- Site the crossing area at a logical and visible location; the crossing should be a safe enough distance from neighboring intersections to not interfere (or be interfered) with traffic flow; crossing at a roadway with flat topography is desirable to increase motorist visibility of the path crossing; the crossing should occur as close to perpendicular (90 degrees) to the roadway as possible.
- Warn motorists of the upcoming trail crossing and trail users of the upcoming intersections; motorists and trail users can be warned with signage (including trail stop signs), changes in pavement texture, flashing beacons, raised crossings, striping, etc.
- Maintain visibility between trail users and motorists by clearing or trimming any vegetation that obstructs the view between them.
- Intersection approaches should be made at relatively flat grades so that cyclists are not riding down hill into intersections.
- If the intersection is more than 75 feet from curb to curb, it is preferable to provide a center median refuge area; a refuge is needed in conditions exhibiting high volumes/speeds and where the primary user group crossing the roadway requires additional time, such as school children and the elderly.
- If possible, it may be desirable to bring the path crossing up to a nearby signalized crossing in situations with high speeds/ADT and design and/or physical constraints.

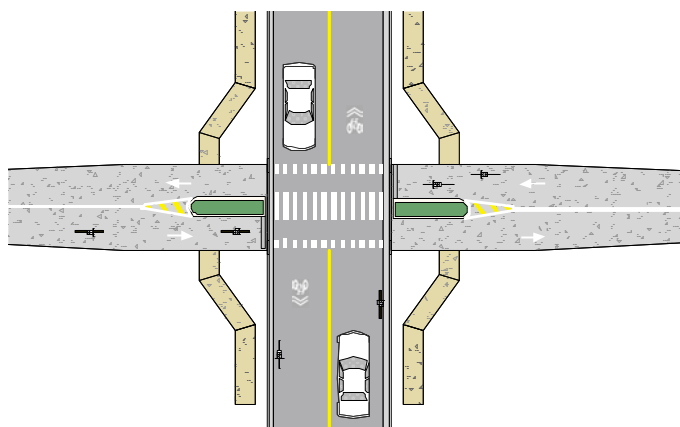
## TRAIL-ROADWAY INTERSECTIONS (CONTINUED)

Also see page A-16 for information on *High Intensity Activated Crosswalks (HAWK)* and *Rectangular Rapid Flashing Beacons (RRFB)*.

*Median Refuge*  
*Shared Use Path with Sidewalks*



*Mid-block Crossing*  
*Shared Use Path with Sidewalks and Medians*



## RAILROAD CROSSINGS

Railroad crossings are particularly hazardous to those who rely on wheeled devices for mobility (railroad crossings have flangeway gaps that allow passage of the wheels of the train, but also have the potential to catch wheelchair casters and bicycle tires). In addition, rails or ties that are not embedded in the travel surface create a tripping hazard. Recommendations:

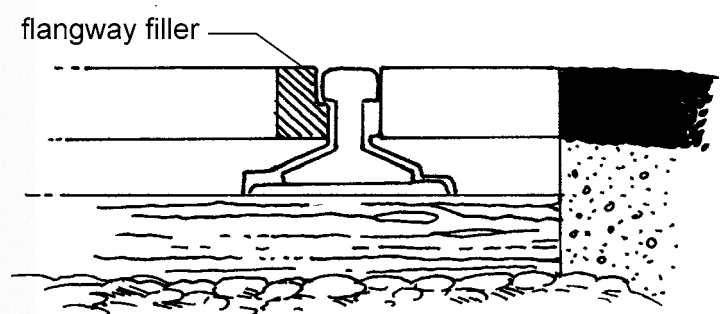
- **Make the Crossing Level:** Raise approaches to the tracks and the area between the tracks to the level of the top of the rail.
- **Bikes Should Cross RR at Right Angle**
- When bikeways or roadways cross railroad tracks at grade, the roadway should ideally be at a right angle to the rails. When the angle of the roadway to the rails is increasingly severe, the approach recommended by Caltrans (Highway Design Manual, Section 1003.6) and AASHTO (Guide for the Development of Bicycle Facilities, 1999, p.60) is to widen the approach roadway shoulder or bicycle facility, allowing bicycles to cross the tracks at a right angle without veering into the path of passing motor vehicle traffic.
- **Use Multiple Forms of Warning:** Provide railroad crossing information in multiple formats, including signs, flashing lights, and audible sounds.



- **Clear Debris Regularly:** Perform regular maintenance to clear debris from shoulder areas at railroad crossings.
- **Fill Flangeway with Rubberized Material or Concrete Slab:** Normal use of rail facilities causes buckling of paved-and-timbered rail crossings. Pavement buckling can be reduced or eliminated by filling the flangeway with rubberized material, concrete slab, or other treatments. A beneficial effect of this is a decrease in long-term maintenance costs.



*Installing a rubber surface rather than asphalt around railroad flangeways reduces changes in level and other maintenance problems.*



*The “flangeway filler” eliminates the gap in the path of travel for pedestrians crossing railroad tracks. The filler, consisting of a rubber insert, will deflect downward with the weight of a train and does not affect railway function.*

## TRAIL AMENITIES

### Benches

There are a wide variety of benches to choose from in terms of style and materials. The illustrated bench is a custom design that reflects the industrial feel of the warehouse district it is found in. Material selection should be based on the desired design theme as well as cost.

- Due to a wide range of users, all benches should have a back rest.
- A bench should normally be 16 - 20" above ground with sturdy handrails on either side.
- The seating depth should be 18-20" and the length should vary between 60 - 90".
- Provide wheelchair access alongside benches, at least a 30-by-48-inch area for adequate maneuvering. If benches are next to each other (either side by side or face to face), allow 4 feet between them.



### Other Seating

Other more informal seating opportunities may exist along a trail or near a parking area where other furniture like a picnic table may be appropriate.

- This type of furniture can be triangulated with cooking facilities, and a trash receptacle.
- Wheelchair access spacing recommendations, as noted in the preceding section on 'benches,' also applies to other seating.



### Trash Receptacles

Trash receptacles should be constructed of a suitable material to withstand the harsh elements of the outdoor environment. Adequate trash receptacles will combat littering and preserve the natural environment for all trail users.

- Trash receptacles should be placed along the trail and at all trailheads.
- Trash receptacles should ensure that litter is contained securely preventing contamination or spillage into the surrounding environment.



## Public Art on Trails

Explore opportunities to include public art within the overall design of the trail system. Local artists can be commissioned to provide art for the trail system, making it uniquely distinct. Many trail art installations are functional as well as aesthetic, as they may provide places to sit and play on. According to American Trails,

*“Art is one of the best ways to strengthen the connection between people and trails. Across America and elsewhere, artists are employing a remarkably wide range of creative strategies to support all phases of trail activities, from design and development to stewardship and interpretation. In particular, art can be an effective tool for telling a trail’s story compellingly and memorably.”*

Example art programs for trails can be found at: [www.americantrails.org/resources/art/Artful-Ways.html](http://www.americantrails.org/resources/art/Artful-Ways.html)



## Trail Heads

Major access points should be established near commercial developments and transportation nodes, making them highly accessible to the surrounding communities. Minor trailheads should be simple pedestrian and bicycle entrances at locally known spots, such as parks and residential developments.

A minor trailhead could include facilities such as parking, drinking fountains, benches, a bicycle rack, trash receptacles, and an information kiosk and/or signage. Major trailheads could include all of the above plus additional facilities, such as rest rooms, shelters, picnic areas, a fitness course, an emergency telephone, and a larger parking area.

Partnerships could also be sought with owners of existing parking lots near trails. Benefits are three fold: Business benefit from trail-user patronage; trail owners benefit from not having to buy more land and construct a parking facility; and the environment benefits from less development in the watershed.



*Air compressor (for bicycle tires).*



*A water fountain and pet-water fountain.*



*A major trail head at the Capital Crescent Trail in Maryland, featuring concessions and bicycle, canoe, and kayak rentals.*

**Trail Lighting**

Lighting for multi-use trails should be considered on a case-by-case basis in areas where 24-hour activity is expected (such as college campuses or downtown areas), with full consideration of the maintenance commitment lighting requires. In general, lighting is not appropriate for off-road trails where there is little to no development.

- A licensed or qualified lighting expert should be consulted before making any lighting design decisions. Doing so can reduce up-front fixed costs as well as long-term energy costs.
- Use full cut-off, energy-efficient lighting that is IDA Approved Dark Sky Friendly to avoid excess light pollution and save costs (See [www.darksky.org](http://www.darksky.org) for more info)
- If a main trail corridor is unlit and closes at dark, extended hours for commuters should be considered, particularly during winter months when trips to and from work are often made before sunrise and after dusk. See the American Tobacco Trail in Durham, NC, as an example, which is unlit and remains open to commuters until 10 PM.
- Consider lighting at the following locations:
  - Entrances and exits of bridges
  - Public gathering areas along the trail
  - Trail access points
- Only use lighting along a trail if:
  - Night usage is desired or permitted
  - It is acceptable to residents living along or near the trail
  - The area is not a wildlife area

**Roadway Lighting**

Proper lighting in terms of quality, placement, and sufficiency can greatly enhance a nighttime urban experience as well as create a safe environment for motorists and pedestrians. Two-thirds of all pedestrian fatalities occur during low-light conditions (AASHTO, 2004: Guide for the Planning, Design, and Operation of Pedestrian Facilities). Attention should be paid to crossings so that there is sufficient ambience for motorists to see pedestrians. To be most effective, lighting should be consistently and adequately spaced.

In commercial or downtown areas and other areas of high pedestrian volumes, lower level, pedestrian-scale lighting with emphasis on crossings and intersections may be employed to generate a desired ambience. Roadway streetlights can range from 20-40 feet in height while pedestrian-scale lighting is typically 10-15 feet. It is important to note that every effort should be made to address and prevent light pollution. Also known as photo pollution, light pollution is 'excess or obtrusive light created by humans'.

- Ensure pedestrian walkways and crossways are sufficiently lit.
- Consider adding pedestrian-level lighting in areas of higher pedestrian volumes, downtown, and at key intersections.
- Install lighting on both sides of streets in commercial districts.
- Use uniform lighting levels
- As also noted above, use full cut-off, energy-efficient lighting that is International Dark-Sky Association (IDA) Approved Dark Sky Friendly to avoid excess light pollution and save costs (See [www.darksky.org](http://www.darksky.org) for more info)

## SIGNAGE AND WAYFINDING

A comprehensive system of signage ensures that information is provided regarding the safe and appropriate use of all trails, both on-road and off-road. The City of Rocky Mount Trail System should be signed seamlessly with other alternative transportation routes, such as bicycle routes from neighboring jurisdictions, trails, historic and/or cultural walking tours, and wherever possible, local transit systems. Signage is divided into several categories: Network signs, wayfinding signs, regulatory signs, warning signs, and educational/interpretive signs

Trail signage should conform to the (2001) Manual on Uniform Traffic Control Devices and the American Association of State Highway Transportation Official Guide for the Development of Bicycle Facilities. Trail signage should also be coordinated with local and regional networks.

### Network Signs

A standardized trail network logo should be developed and used to aid in reinforcing the trail's identity. Additionally, local trail logos should compliment the trail system signage.

- Network signage should be simple, direct, and easy to identify.
- A skilled graphic designer should be consulted when generating the design for the trail logo.
- Be consistent with the logo throughout the trail network by using it as a stand alone sign, on other signage, or incorporating it

into trail furnishings, such as benches or waste receptacles.

- Locate directional signs at intervals along the trail to help users identify their locations or orient their position.
- Locate mile markers 3-feet from the edge of the trail and approximately one mile intervals beginning at the original and terminal ends of the trail network.

### Wayfinding Signs and Kiosks

Kiosks are a great facility for directional signage by providing a wealth of information at once, including trail opportunities, regional maps, or local/seasonal events occurring along the greenway. Locate informative signs and overall trail maps at trail access points to help users entering the trail determine their next destination.

### Regulatory/Warning Signs

Located throughout the trail system, these signs inform trail users of rules and regulations along the trail, hours of trail operation, upcoming street and trail crossings and other potential hazards such as trail width changes.

- Post trail rules and regulations as well as hours of operation at trail heads or in kiosks.
- Locate warning signs appropriately ahead of the specific hazards to which they refer, such as road crossings, steep terrain, trail narrowing, and stop signs.
- All signage should conform to the Manual on Uniform Traffic Control Devices (MUTCD).



**Examples of Bike/Ped/Trail-related warning signs** (from the 2009 MUTCD)



**Educational/Interpretive Signage**

Educational signage provides trail users with information about the greenway, native flora and fauna, history and culture, and significance of elements along the trail.

- There is a wide variety of interpretive signage styles and the amount/type of information they provide.
- Consider the character of the trail and surrounding elements when designing educational signage.
- A skilled graphic designer should be used for sign design.
- Locate interpretive signage 3-feet from the edge of the trail



Educational signage provides opportunities for gathering and learning about local environment.

# APPENDIX B: PROGRAMS



## OVERVIEW

Meeting the goals of the City of Rocky Mount's Comprehensive Pedestrian Plan will require more than construction and installation of recommended pedestrian facilities. A comprehensive approach is necessary to create a pedestrian-friendly community. The approach must focus on overall livability and walkability in all planning decisions involving land use, growth, and transportation. Programs that encourage walking, educate about safety, and enforce safe behavior are also key components. It will require the initiation and continued support of these pedestrian-related programs from local officials, local residents, and community organizations. This appendix features current programs and programming recommendations for the City of Rocky Mount to meet the needs of pedestrians that cannot be met through facility construction alone.

## CURRENT PROGRAMS & PROGRAM RESOURCES

### Hot Feet in Action

"Hot Feet in Action" is a walking program that assists students in the development of positive fitness habits and healthy living habits. The Hot Feet in Action program raises the understanding and awareness of childhood obesity trend. To participate in the event, students must walk at least 100 miles during the school calendar months (between August and April). The Hot Feet in Action program began in 2007 and each year the number of students participating more than doubles.

### Martin Luther King Jr. Park Walkers

"MLK Walkers" is a community based walking group that meets on the fourth Thursday of every month at 8:00am in Martin Luther King Jr. Park and walks the trails of the park.

### Rocky Mount Endurance Club

The "Rocky Mount Endurance Club" promotes and encourages long distance running and the education of the public to its benefits. Other objectives include engaging in community activities, and publicizing the benefits of long distance running as a means of physical fitness.

### YMCA Nooners

The "Nooners" is a community based running group that meets every day at Noon and runs a variety of distances around Rocky Mount.

### Bikes to Ride

The Rocky Mount Senior Center offers bikes to seniors who would like to ride on the walking trail located across from the senior center.

### Chase of Champions

Every spring, more than 700 athletes participate in one of the region's most popular road races, the "Chase of Champions", with runners coming from a number of surrounding states as well as throughout the Carolinas. The race has both a 5K and 10K run for adults and shorter races for children.

### **Historic Walking Tours**

New additions to the Rocky Mount event calendar include a historic walking tour of the Douglas Block, and a bus tour of the City's six nationally recognized historic districts. The historic tours program is still in its infancy, more information can be obtained at the Booker T. Theatre.

### **Down East Partnership for Children**

The "Down East Partnership for Children" (DEPC) is committed to launching every child as a healthy, lifelong learner by the end of the 3rd grade. DEPC has developed a Model of Services for children 0-8 that promotes and creates Ready Kids, Ready Families, Ready Schools, and Ready Communities. The "ready communities" initiative advocates for and builds systems that support the healthy growth and development of all children.

## **PROGRAM RECOMMENDATIONS AND RESOURCES**

Pedestrian-related programs fall into three main categories: education, encouragement, and enforcement. The programs listed in this chapter are provided to demonstrate the variety of opportunities available for promoting walking and active lifestyles in Rocky Mount. The City should work closely with local volunteers and community organizations to implement events and activities, research new program ideas, and improve upon existing programs.

### **EDUCATION**

Rocky Mount should build on its existing programs by continuing to develop a variety of safety materials and distribute them widely throughout the community. Educational materials focus on safe behaviors, rules, and responsibilities. Information may include bulleted keys for safe pedestrian travel and habits, safe motor vehicle operation around pedestrians, and general facility rules and regulations. This safety information is often available for download from national pedestrian advocacy organizations, such as the Pedestrian and Bicycle Information Center website, [www.pedbikeinfo.org](http://www.pedbikeinfo.org).

Information can be distributed through brochures, newsletters, newspapers, bumper stickers, and other print media that can be inserted into routine mailings. It can also be posted on municipal websites and shown on local cable access television.

Local programs such as walk to work day, walking school bus demonstrations, and summer camps can be organized by the City and can be utilized to distribute information using a booth to display related print media. Brown-bag events and clinics are also excellent means to provide education, especially for adults. Local events, such as Downtown Live, should be utilized to distribute information using a booth to display related print media.

### **Bicycle And Pedestrian Advocacy Group**

The City of Rocky Mount should support the creation of a local bicycle and pedestrian advocacy group. Even though this is a pedestrian plan, the needs and objectives of bicycle and pedestrian advocates are closely related, and stand to benefit mutually from their combined efforts. Local advocacy groups are beneficial resources for promoting safety, providing feedback on opportunities and obstacles within the bicycle and pedestrian system, and coordinating events and outreach campaigns (such as the programs outlined throughout this section). Advocacy groups also play a critical role in encouraging and evaluating the progress of overall plan implementation.

### **Internal Education**

'Internal' education refers to the training of all people who are involved in the actual implementation of the Pedestrian Plan. Internal training will be essential to institutionalizing pedestrian issues into the everyday operations of engineering, planning, and parks and recreation departments. Key City staff, members of the local planning board, MPO, NCDOT Division 4 staff, and Nash and Edgecombe County staffs should all be included in training sessions whenever possible. This training should cover all aspects of the transportation and development process, including planning, design, development review, construction, and maintenance. This type of 'inreach' can be in the form of brown bag lunches, professional certification programs and attendance at special sessions or conferences. Even simple meetings to go over the Pedestrian Plan and communicate its strategies and objectives can prove useful for staff and newly elected officials that may not have otherwise learned about the plan. Guidance and materials for internal education methods is available from the NCDOT Bicycle and Pedestrian Division and the Institute for Transportation Research and Education (ITRE).

Below are several training course examples:

[www.michaelronkin.com/courses](http://www.michaelronkin.com/courses)

[www.pps.org/training/custom-tailored-training/](http://www.pps.org/training/custom-tailored-training/)

[www.fhwa.dot.gov/context/trainingguide/ExistingClasses.htm](http://www.fhwa.dot.gov/context/trainingguide/ExistingClasses.htm)

### Coordinated Campaigns

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

### Adult Education

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

- Parent courses for Walking School Buses
- Walkability workshops
- Crossing guard programs
- Pedestrian ambassador programs
- Brown bag events and clinics
- Motorist education
- Educational devices (campaigns, billboards, postcards, local television)

### Weblinks & Resources

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

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

[www.pedbikeinfo.org](http://www.pedbikeinfo.org) (Pedestrian and Bicycle Information Center)

[www.bicyclinginfo.org](http://www.bicyclinginfo.org) (Pedestrian and Bicycle Information Center)

[www.bikewalk.org/workshops](http://www.bikewalk.org/workshops) (National Center for Bicycling and Walking)

[www.saferoutesinfo.org](http://www.saferoutesinfo.org) (Safe Routes to School)

[www.activelivingresources.org/stories\\_directory.php](http://www.activelivingresources.org/stories_directory.php) (Active Living Resource Center)

[www.active-living.org](http://www.active-living.org) (Spartanburg, SC - Partners for Active Living)

[www.campo-nc.us/BPSG/BPSG\\_Home.htm](http://www.campo-nc.us/BPSG/BPSG_Home.htm) (Capital Area MPO)

[www.smartcommutechallenge.org](http://www.smartcommutechallenge.org) (Triangle Area - Smart Commute Challenge)

[www.usa.safekids.org](http://www.usa.safekids.org) (Safe Kids Worldwide)

[www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com) (Eat Smart, Move More)

[www.worldcarfree.net](http://www.worldcarfree.net) (Worldcarfree)

[www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html](http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html)

(National Highway Traffic Safety Administration: Resource Guide on Laws Related to Pedestrian and Bicycle Safety)

### Environmental and Historic Education/ Interpretation

Educational programs and interpretative signage could be developed along future trails and pedestrian routes. Trails provide opportunities for learning outside the classroom. Specific programs that focus on water quality and animal habitat are popular examples. Events such as learning walks about specific animals or insects, tree identification, wildflower walks, environmental issues, stewardship education, and sustainability could be led by area experts. Also, simple educational signage would offer interactive learning opportunities for people who use the trail.

### **Interpretive Trails/guided Tours**

An educational component to the pedestrian network could be added by developing historical, cultural, and environmental themes for the facilities. This idea can be adapted to create walking tours throughout City, using signage to identify the events, architecture, and culture that make the City of Rocky Mount unique, such as the historic features of any of the six historic districts that are listed on the National Registry of Historic Places. These tours should be simple to navigate and should stand alone as an amenity. However, brochures can be used to supplement signage with more detailed information and a map of the tour. Other ideas to supplement the signage could be organized “talks” or lectures by local experts.

### **EDUCATION RESOURCES**

America Walks is a national coalition of local advocacy groups dedicated to promoting walkable communities. Their mission is to foster the development of community-based pedestrian advocacy groups, to educate the public about the benefits of walking, and, when appropriate, to act as a collective voice for walking advocates. They provide a support network for local pedestrian advocacy groups. <http://americawalks.org>

**Safe Communities** is a project of the National Highway Traffic Safety Administration (NHTSA). Nine agencies within the U.S. Department of Transportation are working together to promote and implement a safer national transportation system by combining the best injury prevention practices into the Safe Communities approach to serve as a model throughout the nation. <http://www.nhtsa.dot.gov/safecommunities>

**Speed Campaign Tool Kit.** The intent of this National Highway Traffic Safety Administration (NHTSA) tool kit is to provide marketing materials, earned media tools, and marketing ideas for communities to distribute to fit local needs and objectives while at the same time partnering with other states, communities, and organizations all across the country on a speed management program. It includes messaging and templates you may choose from to support your speed management initiatives. Free TV and radio materials, posters, billboards, and other media materials can be downloaded

here: <http://www.nhtsa.gov/speed/toolkit/index.cfm>.

**Stepping Out** is an online resource for mature adults to learn about ways to be healthy by walking more often, and walking safely. [www.nhtsa.dot.gov/people/injury/olddrive/SteppingOut/index.html](http://www.nhtsa.dot.gov/people/injury/olddrive/SteppingOut/index.html)

**‘Pedestrian Fatalities Related to School Travel’** is a fact sheet pertaining to school age children (NHTSA). <http://www.nhtsa.gov/gtss/kit/pedestrian.html>

**Safe Kids Worldwide** is a global network of organizations whose mission is to prevent accidental childhood injury, a leading killer of children 14 and under. More than 450 coalitions in 15 countries bring together health and safety experts, educators, corporations, foundations, governments and volunteers to educate and protect families. Visit their website to receive information about programs, involving media events, device distribution and hands-on educational activities for kids and their families. <http://www.safekids.org/>

**Rules of the Road for Grandchildren: Safety Tips** is an information website for grand parenting. If you are a grandparent, you can play an important role in teaching your grandchildren the “rules of the road.” AARP. <http://www.aarp.org/confacts/grandparents/rulesroad.html>

**‘Streets in America are Unsafe and Unforgiving for Kids’.** Article by the Pedestrian Safety Roadshow. U.S. Department of Transportation. Federal Highway Administration. <http://www.tfhr.gov/safety/pedbike/articles/unsafe.htm>

**‘Focusing on the Child Pedestrian.’** Pedestrian information related to children from the FHWA. <http://safety.fhwa.dot.gov/road-user/pdf/PedFacts.pdf>

**Eat Smart, Move More** is a statewide movement that promotes increased opportunities for healthy eating and physical activity wherever people live, learn, earn, play and pray.

<http://www.eatsmartmovemorenc.com/>

**NCDOT Division of Bicycle and Pedestrian Transportation** provides significant information related to pedestrian programming.

<http://www.ncdot.org/transit/bicycle/>

## ENCOURAGEMENT

### School Programs

Many programs focus on developing safer pedestrian facilities around schools. Programs can be adopted by parents and schools to provide initiatives for walking.

Community leaders, parents and schools across the U.S. are using Safe Routes to School programs to encourage and enable more children to safely walk and bike to school. The National Center for Safe Routes to School aims to assist these communities in developing successful Safe Routes programs and strategies. The Center offers a centralized resource of information on how to start and sustain a Safe Routes to School program, case studies of successful programs as well as many other resources for training and technical assistance. For more information on Safe Routes to School, refer to the 'Encouragement Resources' section on page B-6.

### Awareness Days/Events

A specific day of the year can be devoted to a theme to raise awareness and celebrate issues relating to that theme. A greenway and its amenities can serve as a venue for events that will put the greenway on display for the community. Major holidays, such as July 4th, and popular local events serve as excellent opportunities to include pedestrian information distribution. The following are examples of other national events that can be used to increase the use of pedestrian facilities:

### Walk To Work Day/International

#### Car Free Day (September 22)

Designate one day a year for people to walk to work to help advance programs, promote active living, and raise awareness for environmental issues. Walk to Work Day can be at the end of an entire week or month of pedestrian promotional activities, including fitness expos, walking and jogging group activities, running and bicycling races and rides, etc.

#### “Strive Not To Drive Day”

This event example, from the Town of Black Mountain, NC, is an annual event to celebrate and promote the Town's pedestrian achievements for the year throughout their region. Awards for pedestrian commuters, as well as booths, contests, and other events are organized through their local MPO Bicycle and Pedestrian Task Force and the Land-of-Sky Regional Council. A similar event could be held in Rocky Mount, as the Pedestrian Plan is implemented.

### International Walk To School Month

This month-long event is held each October. It gives children, parents, teachers, and community leaders the opportunity to be part of a global event. For more information, visit [www.iwalktoschool.org](http://www.iwalktoschool.org).

### National Trails Day

This event is held every year in June. Other events, competitions, races, and tours can be held simultaneously to promote the City of Rocky Mount Trail System.

### Earth Day

Earth Day is April 22nd every year and offers an opportunity to focus on helping the environment. Efforts can be made to encourage people to help the environment by walking to destinations and staying out of their vehicles. This provides an excellent opportunity to educate people of all ages.

### Use Facilities To Promote Other Causes

Pedestrian facilities, especially trails, could be used for events that promote other causes, such as health awareness. Not only does the event raise money/publicity for a specific cause, but it encourages and promotes healthy living and an active lifestyle, while raising awareness for

pedestrian activities. Non-profit organizations such as the American Cancer Society, American Heart Association, and the Red Cross sponsor events such as Breast Cancer Walk, Diabetes Walk, etc.

### **Pedestrian Activities/ Promotion Within Local Organizations**

The City of Rocky Mount has numerous organizations that could help to promote pedestrian activities (e.g. the local Chamber of Commerce, local schools/PTAs, etc). Education, enforcement, and encouragement programs can be advertised and discussed in local organization newsletters, seminars, and meetings. Such organizations could even organize their own group walks, trail clean-ups, and other activities listed in this section.

### **Art In The Landscape**

The inclusion of art along pedestrian corridors and future trails would encourage use of facilities and provide a place for artwork and healthy expression to occur. Artwork could be displayed in a variety of ways and through an assortment of materials. Sculpture gardens could be arranged as an outdoor museum. Art through movement and expression could be displayed during certain hours during the day or during seasonal events. An “Art Walk” could be established as an event featuring destinations throughout the City that display local art. Artwork can be provided by local schools, special interest clubs and organizations, or donated in honor or memory of someone.

### **Walking/running Clubs**

Neighborhoods, local groups, or businesses could promote walking or running clubs for local residents or employees to meet at a designated area and exercise on certain days before or after work, during lunch breaks, or anytime that works for the group. This informal group could be advertised on local bulletin or information boards. These clubs could be specialized to attract different interest groups. Examples include:

- Relay for Life (American Cancer Society support)
- Mother’s Morning Club (mom’s with strollers)
- Walking Wednesdays (senior groups)
- Lunch Bunch (workers who run during their lunch hour)

### **Adopt-a-trail**

Local clubs and organizations provide great volunteer services for maintaining and patrolling trails. This idea could be extended to follow tour routes or specified streets/sidewalks. A sign to recognize the club or organization could be posted as an incentive to sustain high quality volunteer service. The Boy Scouts of America serve as a good model for participation in this type of program.

### **Revenue Generating Events**

The City of Rocky Mount should consider holding events that can help fund future facilities. Program and event ideas that could be used to generate revenue in Rocky Mount include:

- Races/triathlons (fees and/or donations)
- Educational walks/Nature walks/Historic walks (fees and/or donations)
- Fund-raisers including dinners/galas
- Concerts (fees and/or donations)
- Events coincident with other local events such as fairs, festivals, historic/folk events, etc.

## **ENCOURAGEMENT RESOURCES**

Safe Routes to School is a national program with \$612 million dedicated from Congress from 2005 to 2009. Local Safe Routes to School programs are sustained by parents, community leaders, and citizens to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. Recently, the state of North Carolina has started the NC Safe Routes to School Program based off of the national program. The state has funding for infrastructure improvements within 2 miles of schools. This funding can also be used towards the development of school related programs to improve safety and walkability initiatives. The state requires the completion of a competitive application to apply for funding and a workshop at the school to determine what improvements are needed. <http://www.saferoutesinfo.org>

National Walk our Children to School Day is usually held in October with the objective to encourage adults to teach children to practice safe pedestrian behavior, to identify safe routes to school, and to remind everyone of the health benefits of walking. To register walking events in Rocky Mount, go to the main webpage, and

follow the International Walk to School links: [www.walktoschool-usa.org](http://www.walktoschool-usa.org)

Walk a Child to School in North Carolina. A growing number of community groups throughout the nation, such as health professionals, 'Smart Growth' advocates, traffic safety groups, local PTAs, and elected officials, are promoting walking to school initiatives. In North Carolina, Walk a Child to School Programs have gained a foothold and are growing each year. To date more than 5,000 students in 12 communities in the state have participated. <http://www.walktoschool.org>

'Preventing Pedestrian Crashes: Preschool/Elementary School Children' provides information to parents on pedestrian risks for preschool and elementary school children. Information about the Safe and Sober Campaign is available on the NHTSA website. [www.nhtsa.dot.gov/people/outreach/safesobr/15qp/web/sbprevent.html](http://www.nhtsa.dot.gov/people/outreach/safesobr/15qp/web/sbprevent.html)

Kids walk-to-School is a resource guide to help communities develop and implement a year-long walk-to-school initiative; sponsored by the Centers for Disease Control and Prevention. <http://www.cdc.gov/nccdphp/dnpa/kidswalk/>

## ENFORCEMENT

### Motorist Enforcement

Based on crash data analysis and observed patterns of behavior, local police can use targeted enforcement to focus on key issues such as motorists speeding, not yielding to pedestrians in crosswalks, parking on sidewalks, etc. Sidewalk parking, for example, is often not enforced but should be in order to maintain pedestrian accessibility, avoid maintenance issues, and comply with local ordinances. All of these key issues should be targeted and enforced consistently. The goal is for pedestrians and motorists to recognize and respect each other's rights on the roadway.

The NCDOT Division of Bicycle and Pedestrian Transportation funded a study on pedestrian issues, including school zone safety, and decided to establish a consistent training program for law enforcement officers responsible for school crossing guards. According to the office of the North Carolina Attorney General, school crossing guards may be considered

traffic control officers when proper training is provided as specified in GS20-114.1.

### Pedestrian Enforcement

Observations made by local trail and pedestrian facility users can help to identify conflicts or issues that require attention. To maintain proper use of trail facilities, volunteers could patrol trails, particularly on the most popular trails and on days of heavy use. The volunteer patrol can report suspicious or unlawful activity, as well as answer any questions a trail user may have. The volunteer patrol could be a responsibility of a pedestrian advocacy group or a neighborhood crime watch group.

## ENFORCEMENT RESOURCES

NCDOT School Crossing Guard Program  
[http://www.ncdot.org/transit/bicycle/safety/programs\\_initiatives/crossing.html](http://www.ncdot.org/transit/bicycle/safety/programs_initiatives/crossing.html)

NCDOT's A Guide to North Carolina Bicycle and Pedestrian Laws. For an online resource guide on laws related to pedestrian and bicycle safety (provided by the National Highway Traffic Safety Administration), visit [www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html](http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html)

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# APPENDIX C: POLICIES



## OVERVIEW

This chapter serves as a reference point for local, state, and federal policies that relate to pedestrian transportation. First, a review of the local code of ordinances is provided along with comments for consideration. This is followed by key state and federal policies that relate to pedestrian planning and infrastructure.

## CODE OF ORDINANCES REVIEW

Application of the Code of Ordinances affects three very important areas for pedestrian facilities in the City: design, operation and maintenance. A comprehensive well-designed and usable pedestrian network needs attention to all three of these areas. The current Code could be strengthened overall to address the following issues in relation to a pedestrian network:

- Creating a safe, accessible and continuous system for pedestrians of all ages and abilities
- Stressing pedestrian connectivity as a distinct design concept separate from motorized traffic provisions
- Emphasizing that pedestrian facilities need to be available at all times and that accessible and convenient alternatives need to be provided during disruptions
- Preventing and discouraging others from temporarily or carelessly blocking, damaging or impinging on walking facilities and access
- Keeping the facilities in top shape for usability and not allowing careless misuse (e.g. not restoring fully or to the same standard, allowing heavy vehicles to drive on facility and cause damage, etc.)
- Clarifying that pedestrian facilities include curb ramps, street crossings and driveway crossings in addition to sidewalks so all of the principles about blocking, damaging, and access apply to all of the elements of the facility.

The pedestrian network is an important part of the transportation system for the City and the following issues are of particular note in the Code:

**Definitions:** Definitions for sidewalk and street are included at the start of the code and some additional definitions are scattered later through the Code. However, this list of definitions could be expanded to include a number of other definitions to clarify and strengthen pedestrian comments and requirements. Suggestions include: pedestrian, cross-walk, mid-block crossing, sight distance and ADA. It is recommended to use the definitions that are included in the current MUTCD as this standardizes the understanding of these words and the concept of pedestrians and the facilities. The key definition is that of ‘pedestrian’ as this clarifies that not all pedestrians are travel-

ling on foot which greatly expands what needs to be considered in many situations. This expanded definition also clarifies the need to provide and maintain access in different types of scenarios.

**Requiring Sidewalk on both Sides of Streets:** When sidewalk is only provided along one side of the street, it is an incomplete facility that particularly impacts pedestrians with limited mobility. Those users can be greatly inconvenienced in their routes or even cut off altogether due to the lack of facilities on one side. These are the pedestrians who most likely not to have other transportation alternatives and least able to go roundabout routes to their destinations.

**Driveways:** Crossing driveways can create problems for pedestrians both in terms of safety from the vehicles turning in and out as well as the physical difficulties that come from crossing driveways with steep slopes. There was little reference in the Code to driveway grading and cross slopes and designing to prevent problems for users, particularly those using wheelchairs. In addition, the concept of limiting and controlling the number of driveways can create a lot of safety benefits for pedestrians

**Intersections and Crossings:** This is a particularly important topic that needs to be brought out more as it is at intersections and crosswalks that most of the serious safety issues occur and it is important to preserve and protect the safety of pedestrians at crosswalks in particular. In addition, difficulties and concerns regarding crossings influence pedestrians in their choice of whether or not to walk. The Code could be strengthened in several areas to emphasize that crosswalks should not be physically or visually obstructed at any time to protect and preserve the safety of pedestrians.

**Impact of Obstructions and Excavation on Pedestrians:** If an obstruction or excavation is unavoidable, the idea needs to be introduced that an alternative must be provided for the duration that accommodates all pedestrians. Emphasizing careful planning to minimize unsafe conditions and disruption is an important element of having a reliable pedestrian system and of ensuring that those who depend on walking are well-served.

**Community Health:** There are opportunities in the Code to introduce the idea of walking being a healthy activity that should be facilitated and brings many benefits to the community. While safety as a concept is already embedded in the Code, this brings the idea a step further.

**Connectivity and Shortcuts:** There are many opportunities to facilitate connectivity that can have a real impact on the walkability of a community. The Code does not seem to be written to emphasize walking to places of work or walking to commercial and community destinations. Providing and ensuring pedestrian connections to schools, transit, and such community facilities as libraries and City offices are very important in creating a complete and useful pedestrian network.

**Sight distance:** The ability to see and be seen is very important to safe walking in the community. The sight distance standards in Chapter 7 of the Code provide a very good basis and need to be applied in all situations such as in relation to landscaping and sign locations.

The general issues above provide guidance for overall items to be addressed in the Code of Ordinances for pedestrians. The following table provides more detailed comments about specific sections of the code. Text in red shows suggested code revisions, for consideration by local policy makers.

**TABLE C1: CODE OF ORDINANCES REVIEW**

Article	Contents & revisions	Comments
Sec. 1-2. - Definitions and rules of construction	<i>Sidewalk.</i> The word “sidewalk” shall mean any portion of a street between the curblin and the adjacent property line, intended for the use of pedestrians. Suggest use updated MUTCD definition: <b>Sidewalk - That portion of a street between the curb line or the lateral line of a roadway, and the adjacent property line or on easements of private property that is paved or improved and intended for use by pedestrians.</b>	This updated definitions cover more scenarios when dealing with providing pedestrain facilities and existing sidewalks. Many sidewalks have short or sometimes lengthy portions that ‘stray’ from the ROW.
Sec. 1-2. - Definitions and rules of construction	<i>Street.</i> The word “street” shall mean and include any public way, road, highway, street, avenue, boulevard, parkway, alley, lane, path, viaduct, bridge or other public place and the approaches thereto within the city when any part thereof is open to the use of the public and established for purposes of vehicular traffic.	Suggest expanding this definition -- the current definition of the sidewalk states that it is ‘any portion of a street’ so that establishes that the street is for more than ‘vehicular traffic’ as this definition states. MUTCD definition:
Sec. 1-2. - Definitions and rules of construction	Suggest additional definitions from MUTCD: Pedestrian -- A person on foot, in a wheelchair, on skates, or on a skateboard	Pedestrian’ is the most obvious definition that could be added but there are additional suggestions in the text summary also
Sec. 15-1. - Vehicles on public grounds	It shall be unlawful for any person to drive or to park any vehicle on any part of any park, athletic field, school ground, <b>sidewalk, trail</b> or other public lands within the city except upon the driveways therein or in the areas designated as parking spaces.	Although possibly already implied in the definition, it is worthwhile being more explicit on the issue that motorized vehicles should not block facilities that are intended for pedestrians.
Sec. 19-1. - Consumption and possession of malt beverages and unfortified wine	(3) Public street shall mean any highway, road, street, avenue, boulevard, alley, bridge, or other way within and/or under the control of the city and open to public use, including the sidewalks of any such street.	Suggest that it might be better to have a single defintion of the word ‘street’, particularly one that is used nationally. There are so many colloquial terms for the word ‘street’ and so many understandings of what is or is not included in that term, that is useful to be very clear on the term.
Sec. 19-3. - Lights, barricades, and alternative access around obstructions and excavations	Any person who puts any obstruction on any street or sidewalk or who cuts any excavation on any street or sidewalk without properly protecting the same with lights and otherwise in accordance with section 19-37 shall be deemed guilty of a misdemeanor. <b>In addition, it is necessary to provide advance warning signs and alternative temporary convenient access for pedestrians for the duration of the obstruction.</b> Each day’s continuance without such protection, <b>signs and access</b> shall constitute a separate offense.	While this requirement seeks to protect pedestrians from the safety aspects of the excavation, it does not address the obstruction aspect: for pedestrians of limited mobility in particular an obstruction can be serious impedement or hardship. The additional wording puts the onus on the contractor to provide access. There may be additional concerns regarding pedestrians with visual impairments.
Sec. 19-5. - Depositing, storing material on streets, sidewalks	No person shall deposit any rubbish, building material, etc., on the streets and sidewalks so as to be dangerous <b>or block or impede access</b> to vehicle or pedestrian traffic. Storage of building materials on city property may be permitted during construction <b>as long as it does not block or impede pedestrian access</b> , but only after the necessary permit for construction has been obtained and the storage area approved by the director of public works or his authorized representative.	There should be no reason why pedestrians should be blocked by such activities. Again, it is the pedestrians with the mobility issues who are most impacted and inconvenienced by these activities.
Sec. 19-6. - Plants, fences, etc., within right-of-way	No person shall plant or cause to be planted any tree, shrubbery, hedge or similar planting within the right-of-way of any street or sidewalk within the city limits, nor place or erect, or cause to be placed or erected, any fence, wall, edifice or other construction within the same. This section shall not apply to any street or sidewalk not accepted and maintained by the city.	Reading this what is not clear is whether when any street or sidewalk that is not owned by the City is subsequently submitted, will the trees and signs that could be causing sight distance issues or obstructing the passage of pedestrians have to grandfathered in -- this issue may be addressed in another part of the Code.

Sec. 19-7. - Erection of poles, fixtures, etc., within right-of-way.	It shall be unlawful to .....Fences, lamp post, mailboxes, and similar structures made of wood, plastic, or lightweight metal and of a size, design, or type that will collapse upon impact with a motor vehicle, and trees, plants, and shrubs, provided they do not obstruct the view of intersections or the line of sight in horizontal curves, are permitted within the right-of-way of local residential streets without a license. Certain other existing heavy and permanent structures may be licensed for right-of-way use as provided in this Article.	It is of importance to keep the sidewalk as free and clear of obstacles as possible in order to allow and maintain access particularly for pedestrians of limited mobility. A poorly placed mailbox or pole could make a sidewalk impassable for a wheelchair user or someone pushing a stroller. If they do have to go down the other side of the street, they should know that before they reach the obstacle (through signs).
Sec. 19-8. - Roller skates, skateboards within fire district	It shall be unlawful for any person to use roller skates and skateboards upon the sidewalks or streets within the fire district of the city. (Code 1967, § 17-18)	This may conflict with the MUTCD definition for pedestrians that is proposed earlier for the Code.
Sec. 19-11. - Construction and repair specifications	All paving, construction, reconstruction and repair of streets, alleys, curbs and gutters, sidewalks and driveways in the city shall be in accordance with the Manual of Specification, Standards and Design (latest edition) approved by the city council and filed in the office of the city clerk.	This manual may contain additional requirements for maintaining access and protecting the safety of pedestrians during these activities -- has not been reviewed.
Sec. 19-14. - License required for right-of-way structure	No person shall construct, erect, place, keep, or maintain any existing right-of-way structure within the right-of-way..... determines that the use of the street right-of-way for such structure is in any way <b>disruptive, unsafe, or impair access</b> for pedestrians of all abilities using the street or right-of-way, or if the city determines, in its sole discretion, that it needs to use the right-of-way for a purpose inconsistent with such structure, or if the licensee is in violation of any of the terms, conditions, or requirements of the license	
Sec. 19-37. - Protection of dangerous conditions	It shall be unlawful for any person to pave, repair or do any excavation or other work on any street or alley in the city which may create or cause a dangerous condition in, on or near any street, sidewalk, alley or driveway without placing and maintaining proper guardrails and signal lights or other warnings at, in or around the same, sufficient to warn the public of such work or excavation and to protect all persons using reasonable care from injuries on account of same. The guardrails and signal lights or other warnings shall be in accordance with specifications approved by the city council and filed in the office of the city clerk. <b>Alternative accessible pedestrian access must be provided and maintained for the duration of the work and the restoration.</b>	This is a similar issue to previously discussed: It is of importance to provide and maintain an alternative access particularly for pedestrians of limited mobility. The issue of how they warn and protect is of particular issue to pedestrians with visual impairments and to all users after dark. If they do have to go down the other side of the street, pedestrians (particularly with limited mobility) should know that before they reach the obstacle (through signs).
Sec. 19-42. - Site ( <b>Sight?</b> ) clearance at intersections	(c) The areas in the city restricted by the provisions of this section are as follows: (1) All of that portion of land lying within a triangular-shaped area on each street corner within the city and described by metes and bounds as follows: beginning at the precise corner of intersection point of the curbs of each of the two (2) streets forming each corner and extending twenty (20) feet along each such curbline from the curb intersection point, the third side being determined by the drawing of a straight line from the ends of such twenty-foot extensions.....	These sight clearance requirements do not seem to match the sight distance specifications that appear later in the Code.

Sec. 19-61. - Construction or repair permit	No person shall construct or maintain any driveway across any sidewalk or curbing or enter any public right-of-way without first obtaining a permit therefor from the director of engineering or his authorized representative, which permit shall be in addition to any other permit which may be required. The application shall be in writing and shall show the improvements proposed to be made thereon and the type of construction, the length of the driveways, <b>how access will be maintained for pedestrians during the work</b> , and such other information as the director of engineering or his authorized representative shall require. If upon investigation the director of engineering finds that the construction and maintenance of such driveway or driveways will not substantially.....	There are other issues related to the design of the driveway as driveways can be a significant impediment for wheelchair and other users due to the slopes -- need to ensure that this is addressed in Code.
Sec. 19-87. - Same— Issuance.	(b) The chief of police shall issue a permit unless he makes written findings based upon specified facts that: (1) The activity cannot be conducted without unreasonable interference with normal pedestrian <b>access and safety</b> and or vehicular traffic in the area; or	
Sec. 19-93. - Sidewalk obstructions	Police officers observing unreasonable obstructions of sidewalks as a result of a parade or demonstration, such that pedestrians are unreasonably hindered <b>or blocked</b> or forced to step into the street, shall take reasonable steps to make the sidewalk available for pedestrian travel <b>for users of all abilities</b> .	Trying to ensure that wheelchair users and others with mobility devices who cannot 'step into the street' are covered
Sec. 20-1. - Definitions	Crosswalk means that portion of a roadway ordinarily included within the prolongation or connection of the lateral lines of sidewalks at intersections; any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.	Suggest using the current MUTCD definition which is similar but goes into more detail: The topic of crosswalks is very important for (1) safety; & (2) participation in walking
Sec. 20-1. - Definitions	Pedestrian means any person afoot. MUTCD definition: A person on foot, in a wheelchair, on skates, or on a skateboard	Suggest using the current MUTCD definition which is similar but goes into more detail. It's important because it clearly expands the definition and this becomes very important in the code where topics such as excavation or obstructions are discussed. Also suggest consolidating all the pedestrian-related definitions so that they are together in the Code
Sec. 20-1. - Definitions	Right-of-way means the privilege of the immediate use of the roadway	It's not clear from this definition whether they include use of the ROW by pedestrians. Suggest standardizing and expanding this definition: ROW is used differently in several contexts whether it's related to assignment of rights or ownership of property. The MUTCD definition just relates to assignment and is: "the permitting of vehicles and/or pedestrians to proceed in a lawful manner in preference to other vehicles or pedestrians by the display of a sign or signal indications"
Sec. 20-1. - Definitions	Sidewalk means that portion of a street between the curblines, or the lateral lines of a roadway, and the adjacent property lines <b>or on easements of private property that is paved or improved and</b> intended for the use of pedestrians.	Suggest using the current MUTCD definition which is similar but goes into more detail. Also suggest consolidating all the pedestrian-related definitions so that they are together in the Code
Sec. 20-1. - Definitions	Street or highway means the entire width between property lines of every way or place of whatever nature when any part thereof is open to the use of the public, as a matter of right, for purpose of vehicular traffic.	Suggesting using the MUTCD definition: Highway -- a general term for denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Sec. 20-96. - Maximum limits generally	<p>(3) Forty-five (45) miles per hour in places other than those named in paragraphs (1) and (2) above for:</p> <p>a. All vehicles other than passenger cars, regular passenger vehicles, pickup trucks of less than one-ton capacity, and school buses loaded with children; and</p> <p>b. All vehicles of whatever kind which are engaged in towing, drawing or pushing another vehicle; provided this paragraph shall not apply to vehicles engaged in towing, drawing or pushing trailers with a gross weight of not more than three thousand (3,000) pounds;</p> <p>(4) Fifty-five (55) miles per hour in places other than those named in paragraphs (1) and (2) above for passenger cars, regular passenger-carrying vehicles, and pickup trucks of less than one-ton capacity;</p>	Note that the speeds listed (45 mph and 55 mph) are pedestrian unfriendly. The pedestrian survival rate from crashes with vehicles at these speeds is well below 15 percent. One way to partially address these high speeds and their impact on pedestrians is to look at the size of the turning radii and the design of the turns at intersections -- elsewhere in the Code.
ARTICLE VI. - STOPPING, STANDING AND PARKING		General comment: While there are many parking prohibitions mentioned in this section, there does not seem to be mention of blocking crosswalks
Sec. 102. - Terms and uses defined	<p>Grade. Grade may have either of the following meanings.</p> <p>A. The top surface elevation of lawns, <b>sidewalks</b>, drives or other improved surface after completion of construction or grading operation.</p> <p>B. The slope of a street, <b>sidewalk</b>, drainage facility, sanitary sewer, etc., expressed in terms of percent.</p>	While grade is an important issue in the comfort of use of the facilities for many pedestrians, it is a critical issue in the use of facilities for those with impaired or limited mobility
Sec. 405. - Residential district intent statements	<p>Regulations for the residential districts are designed to protect the residential character of areas so designated from the noise, congestion, and heavy traffic commercial and industrial activities. The regulations are also designed to encourage a suitable environment for family life by providing <b>pedestrian access and connectivity, as well as</b> openness of living areas and permitted appropriate neighborhood facilities, <b>(and)</b> compatible community facilities <b>and healthy active lifestyle</b>.</p>	This is an opportunity to introduce the idea of walking being a healthy activity that should be encouraged in the community: the idea was not apparent in the Code.
Sec. 406. - Commercial district intent statements	<p>Regulations for the commercial districts are designed to encourage stable and efficient commercial areas to meet the needs of various trade areas for commercial goods and services <b>and to allow pedestrian access and connectivity to places of work and commercial services</b>.</p> <p>The regulations are also designed to minimize the adverse effects of commercial uses on other land uses and provide opportunities for investment.</p>	Need to also consider and provide for pedestrian access to work and services -- the current wording effectively eliminates the idea of walking to anything commercial
Sec. 406. - Commercial district intent statements	<p>A. OI, office and institutional district. The OI district is intended to provide for the conduct of general and professional office, medium or high-density housing and related activity to meet the professional services, institutional function office and residential accommodation needs of the community. It is intended that this district be located so as not to introduce <b>vehicular</b> traffic onto solely residential streets <b>while maintaining pedestrian access and connectivity</b> or become an intrusion into a residential district, but to serve as a buffer between residence districts and more intensive commercial activities.</p>	While intended to act as a buffer from more commercial activities, this does not preclude providing for pedestrian access and connectivity. Maintaining pedestrian connectivity allows the choice of walking to work and to businesses.

Sec. 406. - Commercial district intent statements	<p>OI-2, Office mixed use district (combination of business, office and residential). This is a mix-use district that allows office, residential and limited business. The business and office uses allow and fulfill service and convenience needs of the surrounding neighborhood. These uses are primarily pedestrian oriented and provide for pedestrian access and connectivity..... In addition this district is encouraged for parcels abutting proposed or existing subdivisions/neighborhoods.</p>	<p>Again, it is useful to emphasize the idea of pedestrian connectivity and access separately from the impacts of vehicular traffic.</p>
Sec. 406. - Commercial district intent statements	<p>C. B-1, neighborhood commercial district. The B-1 district is intended for local retail and personal services of limited size and service area that provide for the regular needs and convenience of those residing in the adjacent residential neighborhoods. These are generally small in area and contain businesses that deal in “convenience goods” such as groceries, drugs and household supplies, and the furnishing of personal services. It is intended that neighborhood commercial uses be developed as a unit with pedestrian access and connectivity as well as adequate off street parking space for customers and employees and with appropriate landscaping and screening and are therefore subject to all planned building group requirements and standards of this LDC.</p>	
Sec. 406. - Commercial district intent statements	<p>F. B-4, central business district. The CBD district is intended for the conduct of personal and business services and the general retail trade of the core business center of the community. It is designed to accommodate a wide variety of commercial uses in the traditional downtown business area and related areas of mixed commercial enterprises. It is designed to maintain, support and facilitate compatible redevelopment of existing and new uses within the core area. Residential uses may be appropriate above the ground floor of commercial, office or other uses within the CBD district.</p>	
Sec. 506. - Zoning special use permit standards and conditions	<p>36. Signs, outdoor advertising (billboards). a. Plans are required and must show: Structure location and approximate size of all existing and proposed structures within the site and three hundred (300) feet there from. Also the plan must show points of access and egress within two hundred (200) feet of the proposed sign location.</p>	

<p><b>Sec. 512. - Zoning map or text amendment. E. Review criteria</b></p>	<p>1. Zoning districts designations should give consideration to their impacts upon adjacent property and existing land uses.</p> <p>2. Transportation access and vehicular traffic generated must be considered when determining the most appropriate zoning district designation.</p> <p>.....</p> <p>4. Land uses should be consistent with the Land Use Element of the Rocky Mount Comprehensive plan and adopted sub-area plans.</p> <p>5. Public schools and parks should be located, as practically and economically feasible, near the clients served and with consideration given to both vehicular and pedestrian access.</p> <p>6. Agricultural land uses should be located at the edge or fringe areas of Rocky Mount so potential land use conflicts can be minimized and so agricultural and other associated uses can be protected from encroaching urban uses.</p> <p>7. High impact uses that create large amounts of noise, odor, traffic, or other forms of identified and verified nuisances on residential land uses should be located as far as possible from residential neighborhoods or, as an alternative, positive measures must be taken to mitigate negative impacts on nearby neighborhoods.</p> <p>8. Commercial and industrial land uses, when located along major transportation entrance corridors to Rocky Mount, shall give care and concern for appearance, design, visual impact and traffic safety.</p> <p>9. Spot zoning, the zoning of a small individual parcel of land different from the majority of other zoning district classifications in the surrounding area, shall be discouraged.</p> <p>10. Single-family residential land uses should include small lots, medium sized lots, and provisions for large estate type lots, and all primary residential uses within neighborhoods should back or side onto arterial streets in order to encourage quiet, safe, and low-volume localized movements.</p> <p>11. Higher intensity land uses should be strategically placed and developed with design features that utilize increased setbacks, landscaping, berms, fencing, buffers uses, and other separations to be compatible with low intensity development.</p> <p>12. Large community-serving shopping areas, major retail and service activities should be located at the intersection</p>	
<p><b>Sec. 704. - Landscaping and buffering</b></p>	<p>A. Purposes and intent. The purposes and intent of the regulations contained in this section are as follows: Suggest adding additional line item: 9. To ensure that all landscaping is compatible with the safety of pedestrians and access for pedestrian</p>	<p>Landscaping and plants impact pedestrian safety in several ways: sight distance, over-hanging and over grown plants impairing or blocking paths; roots from big trees breaking up paths; maintenance and clear-up after storms. Neglect of any of these items can really impair the use of existing facilities or make it particularly difficult for users with limited mobility.</p>
<p><b>Sec. 704. - Landscaping and buffering</b></p>	<p>7. Traffic hazards. To protect the safety and preserve the access of pedestrians. Landscaping shall not obstruct the view of motorists using any street, private driveway, parking aisles or the approach to any street intersection so as to constitute a traffic hazard or a condition dangerous to the public safety upon any such street, driveway parking aisle or street intersection; or violate the thirty (30) foot sight triangle or site (sight?) distance easement (SDE) computation guidelines.</p>	<p>Plants are a significant issue in sight distance of and for pedestrians. The sight triangle called out here does not seem to match the sight distance requirements later in the document -- they need to line up.</p>

Sec. 704. - Landscaping and buffering	Q. Variations. The planning board may modify buffer and landscape standards where: 4. The plantings or planting area would conflict with utilities, <b>sidewalks</b> , easements, or overhead power lines, or encroach upon city trees, as recommended by the director.	
Sec. 704. - Landscaping and buffering	T. Landscaping in site ( <b>sight?</b> ) distance triangles. Within a thirty (30) foot by thirty (30) foot sight distance triangle where any two (2) public streets intersect, all landscaping shall remain clear between and within the plain described as thirty (30) inches to ninety-six (96) inches in height above ground level. There shall be no obstructions to vision in compliance with chapter 7....	These sight clearance requirements do not seem to match the sight distance specifications that appear later in the Code.
Sec. 1301. Right-of-way width, street design.	1. Street pattern. Streets shall be arranged to fit the contour of the land, to create usable lots and blocks, and to discourage through traffic in residential <b>while maintaining and encouraging pedestrian connectivity and shorter walking routes.</b>	
Sec. 1301. Right-of-way width, street design.	2. 2. Coordination of streets. Street access may be provided to adjoining undeveloped tracts of land and shall be coordinated with existing and planned streets as required by the departments of community development and public works. Access shall be provided to adjacent property at locations deemed necessary and desirable by the planning board. <b>Pedestrian connectivity shall be encouraged (provided?) between properties.</b>	
Table 1301.1 Street Width and ROW	Sidewalks are only required on one side for many street types	Sidewalks both sides? Without sidewalks on both sides, pedestrians are greatly inconvenienced and it discourages walking. For this with mobility issue this is a particular hardship and may mean that they have no access at a particular location.
Sec. 1301. Right-of-way width, street design.	7. The clear sight triangle shall be cleared and graded.	Need to reference the same sight distance standards that appear later in Code.
Sec. 1301. Right-of-way width, street design.	8. The typical section shall provide for grading back of the curb to the right-of-way line to a maximum or minimum slope of two (2) feet horizontal for each one (1) foot vertical (2:1) using the elevation of the top of the curb as the reference elevation. This slope will continue until it intersects with natural ground.	Even where there is no sidewalk provided, many will walk in the area in back of the curb and this area often provides an important connection between walking facilities. The grading of 2:1 is steep for walking and makes this area much less walkable.
Table 1304.1	Sidewalks are only required on one side for many street types	see previous comment
Sec. 1304. Subdivision improvements	3. Sidewalks are not required for internal local and collector streets serving single family, duplex, and Industrial subdivisions. Sidewalks shall be required along any arterial streets within or adjacent to the subdivision or development site.	See previous comment about sidewalks on one side - - similar comment but broader. For many, no sidewalk means no access at all.
Sec. 706. - Driveways/ roadway access and sidewalks.	D. Sight distance easement (SDE). 1. To the extent feasible within frontage limits, a driveway or street connection should provide the recommended sight distance requirements as set forth in "A Policy on Geometric Design of Highways and Streets" (current edition) by the American Association of State Highway Officials. The following table lists minimum sight distance values for various design vehicles. Table 7-3. Design Sight Distance (ft) Per 10 MPH of Design Speed.	These are the sight distance requirements that should be employed elsewhere in the Code -- these are much more comprehensive and recognize the role that speed plays in sight distance.
Sec. 706. - Driveways/ roadway access and sidewalks	4. The available sight distance at street and driveway connections shall not be restricted by landscaping, permanent or temporary signing, or in any other manner.	Should refer to the sight distance requirements above.

Sec. 708. - Off-street parking and loading	E. Off-street loading regulations. The duty to provide the off-street loading space herein required shall be the joint responsibility of the owner and operator of the structure or structures for which off-street loading space is required. The space shall be provided in accordance with the table below, and all off-street loading spaces shall be designed so that the vehicles loading and unloading shall not rest upon or cross any public street or alley right-of-way.	
	9. Bumpers, curbs or wheel stops. A permanent curb, bumper wheel stop or similar device shall be installed in such a manner that parked vehicles do not encroach or overhand any street, alley, driveway, sidewalk, landscaping or adjacent properties.	
	11. Traffic flow. All parking areas shall be designed to minimize traffic hazards, congestion and conflicts between pedestrians and vehicles, and provide safe walking access for pedestrians from parking areas.	
Sec. 709. - Signs.	D. General regulations. c. Obstruct the line of sight of motorists at intersections or along a public right-of-way.	
Sec. 710. - Fences and walls.	7. A fence or wall that does not meet the requirements of an open fence or open wall shall maintain a setback at entrances and exits of the site to provide a triangular sight distance easement that shall be a minimum of thirty-five (35) feet in length on each corner side of said entrance or exit.	This may not match with the more comprehensive sight distance requirements -- would need closer examination
Sec. 712. - Site development plans.	.....c. Locations and adequacy of pedestrian and vehicular access points and parking areas.d. Design of traffic patterns, traffic control measures and street pavement areas, with provisions for maintaining traffic flows and reducing unfavorable effects of traffic on nearby properties. e. Adding safe and convenient pedestrian access and encouraging pedestrian connectivity.	
Sec. 712. - Site development plans.	6) Man-made and other cultural features within and surrounding the proposed subdivision, including existing and platted streets, bridges, culverts, utility lines, pipe lines, power transmission line structures, all easements, sidewalks and trails, park areas, city and county lines, and other significant information.	
Sec. 712. - Site development plans.	21) Sidewalks shall be required along both sides of all major and minor arterial, collector and local streets constructed with curb and gutter as to the standards provided in this LDC.	
Sec. 712. - Site development plans	e) Access. All lots shall front on a public street unless a homeowner's association is established in accordance with the provisions of this LDC and each lot is provided direct access to a public street across common property perpetually maintained for such purposes. A five (5) foot pedestrian, drainage and utility easement shall be provided on each lot along the entire length of all rear lot lines and side lot lines which are situated between the end walls of buildings. No fences, trees, shrubbery or other similar obstructions shall be permitted in that five (5) foot pedestrian, drainage and utilities easement.	A five foot easement is narrow when the desired width for a pedestrian facility is five feet -- needs to be 5 feet to accommodate wheelchair users. Plus need clearance from obstacles either side. Suggest wider easement requirement (at least 9 feet to provide 2 feet clearance on sides)
Sec. 712. - Site development plans	33) Specifically for college or university projects.g) Circulation: Proposed points of access and egress and proposed pattern of internal automobile and pedestrian circulation, connectivity and short cuts.	

Sec. 712. - Site development plans	e. PDR district requirements. The following requirements shall be met by any proposed PDR rezoning application.15) The director shall have the authority to authorize the developer to substitute sidewalks with alternate pedestrian walkways, such as <b>nature trails</b> .	I assume that 'nature trails' would be requirement to meet ADA and that all users would be accommodated
Sec. 712. - Site development plans	5. Residential cluster developments..... f) The director shall have the authority to authorize the developer to substitute sidewalks with alternate pedestrian walkways, such as nature trails.	Same comment as above.
Sec. 903. - Findings of fact and objectives.	B. Objectives: .....5. To minimize damage to public facilities and utilities such as <b>sidewalks</b> , water and gas mains, electric, telephone and sewer lines, streets, and bridges located in floodplains;	
Sec. 1302. - Easements.	Adequate easements shall be required by the planning board as recommended by the director of engineering to accommodate all utilities and storm drainage needs <b>as well as pedestrian needs</b> . The developer shall demonstrate such adequacy by furnishing drawings showing all utilities and storm drainage. The director of engineering shall recommend easement widths needed to accommodate such utilities and storm drainage systems to the planning board.	
Sec. 1303. - Blocks and lots	A. Blocks. 1. Residential blocks shall not be less than three hundred (300) feet or more than <b>one thousand (1,000) feet</b> in length, except as the planning board considers necessary to secure efficient use of land or to achieve desired features of the street system. The planning board may require public crosswalks across the block.	Block length has a lot of bearing on the walkability and whether pedestrians go to crosswalks at intersections -- the upper limit of 1000 feet is high in terms of encouraging safe and convenient walking. It is a particular issue for those with limited mobility who may have no other way to cross other than at crosswalks.
Sec. 1401. - Objectives, jurisdiction, definition, principles and types of subdivision.	A. Objectives.....2. Provide for coordination of street alignment, community facilities and utilities within future subdivisions; 3. Assure the provisions of streets, utilities, recreation and public school facilities <b>and encourage pedestrian access and connectivity to these facilities; ...</b>	
Sec. 1401. - Objectives, jurisdiction, definition, principles and types of subdivision.	D. Basic subdivision principles. 2. The general layout of streets, lots, blocks and utilities proposed to serve the subdivision shall be coordinated with its surroundings and with the city's development plans <b>and with the Pedestrian Master Plan</b>	

<b>Sec. 1401.</b> <b>- Objectives, jurisdiction, definition, principles and types of subdivision.</b>	B. Standards and required improvements. 3. Blocks. Residential blocks shall not be more than one thousand (1,000) feet nor less than three hundred (300) feet in length and shall be wide enough to allow two (2) tiers of lots of appropriate depth, unless extreme physical conditions lend themselves to a deviation from this norm as approved by the planning board. A cul-de-sac shall not exceed nine hundred (900) feet in length.	See previous comment about block length
<b>Sec. 1506. - Development criteria.</b>	B. Signage.....•Sidewalk signs. Sandwich board signs shall be allowed in the district but shall not be an impediment to pedestrian traffic or access. Dimensions: Shall not exceed size and area of four (4) x eight (8) feet.	This may need a closer look -- at four feet in with, these signs could easily block access depending on how they are positioned and the width of the sidewalk facility.

## FEDERAL AND STATE POLICIES

### US DOT POLICY STATEMENT INTEGRATING BICYCLING AND WALKING INTO TRANSPORTATION INFRASTRUCTURE

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

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

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

### NCDOT POLICY ON STREET AND DRIVEWAY ACCESS TO NC HIGHWAYS

Refer to the NCDOT policy on ‘Street and Driveway Access to North Carolina Highways’ for examples on how to reduce conflict points between motor vehicles and pedestrians and bicyclists. Consider access management for both future development and retrofits to existing development: [www.ncdot.org/doh/preconstruct/altern/value/manuals/pos.pdf](http://www.ncdot.org/doh/preconstruct/altern/value/manuals/pos.pdf)

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

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

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

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

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

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

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

NOW, THEREFORE, BE IT RESOLVED, the North Carolina Board of Transportation concurs that bicycling and walking accommodations shall be a routine part of the North Carolina Department of Transportation's planning, design, construction, and operations activities and supports

the Department's study and consideration of methods of improving the inclusion of these modes into the everyday operations of North Carolina's transportation system; and

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

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

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

[www.ncdot.org/bikeped/lawspolicies/policies/](http://www.ncdot.org/bikeped/lawspolicies/policies/)

## **NCDOT'S TRADITIONAL NEIGHBORHOOD DEVELOPMENT STREET DESIGN GUIDELINES**

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

[www.ncdot.org/doh/preconstruct/altern/value/manuals/tnd.pdf](http://www.ncdot.org/doh/preconstruct/altern/value/manuals/tnd.pdf)

## **NCDOT COMPLETE STREETS POLICY**

NCDOT is developing guidelines to implement this policy. The guidelines will include basic Complete Street typologies for various road types within various contexts, along with a framework document that outlines implementation process. More information about these guidelines can be found at the project website: [www.nccompletestreets.org](http://www.nccompletestreets.org)

NCDOT's Complete Streets Policy is part of a national movement. The Complete Streets Act of 2009 (S.B 584 and H.R. 1443) was adopted in recognition of the significant influence that street design has on safety, environmental integrity, public health, economic vitality and community livability. The bill directs state Departments of Transportation and Metropolitan Planning Organizations to adopt policies that support inclusive and innovative transportation planning policies and apply these policies to future federally funded transportation projects. As a result of this legislation, state and local Complete Streets policies are emerging.

### **A. Definition**

Complete Streets is North Carolina's approach to interdependent, multi-modal transportation networks that safely accommodate access and travel for all users.

### **B. Policy Statement**

Transportation, quality of life, and economic development are all undeniably connected through well-planned, well-designed, and context sensitive transportation solutions. To NCDOT, the designations "well-planned", "well-designed" and "context-sensitive" imply that transportation is an integral part of a comprehensive network that safely supports the needs of the communities and the traveling public that are served.

The North Carolina Department of Transportation, in its role as stewards over the transportation infrastructure, is committed to:

- providing an efficient multi-modal transportation network in North Carolina such that the access, mobility, and safety needs of motorists, transit users, bicyclists, and pedestrians of all ages and abilities are safely accommodated;
- caring for the built and natural environments by promoting sustainable development practices that minimize impacts on natural resources, historic, businesses, residents, scenic and other community values, while also recognizing that transportation improvements have significant potential to contribute to local, regional, and statewide quality of life and economic development objectives;
- working in partnership with local government agencies, interest groups, and the public to plan, fund, design, construct, and manage complete street networks that sustain mobility while accommodating walking, biking, and transit opportunities safely.

This policy requires that NCDOT's planners and designers will consider and incorporate multimodal alternatives in the design and improvement of all appropriate transportation projects within a growth area of a town or city unless exceptional circumstances exist. Routine maintenance projects may be excluded from this requirement if an appropriate source of funding is not available.

### **C. Purpose**

This policy sets forth the protocol for the development of transportation networks that encourage non-vehicular travel without compromising the safety, efficiency, or function of the facility. The purpose of this policy is to guide existing decision-making and design processes to ensure that all users are routinely considered during the planning, design, construction, funding and operation of North Carolina's transportation network.

### **D. Scope and Applicability**

This policy generally applies to facilities that exist in urban or suburban areas, how-

ever it does not necessarily exclude rural setting; and is viewed as a network that functions in an interdependent manner.

There are many factors that must be considered when defining the facility and the degree to which this policy applies, e.g., number of lanes, design speeds, intersection spacing, medians, curb parking, etc. Therefore, the applicability of this policy, as stated, should be construed as neither comprehensive nor conclusive. Each facility must be evaluated for proper applicability.

Notwithstanding the exceptions stated herein, all transportation facilities within a growth area of a town or city funded by or through NCDOT, and planned, designed, or constructed on state maintained facilities, must adhere to this policy.

### **E. Approach**

It is the Department's commitment to collaborate with cities, towns, and communities to ensure pedestrian, bicycle, and transit options are included as an integral part of their total transportation vision. As a partner in the development and realization of their visions, the Department desires to assist localities, through the facilitation of long-range planning, to optimize connectivity, network interdependence, context sensitive options, and multimodal alternatives.

### **F. Related Policies**

This policy builds on current practices and encourages creativity for considering and providing multi-modal options within transportation projects, while achieving safety and efficiency.

Specific procedural guidance includes:

- Bicycle Policy (adopted April 4, 1991)
- Highway Landscape Planting Policy (dated 6/10/88)
- Board of Transportation Resolution: Bicycling & Walking in North Carolina, A Critical Part of the Transportation System (adopted September 8, 2000)

- Guidelines for Planting within Highway Right-of-Way
- Bridge Policy (March 2000)
- Pedestrian Policy Guidelines –Sidewalk Location (Memo from Larry Goode, February 15, 1995)
- Pedestrian Policy Guidelines (effective October 1, 2000 w/Memo from Len Hill, September 28, 2000)
- NCDOT Context Sensitive Solutions Goals and Working Guidelines (created 9-23-02; updated 9-8-03)

### **G. Exceptions to Policy**

It is the Department's expectation that suitable multimodal alternatives will be incorporated in all appropriate new and improved infrastructure projects. However, exceptions to this policy will be considered where exceptional circumstances that prohibit adherence to this policy exist. Such exceptions include, but are not limited to:

- facilities that prohibit specific users by law from using them,
- areas in which the population and employment densities or level of transit service around the facility does not justify the incorporation of multi-modal alternatives.
- It is the Department's expectation that suitable multi-modal alternatives will be incorporated as appropriate in all new and improved infrastructure projects within a growth area of a town or city.

As exceptions to policy requests are unique in nature, each will be considered on a case-by-case basis. Each exception must be approved by the Chief Deputy Secretary.

Routine maintenance projects may be excluded from this requirement if an appropriate source of funding is not available.

### **H. Planning and Design Guidelines**

The Department recognizes that a well-planned and designed transportation system that is responsive to its context and

meets the needs of its users is the result of thoughtful planning. The Department further recognizes the need to provide planners, designers and decision-makers with a framework for evaluating and incorporating various design elements into the planning, design, and construction phases of its transportation projects. To this end, a multi-disciplined team of stakeholders, including transportation professionals, interest groups, and others, as appropriate, will be assembled and charged with developing comprehensive planning and design guidelines to support this policy.

These guidelines will describe the project development process and incorporate transparency and accountability where it does not currently exist; describe how (from a planning and design perspective) pedestrians, bicyclists, transit, and motor vehicles will share roads safely; and provide special design elements and traffic management strategies to address unique circumstances. An expected delivery date for planning and design guidelines will be set upon adoption of this policy.

### **I. Policy Distribution**

It is the responsibility of all employees to comply with Departmental policies. Therefore, every business unit and appropriate private service provider will be required to maintain a complete set of these policies. The Department shall periodically update departmental guidance to ensure that accurate and up-to-date information is maintained and housed in a policy management system.

## **PEDESTRIAN LAWS OF NORTH CAROLINA**

### **Pedestrians' Right-of-Way at Crosswalks:**

- Where traffic-control signals are not in place or in operation the driver of a vehicle shall yield the right-of-way to a

pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at or near an intersection.

- Whenever any vehicle is stopped at a crosswalk at an intersection to permit a pedestrian to cross, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.
- Pedestrians have the right-of-way when approaching an alley, building entrance, private road, or driveway, from any sidewalk or walkway.

### **Other Crossings and Along the Highway:**

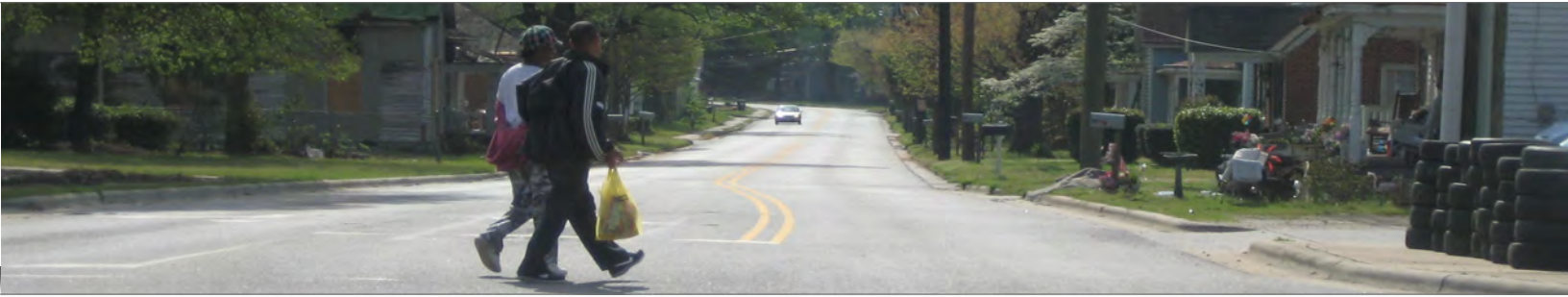
- Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.
- Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing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

when necessary, and shall exercise proper precaution upon observing any child or any confused or incapacitated person upon a roadway.

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

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for double-sided printing]*

# APPENDIX D: EXISTING PLANS



## 2010 RALEIGH ROAD/RALEIGH STREET CORRIDOR PLAN

This plan was developed to serve as a guide for potential developers, property owners, city leaders, city staff and city residents to make responsible decisions for future land development along the Raleigh Road Raleigh Street corridor.

### Overall Objectives

- 1) Identify potential pockets for new development and redevelopment
- 2) To encourage appropriate land development along the corridor and to promote a compatible land use pattern.
- 3) To protect the traffic carrying capacity and efficiency of the Raleigh Road Raleigh Street corridor for public usage.
- 4) To maintain the stability of appropriately located existing land uses.

### Recommendations

The following recommendations made in the Raleigh Road/Raleigh Street Corridor Plan could impact pedestrian facilities:

- 1) Identification of 100 parcels for potential infill development and adaptive reuse development.
- 2) To protect the traffic carrying capacity and efficiency of the Raleigh Road Raleigh Street corridor for public usage city staff should limit the number of new driveway cuts

and encourage shared driveways and cross access between adjacent businesses.

- 3) Consider creating an appearance commission to recommend design guidelines for all new construction and adaptive reuse of property. The creation, purpose and guidelines shall be implemented in the Land Development Code.

## 2010 TAR RIVER TRANSIT COMMUNITY TRANSPORTATION SERVICE PLAN (CTSP)

This Study is an in-depth analysis of the public transit options currently in place, identifies the optimal manner in which transit can meet the public's needs, and carefully identifies where transit resources should be devoted over the next plan periods.

### Vision

Ultimately, the central vision of the study was to ensure that TRT develops a strategic plan that responds to the projected mobility needs of the general public and targeted populations in the Study Area, and that the plan provides direction for continuous improvement to achieve excellence in all aspects of service, delivery, and management.

### Capital Recommendations

Initiate a Transit and Pedestrian Access Program to improve the following corridors:

US 301, Sunset Ave, and Benvenue Rd.

The proposed Transit and Pedestrian Access Program would prioritize investment in several key locations. The program would provide synergy between meeting overall pedestrian needs and improving transit access. These schemes would be particularly valuable in neighborhoods adjoining key retail areas that are currently cut off from both the retail areas and the transit service due to the limited pedestrian facilities (e.g., near Sunset Avenue). Many residential areas in Rocky Mount lack pedestrian provisions despite being located in close proximity to downtown.

### **2035 LONG RANGE TRANSPORTATION PLAN (MAY 2009)**

This plan was prepared by the Rocky Mount Urban Area Metropolitan Planning Organization in 2008-2009. The Long Range Transportation Plan (LRTP) is a multi-modal strategy and capital improvement program developed to guide the effective investment of public funds for transportation facilities to help manage congestion, increase regional mobility options, and conform to national air quality standards. The LRTP is updated every four years and may be amended as a result of changes in projected federal, state, and local funding; major investment studies; congestion management systems plans; interstate interchange justification studies; and environmental impact studies.

#### **Vision**

“To provide the necessary infrastructure for the transportation needs of the region in collaboration with the land use plans of the several members of the Rocky Mount Urban Area.”

#### **Mission**

Providing for the movement of people and goods in a safe, efficient and sustainable manner which will enhance our quality of life and protect the natural and human environment.”

#### **Goals**

- 1) The transportation system shall promote a positive economic climate.
- 2) The transportation system shall function in a safe manner.
- 3) The transportation system shall be secured to ensure service to the system patrons.
- 4) The transportation system shall afford both accessibility and mobility for people and freight.
- 5) Like a good steward, the transportation system shall perform in a manner protecting the environment, conserving energy, improving the quality of life, and promoting harmony among plans for transportation improvements and state and local growth and economic development.
- 6) The transportation system shall enhance the integration and connectivity of the system’s modes for both people and freight.
- 7) The transportation system shall be managed and operated efficiently.
- 8) The existing transportation system shall be preserved.

#### **Recommendations (SAFETEA – LU)**

##### **2. Increase the safety of the transportation system for motorized and non-motorized users**

Safety is typically the number one requirement of citizens for the transportation system. All users of the transportation network must be afforded a safe facility to meet their mobility needs. A study of the traffic crash reports is used to develop improvements for safer operating conditions. A program of construction and repairs of sidewalks is conducted to provide safer pedestrian facilities.

#### **4. Increase the accessibility and mobility of people and for freight**

The Transportation Plan shall assist people in meeting the two goals of transportation, mobility and accessibility. The Transportation Plan shall include projects that increase the ease with which these goals may be achieved. The Transportation Plan supports multi-modal forms of transportation, which give the public more choices for traveling. The transportation center is the hub for Tar River Transit, Amtrak, and intercity bus traffic. An increase of routes and hours of the Tar River Transit is being planned.

#### **6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight**

All means of moving people and goods must be considered in the transportation plans. Allowing the different modes to operate together creates a greater opportunity to meet the transportation needs of the community. The transportation center with transit, rail and intercity bus services at one location has been a successful operation for our citizens. The connection of the greenway trail system with sidewalk facilities is another enhancement included in transportation plans.

#### **Safety**

The Rocky Mount Urban Area MPO supports a safe multi-modal transportation network which offers a variety of choices to fill the transportation needs of the community. Sidewalks, bike paths, streets / highways and bus routes should all be viable options for the traveler.

Pedestrian safety is a serious issue in the Rocky Mount Urban Area MPO as well as across the nation. Pedestrian crash data will be supplied by the MPO to

engineering and public works departments to improve pedestrian safety through improved transportation facilities. Local school systems may use pedestrian statistics from the MPO for developing pedestrian education programs. The MPO will provide pedestrian crash statistics to law enforcement agencies for use in their enforcement programs to reduce pedestrian incidents. The construction of sidewalks is included in Transportation Improvement Program projects in the MPO area. The MPO will also promote a positive attitude among motorists and pedestrians about pedestrian safety.

#### **Pedestrian Element**

Walking is the most basic means of transportation and is generally the least expensive to accommodate. Most trips begin and end as a pedestrian. Walking is also the most environmentally friendly mode. Walking generates no air pollution, requires very little right-of-way, results in few environmental impacts, and the required infrastructure has a relatively long service life.

Although addressed by some of the more recent federal legislation (ISTEA, TEA-21 and SAFETEA-LU), the goal of the MPO is to promote and plan for facilities (either stand alone or adjacent to the roadway) that provide for comfort, convenience, safety, security, and economy to the pedestrian. Sidewalks are one of the fundamental building blocks of a well-integrated transportation network. The MPO also recognizes that it is more cost effective to plan for sidewalks and other pedestrian related facilities in advance versus a retrofit.

In addition to providing an alternative mode for short trips, adequate pedestrian facilities are also beneficial in other ways. For example, residential neighborhoods in the vicinity of transit routes benefit from the addition of sidewalks by making the transit stops safer to reach (minimizing pedestrian-auto conflicts) and more accessible for transit patrons. This same logic applies to rail service. The greater the accessibility of

each travel mode, the greater the degree of utilization. This relationship is much of what fuels the current reliance on the private automobile.

In response to the MPO's interest in planning for and improving pedestrian facilities in the area, a committee of local citizens was formed several years ago (the Citizens Advisory Transportation Group; CTAG) to address among other things the need for improved pedestrian access. Most members of this group are transit riders who also walk extensively to and from public facilities. This group meets on a regular basis to promote better planning for and the provision for improved pedestrian facilities. The input from the committee is also solicited by the MPO's transportation planning staff for consideration when evaluating short term and long-range transportation improvements within the MPO.

In addition to emphasizing the importance of including pedestrian facilities within the MPO's planning process, the MPO and the City of Rocky Mount has taken additional steps to make sure the needs of local pedestrians are adequately addressed. To realize this goal, steps were taken to make sure that both existing and proposed facilities comply with the American Disabilities Act (ADA), that new facilities are constructed in accordance with standard design practices, and that any existing lapses in the existing network of sidewalks were identified and systematically eliminated. Specific actions include: Updating the City of Rocky Mount Manual of Standard Specifications and Design Guidelines to include standards for the construction and repair of sidewalks, Working in conjunction with the NCDOT to complete a multi-year program to construct wheelchair ramps at street intersections within the city limits, and developing a Sidewalk Priority List. Although the first two items in this list represent major improvements, development of the sidewalk priority list is by far the most aggressive. This effort included an inventory of

existing sidewalks and the identification of locations where existing foot traffic appears to warrant the construction of new sidewalks. Once completed, a rating system was developed to prioritize sidewalk needs. Areas with evidence of heavy foot traffic and areas near thoroughfares, transit routes, bus stops, schools, and public complexes were given the highest priority.

### **Financing Pedestrian Improvements**

The MPO is actively involved in improving pedestrian facilities. Working with the NCDOT Pedestrian and Bicycle Division on Safe Routes to Schools projects is one example. Sidewalk construction and repair is a major task, which will improve conditions for pedestrians. Rocky Mount plans to provide an improved pedestrian connection between the Tar River Trail and the Sports Complex. Plans are also developing for a Rail to Trail facility from downtown Rocky Mount to Battle Park on the abandoned CSX RR.

## **2008 NORTHERN CONNECTOR LAND USE PLAN**

The Northern Connector Land Use Plan was developed to provide specific information and recommendations for the future land development of the Northern Connector Study Area. The plan is based on an analysis of existing conditions, land use development and objectives intended to promote the health, safety and general welfare of those who travel, work and reside within the vicinity of the corridor study area.

### **Overall Objectives**

- 1) To encourage appropriate land development along the major thoroughfare of the Northern Connector corridor to promote a compatible land use pattern.
- 2) To protect the traffic carrying capacity and efficiency of the Northern Connector corridor for public use.
- 3) To maintain the stability of appropriately located existing land uses.

## Recommendations

Recommendations in the plan that could (positively) impact pedestrian facilities are:

- 1) Building a bridge over CSX railroad in the Battleboro community
- 2) Improving the bus systems, railway, pedestrian walkways and bikeways
- 3) Nodal development concept recommended for Benvenue Rd, Goldrock Rd and N. Wesleyan Blvd.
- 4) Maintain the established traffic-carrying capacity of the Northern Connector by limiting the number of driveways having direct access to the street.

## 2007 COMPREHENSIVE BICYCLE PLAN

This report summarizes the current condition of Rocky Mount's bicycle system. It specifically examines the current use of Rocky Mount's road network for bicycling as well as its off-road facilities.

### Vision

The vision for the Comprehensive Bicycle Plan for Rocky Mount is as follows:

- Create a Bicycle-Friendly Community
- Increase Travel Ways for Bicycles
- Develop a Viable Bicycle Transportation System
- Promote the Safety and Health of Users
- Create Transportation Choices
- Advance the Community's "Livability"

### Goals

Short-Range:

- Organize periodic events that encourage new riders and promote safety
- Pursue funds to construct high priority bicycle facilities

Long-Range:

- Increase the number of bicyclists
- Increase public awareness of bicycling as a viable mode of travel.
- Promote the rights and responsibilities of bicyclists, pedestrians, and motorists
- Ensure bicycle accommodations are considered where consistent with the Plan, in projects
- Create additional physical activity opportunities
- Provide improved bicycling opportunity for all residents
- Encourage the design, finance, and construction of transportation facilities that provide safe, secure, and efficient linkages for bicyclists
- Stimulate the local economy by connecting neighborhoods, businesses, recreation areas, and tourist sites
- Encourage safe riding practices
- Promote the development of seamless transitions for bicycle facilities which cross over the city limit

## 2005 PARKS AND RECREATION MASTER PLAN

This plan was developed to review the recommendations that were made in the 1999 Master Plan, apply them to current and projected conditions which exist in the City, and determine a course of action for the next ten years.

### Recommendations

Recommendations in the plan that could (positively) impact pedestrian facilities are:

1. Minor improvements to Aycock Park should be made to improve ADA accessibility and provide better walkways.

2. Improvements to Braswell Park should be made to the walking system and the two bridges located within the park need to be replaced with structures that meet current ADA and safety standards.
3. Improvements should be made to Home Street Park to add paved trails in and around the park to promote universal access.
4. Improvements should be made to Kite Street Park to add paved walks.
5. Improvements should be made to Sycamore Street Park to add paved walkways.
6. Improvements should be made to Wildwood Park to add paved walkways.
7. Improvements should be made to Branch Street Park to add paved paths.
8. Improvements should be made to Buck Leonard Park to add paved walks to offer accessibility to the park.
9. Improvements should be made to Charter Oaks Park to add a paved walking trail and benches.
10. Improvements should be made to Cloverdale Park to add walkways to connect all park amenities, allow for accessibility in and around the park and provide a place for walking and jogging.
11. Improvements should be made to Eastern Avenue to resurface existing paths and to add additional paths to improve ADA access and provide a good walking surface for walkers and joggers.
12. Improvements should be made to Farmington Park to add paved walking trails.
13. Improvements should be made to Grover Lucas Park to add paved trails to offer accessibility to park amenities.
14. Improvements should be made to Holly Street Park to add paved trails to offer universal accessibility throughout the park.
15. Improvements should be made to Lancaster Park to add sidewalks.
16. Improvements should be made to Marigold Park to add paved trails that lead to park amenities and provide a walking track.
17. Improvements should be made to Southside Park to add paved walks.
18. Improvements should be made to Thelonius Monk Park to add paved walking track.
19. Improvements should be made to Sunset Park and Sunset Park Extension to develop a park walking trail that will connect all new and existing facilities and link the park to the Tar River Trail.
20. Improvements should be made to Booker T. Washington Community Center to add paved walkways to connect all of the facilities in the area and create a sense of a community park.
21. Historic Tree Park, located on a portion of the Harbor West Condominiums community should be converted into a passive park with walking trails.
22. The City should continue to work with local and state transportation departments to develop and promote a citywide walking, bike and greenway trail system.

### **SUNSET AVENUE CORRIDOR PLAN**

In 2004, the Rocky Mount City Council approved the Sunset Avenue Corridor Plan which includes a transportation element. In it is the statement “The bicycle is another mode of travel and represents another user of Sunset Avenue. Since only skilled and experience riders should ever consider biking on a busy corridor like Sunset Avenue, the number of cyclists there is few. Sunset Avenue is not designated as a bike route, and thus this corridor does not include signage, pavement markings, or a wide lane to facilitate bicycle use.”

## COLLECTOR STREET PLAN

In 2004, the Rocky Mount City Council adopted a *Collector Street Plan* as a complement to the city's *Thoroughfare Plan* and *Comprehensive Plan*. Residential collector streets are two-lane, two-way streets with posted speed limits of 35 mph or less. They typically have homes fronting the street and may permit on-street parking. Examples in Rocky Mount include Michael Scott Drive, Westwood Drive, Foxhall Drive, Barnes Street, Wellington Drive, Rosewood Avenue, Courtland Avenue, Ketchpoint Drive, East Virginia Street, and Winstead Road. The benefits of interconnecting a network of collector streets extends to pedestrians and bicyclists, based on the recommendations of the Plan to require sidewalks and bicycle accommodations on each collector street. The *Collector Street Plan* identifies a connected transportation network using general (not exact) proposed corridors for future collector streets. The exact location of future collector streets and the timing of construction will be determined by future land development.

**Goal: Enhance pedestrian and bicycle amenities and promote public transportation services.**

### Objective

Develop proposed cross sections for collector streets that describe each type of collector (residential, commercial, and industrial) in terms of accommodation for pedestrians, bicycles, transit, automobiles, and other users. Properly designed collector streets foster alternative modes of transportation and should serve as the primary means of transporting bicyclists, joggers, pedestrians, and motorized wheelchairs within and through residential areas.

Incorporate existing bicycle, pedestrian, open space, and transit plans identified in *Together Tomorrow*, the Comprehensive Plan for Rocky Mount, including provisions for future connections and service to future activity destinations.

**Goal: Develop a collector street system that improves vehicular traffic flow and promotes travel safety.**

### Objective

Develop general guidelines for traffic calming use and identify benefits and applications to reduce travel times without increasing travel speeds on collector streets.

Develop spacing standards and access management strategies that minimize driver confusion and conflicts between vehicles and pedestrians.

## 2003 COMPREHENSIVE PLAN

In 2003 the Rocky Mount City Council approved a Comprehensive Plan entitled *Together Tomorrow*. It serves as the official policy document for the City Council, Planning Board, other Boards, the City Manager and his team.

### Chapter 3 – Land Use

**Goal: The Land Use Plan seeks to encourage a balanced development pattern in the future, one that emphasizes “Inward Growth” that targets the Downtown area and Central Business District...”**

**Goal: The Reinvestment In Existing Infrastructure In The Downtown Must Occur**

Downtown Rocky Mount has suffered from loss of retail, office and employment

opportunities. This has left the area with many deteriorating or deteriorated structures. The City must focus development funds toward existing infrastructure in the Downtown. In order for this area to become attractive to new businesses and activity, public improvement projects must occur. It is essential that streets, street lighting, curbs, gutters, sidewalk, and related pedestrian amenities are improved to spur sound growth and economic prosperity as well as informational infrastructure such as fiber-optic lines for communication.

### **Goal: Promote Infill Growth and Revitalization Opportunities in the Planned Growth Area**

The Planned Growth Area is made of land which is undeveloped and currently developed. The development of those remaining parcels, which are currently undeveloped or underdeveloped, is called Planned Infill Growth.....Smart Growth Principles encourage infill, the conservation of open space and the investment in existing neighborhoods. The promotion of walkable scale communities that are pedestrian friendly with varieties of housing and transportation choices benefit the community by conserving resources and improving the quality of life.

### **Goal: Facilitate Compatible Reinvestment, Redevelopment And Infill Residential Development In Existing Neighborhoods Throughout The City:**

Rocky Mount's existing neighborhoods that are threatened by or experiencing disinvestment and decline should be strengthened to ensure all residents live in acceptable—even outstanding—residential environments. The City should target reinvestment, redevelopment, and infill residential development for the community's older neighborhoods, ensuring

compatibility with these areas. Investments in open space, pedestrian improvements, landscaping, and safety will also create an atmosphere that encourages concurrent private investment.

### **Goal: Encourage New Residential Development To Locate Adjacent To Existing Residential Development, Where Utilities Are Available To Build Stronger Neighborhoods By Connecting Roads And Sidewalks**

One way to enhance opportunities for appropriate new development is by facilitating compatible new residential development and targeting these opportunities to existing residential areas throughout the City. These neighborhoods offer existing roads and utilities, as well as access to resources for infrastructure improvements. New subdivisions should connect with existing subdivisions to minimize isolation. This includes roads, sidewalks, and bike path connections. Encouraging developers to add open space to new developments could also be used as a way to blend neighborhoods together while at the same time providing needed recreational areas to serve new residents.

## **Chapter 5 – Transportation**

### **Pedestrians**

Walking is the most basic means of transportation. Most trips begin and end as a pedestrian. Sidewalks are one of the fundamental building blocks of a well-integrated transportation network. It is generally more cost-effective to plan for sidewalks and other pedestrian related facilities in advance than to retrofit them into existing systems.

**Goal: To promote and plan for facilities (either stand-alone or adjacent to the roadway) that provide comfort, convenience, safety, security and economy to the pedestrian.**

In response to the MPO's interest in planning for and improving pedestrian facilities, a committee of local citizens was formed several years ago. Known as the Transportation Advisory Committee, the group meets on a regular basis to address the need for improved pedestrian conditions, among other important transportation issues.

### **Bicycles**

A number of citizens participated in the public workshops and neighborhood meetings held to discuss the local Thoroughfare Plan and Transportation Plan. They expressed an interest in having the MPO evaluate more bicycle related improvements within the planning area.

**Goal: A transportation system that improves vehicular traffic flow, expands public transportation services, enhances maintenance and appearance of roadways, increases travel ways for pedestrians and bicyclists and promotes traffic safety.**

**Goal: Increase travel ways for Pedestrians and Bicyclists**

A resurgence of interest in making communities more pedestrian-friendly is spreading throughout the nation. It begins with building sidewalks and pathways that connect people with destinations. The interconnected network of walkways and bikeways promotes walking and bicycling and reduces some auto driving and associated parking problems.

**Goal: Utilize The Transportation Plan To Promote All Travel Modes**

A nationwide trend toward building better communities through strategies such as a balanced transportation system deserves consideration in Rocky Mount. A transportation plan that fosters improvements to pedestrian, bicycle, transit and street facilities contributes greatly to the efforts to revitalize traditional neighborhoods. Attention is needed to the provision of sidewalks and bikeways, especially along major thoroughfares where these facilities are not currently provided and in the design of new neighborhoods.

**Goal: Upgrade Deteriorating Streets, Sidewalks, Culverts and Bridges**

Public infrastructure makes one of the most powerful contributions to community design. These structures have a visual as well as functional component within the built landscape. The City should identify streets, sidewalks, culverts, bridges, and other parts of the City's infrastructure that are in need of repair or landscaping. Repairs should be scheduled to minimize burdens on individual blocks and neighborhoods, for example during evening or non-holiday times. Businesses and residents should be given adequate notice of all scheduled repairs.

**Goal: Adopt Design Guidelines That Describe Each Type Of Roadway (Arterial, Collector, Local) In Terms Of Accommodations For Pedestrians, Bicycles, Buses, Cars And Other Users**

The Transportation Plan encompasses all modes of travel. Consideration should be given to roadway designations and cross-sections that enhance the community, not just automobile travel. The Transportation Plan is being implemented as required by

the FTA and FHWA. In preparing the plan, design standards should be reviewed.

### **Goal: Prepare A Comprehensive Needs Assessment And Plan To Create A City-wide Network Of Sidewalks**

The sidewalk inventory will be updated with an assessment of projected need. The updated inventory and recommendations should be presented to Council for authorization to create an annual program to build sidewalks. Priorities should be given to areas with demonstrated unserved needs.

### **Goal: Develop A Policy To Stipulate When And Where Sidewalks Are Built**

To catch up with years of not building enough sidewalks, the City should develop a policy to stipulate when and where sidewalks should be located within new subdivisions. Encourage the investment of sidewalks and crosswalks within all new developments to build a more walkable community.

### **Goal: Provide Bike Lanes And Wide Outside Lanes For Recreational And Commuting Users**

The City should conduct a comprehensive review of existing streets to determine when and where a bikeway network is needed. Standards should be considered that determine when a bike lane (on street) is appropriate as opposed to bikepaths (separated from the traffic). A policy should be considered that requires wide outside lanes for bike access and sidewalks on all new widening projects, especially those undertaken by NCDOT.

### **Goal: Coordinate These Bike Paths & Sidewalks With Other Pedestrian & Biking Friendly Improvements**

Provide appropriate crosswalks, traffic lights and bridge crossings to minimize the barriers to pedestrian and bike travel within the community. Increase the presence of street lighting to improve safety for evening use. Such improvements will significantly improve the safety and wellbeing of the public as well as increase satisfaction in the user.

### **Goal: Investigate The Feasibility Of Acquiring Abandoned Rail Corridors For Use In Completing A Trail And/or Greenway Network**

Some of the country's most popular routes for pedestrians and bicyclists are retrofitted trails built in abandoned railway corridors. The national organization known as Rails-to-Trails has been successful in creating the American Tobacco Trail connecting Durham, North Carolina with surrounding areas. Rocky Mount could consider similar initiatives and enlist the help of the Rails-to-Trails group. The City should investigate the availability of grant funds to accomplish this strategy and link improvements to a Bikeway/ Greenway Master Plan that identifies areas where bikeways/ greenways are needed.

### **Goal: Maintain Existing Sidewalks**

Damage to sidewalks presents a safety issue for pedestrians. A regular assessment of sidewalk facilities in Rocky Mount should note conditions and flag locations that are in need of immediate repair. Funding should be set aside for routine maintenance to keep the backlog of maintenance to a minimum.

### **Goal: Promote Traffic Safety Through The Coordination Of Railroad Crossing Improvements As Well As Lighting And Sight Distance Improvements Along Walkways And Streets**

Numerous railway crossings exist in Rocky Mount that present a risk to the community. While much of the rail traffic on the tracks is short line switching type operations that typically involve low speed train maneuvers, this results in drivers of private vehicles taking chances in crossing the tracks to avoid lengthy delays. A nationwide program known as Operation Lifesaver is being promoted by the railroads and various state agencies to increase awareness and funding for improvements.

**Goal: Improve Visibility Along Streets And Sidewalks By Enhancing Lighting And Minimizing Visual Obstructions To Oncoming Cars, Bicycles, Buses And Pedestrian Traffic**

Street light luminescence should be inventoried at intersections and crosswalks to ensure the adequate light is provided for safety. Furthermore, sight distances at unsignalized intersections should be measured and accident rates analyzed and compared to identify high-accident locations that warrant improved sight distance measures. Sometimes, a stepped-up effort to trim overhanging branches and trees can be effective at improving the safety at intersections.

**Goal: Work to Mitigate Impact of Transportation on the Environmental Air Quality**

Mitigation efforts include such strategies as promotion in the use of public transportation, and the expansion of routes and operating schedules for public transportation already specifically mentioned in Chapter 5-Transportation. Additional strategies include: Maintain coordinated traffic signal system to minimize wait time at intersections & update the timing plans for the traffic signal system based on traffic volumes by time of day to minimize wait times at intersections.

Mutli-modal transportation also helps lower negative impacts of vehicles. Strategies designed to increase walking and bicycling (e.g., construction of sidewalks and bike lanes) also help in that endeavor.

**Chapter 6 – Community Facilities**

**Goal: Provide Appropriate Street Lighting To Streets And Other Public Places**

Cost effective street lighting is provided in all the public areas Downtown and in neighborhoods as a means of promoting safety and encouraging pedestrian activity. It is a key element in attracting businesses and revitalizing neighborhoods. The City should establish programmed maintenance, using Operation Feedback to assist in identifying non-functioning lights or areas needing lights installed.

**Goal: Continue to Develop A Regional Recreation Path System Along The Tar River And Major Tributaries, Linking Adjacent Neighborhoods, Parks And Schools**

Rocky Mount's rivers and streams form corridors that spread throughout the City and region and are ideal lands to include in the City's public open space system. The City should continue in its efforts to develop the Tar River Trail. The CRMP promotes extending trails to connect with major park facilities in close proximity of the stream system. In addition, Hazard mitigation properties, acquired as a result of the 1999 Flood, provide opportunity to extend this system to create a open space linkage that will truly provide for a natural corridor for all to enjoy.

**Goal: Enhance Transportation Options To Reach These Facilities, Especially For The Senior Citizens, Disabled And Disadvantaged**

Providing transportation options is a critical way to make community facilities more accessible. Neighborhood access via trails, bikepaths and sidewalks is one way to achieve this objective.

### **Chapter 11 – Community Design**

#### **Downtown Central City District Corridor**

This district and corridor is characterized by a variety of land uses including residential, commercial, office, government and religious. The most prominent characteristic of the Downtown is the CSX Railroad which divides the Downtown into two halves. The historical significance of the placement of the tracks is clear, but the consequences of its continued presence are many. While it continues to provide a marvelous opportunity as a transportation system, the tracks represent a physical and mental division of the city in many ways. The inconvenience of trains blocking access crossings throughout the day is a hindrance to traffic flow which is only partially solved by the Sutton tunnel and bridge at the southern end and railroad overpass at the northern end of the Downtown area. The difficulty in pedestrian crossings of the tracks is a critical design problem that must be addressed. Currently, pedestrians must brave the car traffic, the trains and the very tracks themselves to cross from one side of Main Street to the other..... The City must recognize the importance of the Downtown District and continue to seek ways to revitalize the area. Safety, function and appearance must each be addressed. Particular emphasis should be placed on creating a safe environment. In addition to safety, appearance is critical to improving the health and well-being of the area. The use of underground utilities on both sides of the tracks would significantly improve the appearance. The development of green spaces and pedestrian amenities such as benches, lighting, tree-scapes and

increased handicapped-sensitive detailing will increase the pleasurable experience of walking through the Downtown area.

### **Chapter 12 – Neighborhoods**

**Goal: Safe, attractive, pedestrian-friendly neighborhoods – and active neighborhood associations – that promote community pride, preserve historic character, encourage activities for people of all ages and prevent inappropriate commercial and business uses.**

**Goal: Maintain And Upgrade Public Infrastructure Streets, Curb And Gutter, Sidewalks, Street Lighting, Street Trees And Parks On A Regular, Comprehensive Basis**

# APPENDIX E: PUBLIC INPUT



## OVERVIEW

In order to gain local knowledge and input, a public outreach component was included as an integral part of planning efforts for the Rocky Mount Pedestrian Plan. Public input was gathered through several different means including the following: Steering Committee meetings, a workshop at Downtown Live, a Neighborhood President Association meeting, public workshop tables at the YMCA and Braswell Memorial Library, and online efforts (Facebook social media, project website, and online comment form). This offered the representatives and citizens of Rocky Mount opportunity to contribute to the Plan's development.

Steering Committee meetings were held throughout the planning process with representatives from the City of Rocky Mount and NCDOT. These took place to establish visions and goals for this effort. Committee members also identified key opportunities and strategies for the pedestrian system.

## STEERING COMMITTEE

This committee, composed of City and NCDOT staff, and other representatives met four times during the planning process. The group established visions and goals for the Plan, identified areas of need in Rocky Mount, and reviewed the Plan. Members of the Committee marked up maps and identified pedestrian problem areas and possible solutions. The goals are listed in Chapter 1 and input from the Committee is reflected throughout the recommendations of this planning document.

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

## PUBLIC WORKSHOPS

Two public input workshops were conducted during the planning process. The first opportunity was a public, open house workshop at the Downtown Live event at the Imperial Centre for the Arts and Sciences on May 5, 2011. This initial public input session sought to gather preliminary input from citizens to assist in the development of draft recommendations for the plan. On the same day, the Consultant team met with Neighborhood President Association to receive their input on the Plan. Members of this group took comment forms back to their communities to be completed.

The second public workshop presented draft recommendations and solicited public comment at the YMCA and the Braswell Memorial Library on June 17, 2011. Preliminary recommendations were presented in map form at this meeting. Citizens responded to these draft recommendations by providing feedback and discussion of proposed pedestrian facilities.

At both workshop sessions, public input was taken in the form of map markups, written comments, question and answer sessions, and through discussions between citizens, consultant staff from Alta/Greenways and City staff. In addition, a hardcopy public comment form was developed and distrib-

## CITY OF ROCKY MOUNT, NORTH CAROLINA

uted for hand written responses during each meeting.

### **NEWSLETTERS**

Two project newsletters were developed to keep the public updated during the planning process. Newsletters were distributed at the public workshops, other public venues, and digitally on the project website. The front and back of these newsletters can be seen on pages E-3 through E-6.

### **PROJECT WEBSITE AND FACEBOOK PAGE**

A project website was developed as a means to keep the public updated on the planning process. Meeting minutes, newsletters, link to the online comment form, and draft products were made available. Information was also distributed through the City's Facebook page. Facebook followers were made aware of the pedestrian planning process, public workshop events, and the online comment form.

### **COMMENT FORM**

A comment form was developed for Rocky Mount during this process and made available in both hardcopy and online form (see hardcopy version on pages E-7 and E-8). The comment form was available online for five months. To maximize the responses to the online form, the web address was distributed at the public meeting, to local interest groups, in newsletters, and on flyers throughout the City. 601 persons completed the comment form.

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

### **PUBLIC DRAFT PLAN REVIEW**

A large format board that provides a summary of the Draft Plan for public review was placed at a number of different public venues throughout Rocky Mount. The Draft Plan was also made available on the project website with notifications going out through email listserves, the City's website, and Facebook page.



*Above: Steering Committee meeting*



*Above: Public input booth at Downtown Live*



*Above: Neighborhood Presidents Association*

SPRING 2011



# NEWSLETTER for the ROCKY MOUNT PEDESTRIAN PLAN

## Project Contact Information:

Bob League  
Principal Transportation  
Planner

## By Mail:

City of Rocky Mount  
P.O. Box 1180  
Rocky Mount, NC 27802

## By Phone:

252-972-1129

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## Website:

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## PROJECT BACKGROUND

This study will identify major opportunities and constraints for walking in Rocky Mount. An action plan will be developed that includes recommendations to improve pedestrian connectivity and safety. These recommendations will include future sidewalks, greenways, crosswalks, policies, and programs (education, encouragement, and enforcement).

## PROJECT VISIONS AND GOALS

A project kickoff meeting was held in March 2011 with City of Rocky Mount staff, consultants, stakeholders, and active citizens. The draft vision statements were established:

"The City of Rocky Mount:  
...Has an inviting, safe and highly connected local and regional pedestrian network,  
...Ensures access for pedestrians of all ages, abilities and socio-economic backgrounds,  
...Encourages and enables walking to public, community and commercial facilities,  
...Provides walking connections to transit and park and rides to enhance employment access,  
...Makes sure that the communities with the most need for facilities are well served,  
...Works with local schools to educate



Above: City Lake Park (above) and consultant conducting fieldwork (below).

and encourage students on walking safety skills,  
...Integrates comprehensive pedestrian design into all land use planning,  
...Makes safety in design a priority, especially at high-crash intersections and railroad tracks,  
...Provides guidance to NCDOT to ensure the accommodation of pedestrians on local projects,  
...Engages the community in healthy activities through sensible and sustainable design,  
...Returns people and confidence to the streets.



PAGE 1

Above: Rocky Mount photos by Alta/Greenways.



## Work Completed and Next Steps

According to the recent 2009 *Walk the Walk* (CEOs for Cities) report, “houses with above-average levels of walkability command a premium of about \$4,000 to \$34,000 over houses with just average levels of walkability in the typical metropolitan areas studied.”

### Project Committee Meetings

Project consultants, City staff, stakeholders, and active citizens met in March 2011 to learn about the pedestrian planning process, discuss visions and goals for Rocky Mount, and to identify areas of pedestrian safety concern and needs within the City of Rocky Mount. This is the first of four committee meetings that will occur during this project.

### Existing Conditions Analysis

Project consultants completed fieldwork in April, examining conditions around the City of Rocky Mount. The fieldwork included a thorough on-site assessment of existing infrastructure within the city limits; and an intersection inventory of existing conditions such as the presence of marked crosswalks, countdown signals, and curb ramps. The field assessment broadly analyzed the strengths and weaknesses of the existing pedestrian network, and determined opportunities and constraints for making Rocky Mount more walkable.

**Public Workshop** The first workshop is **May 5, 2011**. **More information is below.**

**Draft Plan and Final Plan** During the rest of the spring, project consultants will generate a full draft plan that includes policy recommendations, program strategies, and an implementation guide. The final plan is scheduled for completion in fall 2011.



## How to Stay Involved

### Project Consultants:

ALTA/GREENWAYS

1. Check out [www.greenways.com/rockymount.html](http://www.greenways.com/rockymount.html) for links to additional project information and to **complete an online comment form**.

2. Stop by the **Public Open House Booth (during Downtown Live)**:

*When: Thursday, May 5, 2011 6:00 PM - 8:00 PM*

*Where: The Imperial Centre for the Arts & Sciences, 270 Gay Street, Rocky Mount, NC*

3. If you prefer to send a letter with your ideas, make a phone call, or to email, please refer to the contact information on page one.

SUMMER 2011



NEWSLETTER #2 for the

# ROCKY MOUNT

## PEDESTRIAN PLAN

### Project Contact Information:

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Principal Transportation  
Planner

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P.O. Box 1180  
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### PROJECT UPDATE

A Project Steering Committee, formed of City staff and key stakeholders has met twice to guide the planning process and will meet again in late June. A consulting firm, Alta/Greenways, was hired by the City to develop the Pedestrian Plan and has conducted an analysis of existing pedestrian conditions. To date, two steering committee meetings and one public meeting have taken place. Nearly 500 people have participated thus far, providing their input. There is still time to provide input to help make Rocky Mount a more walkable City (see following page).

### DRAFT PLAN COMPLETE

The City of Rocky Mount has completed a Draft Plan to address pedestrian transportation and recreation needs. Through a combination of fieldwork, public input, steering committee input, City staff input, and an examination of existing conditions and plans, a draft pedestrian network has been developed, awaiting public review.

The draft plan contains the following chapters:

Chapter I - Introduction/Vision  
Chapter II - Existing Conditions  
Chapter III - Pedestrian Network



Above: Second Steering Committee meeting in May (above) and meeting with neighborhood presidents group at City Hall (below).

Chapter IV - Implementation  
Appendix A - Design Guidelines  
Appendix B - Programs  
Appendix C - Policies  
Appendix D - Existing Plan Summary  
Appendix E - Public Input Summary  
Appendix F - Funding



Above: Rocky Mount photos by Alta/Greenways.



## Work Completed and Next Steps

*According to Rails-to-Trails Conservancy, existing walking and biking trails add \$1.4 billion in economic activity nationwide each year in retail and tourism alone, on top of increased real estate values, business profits from bicycle and pedestrian facility improvements, time savings, and healthcare cost savings.*

### **Project Committee Meetings**

Project consultants, City staff, stakeholders, and active citizens met in March and May 2011 to learn about the pedestrian planning process, discuss visions and goals for Rocky Mount, and to identify areas of pedestrian safety concern and needs within the City of Rocky Mount.

### **Public Workshop #1**

On May 5th, project consultants and City staff met with members of the Neighborhood Presidents Association to gather input on pedestrian needs in local communities. Also on May 5th, an open house workshop was held during the Downtown Live event at the Imperial Centre for the Arts & Sciences. Members of the public completed comment forms, spoke with the project team, and marked up maps. Citizens were able to voice their ideas and concerns for pedestrian safety and needs in Rocky Mount.

**Public Workshop #2** The second workshop opportunity is **June 17, 2011**. **More information is below.**

**Draft Plan and Final Plan** During June and July, City staff and the general public will have an opportunity to review a full draft plan that includes policy recommendations, program strategies, and an implementation guide. The final plan is scheduled for completion in Fall 2011.



## How to Stay Involved

### **Project Consultants:**

ALTA/GREENWAYS

1. Check out [www.greenways.com/rockymount.html](http://www.greenways.com/rockymount.html) for links to additional project information and to **complete an online comment form**.

2. Stop by one of two places to provide input on **June 17**:

**YMCA (7am-9am)**

**Braswell Memorial Library during summer reading program (10am-1pm)**

3. If you prefer to send a letter with your ideas, make a phone call, or to email, please refer to the contact information on page one.



# PUBLIC COMMENT FORM for the ROCKY MOUNT PEDESTRIAN PLAN



**1. How do you rate present pedestrian conditions in Rocky Mount? (select one)**

*Excellent | Good | Fair | Poor*

**2. How important to you is improving walking conditions in Rocky Mount? (select one)**

*Very important | Important | Somewhat important | Not important*

**3. Do you feel that the City should consider non-automobile transportation (i.e. pedestrian and bicycle) as a priority? (select one)**

*Yes | No | Doesn't Matter*

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

*never | few times per month  
few times per week | 5+ times per week*

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

*Yes | No*

**6. Should public funds be used to improve pedestrian options and facilities?**

*Yes | No*

**7. Which types of funds should be used? (please circle all that apply)**

*Capital improvements bond or other financing strategy*

*Existing local taxes*

*New local taxes*

*State and federal grants*

*Other: \_\_\_\_\_*

**8. For what purposes do you walk most now and/or would you want to walk for in the future? (circle all that apply)**

*Fitness or recreation*

*Transportation to some destination*

*Social visits*

*Spending time outdoors*

*Other: \_\_\_\_\_*

**9. What walking destinations would you most like to get to? (circle all that apply)**

*Downtown*

*Place of work*

*School*

*Restaurants*

*Shopping*

*Parks*

*Entertainment*

*Trails and greenways*

*Libraries/rec. centers*

**10. What factors discourage walking? (circle all that apply)**

*Lack of sidewalks and trails*

*Lack of crosswalks at traffic signals*

*Lack of pedestrian signals at intersections*

*Automobile traffic and speed*

*Lack of interest*

*Lack of time*

*Aggressive motorist behavior*

*Sidewalks in need of repair*

*Lack of nearby destinations*

*Criminal activity*

*Level of street lighting*

*Lack of landscaping and/or buffer between sidewalk and road*

**11. What do you think are the top roadway corridors most needing new sidewalk?**

Road Corridor #1: \_\_\_\_\_

Road Corridor #2: \_\_\_\_\_

Road Corridor #3: \_\_\_\_\_

**12. What do you think are the top roadway intersections most needing crossing improvements?**

#1: \_\_\_\_\_

#2: \_\_\_\_\_

#3: \_\_\_\_\_

**13. Do you have any other general comments or ideas?**

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PLEASE TURN OVER TO COMPLETE ON BACK SIDE

14. What describes your experiences crossing railroad tracks?  
(please circle all that apply)

*I am frequently delayed by trains when walking.*

*I only walk across railroad tracks at a street crossing.*

*I sometimes walk across the railroad tracks at places other than  
street crossings.*

*I always stop, look, and listen before I cross railroad tracks.*

15. What is your zipcode?

\_\_\_\_\_

16. What is your gender?

*Male* | *Female*

17. What is your age?

*0-18*

*19-25*

*26-35*

*36-45*

*46-55*

*56-65*

*65 and older*

18. Where do you live?

*Rocky Mount*

*Nash County*

*Edgecombe County*

*Other*

19. Please provide your email address below if you would like to  
stay up to date with the Rocky Mount Pedestrian Transportation  
Plan.

\_\_\_\_\_



FOR MORE INFORMATION, PLEASE VISIT  
THE PROJECT WEBSITE AT:

[WWW.GREENWAYS.COM/ROCKYMOUNT.HTML](http://WWW.GREENWAYS.COM/ROCKYMOUNT.HTML)





PLEASE RETURN TO CITY ENGINEERING DEPARTMENT  
AT ADDRESS BELOW

Project Contact: Bob League, City of Rocky Mount; P. O. Box 1180, Rocky Mount, NC 27802; 972-1129, [Bob.League@rockymountnc.gov](mailto:Bob.League@rockymountnc.gov)





*Above: Comment Form Hardcopy, page 2.*

## COMMENT FORM RESULTS




## 1. How do you rate present pedestrian conditions in Rocky Mount? (select one)

		Response Percent	Response Count
Excellent		2.9%	17
Good		23.3%	138
Fair		42.5%	252
Poor		31.4%	186
answered question			593
skipped question			8





## 2. How important to you is improving walking conditions in Rocky Mount? (select one)

		Response Percent	Response Count
Very important		54.1%	317
Important		29.7%	174
Somewhat important		13.1%	77
Not important		3.1%	18
answered question			586
skipped question			15



### 3. Do you feel that the City should consider non-automobile transportation (i.e. pedestrian and bicycle) as a priority? (select one)

		Response Percent	Response Count
Yes		77.6%	447
No		11.8%	68
Doesn't matter		10.6%	61
answered question			576
skipped question			25



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

		Response Percent	Response Count
never		12.6%	74
few times per month		30.9%	181
few times per week		34.0%	199
5+ times per week		22.4%	131
answered question			585
skipped question			16




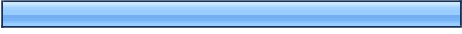

### 5. Would you walk more often if more sidewalks, trails, and safe roadway crossings were provided for pedestrians?

		Response Percent	Response Count
Yes		88.5%	521
No		11.5%	68
answered question			589
skipped question			12





## 6. Should public funds be used to improve pedestrian options and facilities?

		Response Percent	Response Count
Yes		88.2%	509
No		11.8%	68
answered question			577
skipped question			24

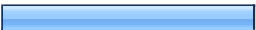






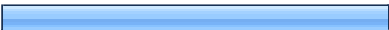

## 7. What types of funds should be used? (Choose all that apply)

		Response Percent	Response Count
Capital improvements bond or other financing strategy		43.7%	247
Existing local taxes		46.5%	263
New local taxes		17.0%	96
<b>State and federal grants</b>		73.6%	416
Other (please specify)		7.4%	42
answered question			565
skipped question			36


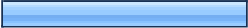






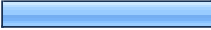



**8. For what purposes do you walk most now and/or would you want to walk for in the future? Select all that apply.**

		Response Percent	Response Count
Fitness or recreation		87.3%	493
Transportation to some destination		31.9%	180
Social visits		29.7%	168
Spending time outdoors		57.9%	327
Other (please specify)			25
answered question			565
skipped question			36

**9. What walking destinations would you most like to get to? Select all that apply.**

		Response Percent	Response Count
Downtown		40.1%	222
Place of work		23.9%	132
School		16.3%	90
Restaurants		39.8%	220
Shopping		47.7%	264
Parks		63.3%	350
Entertainment		29.7%	164
Trails and greenways		62.0%	343
Libraries or recreation centers		38.0%	210
Other (please specify)			19
answered question			553
skipped question			48

### 10. What factors discourage walking? Select all that apply.

		Response Percent	Response Count
Lack of sidewalks and trails		74.3%	423
Lack of crosswalks at traffic signals		39.2%	223
Lack of pedestrian signals at intersections		33.4%	190
Automobile traffic and speed		55.2%	314
Lack of interest		8.4%	48
Lack of time		14.1%	80
Aggressive motorist behavior		40.4%	230
Sidewalks in need of repair		30.8%	175
Lack of nearby destinations		33.6%	191
Criminal activity		59.2%	337
Level of street lighting		34.8%	198
Lack of landscaping and/or buffer between sidewalks and road		28.3%	161
answered question			569
skipped question			32

**11. What do you think are the top roadway corridors most needing new sidewalk?**

Road	Number of Responses
Sunset	122
Winstead	72
Benvenue	48
Hunter Hill	40
Hwy 301 (Wesleyan)	31
Jeffreys	25
Country Club	19
Raleigh Rd.	14
Falls	11
Arlington	11

**12. What do you think are the top roadway intersections needing pedestrian crossing improvements?**





Intersection	Number of Responses
Sunset & Winstead	67
Benvenue & Jeffreys	15
Hunter Hill & Country Club	13
Benvenue & Goldrock	11
Sunset & Buck Leonard	10
Jeffreys & Country Club	9
Grand/Fairview & Raleigh	9
Sunset & River	8
Country Club & Covenant	7
Thomas & Grace	7
Arlington & Dunn	7

**13. Do you have any other general comments or ideas?**

The following “word cloud” was generated using words from open-ended responses at [www.wordle.net](http://www.wordle.net). Words used the most by citizens to answer this open-ended question are bigger below. All responses are shown starting on page E-16.



**14. What describes your experiences crossing railroad tracks? Please choose all that apply.**

		Response Percent	Response Count
I am frequently delayed by trains when walking.		13.7%	62
I only walk across railroad tracks at a street crossing.		32.2%	145
I sometimes walk across the railroad tracks at places other than street crossings.		13.1%	59
<b>I always stop, look, and listen before I cross railroad tracks.</b>		<b>82.7%</b>	<b>373</b>
	Other (please specify)		26
	<b>answered question</b>		<b>451</b>
	<b>skipped question</b>		<b>150</b>








**15. What is your zip code?**

Zip Code	Number of Responses
27804	225
27803	113
27801	95
27809	31
27856	14
27822	8
27802	4
27886	4
Other	17





**16. What is your gender?**

			Response Percent	Response Count
	M	<div><div></div></div>	40.2%	212
	F	<div><div></div></div>	59.8%	315
			answered question	527
			skipped question	74

**17. What is your age?**

		Response Percent	Response Count
0-18		3.9%	21
19-25		4.2%	23
26-35		12.9%	70
36-45		16.2%	88
46-55		20.8%	113
56-65		26.7%	145
65 and older		15.3%	83
answered question			543
skipped question			58

**18. Where do you live?**

		Response Percent	Response Count
Rocky Mount		70.1%	378
Nash County		18.6%	100
Edgecombe County		8.7%	47
Other		2.6%	14
answered question			539
skipped question			62

**13. Do you have any other general comments or ideas?**

#4 Winstead and Sunset #5 Nashville Rd. and Raleigh Rd. #6 Atlanhee and Grand
1.) Pay more attention to areas that are need now. 2.) A walk area should be in each neighborhood that is safe (or near). These do not need to be elaborate. The ones now existing in parks are excellent.
A dog park would be nice in the area
A shoulder or bike lane would be a huge improvement. roads are too narrow to ride or walk safely especially when traffic is so fast.
A trail like the Greenway would be great for recreation and would improve overall health with community involvement.
Add the side walks and bike paths sooner than later. This is a need for health and economy.
All of Rocky Mount need sidewalks, more shops, and more options for people without cars,
All streets in Rocky Mount need sidewalks
at The Lake at Sunset Avenue would be nice if there was some lighting and shops around it so people can go at night time to walk- go for ice cream, of just sightseeing with the family
At this time and economy as it is, should not try to spend these funds-we need teachers!
Better biking routes throughout the city connecting the major areas would also be a big improvement.
Bicycle Lanes
Bicycles need to be encouraged in the city. Wide shoulders, bike lanes, etc. There is NOTHING today provided for bikes. In fact it is dangerous to ride.
BIKE LANES
Bike Lanes Please
Bike lanes would be very helpful on multiple streets
Bike paths - especially when roads are being widened or worked on anyway...missed opportunities...sunset towards project from halifax towards old carriage rd - should have put in sidewalks. new park in red oak..neighborhoods East of there need bike paths - very dangerous trying to ride on 2 lane road to get to park
Bike paths that lead to YMCA
Bike ride on major bicycle ride in middle of road, not on sidewalk. No reflector, deical
Bike trails are needed
bike transportation is also critically important to cutting fuel consumption & promoting healthier lifestyle
Bikeways are also needed.
Can we get a walk and drive rap over railroad tracks?
Change the city speed limit to keep all pedestrian's safe from injuries from motorist..
Children stop walking in the street

Condider Bike paths as well.
Connect golden east mall to falls rd sidewalk
Connect neighborhoods. Such as beaver pond and foxhall areas. Need a dog park at empty field off winterberry drive. Lots of people walk dogs in that field already.
Crazy to invest money that exposes more fools to crime in Rocky Mount. Anyone walking in this city is a target. How stupid do you think we are?
Crosswalks should be available near all public transit stops. Many people use the bus for work and exit at Sunset and Winstead and have no safe way to cross the street
Cut rates on utilities. They are outrageous
Deal aggressively with gang activity--robbing and killing, etc., to make communities safer to walk
Do not use tax money for unnecessary reasons
Educate public on proper bike use in the roadway
Falls Road streets alone are in terrible shape.
Fix the POTHOLEs FIRST, Then whenever the city improves the side streets we can move on to this.
Form a task group of walkers & bike riders to help show the area of useage or areas we'd use if safe
Former railroad ways make great walking and biking paths.
Funds if available for anything should be used to improve schools and teacher pay
Get Stokes St. Correct
Get this done quick! A lack of sidewalks increases obesity!
I am a runner often going from the Y and like to run through downtown and neighborhoods around city lake. I have been discouraged from some areas. The more use all areas get from pedestrians, the safer for everybody. And social facilitation dictates once more people are out and about, others will follow. Better health in Rocky Mount and a more bonded community of all races can be the end result. I completely applaud this initiative!
I am an avid cyclist and Rocky Mount desperately needs bike paths throughout the city to get to places of business and not just through parks and greenways. Those are lovely, but they don't get me anywhere.
I am very aware that many do not see the need for this. Covenant Home residents need a safe way to cross Jefferies to get to Food lion as there are some there who do not drive. I have seen others from there walking to Target on the busy road.
I don't drive and the only way I can get groceries is to walk to Food Lion.
I feel that with the continued high prices of gas most people with Bicycles Riding its a conseuction means of transportation
I have visited Australia where they have used a rubber product for side walks which is easier on walkers and joggers. At Walmart in the garden area they have stepping "stones" that are made of that product. It is cheaper and holds up really well.
I hope by increasing pedestrian traffic we can ultimately increase bicycle traffic--but we first have to find a way to deal with the aggressive motorists and a general lack of knowledge about sharing the road with non-vehicular traffic.

I like the options that exist now -- City Lake, Sunset Park, Battle Park. Walking around the neighborhood is tougher, however, due to the lack of sidewalks.

I live in walking distance from Winstead Avenue, where my son attends school. I would love for us to be able to walk to school, but it is not possible due to the lack of sidewalks on Winstead Avenue.

I live within walking distance of nearly anything that I need but do not often venture across the busy highways of Sunset and Winstead Avenues. That aside, here is my dream. 1. Rather than the ridiculously wide, divided highway, that will be rivaled only by the likes of Hwy. 540, and will destroy the most (dare I say ONLY) scenic business route in the city, and destroy businesses in our struggling economy -- why not copy the highway model down near Englewood Baptist Church which is plenty wide for traffic growth. 2. Then, make a sidewalk/greenspace/bike trail one side of the road from somewhere to at least as far as the hospital or Hampton Inn. This area can be a good ambassador for our city with all the nice motels in the area. I have seen many travelers attempt to walk in spite of the inhospitable walking conditions. 3.. This would be a progressive move and an asset to our area. It would utilize to the greatest advantage of being the most beautiful business section in our city. The businesses on the creek property have shown appreciation for the beauty of the landscape with landscaping and appropriate architecture.

I love rockymount!

I love walking for recreation and fitness and find that RM has wonderful places to do that. However, our city is not laid out in a way that walking is convenient to reach entertainment, work, or shopping venues. Which comes first: the venues or the sidewalks? I'd rather have our focus on drawing the venues. If they are good enough, people will walk over hot coals to get to them. Safety is also an issue. Getting to Downtown, even if there were restaurants and stores, is impossible to walk to without going through frightening neighborhoods.

I see a lot of people walking in these areas

I think all the sidewalk

I think it's wonderful that this is given attention.

I think that we need to give top priority to area that support children walking to school. Especially young children.

i think the parks and curves mainly need it to help promote people to walk

I think there are roads and parking lots that should be fixed before sidewalks are built. For example, the drive in front of the Michaels and Planet Fitness where the speed bumps are, is HORRIBLE.

I think this is a great idea for those without transportation especially in the economy now.

I think we need more live music. Downtown live is a good event

I work at Covenant Homes with elderly residents. Some of them would like to walk if there was proper sidewalks and pedestrian lights. Also, it is difficult to turn left out of the driveway to Covenant Homes because of traffic at 8-9am and 4-6pm.

I would like to move improvements in the poor neighborhood

I would like to see improvements in areas that people actually feel safe to walk, rather than focusing only on the downtown area. Also, something needs to be done about the homeless people that stay in the parks that are part of the existing trail system. They can be very confrontational and make using these areas feel very unsafe.
I would like to see more improvements in the poor neighborhoods
I would love to see a pedestrian crossing from City Lake/Power Plant to the Tar River Trail
I would love to see a trail similar to battle creek on the nash co side of rocky mount.
I would walk or bike to work if sidewalks existed. Not all neighborhoods have sidewalks. Rocky Mount (outside of the downtown area) is not set up for walking. It's too dangerous.
If the city show they care about the community, the citizens will show they care
If we build a city on the assumption that people only drive from place to place, there is no incentive to walk or bicycle.
I'm a new resident to RM. It doesn't seem like pedestrians are respected because there aren't sidewalks and it's not convinant trails.
Improve access to Covenant Homes, Inc. by foot and automobile.
Improvments to existing road ways and public transportation would a better place to spend the money. Most of the areas of interest in the City are not in walking distance and most residential areas dont have pocket communitites were it is fesible to walk to and from shopping areas or places of interest.
Inform public about bicycle/walking laws—side with traffic (follow traffic laws), walk against traffic (facing traffic)
It would be better for us walkers
It would be nice to see more sidewalks in neighborhoods. For example, I live on Weatherstone Dr. and there is a sharpe curve just below Winders Creek. This is a dangerous area to walk along the road. I live at 3400 Weatherstone Dr. and I keep the road cleaned on the shoulder so people can jog, walk, or bike close to the curb especially in the sharpe curve. Cars often exceed a safe speed in the curve and cross the center line.
Keep kids off the road
Living close to Harris Teeter, I like to bike to Sunset Park and bike on the trails without taking my car. To get there, you have to either bike on Sunset to cross over 301 or you have to cross 301 at Sam's Club. Both paths are dangerous. Would be nice to bike without worrying about your safety.
Love the summer concerts, Thanks You! Put trees at the sports complex for shade!
Love to walk-feel the need for more security in some areas.
Lower the speed limits near all walkways and more speed limit controls,particularly on Sunset Ave. Thanks for the survey.
Mass transit system to Raleigh
more bike friendly trails or accessibility
More bike trails, too (a little, but not much mentioned here).
more greenway trails, connectors and spurs

More handicapped accessibility.
More lighting in neighborhoods
most comments also apply to bikes as well as walkers
My family and I enjoy the Tar River Trail but would like to see some resting places to rest our backs and feet.
N/A
n0
Need a cross walk at Hunter Hill & Country Club to get to the shopping center.
Need more bike trails
Need more bike trails
Need pedestrian signal at Grace and West Thomas
need to have bike lanes with any road updates, especially sunset, winstead, peachtree, hunter hill TX
Need to look out for people in motorized wheelchairs as well as the ones walking
Need zoning requirements to ensure sidewalks in residential areas and new developments.
Neighborhood needs sidewalks, streetlights and landscape (Battleboro, NC)
No
No
NO
No.
Northgreen needs sidewalks; all new housing developments and any new road projects should include pedestrian sidewalks
note the dirt paths, they tell where people walk. Also, we need walking paths, not necessarily sidewalks along streets, but bike/walk paths that connect downtown to the suburban shopping mall areas. Perhaps a nature walk along the stoney creek. But walking along nature is always better than walking along a highway. and more people are likely to walk if the path is along a pleasant location.
Open-Ended Response
Other towns have made walking trails, Rocky Mount has barricades to prevent walking on them or has taken no initiative to pursue this avenue.
Our city needs to do more to promote locally owned restaurants and locally owned bussiness. Lets have some close to neighborhoods so people can walk to them or ride their bike. The focus on downtown is great, its just that no one lives downtown. Can we get more people to want to live downtown, I don't think so.
Parks needs to have more lighting and less scrubbery near them. Area should be visible at all time to insure safety.
Pedestrian plan would improve look of community and street. Neighborhood would take more pride. Children will not play in the street.

place emergency phones (sidewalk areas) & benches. Additional lighting on roadways. Improve streetscape in 301, sunset ave & benvenue rd. Need a basking robins/carvel or ice cream shop. More family entertainment activities multilingual. Better tv, wireless & radio services.
places that are hard to cross need cross area.
Plan ahead, not in the past.
Please consider improving the roadways and walkways over by Northgreen and Goldrock areas. It always seems like the Westridge area gets the attention of Rocky Mount but the residents of Northgreen, Goldrock area and the apartments over on our side of town deserve attention and consideration too. There are many residents who enjoy fitness and activity outdoors in these areas too but Jeffrey's Road is SO DANGEROUS and there is no shoulder or sidewalk to ride on. I have lived in Rocky Mount for 17 years (all these years in this neighborhood) and I am a runner and love to bike with my kids but have never felt safe to enjoy those two activities in my own neighborhood. Please consider Northgreen too. Thanks so much.
Please make sidewalk repairs/street repairs in the happy hill community. Curbsides are horrible on Beal and West Thomas
Priority for sidewalks should be given [or required] to any roadway in the vicinity of multi-family residences. Focus should be placed on connecting the gaps where existing sidewalks exist. Mainly close to downtown to encourage private investment. New sidewalks should have buffer from automobile traffic.
prisoners as free labor since the taxpayers already pay for their room, board, and small salary...use them to help to cut down on cost!
Promote walking as exercise. Health benefits.
Put more money into safety (i.e. criminal activity) so more families are able to take advantage of recreational options available. Make better options available to Nash county residents. More recreation activities in Nash county like Edgecombe county currently has!
Require new subdivisions to provide walking trails.
Rky Mt. does not have the extra funding - too many losing homes due to excess utilities. Please keep priorities in line
rocky mount is not a pedestrian friendly city and people are forced to walk either on the roads or on front lawns. making rocky mount more pedestrian friendly will improve the standard of living.
Rocky Mount is too sketchy to walk in.
Rocky Mount needs something that sets it apart from other cities and that is affordable for everyone to use.
Rocky Mount's downtown area has more than adequate sidewalks. Parking so you have a place to start. Nothing is close enough to walk to from my house.
safe buttons would be helpful in popular walking areas to summon police if needed.
safety
safety; would be a good idea to have emergency phones, to contact police in case of emergency or injury. perhaps a "blue light phone" like at many colleges, including East Carolina, but where the phone becomes a 2 way communication when the button is pressed, so the police can hear what is going on.

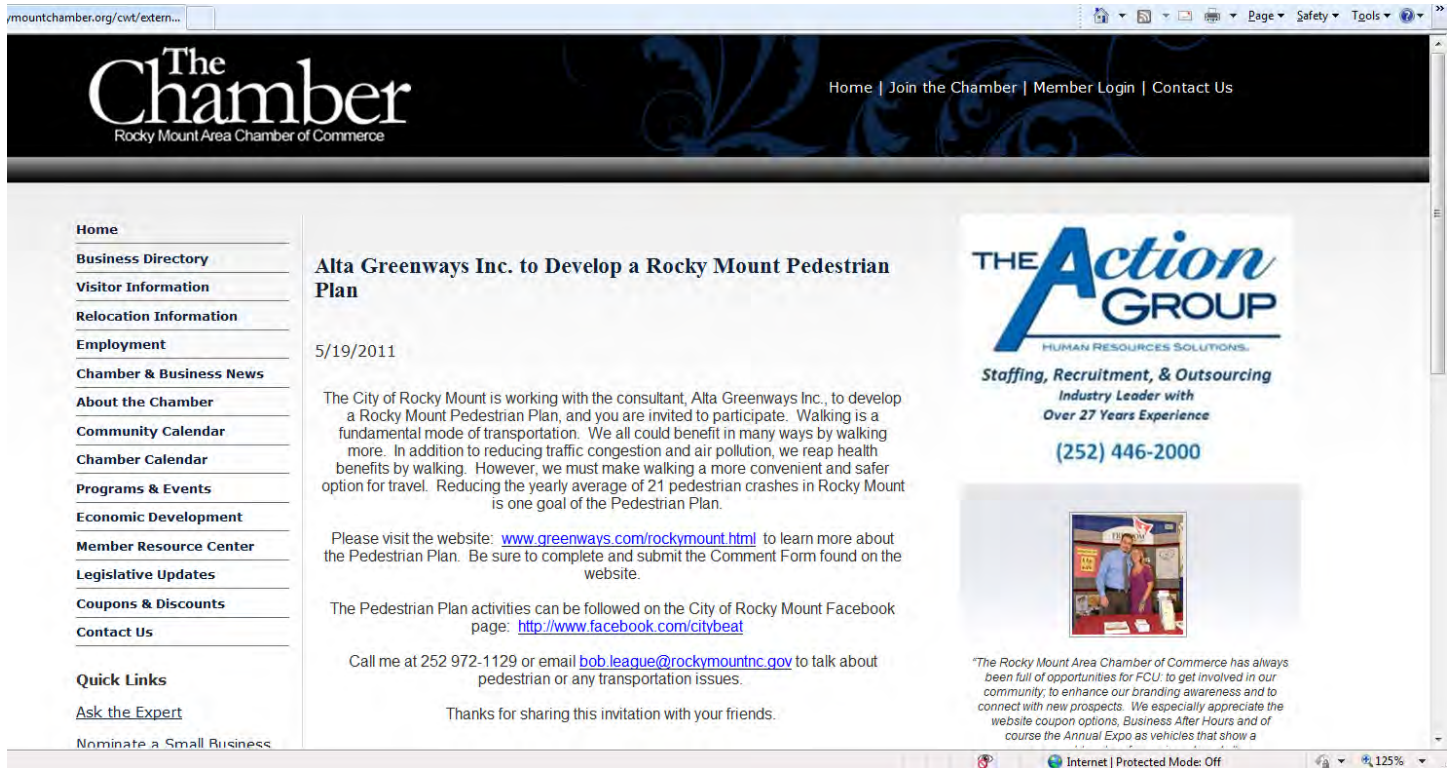
Side and walk
Sidewalk
Sidewalk between Howell and Dillery st. on Star street
Sidewalk is Neccessary
Sidewalk will help more people feel more comfortable in walking. If there were more sidewalk I would feel good at walking to the store vs. driving.
Sidewalks change the character of a city for the better, make it more civilized, make it safer for the folks that have to walk now with the poor economy, make healthier citizens, thus lowering healthcare costs and worth all of the expenses to build them up front.
sidewalks in 300 block of eastern avenue on Down East partnership site need repair- ing. right of ways need trimming on lexington street.
Sidewalks in main shopping center area
Sidewalks need to be installed in populated neighborhoods around Rocky Mount where they currently do not exist, especially along high traffic roads
Sidewalks need to be required in residential areas.
Sidewalks that are 4-5 ft. wide and off the street by a few feet civilize and change the tone of a city. They also gradually contribute to fitness, lower healthcare costs, and commerce.
significant increase in the number of kids, older people and poorer people must walk in the middle of the road- no access to shopping or work across Benvenue road. A crossing bridge might even be in order.
Stop light at the New Morning Star Church Road (New Crossing) paved Marily St.
Sunset Ave, from I-95 to downtown. Country Club Rd. Hunter Hill Rd, from Benvenue Rd to Winstead Rd.
Sunset avenue from Wesleyan blvd out to i-95 gets a LOT of foot traffic & there is absolutely no safe place to walk, bike, or cross. I live 0.9 miles from my work but don't bike or walk there simply because it's so unsafe to do so. If I took a safer route, I have to wind through other neighborhoods & cut through yards to get to work, plus it doubles the mileage traveled.
The area along East Grand near Raleigh St. intersection is looking very nice where sidewalk is being added. This is a much needed improvement!
The city should consider moving toward parking maximums for new development, as opposed to required parking minimums. Also, sidewalks should be a requirement within new residential subdivisions. The natural reaction to these two points for developers would be to locate closer to existing pedestrian infrastructure resulting in more infill growth.
The community is set up for automobile transportation and long distances. Secondly, this does not apply to us, we live in the country.
the existing greenways are wonderful. There are so many pedestrian dependent it would be great to add on trails
The greenway system should be completed as originally proposed out to the reservoir and all subdivisions should connect by sidewalk to main streets. Bicycle pathways should be given more priority with an expanded greenway system.

The older sections of the city have sidewalks, but there is virtually nothing on the west side of town, and probably nothing on the north side.
The poor pedestrian and biking conditions in RMT are a major drawback to living here and I'm thrilled to see the city addressing this problem.
The progress of the past few years is great; no criticism; but, would love to see the whole city connected by pedestrian and/or greenways - Preferably, something like the Tar River Trail connecting the entire city (not every neighborhood; too expensive; but all significant extremities somehow safely and reasonably connected) so that it is also bicycle accessible throughout - Since sidewalks are for walking only, greenway expansion would be very attractive and practical for city growth, especially in light of current fuel prices and energy concerns - Rocky Mount is a great size (not too small, not too large) - Future progress and attractiveness for growth must involve navigationally friendly options for diverse needs and interests - ***Would love to see proactive/preventive measures in place to promote safety and desirability along public corridors, sidewalks, and greenways - Bicycle and/or mounted police regularly (daily) patrolling these areas would deter crime and destructive activity and in turn promote a safe and desirable atmosphere - Rocky Mount is a beautiful city on foot and via bicycle, but if people do not feel safe, most will never discover - Connecting the city by greenway will make law enforcement patrolling realistic and (more)affordable - Only a modest portion of law enforcement to do this would be economically realistic on a daily basis; however, once citizens became aware that officers were regularly patrolling in this manner, some would think twice before enacting inappropriate behavior based upon the fact that while an officer or two cannot be everywhere at once, there is always the possibility that one or two are just around the turn; Likewise, those who wish to use these corridors for practical or recreational purposes will be more likely to do so based upon the same presupposition and the visibility of public servants - It could be a very desirable and rewarding position within the RMPD, and ... the cost of repairs and removal due to crime and graffiti, as well as the greater cost of investigation as well as funds wasted on underutilized progress will probably cost more in the long run than reasonable preventive measures - A city our size must grow and improve with somewhat of a personal touch; this is "do-able" in a municipality of our size. Thank you!
The river trail that goes through Sunset Park, Battle Park is scenic, but when I have walked there, I don't feel safe going alone there. There are not many people there and it is isolated. The paths are cracked and need to be fixed.
there are no real places to walk without excessive traffic or places to go without a horrendous amount of traffic to watch out for
There are no sidewalks in little Easonburg area.
There are no sidewalks on western side of town besides Woodgreen which developed with sidewalks.
there are sidewalks on all streets in town and it makes it safe to play and ride bikes.
There should be more sidewalks along major arteries.
They need to spend money for what we really need it for.
This is over due.
Town is not a walker friendly or bicycle community!!

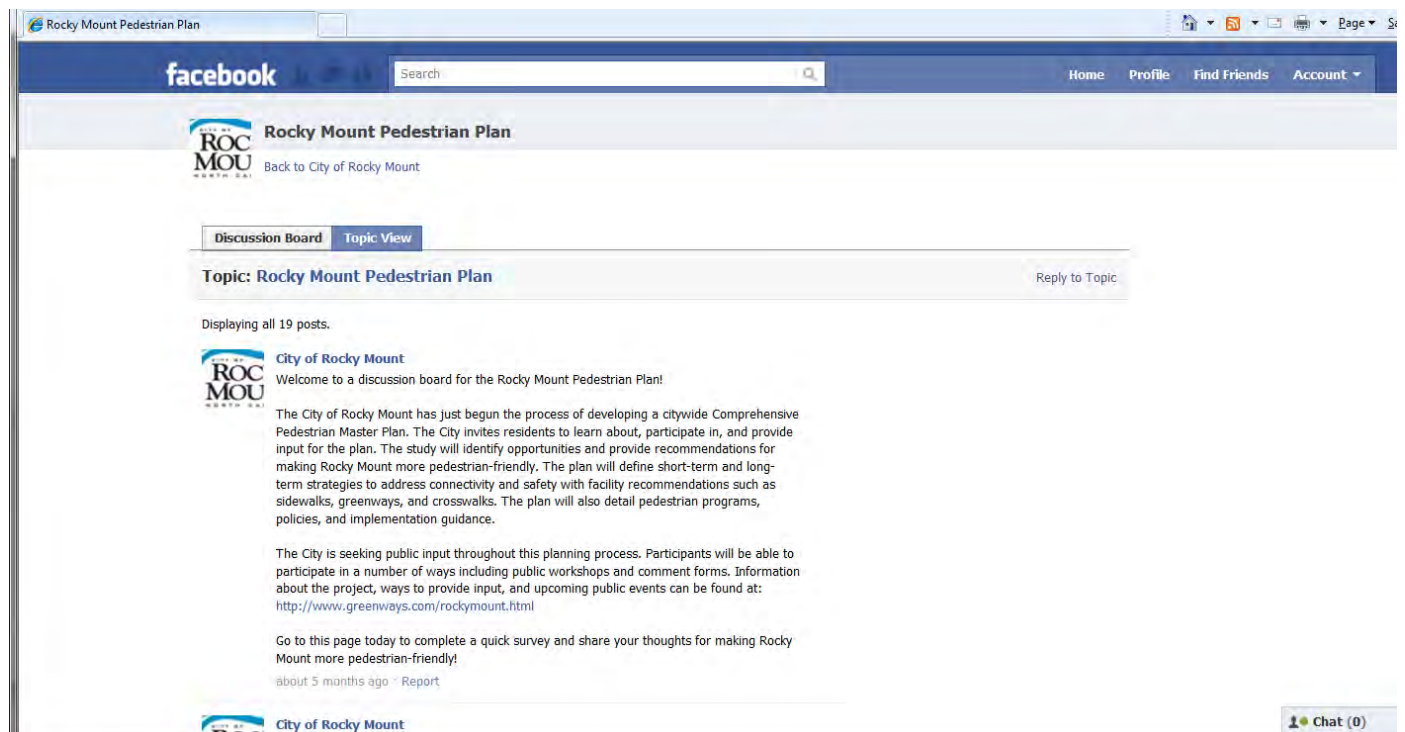
Turning Lanes are desperately needed at 48 & 43 - with all the traffic from the shopping area & new businesses at each corner - traffic is forced to drive through Rite-Aid and Walgreens instead of sitting there wasteing gas - turning lanes are a must.
Unsure of how possible or realistic it could be, but maintenance at most neighborhood stop signs hinder me from being able to view pedestrians, etc when stopping or proceeding.
Use condemned neighborhoods as parks or recreation areas
Very interested in bike lanes for commuting around town
Visitors from England remarked that this city is pedestrian unfriendly. Sidewalks are badly needed to encourage walking and combat obesity.
Walking anywhere along 301 is an exercise in suicide. Edgemont neighborhood needs sidewalks in many areas. Wilson put sidewalks throughout their older neighborhoods recently and Rocky Mount can too.
Walter Dr. need more paving on the street
We need to continue to improve our greenways like we did near the YMCA and tie into other areas shopping etc. We need to find a way that you could ride your bike from Westridge area to the Y area on trails paths etc. The future of our area depends on attractions for people to move here who may want to commute to Raleigh. Thanks, Carl
We walk the Tar River Greenway from Sunset Park to MLK Park and enjoy it. I wish there were more places to walk that would not be right alongside traffic.
We went to Raleigh this weekend just to go on bike trails because Rocky Mount is lacking. I hate the idea of driving an hour to go biking, but there is nothing really here.
what happened to the bicycle routes planned for approximately 5-8 years ago?
Will there be curb cuts for people in wheelchairs?
With increased gas, inspection, insurance and maintenance costs, there are many people trying to bike. The distance to be traveled in many cases is greater than many people can walk. We really need safe bike routes. Many of these trips involve people transporting groceries and laundry. These improvements to sidewalk and bike paths will serve every demographic in the city.
With Westridge Pool open in the summer, the foot traffic, often by children and young teens is heavy and cars fly around the curve by the pool. The sidewalk stops after Nottingham and this road is used DAILY during the summer. Very dangerous to say the least for the ones on foot.
Would like to see bike lanes throughout Rocky Mount
you're doing a good job. everything going well

## OUTREACH DOCUMENTATION

A number of different methods were used to reach out to the public and disseminate information about the planning process. The following highlights some of those efforts that included both print and online media.



Above: Chamber website.



Above: City Facebook discussion page.

# city worker Update

## GREAT AMERICAN CLEAN-UP

Let's keep Rocky Mount clean and green!



It is time for the Great American Cleanup! Keep America Beautiful of Nash & Edgecombe Counties rallies city employees to do their part to better not only our community, but our planet. We are reminding our friends and coworkers that "Green Starts Here," but the impact we have goes beyond our city borders.

Our cleanup efforts will focus on targeted areas around the city that have been identified as places with litter problems. It is very important to set an example for the community and volunteer to make the first step towards a cleaner Rocky Mount.

Soon you will hear about how your division or department can participate in this citywide cleanup effort. Trash bags, gloves, safety vests, trash grabbers, and bottled water will be provided for each department/division cleanup.

Your support of this effort is very important to the success of the event. Please make every effort to be involved in this year's Great American Clean-up!



### Another incentive!

An ice cream social will be provided to the department, division, or shift (for Fire Department) that has the most staff participation based on the total number of staff employed in a specific department, division, or shift (for RMFD).

## ROCKY MOUNT PEDESTRIAN PLAN

your input is needed!

The City is working with a consultant to develop the Rocky Mount Pedestrian Plan. This plan will serve as a guide for future development of sidewalks, pedestrian crossings, trails and greenways, and other pedestrian related infrastructure. You are invited to participate by completing a survey about pedestrian needs and issues in Rocky Mount.

To take the survey, go to: [www.surveymonkey.com/s/rockymountped](http://www.surveymonkey.com/s/rockymountped)

For more information, or to obtain a printed form for completing the survey, contact Bob League, Principal Transportation Planner, at 972-1129/ext. 1129 or email [bob.league@rockymountnc.gov](mailto:bob.league@rockymountnc.gov).



## THEATRE RECEIVES AWARD

In the picture at right, Ron Law and Mia Self, both board members of the North Carolina Theatre Conference, presents David Nields, Theatre Director at the Imperial Centre, with the 2010 Community Theatre of the Year award! David accepted the award on behalf of theatre staff Michael Baggesi and Pat Allen and all the volunteers who help make Rocky Mount's community theatre program a success.

Support your award-winning community theatre! The remainder of the 2011 theatre season is as follows:

Tuesdays with Morrie - April 29-30, May 6-8

A Lesson Before Dying - Sept. 16-17, 23-25  
to be performed at Booker T. Theater!

Noises Off - Nov. 11-12, 18-20

The 43rd Annual Christmas Chorus  
Dec. 1-2, 4



## city calendar

THURSDAY, MARCH 24 | 10:00 AM  
**GROUNDBREAKING CEREMONY  
FOR STREETScape PROJECT**  
NW MAIN STREET & THOMAS ST.  
LOOK FOR THIS CEREMONY ON TV-19

MONDAY, MARCH 28 | 4:00 PM  
**CITY COUNCIL MEETING**  
CITY COUNCIL CHAMBER

FRIDAY, APRIL 1 | 10:00 AM  
**ARBOR DAY CELEBRATION**  
THE IMPERIAL CENTRE  
SPECIAL GUEST SPEAKERS, SCHOOL DANCE  
GROUPS, & CEREMONIAL TREE PLANTING.



SATURDAY, APRIL 2  
10:00 AM-2:00 PM  
**SUNSET EASTER  
EGGSTRAVAGANZA**  
SUNSET PARK  
THE BIGGEST EASTER  
EGG HUNT IN TOWN!  
ADMISSION AND ALL ACTIVITIES ARE FREE!!  
EASTER EGG HUNT WILL BEGIN AT 11:30 AM.  
BRING YOUR OWN BASKET!

MONDAY, APRIL 11 | 7:00 PM  
**CITY COUNCIL MEETING**  
CITY COUNCIL CHAMBER

TUESDAY, APRIL 12 | 7:00 PM  
**PLANNING BOARD MEETING**  
CITY COUNCIL CHAMBER

THURSDAY, APRIL 14 | 6:00 PM  
**TOWN HALL MEETING**  
WORD TABERNACLE CHURCH  
820 NASHVILLE ROAD | ROCKY MOUNT  
LEARN ABOUT STATE JOB OPPORTUNITIES, LOCAL  
INDUSTRIAL & RETAIL JOB OPPORTUNITIES, AND  
RETOOLING & RETRAINING OPPORTUNITIES  
HOSTED BY THE RM CITY COUNCIL

SATURDAY, APRIL 16 | 11:00 AM-3:00 PM  
**PAWS IN THE PARK**  
SUNSET PARK  
INFO: JOHN BATTLE, EXT. 1155  
972-1155  
MORE INFO AVAILABLE ONLINE AT  
[HTTP://PARKS.ROCKYMOUNTNC.GOV](http://PARKS.ROCKYMOUNTNC.GOV)



SATURDAY, APRIL 16 | 9:00 - 12:00 PM  
**CPR SATURDAYS**  
LEARN CPR FOR FREE!  
CALL 977-1720 TO SIGN UP  
FIRE STATION #5 - 900 SPRINGFIELD ROAD

Above: City newsletter

## CITY OF ROCKY MOUNT, NC PEDESTRIAN PLAN

>> ONLINE SURVEY <<

FACEBOOK PAGE

MEETING MINUTES 3/9/2011

MEETING MINUTES 5/5/2011



PEDESTRIAN FACT SHEET

PEDESTRIAN FACT SHEET #2

NEWSLETTER #1

NEWSLETTER #2

CITY OF ROCKY MOUNT   ALTA PLANNING + DESIGN   GREENWAYS INC


**Project Update >** Over 550 comment forms have been completed as of June 22. Hurry if you haven't filled yours out (see top left for link)! The comment form will be closed for input in July.

The City of Rocky Mount has almost completed the Draft Pedestrian Plan. This Plan will be made available for public review in July. The plan will provide guidance for making Rocky Mount more walkable. Improvement recommendations will include sidewalks, greenways, and crossing improvements, along with education, encouragement, and enforcement programs.

**1st Public Workshop a Success!** A pedestrian plan input booth was set up at the Downtown Live event on May 5th. Nearly 100 people completed comment forms who attended the outdoor concert.

**2nd Public Workshop a Success!** A table/booth was set up at the YMCA and at the Library Summer Reading Program event on June 17th. People stopped by to learn about the project and provide input.

*Above: Project website*



*Above: A project flyer that was posted on the electronic message board at the Braswell Memorial Library.*

# APPENDIX F: FUNDING



## OVERVIEW

Due to the cost of most construction activities, it may be necessary to consider several sources of funding, that when combined, would support full project construction. This appendix outlines likely sources of funding for the identified projects at the federal, state, local government level and from the private sector.

## 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, where shortfalls may make it difficult to accurately forecast available funding for future project development. Federal funding typically requires a local match of approximately 20%, but there are sometimes exceptions, such as the recent American Recovery and Reinvestment Act stimulus funds, which did not require a match. Since these funding categories are difficult to forecast, it is recommended that the local jurisdiction work with its MPO on getting pedestrian projects listed in the State Transportation Improvement Program (STIP), as discussed below.

The following is a list of possible Federal funding sources that could be used to support construction of many pedestrian improvements. Most of these are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. However,

it should be noted that the FHWA encourages the construction of pedestrian facilities as an incidental element of larger ongoing projects. Examples include providing paved shoulders on new and reconstructed roads, or building sidewalks, trails and marked crosswalks as part of new highways.

## SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT - A LEGACY FOR USERS

Federal funding for transportation is primarily distributed through a number of different programs established by Congress. On August 10, 2005, President Bush signed into law the Safe Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU). The legislation updated Titles 23 and 49 of the United States Code (U.S.C.) and built on the significant changes made to Federal transportation policy and programs by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1998 Transportation Equity Act for the 21st Century (TEA-21). The legislation had a number of provisions to improve conditions for bicycling and walking and increase the safety of the two modes.

SAFETEA-LU authorized the federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009. SAFETEA-LU legislation expired on September 30, 2009, but at the time of this writing had been extended

to September 30, 2011. It is expected that Congress will extend the bill into 2011 or reauthorize the legislation. It should therefore be noted that it is not possible to guarantee the continued availability of any listed SAFETEA-LU programs, or to predict their future funding levels or policy guidance. Nevertheless, many of these programs have been authorized in some form in repeated federal transportation reauthorization acts, and thus may continue to provide capital for improvements.

In North Carolina, federal funds are administered through the North Carolina Department of Transportation (NCDOT) and regional planning agencies. Most, but not all, of these programs are oriented toward transportation rather than recreation, with an emphasis on reducing auto trips and providing inter-modal 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 SAFETEA-LU that are applicable to pedestrian projects. These programs are discussed below, and summarized in Figure 1.

More information: <http://www.fhwa.dot.gov/safetealu/index.htm>

### **SURFACE TRANSPORTATION PROGRAM**

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities. Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancil-

lary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is an eligible activity.

Funds under Title 23 generally may be used only for projects that are on the Federal-aid highway system -- which typically does not include local or minor collector roads. However, bicycle and pedestrian projects not located on the Federal-aid highway system may be funded under the STP (and therefore also under the Transportation Enhancement Activities, Congestion Mitigation and Air Quality Improvement Program) and under the Bridge Program. Highway Safety Improvement Program funds may be spent on any public highway or trail. In addition, non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds.

More information: <http://www.fhwa.dot.gov/safetealu/factsheets/stp.htm>

### **NCDOT ENHANCEMENT FUNDING (ENHANCEMENT PROGRAM CURRENTLY ON HOLD)**

The federal Transportation Enhancement (TE) program is administered by the state Project Development Branch and is traditionally funded by a set-aside of Surface Transportation Program (STP) funds. Ten percent of STP funds are designated for Transportation Enhancement (TE) activities, which include the "provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists," and the "preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails)" 23 USC Section 190 (a)(35). TE grants can be used to build a variety of pedestrian, bicycle, streetscape, and other improvements that strengthen the cultural, aesthetic, and environmental aspects of the State's intermodal transportation system.

**FIG. 1 BICYCLE/PEDESTRIAN FUNDING OPPORTUNITIES**

	National Highway System	Surface Transportation Program	Highway Safety Improvement Program	Safe Routes to School Program	Transportation Enhancement Activities	Congestion Mitigation/Air Quality Program	Recreational Trails Program	Federal Transit Capital, Urban & Rural Funds	Transit Enhancements	Bridge	State and Community Traffic Safety Program	State/Metropolitan Planning Funds	Transportation and Community and System Preservation Pilot Program	Access to Jobs/Reverse Commute Program	Federal Lands Highway Program	Scenic Byways
Bicycle and pedestrian plan		*				*						*	*			
Shared use path/trail	*	*		*	*	*	*			*					*	*
Single track hike/bike trail							*									
Spot improvement program		*	*	*	*	*										
Maps		*		*		*					*					
Trail/highway intersection	*	*	*	*	*	*	*								*	*
Sidewalks, new or retrofit	*	*	*	*	*	*		*	*	*					*	*
Crosswalks, new or retrofit	*	*	*	*	*	*		*	*						*	*
Signal improvements	*	*	*	*	*	*										
Curb cuts and ramps	*	*	*	*	*	*										
Traffic calming		*	*	*									*			
Coordinator position		*		*		*							*			
Safety/education position		*		*		*					*					
Police Patrol		*		*							*					
Safety brochure/book		*		*	*	*	*				*					
Training		*		*	*	*	*				*					

source: <http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm#bp4> on May 27, 2011

The State typically will make a Call for Projects, and each project must benefit the traveling public and help communities increase transportation choices and access, enhance the natural environment and create a sense of place. The TE program funds project design, engineering, and construction. To improve chances of selection, applicants should demonstrate strong community support. Chances are also improved if the local match is higher than the required 20%. The program has been on hold since 2006, though funding is likely to become available again in the future with the reauthorization of the federal transportation bill.

A limited amount of statewide Enhancement funds are available each year for landscaping, stormwater runoff management, and pedestrian and bicyclist safety as a part of larger transportation projects. These funds are not allocated through the TE call for projects, and must be evaluated through the TIP prioritization process.

More information: <http://www.ncdot.gov/programs/Enhancement/>

### **SAFE ROUTES TO SCHOOL PROGRAM THE NCDOT SAFE ROUTES TO SCHOOL (SRTS)**

program is a federally funded program to distribute funding and institutional support to implement SRTS programs in states and communities across the country. SRTS programs facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools. The Division of Bicycle and Pedestrian Transportation at NCDOT is charged with disseminating SRTS funding.

From 2005 to 2009, the state of North Carolina has been allocated \$15 million in Safe Routes to School funding for infrastructure and non-infrastructure projects. In 2009, more than \$3.6 million was distributed to 22 local agencies. All proposed projects must relate to increasing walking or biking

to and from an elementary or middle school. An example of a noninfrastructure project is an education or encouragement program to improve rates of walking and biking to school. An example of an infrastructure project is construction of sidewalks around a school. Infrastructure improvements under this program must be made within 2 miles of an elementary or middle school. The state requires the completion of a competitive application to apply for funding. No local match is required, and individual grant awards are limited to approximately \$200,000. More information: <http://www.saferoutespartnership.org/state/statemap/northcarolina> or contact DBPT/NCDOT at (919)807-0774.

### **SAFE ROUTES TO SCHOOL MINI-GRANTS**

The National Center for Safe Routes to School offers 25 mini-grants of \$1,000 each to parents, students, schools, community leaders, nonprofit organizations and local, state, and tribal governments who partner with elementary and middle schools to support SRTS activities that enable and encourage children to safely walk and bicycle to school. Funds may be used for promotional and educational materials, safety items, equipment rentals and professional services. Applications are typically due in May for Fall implementation. The National Center seeks clear, well-thought-out application responses that:

- Propose activities that can address the school's particular situation or interests and that have the potential to have a broad reach and lasting impact;
- Demonstrate a reasonable connection between activities and desired outcomes, and include a plan for measuring those outcomes; and
- Include a clear description of how funding will be used for these activities.

More information: <http://minigrants.saferroutesinfo.org>

### **HIGHWAY SAFETY IMPROVEMENT PROGRAM**

The Highway Safety Improvement Program (HSIP) is a Federal funding source administered through NCDOT focusing on potentially hazardous locations on North Carolina's roads, with an emphasis on high risk rural roads. Some eligible uses of these funds would include traffic calming, bicycle and pedestrian safety improvements, and installation of crossing signs. The ultimate goal of the HSIP is to reduce the number of traffic crashes, injuries and fatalities by reducing the potential for and the severity of these incidents on public roadways. The application process considers the types of collisions in the area, and favors projects that select countermeasures that offer the most cost effective solution for the problem. A formula apportions HSIP funds to state departments of transportation (DOT) to administer, but any public road or pathway, including those owned by local governments, can benefit.

More information: <http://safety.fhwa.dot.gov/hsip/resources/fhwas09030/> and <http://www.ncdot.org/doh/preconstruct/traffic/safety/Programs/>

### **HIGH RISK RURAL ROADS PROGRAM**

The purpose of the High Risk Rural Roads Program (HR3) program is to reduce the frequency and severity of collisions on rural roads by correcting or improving hazardous roadway locations or features. For a project to be eligible for HR3 funds, the project must be located on a roadway functionally classified as a rural major or minor collector, or a rural local road. There are 21 categories of projects eligible for funding under this program, including a category for projects that improve pedestrian or bicyclist safety.

NCDOT, Brian Mayhew (919) 715-7818  
Bmayhew@dot.state.nc.us

### **TRANSPORTATION, COMMUNITY, AND SYSTEM PRESERVATION PROGRAM**

The Transportation, Community, and System Preservation (TCSP) Program provides federal funding for transit-oriented development, traffic calming, and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services, and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The TCSP Program funds require a 20 percent match. Pedestrian and bicycle projects meet several TCSP goals, are generally eligible for the TCSP program and are included in many TCSP projects. Past projects in North Carolina funded by TCSP include a greenway project in Knightdale and pedestrian connections through neighborhoods in Charlotte.

Because TCSP program is one of many programs authorized under SAFETEA-LU, current funding has only been extended through September 30, 2011, and program officials are not currently accepting applications for 2011. In most years, Congress has identified projects to be selected for funding through the TCSP program. Assuming that this method is used to allocate TCSP funds in the future, local jurisdictions will need to work closely with their RPO/MPO, NCDOT, and Members of Congress to gain access to this funding.

More information:  
<http://www.fhwa.dot.gov/tcsp/>

## **CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM**

The Congestion Mitigation and Air Quality (CMAQ) Improvement program currently allocates approximately \$20 million annually to North Carolina to fund programs in “air quality non-attainment and maintenance areas” (areas that do not meet federal air quality standards) and projects designed to improve air quality and reduce congestion, without adding single occupant vehicle capacity to the transportation system. These federal dollars can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Purely recreational facilities generally are not eligible.

CMAQ funding is processed by NCDOT through North Carolina Metropolitan Planning Organizations (MPOs). Individual project proposals must meet a minimum cost threshold of \$100,000, and must meet a required local share of 20%.

More information: <http://www.ncdot.org/doh/PRECONSTRUCT/tpb/services/air.html>

## **FEDERAL TRANSIT ADMINISTRATION PROGRAMS**

Federal Transit Administration (FTA) funding is available for projects designed to improve access to transit. Individual grant programs vary on the specific goals, but eligible improvements include crossing improvements, pedestrian signals, sidewalks and trails. Programs of the FTA are described in the following section.

### **NEW FREEDOM PROGRAM**

The New Freedom formula grant program 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 accessibil-

ity, and establishing a mobility coordinator position. Likely eligible improvements include mid-block and high-visibility crossing improvements.

Applications for FTA funds are administered by the FTA, and pass through NCDOT for rural areas and MPO/RPOs for urbanized areas.

More information: <http://www.hhs.gov/new-freedom/> and [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3549.html](http://www.fta.dot.gov/funding/grants/grants_financing_3549.html)

### **FTA JOB ACCESS AND REVERSE COMMUTE PROGRAM**

The Job Access and Reverse Commute (JARC) program was established to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment. Capital, planning and operating expenses for projects that transport low income individuals to and from jobs and activities related to employment, and for reverse commute projects. In North Carolina, these funds have been granted for sidewalks and pedestrian signals.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3550.html](http://www.fta.dot.gov/funding/grants/grants_financing_3550.html)

### **PAUL S. SARBANES TRANSIT IN PARKS PROGRAM**

This program addresses the challenge of increasing vehicle congestion in and around our national parks and other federal lands. Eligible recipients include state, tribal, or local governmental authorities with jurisdiction over land in the vicinity of an eligible area acting with the consent of the Federal Lands Management Area. The funds may support capital and planning expenses for new or existing alternative transportation systems in the vicinity of an eligible area. It includes non-motorized transportation systems such as pedestrian and bicycle trails.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_6106.html](http://www.fta.dot.gov/funding/grants/grants_financing_6106.html)

### **FTA URBANIZED AREA FORMULA PROGRAM**

FTA capital/Operating grant for urbanized areas over 50,000. This grant can be used for pedestrian or bicyclist access to transit.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3561.html](http://www.fta.dot.gov/funding/grants/grants_financing_3561.html)

### **FORMULA GRANTS FOR OTHER THAN URBANIZED AREAS**

This program is formula-based and provides funding to states for supporting public transportation in rural areas with populations of less than 50,000. This grant funds routes to transit, bike racks, shelters, and equipment for public transportation vehicles.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3555.html](http://www.fta.dot.gov/funding/grants/grants_financing_3555.html)

### **TRANSPORTATION FOR ELDERLY PERSONS AND PERSONS WITH DISABILITIES**

This program can be used for capital expenses that support transportation to meet the special needs of older adults and persons with disabilities, including providing access to an eligible public transportation facility.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3556.html](http://www.fta.dot.gov/funding/grants/grants_financing_3556.html)

### **BUS AND BUS RELATED FACILITIES**

This is capital assistance for new and replacement buses, related equipment and facilities. It has traditionally been designated to specific projects at a federal level. This grant can be used for pedestrian or bicycle access to transit and bus racks.

More information: [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3557.html](http://www.fta.dot.gov/funding/grants/grants_financing_3557.html)

### **METROPOLITAN AND STATEWIDE PLANNING**

This program provides funding for state-wide and metropolitan coordinated transportation planning. Federal planning funds are first apportioned to State DOTs. State DOTs then allocate planning funding to MPOs. Eligible activities include pedestrian or bicycle planning to increase safety for non-motorized users, and to enhance the interaction and connectivity of the transportation system across and between modes. [http://www.fta.dot.gov/funding/grants/grants\\_financing\\_3563.html](http://www.fta.dot.gov/funding/grants/grants_financing_3563.html)

### **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 both TIGER I and TIGER II grants). North Carolina jurisdictions should track Partnership communications and be prepared to respond proactively to announcements of new grant programs. Initiatives that speak to multiple livability goals are more likely to score well than initiatives

that are narrowly limited in scope to pedestrian improvement efforts.

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

### **COMMUNITY DEVELOPMENT BLOCK GRANT FUNDS**

State level Community Development Block Grant Recovery (CDBG-R) funds are allocated through the NC Department of Commerce, Division of Community Assistance to local municipal or county governments for projects that enhance the viability of communities by providing decent housing and suitable living environments and by expanding economic opportunities, principally for persons of low- and moderate-income.

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.”

State CDBG funds are provided by the U.S. Department of Housing and Urban Development (HUD) to the state of North Carolina. Some urban counties and cities in North Carolina receive CDBG funding directly from HUD. Each Year, CDBG provides funding to local governments for hundreds of critically-needed community improvement projects throughout the state. Approximately \$50 million is available statewide to fund a variety of projects.

More information: <http://www.nccommerce.com/en/CommunityServices/CommunityDevelopmentGrants/CommunityDevelopment-BlockGrants/>

### **LAND AND WATER CONSERVATION FUND**

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 Department of Environment and Natural Resources as a grant program for states and local governments. Maximum annual grant awards for county governments, incorporated municipalities, public authorities, and federally recognized Indian tribes are \$250,000. The local match may be provided with in-kind services or cash.

More information: [http://www.ncparks.gov/About/grants/lwcf\\_main.php](http://www.ncparks.gov/About/grants/lwcf_main.php)

### **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 funds 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 North Carolina locales indirectly through technical assistance, particularly for community organizations, but is not a capital funding source.

More information: <http://www.nps.gov/ncrc/programs/rtca/> or contact the Southeast Region RTCA Program Manager Deirdre “Dee” Hewitt at (404) 507-5691.

### **NATIONAL SCENIC BYWAYS DISCRETIONARY GRANT PROGRAM**

The National Scenic Byways Discretionary Grants program provides merit-based funding for byway-related projects each year, utilizing one or more of eight specific activities for roads designated as National Scenic Byways, All-American Roads, State scenic byways, or Indian tribe scenic byways. The activities are described in 23 USC 162(c). This is a discretionary program; all projects are selected by the US Secretary of Transportation.

Eligible projects include construction along a scenic byway of a facility for pedestrians and bicyclists and improvements to a scenic byway that will enhance access to an area for the purpose of recreation. Construction includes the development of the environmental documents, design, engineering, purchase of right-of-way, land, or property, as well as supervising, inspecting, and actual construction.

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

### **FEDERAL LANDS HIGHWAY PROGRAM**

The Federal Lands Highway Program (FLHP) is a coordinated program of public roads and transit facilities serving Federal and Indian lands. Funding for pedestrian improvements is available through the Public Lands Highway – Discretionary, and Forest Highways Programs.

### **PUBLIC LANDS HIGHWAY - DISCRETIONARY**

The Public Lands Highway - Discretionary (PLH-D) Program is intended for the planning, design, construction, reconstruction of improvement of roads and bridges

that are within or adjacent to, or provide access to public lands and Indian reservations. PLH-D funding has been used for bike trails, walkways, and transportation planning activities.

More information: <http://flh.fhwa.dot.gov/programs/plh/discretionary/>

### **FOREST HIGHWAYS**

The Forest Highways (FH) Program provides funding to resurface, restore, rehabilitate, or reconstruct designated public roads that provide access to or are within a National Forest or Grassland. Eligible activities include provision for pedestrians and bicycles.

More information: <http://flh.fhwa.dot.gov/programs/plh/fh/>

### **DEPARTMENT OF ENERGY**

The Department of Energy’s Energy Efficiency and Conservation Block Grants (EECBG) grants may be used to reduce energy consumptions and fossil fuel emissions and for improvements in energy efficiency. Section 7 of the funding announcement states that these grants provide opportunities for the development and implementation of transportation programs to conserve energy used in transportation including development of infrastructure such as bike lanes and pathways and pedestrian walkways. Although the current grant period has passed, more opportunities may arise in the future.

More information: <http://www.eecbg.energy.gov>

### **STATE FUNDING SOURCES**

#### **NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT)**

State Transportation Improvement Program NCDOT’s Policy to Projects process uses data regarding pavement condition, traffic

congestion and road safety, as well as input from local governments and NCDOT staff, to determine transportation priorities. This approach ranks projects for all modes of transportation in priority order, based on the department's goals and also determines which projects are included in the department's State Transportation Improvement Program (STIP), a federally mandated transportation planning document that details transportation improvements prioritized by stakeholders for inclusion in the Work Program over the next seven years. The STIP is updated every two years.

The STIP contains funding information for various transportation divisions of NCDOT including: highways, aviation, enhancements, public transportation, rail, bicycle and pedestrians, and the Governor's Highway Safety Program. Access to many federal funds require that projects be incorporated into the STIP. STIP is the largest single source of funding within SAFETEA-LU and NCDOT.

To access the STIP: <http://www.ncdot.org/planning/development/TIP/TIP/>

For more about the STIP process: <http://www.ncdot.org/performance/reform/>

### **SPOT SAFETY PROGRAM**

The Spot Safety Program is a state funded public safety investment and improvement program that provides highly effective low cost safety improvements for intersections, and sections of North Carolina's 79,000 miles of state maintained roads in all 100 counties of North Carolina. The Spot Safety Program is used to develop smaller improvement projects to address safety, potential safety, and operational issues. The program is funded with state funds and currently receives approximately \$9 million per state fiscal year. Other monetary sources (such as Small Construction or Contingency funds) can assist in funding Spot Safety

projects, however, the maximum allowable contribution of Spot Safety funds per project is \$250,000.

The Spot Safety Program targets hazardous locations for expedited low cost safety improvements such as traffic signals, turn lanes, improved shoulders, intersection upgrades, positive guidance enhancements (rumble strips, improved channelization, raised pavement markers, long life highly visible pavement markings), improved warning and regulatory signing, roadside safety improvements, school safety improvements, and safety appurtenances (like guardrail and crash attenuators).

A Safety Oversight Committee (SOC) reviews and recommends Spot Safety projects to the Board of Transportation (BOT) for approval and funding. Criteria used by the SOC to select projects for recommendation to the BOT include, but are not limited to, the frequency of correctable crashes, severity of crashes, delay, congestion, number of signal warrants met, effect on pedestrians and schools, division and region priorities, and public interest.

More information: <http://www.ncdot.org/doh/preconstruct/traffic/safety/Programs/>

### **HIGH HAZARD ELIMINATION PROGRAM**

The Hazard Elimination Program is used to develop larger improvement projects to address safety and potential safety issues. The program is funded with 90% federal funds and 10% state funds. The cost of Hazard Elimination Program projects typically ranges between \$400,000 and \$1 million. A Safety Oversight Committee (SOC) reviews and recommends Hazard Elimination projects to the Board of Transportation (BOT) for approval and funding. These projects are prioritized for funding according to a safety benefit to cost (B/C) ratio, with the safety benefit being based on crash reduc-

tion. Once approved and funded by the BOT, these projects become part of the department's State Transportation Improvement Program (STIP).

More information: <http://www.ncdot.org/doh/preconstruct/traffic/safety/Programs/>

### **NCDOT DISCRETIONARY FUNDS**

The Statewide Discretionary Fund is administered by the Secretary of the Department of Transportation. This \$10 million fund can be used on any project at any location within the State. Primary, urban, secondary, industrial access, and spot safety projects are eligible for consideration, by the Secretary upon direct appeal from a North Carolina jurisdiction.

### **NCDOT CONTINGENCY FUND**

The Statewide Contingency Fund is a \$10 million fund administered by the Secretary of Transportation. The Division Engineer elicits written requests from municipalities, counties, businesses, schools, citizens, legislative members and NCDOT staff. The appeals are reviewed on their merits by the Contingency and Small Urban Funds Committee, which makes recommendations for funding to the Secretary. Written requests must provide technical information such as justification, location, improvements being requested, timing, etc. for thorough review.

More information: [http://www.ncdot.gov/doh/preconstruct/traffic/teppl/Topics/F-19/F-19\\_mm.pdf](http://www.ncdot.gov/doh/preconstruct/traffic/teppl/Topics/F-19/F-19_mm.pdf)

### **SMALL URBAN FUNDS**

Each NCDOT Highway Division administers \$2 million of funds for small-scale improvement projects in urban areas. Projects must be within 2 miles of city limits and have a maximum cost of \$250,000. Requests for small urban funds may be made by municipalities, counties, businesses, school and industrial entities. A written request should be submitted to the Division Engineer pro-

viding technical information such as justification, location, improvements being requested, timing, etc. for thorough review.

### **SPOT IMPROVEMENT PROGRAM**

The Division of Bicycle and Pedestrian Transportation (DPBT) budgets \$500,000 per year for "spot" safety improvements throughout North Carolina. Eligible improvements include drain grate replacement, bicycle loop detectors, pedestrian signals and other small-scale improvements. These funds are used for small-scale projects not substantial enough to be included in the STIP. Proposals should be submitted directly to the Division of Bicycle and Pedestrian Transportation.

### **SMALL CONSTRUCTION FUNDS**

The purpose of these funds is to finance improvements on the State System (US, NC, and SR routes) to be used for projects anywhere in the counties. These funds are used to fund a variety of transportation projects for municipalities, counties, businesses, schools, and industries throughout the state. There is a \$250,000 maximum amount per request per fiscal year. Any project with a total cost greater than \$150,000 requires a resolution or a letter of support for the project from the local jurisdiction.

More information: <http://www.nctransportationanswers.org/ourforms/SMALLCONSTRUCTIONFORM.pdf>

### **GOVERNOR'S HIGHWAY SAFETY PROGRAM**

The Governor's Highway Safety Program (GHSP) funds safety improvement projects on state highways throughout North Carolina. All funding is performance-based. Substantial progress in reducing crashes, injuries and fatalities is required as a condition of continued funding. This funding source is considered to be "seed money" to get programs started. The grantee is expected to provide a portion of the project costs and is expected to continue the program after

GHSP funding ends. State Highway Applicants must use the web-based grant system to submit applications.

More information: <http://www.ncdot.org/programs/ghsp/>

### **BICYCLE AND PEDESTRIAN PLANNING GRANT INITIATIVE**

The Bicycle and Pedestrian Planning Grant Initiative is a matching grant program administered through NCDOT that encourages municipalities to develop comprehensive bicycle plans and pedestrian plans. The Division of Bicycle and Pedestrian Transportation (DPBT) and the Transportation Planning Branch (TPB) sponsor this grant. All North Carolina municipalities are eligible and are encouraged to apply. Funding allocations are determined on a sliding scale based on population. Municipalities who currently have bicycle plans or pedestrian plans, either through this grant program or otherwise, may also apply to update their plan provided it is at least five years old.

More information: <http://www.ncdot.gov/bikeped/planning/>

### **INCIDENTAL PROJECTS**

Bicycle and pedestrian accommodations such as bike lanes, sidewalks, intersection improvements, widened paved shoulders and bicycle and pedestrian-safe bridge design are frequently included as incidental features of highway projects. Most pedestrian safety accommodations built by NCDOT are included as part of scheduled highway improvement projects funded with a combination of federal and state roadway construction funds or with a local fund match.

### **ROAD RESURFACING**

When space allows the inclusion of a bicycle lane onto a road without requiring significant drainage, Right-of-Way, or grading work, NCDOT can install the improvement during road resurfacing projects. If a proj-

ect is feasible, the NCDOT can inform the affected community and offer them the opportunity to contribute to the marginal cost associated with these improvements.

### **EAT SMART, MOVE MORE NORTH CAROLINA COMMUNITY GRANTS**

The Eat Smart, Move More (ESMM) NC Community Grants program provides funding to local communities to support their efforts to develop community-based interventions that encourage, promote and facilitate physical activity. The current focus of the funds is for projects addressing youth physical activity. Funds have been used to construct trails and conduct educational programs.

More information: <http://www.eatsmart-movemorenc.com/Funding/Community-Grants.html>

### **NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**

The North Carolina Department of Environment and Natural Resources Division of Coastal Management offers the Public Beach and Coastal Waterfront Access Funds program, awarding \$500,000 to \$1 million a year in matching grants to local governments for projects to improve pedestrian access to the state's beaches and waterways. Eligible applicants include the 20 coastal counties and municipalities therein that have public trust waters within their jurisdictions.

More information: <http://www.nccoastalmanagement.net/Access/about.html>

### **THE NORTH CAROLINA DIVISION OF PARKS AND RECREATION**

The North Carolina Division of Parks and Recreation and the State Trails Program offer funds to help citizens, organizations and agencies plan, develop and manage all types of trails ranging from greenways and trails for hiking, biking and horseback riding to

river trails and off-highway vehicle trails.  
More information: <http://www.ncparks.gov/About/grants/main.php>

### **THE NORTH CAROLINA PARKS AND RECREATION TRUST FUND (PARTF)**

The Parks and Recreation Trust Fund (PARTF) provides dollar-for-dollar matching grants to counties, incorporated municipalities and public authorities, as defined by G.S. 159-7. Through this program, several million dollars each year are available to local governments to fund the acquisition, development and renovation of recreational areas. A local government can request a maximum of \$500,000 with each application. An applicant must match the grant dollar-for-dollar, 50% of the total cost of the project, and may contribute more than 50%. The appraised value of land to be donated to the applicant can be used as part of the match. The value of in-kind services, such as volunteer work, cannot be used as part of the match.

More information: [http://www.ncparks.gov/About/grants/partf\\_main.php](http://www.ncparks.gov/About/grants/partf_main.php)

### **RECREATIONAL TRAILS PROGRAM**

The Recreational Trails Program (RTP) of the federal transportation bill provides funding to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, and equestrian use. 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 RTP dollars)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's RTP dollars)

In North Carolina, the Recreational Trails Program is administered by the North Carolina Division of Parks and Recreation. This grant is specifically designed to pay for recreational trail projects rather than utilitarian transportation-based projects. Grants up to \$75,000 per project, and applicants must be able to contribute 20% of the project costs with cash or in-kind contributions. Projects must be consistent with the State-wide Comprehensive Outdoor Recreation Plan (SCORP).

More information: [http://www.ncparks.gov/About/trails\\_grants.php](http://www.ncparks.gov/About/trails_grants.php)

### **ADOPT-A-TRAIL PROGRAM**

The Adopt-A-Trail (AAT) Program is a source of small funds for trail construction, maintenance, and land acquisition for trails. The program funds \$108,000 annually in North Carolina, and awards grants up to \$5,000 per project with no local match required. Applications are due in February. More information is available from Regional Trails Specialists and the Grants Manager.

More information: [http://www.ncparks.gov/About/grants/docs/AAT\\_info.pdf](http://www.ncparks.gov/About/grants/docs/AAT_info.pdf)

### **POWELL BILL FUNDS**

Annually, Powell Bill State street-aid allocations are made to incorporated municipalities that establish their eligibility and qualify as provided by G.S. 136-41.1 through 136-41.4. Powell Bill funds shall be expended only for the purposes of maintaining, repairing, constructing, reconstruct-

ing or widening of local streets that are the responsibility of the municipalities or for planning, construction, and maintenance of bikeways or sidewalks along public streets and highways. Funding allocations are based on population and mileage of city-maintained streets.

More information: [http://www.ncdot.org/programs/Powell\\_Bill/](http://www.ncdot.org/programs/Powell_Bill/)

### **CLEAN WATER MANAGEMENT TRUST FUND (CWMTF)**

This fund was established in 1996 and has become one of the largest sources of money in North Carolina for land and water protection. At the end of each year, a minimum of \$30 million is placed in the CWMTF. The revenue of this fund is allocated as grants to local governments, state agencies and conservation non-profits to help finance projects that specifically address water pollution problems. Funds may be used for planning and land acquisition to establish a network of riparian buffers and greenways for environmental, educational, and recreational benefits.

More information: <http://www.cwmtf.net/#appmain.htm>

### **STATE ADMINISTERED COMMUNITY DEVELOPMENT BLOCK GRANTS**

State level funds are allocated through the NC Department of Commerce, Division of Community Assistance to be used to promote economic development and to serve low-income and moderate-income neighborhoods. Greenways and pedestrian improvements that are part of a community's economic development plans may qualify for assistance under this program. Recreational areas that serve to improve the quality of life in lower income areas may also qualify. Approximately \$50 million is available statewide to fund a variety of projects.

More information: [www.hud.gov/offices/cpd/communitydevelopment/programs/stateadmin/](http://www.hud.gov/offices/cpd/communitydevelopment/programs/stateadmin/) or (919) 733-2853.

### **NORTH CAROLINA HEALTH AND WELLNESS TRUST FUND**

The North Carolina Health and Wellness Trust Fund (HWTF) in partnership with Blue Cross and Blue Shield of North Carolina (BCBSNC) offers the Fit Community Grants, designed to help communities become Fit Community designees. Up to eight communities that demonstrate a compelling need, proven capacity and promising opportunity for policy and environmental change in addressing physical activity and/or healthy eating behaviors will be awarded two-year grants up to \$60,000 each.

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

### **URBAN AND COMMUNITY FORESTRY GRANT**

The North Carolina Division of Forest Resources Urban and Community Forestry grant can provide funding for a variety of projects that will help toward planning and establishing street trees as well as trees for urban open space. The goal is to improve public understanding of the benefits of preserving existing tree cover in communities and assist local governments with projects which will lead to a more effective and efficient management of urban and community forests. Grant requests should range between \$1,000 and \$15,000 and must be matched equally with non-federal funds. Grant funds may be awarded to any unit of local or state government, public educational institutions, approved non-profit 501(c)(3) organizations and other tax-exempt organizations. First-time municipal applicant and municipalities seeking Tree City USA status are given priority for funding.

For more about Tree City USA status, visit [http://www.dfr.state.nc.us/Urban/tree\\_city\\_usa\\_overview.htm](http://www.dfr.state.nc.us/Urban/tree_city_usa_overview.htm)

For application instructions, visit: [http://www.dfr.state.nc.us/Urban/urban\\_grant\\_overview.htm](http://www.dfr.state.nc.us/Urban/urban_grant_overview.htm)

## **LOCAL GOVERNMENT FUNDING SOURCES**

Municipalities often plan for the funding of pedestrian facilities or improvements through development of Capital Improvement Programs (CIP). In Raleigh, for example, the greenways system has been developed over many years through a dedicated source of annual funding that has ranged from \$100,000 to \$500,000, administered through the Recreation and Parks Department. CIPs should include all types of capital improvements (water, sewer, buildings, streets, etc.) versus programs for single purposes. This allows municipal decision-makers to balance all capital needs. Typical capital funding mechanisms include the following: capital reserve fund, capital protection ordinances, municipal service district, tax increment financing, taxes, fees, and bonds. Each category is described below. A variety of possible funding options available to North Carolina jurisdictions for implementing pedestrian projects are described below. However, many will require specific local action as a means of establishing a program, if not already in place.

### **CAPITAL RESERVE FUND**

Municipalities have statutory authority to create capital reserve funds for any capital purpose, including pedestrian facilities. The reserve fund must be created through ordinance or resolution that states the purpose of the fund, the duration of the fund, the approximate amount of the fund, and the source of revenue for the fund. Sources of revenue can include general fund allocations, fund balance allocations, grants and donations for the specified use.

### **CAPITAL PROJECT ORDINANCES**

Municipalities can pass Capital Project Or-

dinances that are project specific. The ordinance identifies and makes appropriations for the project.

## **MUNICIPAL SERVICE DISTRICT**

Municipalities have statutory authority to establish municipal service districts, to levy a property tax in the district additional to the citywide property tax, and to use the proceeds to provide services in the district. Downtown revitalization projects are one of the eligible uses of service districts, and can include projects such as street, sidewalk, or bikeway improvements within the downtown taxing district.

## **TAX INCREMENT FINANCING**

Project Development Financing bonds, also known as Tax Increment Financing (TIF) is a relatively new tool in North Carolina, allowing localities to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Streets, streetscapes, and sidewalk improvements are specifically authorized for TIF funding in North Carolina. Tax Increment Financing typically occurs within designated development financing districts that meet certain economic criteria that are approved by a local governing body. TIF funds are generally spent inside the boundaries of the TIF district, but they can also be spent outside the district if necessary to encourage development within it.

## **INSTALLMENT PURCHASE FINANCING**

As an alternative to debt financing of capital improvements, communities can execute installment or lease purchase contracts for

improvements. This type of financing is typically used for relatively small projects that the seller or a financial institution is willing to finance or when up-front funds are unavailable. In a lease purchase contract the community leases the property or improvement from the seller or financial institution. The lease is paid in installments that include principal, interest, and associated costs. Upon completion of the lease period, the community owns the property or improvement. While lease purchase contracts are similar to a bond, this arrangement allows the community to acquire the property or improvement without issuing debt. These instruments, however, are more costly than issuing debt.

### **TAXES**

Many communities have raised money for general transportation programs or specific project needs through self-imposed increases in taxes and bonds. For example, Pinellas County residents in Florida voted to adopt a one-cent sales tax increase, which provided an additional \$5 million for the development of the overwhelmingly popular Pinellas Trail. Sales taxes have also been used in Allegheny County, Pennsylvania, and in Boulder, Colorado to fund open space projects. A gas tax is another method used by some municipalities to fund public improvements. A number of taxes provide direct or indirect funding for the operations of local governments. Some of them are:

#### **Sales Tax**

In North Carolina, the state has authorized a sales tax at the state and county levels. Local governments that choose to exercise the local option sales tax (all counties currently do), use the tax revenues to provide funding for a wide variety of projects and activities. Any increase in the sales tax, even if applying to a single county, must gain approval of the state legislature. In 1998, Mecklenburg County was granted authority to institute a one-half cent sales tax increase for mass transit.

#### **Property Tax**

Property taxes generally support a significant portion of a municipality's activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance greenway system acquisitions. Because of limits imposed on tax rates, use of property taxes to fund greenways could limit the municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden. 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 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.

#### **Occupancy Tax**

The NC General Assembly may grant towns the authority to levy occupancy tax on hotel and motel rooms. The act granting the taxing authority limits the use of the proceeds, usually for tourism-promotion purposes.

### **FEES**

A variety of fee options have been used by local jurisdictions to assist in funding pedestrian and bicycle improvements. Enabling actions may be required for a locality to take advantage of these tools.

#### **Stormwater Utility Fees**

Greenway trail property may be purchased with stormwater fees, if the property in question is used to mitigate floodwater or filter pollutants.

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 discharge into public storm drainage facilities and create 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.

### **Streetscape Utility Fees**

Streetscape Utility Fees could help support streetscape maintenance of the area between the curb and the property line through a flat monthly fee per residential dwelling unit. Discounts would be available for senior and disabled citizens. Non-residential customers would be charged a per-foot fee based on the length of frontage streetscape improvements. This amount could be capped for non-residential customers with extremely large amounts of street frontage. The revenues raised from Streetscape Utility fees would be limited by ordinance to maintenance (or construction and maintenance) activities in support of the streetscape.

### **Impact Fees**

Developers can be required to pay impact fees through local enabling legislation. Impact fees, which are also known as capital contributions, facilities fees, or system development charges, are typically collected from developers or property owners at the time of building permit issuance to pay for capital improvements that provide capacity to serve new growth. The intent of these fees is to avoid burdening existing customers with the costs of providing capacity to serve new growth so that "growth pays its

own way."

In North Carolina, impact fees are designed to reflect the costs incurred to provide sufficient capacity in the system to meet the additional needs of a growing community. These charges are set in a fee schedule applied uniformly to all new development. Communities that institute impact fees must develop a sound financial model that enables policy makers to justify fee levels for different user groups, and to ensure that revenues generated meet (but do not exceed) the needs of development. Factors used to determine an appropriate impact fee amount can include: lot size, number of occupants, and types of subdivision improvements. A developer may reduce the impacts (and the resulting impact fee) by paying for on- or offsite pedestrian improvements that will encourage residents/tenants to walk or use transit rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

### **EXACTIONS**

Exactions are similar to impact fees in that they both provide facilities to growing communities. The difference is that through exactions it can be established that it is the responsibility of the developer to build the greenway or pedestrian facility that crosses through the property, or adjacent to the property being developed.

### **IN-LIEU-OF FEES**

As an alternative to requiring developers to dedicate on-site greenway or pedestrian facility that would serve their development, some communities provide a choice of paying a front-end charge for off-site protection of pieces of the larger system. Payment is generally a condition of development approval and recovers the cost of the off-site land acquisition or the development's proportionate share of the cost of a regional facility serving a larger area. Some communities prefer in-lieu-of fees. This alternative

allows community staff to purchase land worthy of protection rather than accept marginal land that meets the quantitative requirements of a developer dedication but falls short of qualitative interests.

### **BONDS AND LOANS**

Bonds have been a very popular way for communities across the country to finance their pedestrian and greenway projects. A number of bond options are listed below. Contracting with a private consultant to assist with this program may be advisable. Since bonds rely on the support of the voting population, an education and awareness program should be implemented prior to any vote. Billings, Montana used the issuance of a bond in the amount of \$599,000 to provide the matching funds for several of their TEA-21 enhancement dollars. Austin, Texas has also used bond issues to fund a portion of its bicycle and trail system.

#### **Revenue Bonds**

Revenue bonds are bonds that are secured by a pledge of the revenues from a specific local government activity. The entity issuing bonds pledges to generate sufficient revenue annually to cover the program's operating costs, plus meet the annual debt service requirements (principal and interest payment). Revenue bonds are not constrained by the debt ceilings of general obligation bonds, but they are generally more expensive than general obligation bonds.

#### **General Obligation Bonds**

Cities, counties, and service districts generally are able to issue general obligation (G.O.) bonds that are secured by the full faith and credit of the entity. A general obligation pledge is stronger than a revenue pledge, and thus may carry a lower interest rate than a revenue bond. The local government issuing the bonds pledges to raise its property taxes, or use any other sources of revenue, to generate sufficient revenues to make the debt service payments on the bonds. Frequently, when local governments

issue G.O. bonds for public enterprise improvements, the public enterprise will make the debt service payments on the G.O. bonds with revenues generated through the public entity's rates and charges. However, if those rate revenues are insufficient to make the debt payment, the local government is obligated to raise taxes or use other sources of revenue to make the payments. 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 right-of-way acquisition, engineering, design, and construction of pedestrian and bicycle facilities. Voter approval is required.

#### **Special Assessment Bonds**

Special assessment bonds are secured by a lien on the property that benefits from the improvements funded with the special assessment bond proceeds. Debt service payments on these bonds are funded through annual assessments to the property owners in the assessment area.

#### **State Revolving Fund Loans**

Initially funded with federal and state money, and continued by funds generated by repayment of earlier loans, State Revolving Funds (SRFs) provide low interest loans for local governments to fund water pollution control and water supply related projects including many watershed management activities. These loans typically require a revenue pledge, like a revenue bond, but carry a below market interest rate and limited term for debt repayment (20 years).

### **FUNDS FROM PRIVATE FOUNDATIONS AND ORGANIZATIONS**

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

## LAND FOR TOMORROW CAMPAIGN

Land for Tomorrow is a diverse partnership of businesses, conservationists, farmers, environmental groups, health professionals and community groups committed to securing support from the public and General Assembly for protecting land, water and historic places. The campaign is asking the North Carolina General Assembly to reject legislation that threatens to reduce funding of conservation focused trust funds. Land for Tomorrow will enable North Carolina to reach a goal of ensuring that working farms and forests; sanctuaries for wildlife; land bordering streams, parks and greenways; land that helps strengthen communities and promotes job growth; historic downtowns and neighborhoods; and more, will be there to enhance the quality of life for many generations.

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

## THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation was established in 1972 and today it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

For more information about what types of projects are funded and how to apply, visit <http://www.rwjf.org/grants/>

## NORTH CAROLINA COMMUNITY FOUNDATION

The North Carolina Community Foundation, established in 1988, is a statewide foundation seeking gifts from individuals, corporations, and other foundations to build endowments and ensure financial security for nonprofit organization and institutions throughout the state. Based in Raleigh, North Carolina, the foundation also manages a number of community affiliates throughout North Carolina, which makes grants in the areas of human services, education, health, arts, religion, civic affairs, and the conservation and preservation of historical, cultural, and environmental resources. The foundation also manages various scholarship programs statewide.

More information: <http://www.nccommunityfoundation.org/Grants>.

## Z. SMITH REYNOLDS FOUNDATION

This Winston-Salem-based Foundation has been assisting the environmental projects of local governments and non-profits in North Carolina for many years. They have two grant cycles per year and generally do not fund land acquisition. However, they may be able to offer support in other areas of open space and greenways development. More information is available at <http://www.zsr.org>. Bank of America Charitable Foundation, Inc. The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low- and moderate-income communities and serves to encourage entrepreneurial business development.

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

### **DUKE ENERGY FOUNDATION**

Funded by Duke Energy shareholders, this non-profit organization makes charitable grants to selected non-profits or governmental subdivisions. Each annual grant must have:

- An internal Duke Energy business “sponsor”
- A clear business reason for making the contribution

The grant program has three focus areas: Environmental and Energy Efficiency, Economic Development, and Community Vitality. The Foundation can support programs that support conservation, training and research around environmental and energy efficiency initiatives.

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

### **AMERICAN GREENWAYS EASTMAN KODAK AWARDS**

The Conservation Fund’s American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying, 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.conservation-fund.org/kodak\\_awards](http://www.conservation-fund.org/kodak_awards).

### **NATIONAL TRAILS FUND**

American Hiking society created the National Trails Fund in 1998 as the only privately supported national grants program providing funding to grassroots organizations

working toward establishing, protecting and maintaining foot trails in America. The society provides funds to help address the \$200 million backlog of trail 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 that 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/>.

### **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. Funded projects focus primarily on direct citizen action to protect and enhance natural resources for recreation. Project requests should be quantifiable, with specific goals, objectives and action plans and should include a measure for evaluating success. The Alliance prefers to fund projects with a good chance for closure or significant measurable results over a fairly short term of one to two years.

More information: <http://www.conservation-alliance.com/grants>.

### **BLUECROSS BLUESHIELD OF NORTH CAROLINA FOUNDATION**

BlueCross BlueShield (BCBS) focuses on programs than use an outcome approach to improve the health and well being of residents. The Health of Vulnerable Populations grants program focuses on improving health outcomes for at-risk populations. The Healthy Active Communities grant funds projects that enhance the physical environment to create spaces and places for physical activity. Eligible grant applicants must be located in North Carolina, be able to provide recent tax forms and, depending on the size of the nonprofit, provide and an audit.

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

### **ANNUAL AZALEA CELEBRATION**

NC Beautiful has promoted environmental education, beautification, and stewardship in North Carolina for 40 years and holds the Annual Azalea Celebration to help non-profit organizations enhance their community spaces. Winning applicants receive 100 azalea plants free of charge to beautify school- and church grounds, parks, greenways, public rights-of-way, and community and senior centers. In addition, recipients who sustain their projects and keep their azaleas healthy for a 3-year period are eligible to receive cash awards and additional plants through the A.J. Fletcher Award.

More information: <http://www.ncbeautiful.org/programs/celebration.html>

### **BIKE BELONG GRANTS**

The Bikes Belong Grant program funds important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include greenways and rail trails accessible by pedestrians and bicyclists. Applicants can request a maximum

amount of \$10,000 for their project, and priorities are given to areas that have not received Bikes Belong funding in the past three years.

A new Bikes Belong opportunity is Community Partnership Grants. These grants are designed to foster and support partnerships between city or county governments, non-profit organizations, and local businesses to improve the environment for bicycling in the community. Grants will primarily fund the construction or expansion of facilities such as bike lanes, trails, and paths. The lead organization must be a non-profit organization with IRS 501(c)3 designation or a city or county government office.

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

### **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. Valuable in-kind gifts include donations of services, equipment, labor, or reduced costs for supplies.

### **VOLUNTEER WORK**

Residents and other community members are excellent resources for garnering support and enthusiasm for a greenway corridor or pedestrian facility. Furthermore volunteers can substantially reduce implementation and maintenance costs. 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



## CITY OF ROCKY MOUNT, NORTH CAROLINA

community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.

# APPENDIX G: GLOSSARY



## OVERVIEW

The material in this glossary is largely taken from the International Pedestrian Lexicon available online at: <http://user.itl.net/~wordcraft/lexicon.html#a>. Other definitions came from a variety of other sources.

## DEFINITIONS

**AASHTO** – American Association of State Highway and Transportation Officials: a non-profit, nonpartisan association representing highway and transportation departments of all transportation modes in the 50 states, the District of Columbia and Puerto Rico.

**ADA** – American Disabilities Act of 1991: The Act gives civil rights protections to individuals with disabilities including equal opportunities in public accommodations, employment, transportation, state and local government services, and telecommunications.

**ADT** – Average Daily Traffic

**Advance Stop Bars** - applies to a stop line placed prior to a crosswalk, to either prevent motor vehicle encroachment, or to improve visibility. It plays an important safety role especially in multi-lane roads.

**Aesthetics** - The study or philosophy of beauty. In pedestrian planning, it refers to pedestrian facilities that are pleasing to view such as landscaping, street furniture, and art.

**Alternative (Multi-modal) Transportation** – modes of travel in addition to private cars,

such as walking, bicycling, rollerblading, carpooling and transit

**Arterial Connections** – interconnected corridors designed to accommodate a large volume of through traffic

**APBP** - Association of Pedestrian and Bicycle Professionals

**Bargain Sale** – the sale of a property at less than the fair market value. The difference between a bargain sale price and fair market value often qualifies as a tax-deductible charitable contribution. Commonly used to acquire land or easements for greenways or multi-use paths.

**Bridge Culvert** – a sewer or drain crossing used for the transference of surface water from a bridge

**Buffer** - A strip of land with natural or planted vegetation, located between a structure or use and a side or rear property line, intended to spatially separate and visually obstruct the view of two adjacent land uses or properties from one another. A buffer area may include any required screening for the site.

**Bulb-out** - extended pavement to narrow roadway, or pinch thoroughfare, or provide space for bus stop, bench, etc. Commonly used as a traffic calming measure.

**CDC** – Centers for Disease Control and Prevention

CIP – Capital Improvements Program

CSX – One of nation’s leading transportation suppliers with rail and intermodal businesses that provide rail-based transportation services and the transport of intermodal containers and trailers

Collector Streets – a public road designed to flow traffic from small neighborhood streets and connect to larger thoroughfares

Concurrent Signal Timing - motorists running parallel to a crosswalk are allowed to turn into and through the crosswalk (left or right) after yielding to pedestrians

Condemnation - the taking of private property for public use, with adequate compensation to the owner, under the right of eminent domain

Connectivity - the logical and physical interconnection of functionally related points so that people can move among them

Conservation Easement - a legally binding agreement not to develop part of a property, but to leave it “natural” permanently or for some designated very long period of time regardless of ownership transfer

Corridor - a spatial link between two or more destinations

Crosswalk - a designated point on a road at which some means are employed to assist pedestrians who wish to cross a roadway or intersection. They are designed to keep pedestrians together where they can be seen by motorists, and where they can cross most safely with the flow of vehicular traffic.

Curb Cut – interruption in the curb, as for a driveway

Curb Extension - a section of sidewalk at an intersection or mid-block crossing that reduces the crossing width for bicyclists

and pedestrians and is intended to slow the speed of traffic and increase driver awareness

Curb Ramp - a ramp leading smoothly down from a sidewalk, greenway or multiuse path to an intersecting street, rather than abruptly ending with a curb

Demographics - the characteristics of human populations for purposes of social studies

Design Guidelines - a set of discretionary statements and graphics to guide land development and pedestrian facility development to achieve a desired level of quality and safety for pedestrians and the physical environment

Diamond-rail Fencing - An eye-catching variation on the standard post and rail form, diamond rail fences stand out with their clean, geometric lines. This fence incorporates square rails, neatly positioned in the posts. By installing the rails with a slight twist, a unique diamond-cut pattern is produced throughout the fence.

DPBT - Division of Bicycle and Pedestrian Transportation, which is part of the North Carolina Department of Transportation

Driveway Apron – the section of a driveway between a sidewalk or greenway and the curb

Driveway Access Management - the management and reduction of the size and number of necessary driveway entrances. Driveway access management creates a safer walking environment for pedestrians by reducing crossings and continuing a safe walking zone.

Eminent Domain – the acquisition of property by the government which is deemed to be necessary for the completion of a public project from an owner that is unwilling to negotiate a price for its sale.

EPA – Environmental Protection Agency

Fee Simple Purchase – an outright purchase of the land by municipality

FHWA – Federal Highway Administration

First Right of Refusal - the right specified in an agreement to have the first opportunity to purchase or lease a given property before it is offered to others

Fitness Trail - a pathway upon which users jog or walk from station to station to perform various exercise tasks

FTA – Federal Transit Administration

GIS – (Geographic Information System) a system for collecting, analyzing and displaying spatial information

Greenway - a linear open space; a corridor composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas.

HAWK - High Intensity Activated Crosswalk

High Volume Artery – an important transportation corridor that is used by large traffic levels

Hub - a center of activity or interest or commerce or transportation; a focal point around which events revolve

HUD – U.S. Department of Housing and Urban Development

Hydrologic Resources – stream and sewer corridors and buffer zones that can be used to facilitate the building of greenways

IDA - International Dark-Sky Association

Illumination - the degree of visibility of your environment. In pedestrian planning, it refers to the degree in which lighting im-

proves visibility for both pedestrians and motorists at dark

Incentive Zoning - a system by which zoning incentives are provided to developers on the condition that specific physical, social, or cultural benefits are provided to the community

Implementation - the realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy

Intersection - an area where two or more pathways or roadways join together.

Islands of Vegetation - a landscaping feature that is planted with flora chosen for its ability to remove pollution and toxins. These spaces manage stormwater runoff from impervious surfaces; the water is slowed down, preventing erosion and allowing water to be absorbed into the ground.

Land Use - describes how land is used for example as residential, commercial, or agricultural

Leaseback - the process of selling a property and also entering into a lease to continue using that property

Linear Stream Corridor - generally consists of the stream channel, floodplain, and transitional upland fringe aligned linearly

LPI – Leading pedestrian interval. Pedestrians are given the signal to begin crossing before parallel traffic.

LRTP – Long Range Transportation Plan

Median - a barrier, constructed of concrete, asphalt, or landscaping and separates two directions of traffic.

Median Refuge Island - island in the median, that offers a stopping or halfway point for a pedestrian

Midblock Crossings - locations between intersections where a marked crosswalk has been provided.

Mixed Use Area – a term used to describe a specific area that possesses a combination of different land use types, such as residential, commercial, and recreation

Mode Share - a term used to describe percentage splits in transportation options

MPO – Metropolitan Planning Organization

MTC - Multi-modal Transportation Committee

MUTCD – Manual of Uniform Traffic Control Devices: National standards guidebook on signage and pavement marking for roadways

Multi Use Trail – see Shared Use Path

Municipal Boundary – the limit of municipal jurisdiction

Nature Trail - a marked trail designed to lead people through a natural environment, which highlights and protects resources  
Negotiated Dedication - a local government may ask a landowner to enter into negotiations for certain parcels of land that are deemed beneficial to the protection and preservation of specific parcel of land

NAR – National Association of Realtors

NCDOT – North Carolina Department of Transportation

NHTSA – National Highway Traffic Safety Administration

On-Road Pedestrian Facility – any sidewalk, curb, median refuge or crosswalk designed for pedestrian use.

Off-Road Trail – paths or trails in areas not served by the street system, such as parks and greenbelt corridors. Off-street paths are intended to serve both recreational uses and other trips, and may accommodate other non-motorized travel modes, such as bicycles in addition to walking.

Open Space - empty or vacant land which is set aside for public or private use and will not be developed. The space may be used for passive or active recreation, or may be reserved to protect or buffer natural areas.

Ordinance - a statute enacted by a city government

Overlay Zone - a zone or district created by the local legislature for the purpose of conserving natural resources or promoting certain types of development. Overlay zones are imposed over existing zoning districts and contain provisions that are applicable in addition to those contained in the zoning law.

PBIC – Pedestrian and Bicycle Information Center

Pedestrian - a person on foot or a person on roller skates, roller blades, child's tricycle, non-motorized wheelchair, skateboard, or other non-powered vehicles (excluding bicycles)

Pedestrian and Bicycle Information Center (PBIC) - national clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, access, and mobility for pedestrians (including transit users) and bicyclists; funded by FHWA and housed within the University of North Carolina Highway Safety Research Center.

Pedestrian Advocacy Group - a group of individuals that promotes community walkability and pedestrian safety through programs, grant-writing, campaigns, and implementation.

**Pedestrian Corridor** – long distance corridor comprised of on-road sidewalks, crosswalks and related pedestrian facilities.

**Pedestrian Network** - a continuous, connected pedestrian system composed of sidewalks, trails, and roadway crossing facilities

**Pedestrian Signal** – indicate to pedestrians when to cross at a signalized crosswalk.

**Planned Unit Development (PUD)** - a project or subdivision that includes common property that is owned and maintained by a homeowners' association for the benefit and use of the individual PUD unit owners

**Pocket Park** - a small area accessible to the general public that is often of primarily environmental, rather than recreational, importance; they can be urban, suburban or rural and often feature as part of urban regeneration plans in inner-city areas to provide areas where wild life can establish a foothold.

**Preservation Easement** – a voluntary legal agreement that protects historic, archaeological, or cultural resources on a property. The easement provides assurance to the property owner that intrinsic values will be preserved through subsequent ownership. In addition, the owner may obtain substantial tax benefits.

**Public Access Easement** – a voluntary legal agreement which grants a municipality a perpetual right-of-way and easement for public access and public benefit

**Quality of Life** - a measure of the standard of living which considers non-financial factors such as health, functional status and social opportunities that are influenced by disease, injury, treatment or social and political policy

**Rail Trail** - the conversion of a disused railway easement into a multi-use path, typically for walking, cycling and sometimes horse riding

**Rectangular Rapid Flash Beacon (RRFB)** - Flashing amber LED lights that supplement warning signs at unsignalized intersections or mid-block crosswalks; they can be activated by pedestrians manually by a push button or passively by a pedestrian detection system.

**Retrofit** - the redesign and reconstruction of an existing facility or subsystem to incorporate new technology, to meet new requirements, or to otherwise provide performance not foreseen in the original design.

**Right Turn Slip Lane “Pork Chop Island”** - the channel created in larger intersection by a very long turning radius to which the pedestrian must cross before being in the formal intersection that is controlled by lights. The right-turn cut-off allows continuous right turns at fairly high speeds without stopping but the drivers do not always yield to pedestrians.

**Roundabout** - traffic calming device at which traffic streams circularly around a central island after first yielding to the circulating traffic

**ROW (right of way)** - an easement held by the local jurisdiction over land owned by the adjacent property owners that allows the jurisdiction to exercise control over the surface and above and below the ground of the right-of-way; usually designated for passage

**RPO - Rural Transportation Planning Organization**

**RTOR – Right turn on red**

**Safe Routes to School (SRTS)** – a federal program that provides funding to encourage and facilitate the planning and implementation of bicycle and pedestrian projects near schools.

**SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users**

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### Shared Use Path (Multi Use Path/Sidepath)

- A bikeway and walkway physically separated from motorized vehicular traffic by an open space or barrier and located either within the highway right-of-way (often termed “parallel shared use path”) or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. In some cases shared use paths also accommodate equestrians.

**Shoulder** - The portion of the roadway contiguous with the traveled way for the accommodation of stopped vehicles, for emergency use, and for lateral support of sub-base, base, and surface courses. Paved shoulders can be used for pedestrian and bicycle travel as well.

**Sidewalk** - an improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete, but can be made with asphalt, bricks, stone, wood, and other materials.

**Speed Table** - Speed tables are flat-topped speed humps often constructed with brick or other textured materials on the flat section. Speed tables are typically long enough for the entire wheelbase of a passenger car to rest on the flat section. Their long flat fields give speed tables higher design speeds than Speed Humps. The brick or other textured materials improve the appearance of speed tables, draw attention to them, and may enhance safety and speed-reduction. Speed tables are good for locations where low speeds are desired but a somewhat smooth ride is needed for larger vehicles.

**Sight Distance** - A driver’s ability to see the road ahead and other intersection users. Stopping sight distance, decision sight distance, and intersection sight distance are particularly important at signalized intersections.

**STIP** – the State Transportation Improvement Program is a federally mandated transportation planning document that details transportation improvements prioritized by stakeholders for inclusion in the Work Program over the next seven years. The STIP is updated every two years.

**TAC** - Transportation Advisory Committee

**Thoroughfare** - a public road from one place to another, designed for high traffic volumes and essential connections

**TIF** – Tax Increment Financing

**TIP** – Transportation Improvement Program

**TND** (traditional neighborhood development) - an area of land developed in a planned fashion for a compatible mixture of residential units for various income levels and nonresidential commercial and workplace uses, with a high priority placed on access to open spaces

**TRT** (Triangle River Transit) – provides regular fixed-route bus service in Rocky Mount

**Traffic Calming** - a range of measures that reduce the impact of vehicular traffic on residents, pedestrians and cyclists - most commonly on residential streets, but also now on commercial streets

**Trip Attractor/Generator** - a location which, because of what it contains, generates itself as a destination for people

**USDOT** -U.S. Department of Transportation

**VMT** - vehicle miles traveled

**Walk Friendly Community (WFC)** – a program maintained by the UNC Highway Safety Research Center’s Pedestrian and Pedestrian Information Center (with support from a variety of national partners) that recognizes and awards municipalities who actively support pedestrian activity and safety.

# APPENDIX H: INTERSECTION INVENTORY



TABLE H.1: INTERSECTION INVENTORY

No.	ID #	Road 1	Road 2	Destinations Served	Sight Distance (Good, Fair, Poor)	Signage (Y/N)	Stop Light/Stop Sign	Curb Ramp (Y/N)	Curb Ramp Complete/ Incomplete/Inadequate	Curb Radius (Very Wide, Wide, Not Wide)	Marked Crosswalk (Y/N)	Number and Location of Crosswalks Adequate (Y/N)	Highly Visible (Y/N)	Crosswalk Condition (Good/Fair/ Poor)	Advanced Stop Line (Y/N)	Pedestrian Xing Signal	Sides of Street with Sidewalk	Median Island - Width and Type	Estimated Traffic Volume (High/Medium/Low)	Speed Limit	Other Notes (curb extensions, midblock crossings, etc.)
1	13	Grace	Thomas	DT; Piggly Wiggly, conv. Store	Good	N	SL	Y	INADEQUATE	NW	Y	Y	N	POOR	Y	N	8/8	N	MEDIUM	35	Many pedestrians in area especially at Piggly Wiggly. Driveway issue at Kangaroo Express - sidewalk not in good shape; crosswalks very faded again, curb ramps could be upgraded
2	19	Arlington	George/Edgecombe/ Raleigh	Residential; DT	Fair	N	SL	Y	INADEQUATE/ INCOMPLETE	NW	Y	Y	N	GOOD	Y	N	5/8	MedianS and pork chop islands	MEDIUM	25	Wide "median" splitting Edgecombe and George; Series of medians; Oppty to improve curb ramps and pork chop islands;
3	16	Raleigh	Grace	Residential; park nearby; health center	Poor	N	SL	Y	COMPLETE/ INADEQUATE	NW	Y	Y	N	GOOD	Y	Y (COUNTDOWN)	8/8	N	MEDIUM	35	Good pedestrian accommodations; Curb ramps could be improved.
4	38	Tarboro	Atlantic/Arlington	Edgecombe C.C., corner stores, residential	poor (curves)	N	SL	Y	INADEQUATE	NW	Y	Y	N	GOOD	Y	N	8/8	N	MEDIUM	25	Countdown signals would prove useful
5	11	Sunset	River	Tar River Greenway, The Power Plant, City Lake Park	Poor (curve in Sunset)	N	SS (for River)	Y	INCOMPLETE/ INADEQUATE	W	N	-	-	-	-	N	2/8	3 ft concrete	HIGH	45	Important crossing with greenway on one side and park on other; Dangerous blind curve with high speed traffic. Oppty to utilize median island space
6	15	Raleigh	Hazelwood	Residential; conv. Stores, community center	Good	Y	SS (for Hazelwood)	Y	INCOMPLETE	NW	N	-	-	-	N	N	2/6	Center turn lane	MEDIUM	45	Trailer park on Hazelwood side; conv. Stores and community center on other side; existing ped crossing signage present
7	17	Sunset	Franklin	DT	Good	N	SL	Y	ADEQUATE	NW	Y	Y	N	POOR	Y	N	8/8	N	MEDIUM	25	Good pedestrian crossing; no countdown signals and faded crosswalks
8	18	Church	Thomas	DT	Good	N	SL	NB	INADEQUATE	NW	Y	Y	N	POOR	Y	Y (COUNTDOWN)	8/8	N	MEDIUM	25	Good pedestrian crossing but marked crosswalks are faded
9	25	Stokes	Hunter	Baskerville Elementary; Parker Junior	Good	N	SS	Y	INCOMPLETE	NW	N	-	-	-	-	N	2/8	N	LOW	25	Sidewalk leads from housing development to school with no crosswalk across Hunter;
10	30	Hammond	Franklin	City Hall	Fair (building)	N	SL	Y	INADEQUATE	NW	Y	Y	N	FAIR	Y	N	8/8	N	MEDIUM	25	Crosswalks are slightly faded; Curb ramps could use improvment; Countodown signals should be added.
11	14	Raleigh	Nashville	Commercial; residential; school nearby	Fair	N	SL	Y	INADEQUATE	W	Y	Y	N	POOR	Y	N	6/8	N	MEDIUM-HIGH	35	Longer crossing for pedestrians; marked crosswalks very faded
12	31	Raleigh	Coleman	Commecia;residential; school nearby	FAIR	Y	SS (for Coleman)	y	COMPLETE	NW	Y	Y	N	GOOD	Y	N	5/6	N	MEDIUM	25/35	No traffic signal; existing marked crosswalk accross 4-lane Raleigh
13	24	Grand	Raleigh	Commercial destinations	FAIR	n	SL	Y	INADEQUATE	NW	Y	Y	N	GOOD	Y	N	8/8	N	MEDIUM-HIGH	35	No signalization, marked crosswalks are in good shape; curb ramps could use improvement
14	51	Ridge	Peachtree	Residential; school and farmers market near	Fair	N	SL	Y	COMPLETE/ INADEQUATE	NW	Y	N	N	FAIR	Y	N	5/8	N	MEDIUM	25	One marked crosswalk missing; footpath along east side of Peachtree; other crosswalks faded
15	37	Neal	Edwards	Public housing; Edwards Junior High;	Good	N	SS (for Neal)	Y	COMPLETE	NW	N	-	-	-	-	N	5/8	N	LOW=	25	Sidewalk changes sides of road along Edwards at Neal; housing projects and school nearby, needs crosswalk
16	45	Franklin	Thomas	Downtown; Businesses	Good	N	SL	Y	INADEQUATE	NW	Y	Y	N	FAIR	Y	N	7/8	N	LOW-MEDIUM	25	Crosswalks are faded.
17	46	Franklin	Nash	Businesses; Church	Good	N	SL	Y	INADEQUATE	NW	Y	Y	N	FAIR	Y	N	5/8	N	MEDIUM	25	Crosswalks are fading.
18	8	Englewood	Sunset	Englewood Elementary, park, residential, church	Good	Y	SL	Y	INCOMPLETE/ INADEQUATE	W	Y	N	Y (ACROSS SUNSET)	FAIR	Y	N	1/8	N	MEDIUM-HIGH	45	Important crossing to get to school. High visibility marked crosswalk present, but additions such as sidewalk and countdown signals needed.
19	12	Nash	Tillery	High School	Fair (parking)	N	SS (for Tillery)	Y	INCOMPLETE	NW	Y	N	N	POOR	Y	N	4/8	N	LOW-MEDIUM	25	Crosswalks are faded; curb ramp missing on one side; oppty for bulbouts with on-street parking
20	22	Church	Kingston	Neighborhood grocery; gas station	Good	N	SL	N	INCOMPLETE/ INADEQUATE	NW	N	N	-	-	Y	N	2/8	N	MEDIUM	35	
21	23	Fairview	Bedford	Johnson Elementary; residential	Good	Y	SS (for Bedford)	Y	INADEQUATE	NW	Y	Y	N	POOR	Y	N	3/5	N	MEDIUM	25/35	Marked crosswalk faded across Fairview (crosses 3-lanes). Pedesign crossing signage present
22	26	Raleigh	Stokes	Housing project; school; conv. Store	Good	N	SL	Y	COMPLETE	NW	Y	Y	N	GOOD	Y	Y (COUNTDOWN)	8/8	N	MEDIUM	25/35	Good intersection for ped crossing, signalization and crossing guard present
23	28	Grand	Myrtle	Residential; major road crossing, hot dog stand/store nearby	Good	N	SL	Y	INADEQUATE (drainage problem one corner)	NW	Y	Y	N	POOR	Y	N	6/8	N	MEDIUM	25/35	Crosswalks faded; drainage problem on one corner curb ramp; no signalization
24	33	Hill	George	Post office; residential	Fair	N	SL	Y	INADEQUATE; INCOMPLETE	NW	Y	Y	N	POOR	Y	N	8/8	N	MEDIUM	25	Many pedestrians in area; once crosswalks here, but so faded, they aren't visible at all. Curb ramp missing on one corner and all could use improvement
25	5	Hunter Hill	Country Club	Shopping centers; residential near	Fair	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	1/8	N	MEDIUM	35	Shopping areas; virtually no ped facilities other than sidewalk on one side

TABLE H.1: INTERSECTION INVENTORY (CONTINUED)

No.	ID #	Road 1	Road 2	Destinations Served	Sight Distance (Good, Fair, Poor)	Signage (Y/N)	Stop Light/Stop Sign	Curb Ramp (Y/N)	Curb Ramp Complete/ Incomplete/Inadequate	Curb Radius (Very Wide, Wide, Not Wide)	Marked Crosswalk (Y/N)	Number and Location of Crosswalks Adequate (Y/N)	Highly Visible (Y/N)	Crosswalk Condition (Good/Fair/ Poor)	Advanced Stop Line (Y/N)	Pedestrian Xing Signal	Sides of Street with Sidewalk	Median island - Width and Type	Estimated Traffic Volume (High/Medium/Low)	Speed Limit	Other Notes (curb extensions, midblock crossings, etc.)
26	20	Benvenue	Jeffreys	Commercial; mall; shopping centers	Good	N	SL	Y	INCOMPLETE/ INADEQUATE	W	N	-	-	-	-	N	2/8	Y (two foot concrete on 2/4 sides)	HIGH	35	Long crossing; virtually no pedestrian facilities currently
27	51	Redgate	Cokey	Residential; market and dollar store	Good	N	SL	Y	INADEQUATE/ INCOMPLETE	NW	Y	N	N	FAIR	Y	m	8/8	N	MEDIUM	25	High pedestrian area with corner market and dollar store; Missing crosswalks across Cokey
28	52	Jeffreys	Country Club	Commercial; residential	Good	N	SL	Y	INCOMPLETE/ INADEQUATE	VW	N	-	-	-	-	N	0/8	N	MEDIUM	35	No pedestrian facilities present
29	54	Church	Senior Center Midblock	Senior Center and walking track	Good	Y	Midblock	N	-	-	Y	Y	N	GOOD	N	N	4/4	Center turn lane	MEDIUM	35	Midblock crosswalk connects senior center to senior center walking track - has flashing lights and marked crosswalk but could be enhanced
30	29	Church	Grand	DT	Fair	N	SL	Y	INADEQUATE; INCOMPLETE	NW	Y	Y	N	POOR	Y	N	8/8	N	MEDIUM	25/35	Crosswalks and stop lines completely faded, need to be highly-visible; Countdown signals needed. Curb ramps an issue and driveways large and blocking sidewalk
31	50	Fairview	Tarboro	Commercial and residential; Food Lion; bank	Good	N	SL	Y	INCOMPLETE/ INADEQUATE	NW	N	-	-	-	N	N	3/8	N	MEDIUM-HIGH	35	Not enough sidewalks or curb ramps; No crosswalks present.
32	51	Sunset	Buck Leonard	Commercial area	Poor	N	SL	Y	INCOMPLETE/ INADEQUATE	VW	N	-	-	-	-	N	2/8	Y (with large pork chop island)	HIGH	35/45	Opportunity to utilize grassy medians and pork chop island for refuge island.
33	7	Winstead	Sunset	Commercial; West End Plaza; apts; Westridge	Fair	N	SL	Y	INCOMPLATE/ INADEQUATE	NW	N	-	-	-	-	N	0/8	N	HIGH	45	No pedestrian facilities present.
34	32	Church	Nashville	Commercial; residential	Good	N	SL	Y	INADEQUATE/ INCOMPLETE	W	N	-	-	-	N	N	7/8	N	MEDIUM	35	Many pedestrians in area; no ped crossing facilities
35	42	Sunset	Halifax	Dollar store, grocery, conv. Store	Good	N	SL	Y	INCOMPLETE/ INADEQUATE	W	N	-	-	-	-	N	2/8	N	MEDIUM-HIGH	45	Active pedestrian area; no ped crossing facilities present other than mixed bag of curb ramps (adequate only where existing sidewaekl is present)
36	49	Thomas	Pine	Midtown Supermarket; residential	Good	N	SL	Y	INCOMPLETE/ INADEQUATE	NW	N	-	-	-	Y	N	4/8	N	MEDIUM	25/35	Old crosswalks completely faded. Crossing facilities needed.
37	21	Cokey	Old Wilson	Industry; restaurant; residential	Good	N	SS	N	-	W	N	-	-	-	-	N	3/8	N	LOW-MEDIUM		Sidewalk being built during fieldwork; RR present and a third street (Norfolk).
38	39	Old Mill/May	Wesleyan	Englewood Park; Tar River floodplain lands	Good	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	GRass on Wesleyan -10 ft	HIGH	35/45	Key crossing to connectd parklands across Wesleyan (a major barrier). No ped facilities currently.
39	3	Benvenue	Goldrock	Shopping centers; residential near	Fair	N	SL	Y	INCOMPLETE	VW	N	-	-	-	-	N	3/8	N	HIGH	45	Footpaths nearby; new sidewalk in front of new Walgreens and Autozone; no ped xing facilities
40	1	Wesleyan	Bishop	NC Wesleyan College; Food Lion; Sheetz	Good	N	SL	Y	INCOMPLETE	W	N	-	-	-	-	N	1/8	Grass on Wesleyan - 25 ft	MEDIUM=HIGH	55	Sheetz only destination across highway. No ped facilities at all. Sidewalks needed along Bishop
41	53	Englewood	Oakdale	Englewood Elementary, park, residential	Fair	School	SS (for Butler/ Oakdale)	Y	INCOMPLETE/ INADEQUATE	NW	Y	Y	N	FAIR	Y	N	3/8	N	LOW-MEDIUM	25	Existing sidewalk and crosswalk that connects sidealk along Engleood and Butler; Oppty with OSP on Englewood for bulbout.
42	9	Tarrytown/Stone Rose	Wesleyan	Fast food, commercial	Fair	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	Grass on Wesleyan (10- 25 feet)	HIGH	45	No pedestrian facilities present.
43	10	Shadow Ridge	Winstead	Winstead Ave. Elementary School	Good	N	SS	N	-	NW	N	-	-	-	-	N	0/8	N	MEDIUM	35	No pedestrian facilities present. - oppty for crossing for neighborhoods across Winstead to school
44	4	Nicodemus Mile	Irene	Benvenue Elementary	Good	Y (School)	SS	Y	Inadequate	NW	N	-	-	-	N	N	1/8	N	LOW-MEDIUM	SCHOOL ZONE (45)	Sidewalk on western side of intersection (on school side); Center turn lane an opportunity for median island
45	41	Harbour West	Wesleyan	New high school; Conv. Store and fast food	Fair	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	Grass on Wesleyan (20 feet)	HIGH	45	Would connect high school to fast food/Food Lion at signalized intersection and apts further down Harbour West. No ped facilities currently at all.
46	36	Wesleyan	Tiffany	Possible greenway crossing; apts, commercial	Good	N	SL	N	-	W (pork chop on nw side)	N	-	-	-	-	N	0/8	Grass on Wesleyan - 25 ft	HIGH	35/50	Part of conceived greenway corridor. Bring peds up north side of Tiffany to this crossing. No ped facilities at all here.
47	44	Hathaway	Battleboro	Market, gas station, residential	Fair	N	SL	Y	INCOMPLETE/ INADEQUATE	VW	Y	N	N	Poor	Y	N	4/8	N	MEDIUM	35/45	Several cyclists and pedestrians around; several destinations; existing sidewalk along Battleboro; Crosswalks faded
48	2	Wesleyan	Jeffreys	Fast food, motel, gas station	Good	N	SL	N	-	W	N	-	-	-	-	N	0/8	Grass on Wesleyan - 25 ft	HIGH	35/50	Wide grassy median, no ped facilities at all
49	34	Church	US 64 Ramp	Existing greenway; Rocky Mount Athletic Field	Good	N	SL	Y	COMPLETE	W	Y	Y	Y	GOOD	Y	COUNTDOWN	2/8	8 foot painted where existing crosswalk is present	MEDIUM-HIGH	45	Great crossing facility with countdown signals and high visibility crosswalks
50	47	English	Winstead	Lodging; Commercial; Office building	Good	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	N	MEDIUM-HIGH	35/45	No pedestrian facilities present at all.
51	6	Winstead	Curtis Ellis	Motels; restaurants; hospital	Good	N	SL	N	-	W	N	-	-	-	-	N	0/8	N	MEDIUM-HIGH	34/45	No pedestrian facilities present.
52	43	Goldrock	Cunningham	Lower-income residential (trailer park, apts); some commercial, church, Hornbeam Park	Good	N	SS (FOR CUNNINGHAM)	Y	INADEQUATE	W	N	-	-	-	-	N	0/8	N	MEDIUM	35	Many footpaths and lower-income areas; No crossing facilities at all
53	27	Meadowbrook	Springfield	Rural residential	Good	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	2 painted pork chop islands	LOW-MEDIUM	45	No sidewalk or crossing facility present; Opportunity for pork chop island refuges
54	40	Bethlehem	Old Mill	New high school; church	Fair	N	SL	Y	INADEQUATE	W	N	-	-	-	-	N	0/8	N	MEDIUM	35	Arterial intersection with no ped facilities currently - high school a major trip attractor
55	48	NC 4	NC 48	Commercial; lodging; restaurants	Good	N	SL	N (NO CURB)	-	W	N	-	-	-	-	N	0/8	Y (wide median on NC 48)	MEDIUM	35/45	Long crossing (4 lanes each side); Opportunity to utilize median refuge. No pedestrian facilities here at all.

TABLE H.2: INTERSECTION RECOMMENDATIONS

No.	ID #	Road 1	Road 2	Needs Sidewalk (Y/N)	Stripe New H/V Crosswalk Markings (Y/N)	Restripe Existing Crosswalk Markings - H/V (Y/N)	Advanced Stop Lines (Y/N)	Reconstruct Existing Curb Ramps (Y/N)	Construct New Curb Ramps (Y/N)	Median Refuge Islands(Y/N)	Curb Extensions; Curb Radius Reduction (Y/N)	Pedestrian Countdown Signal Heads (Y/N)	Restrict Right turn on Red	High - Visibility Pedestrian Warning Signs	In-Roadway Pedestrian Crossing Signs	Remove Sight-Distance Obstruction	Details and Extra Notes
1	13	Thomas	Grace	N	N	Y	-	Y	N	N	N	Y	N	N	N	N	Crosswalks need restriping and should be highly-visible; curb ramps could be improved; Driveway/sidewalk unsafe for pedestrians in Kangaroo Express - needs leveling and improvement; Countdown signals also needed.
2	19	Arlington	George/Edgecombe/ Raleigh	Y	N	Y	-	Y	Y	Y (can be extended on George and improved)	N	Y	N	Y	N	N	Make crosswalks highly-visible and add countdown signals. Utilize median refuge and pork chop island spaces to create refuges with curb ramps.
3	16	Grace	Raleigh	N	N	Y	-	Y	N	N	N	-	N	Y	N	N	Make crosswalks high-visibility. Curb ramps could be improved.
4	38	Atlantic	Tarboro	N	N	Y	-	Y	N	N	N	Y	N	Y	N	N	With community college and corner stores, high visibility marked crosswalk would be an improvement with countdown signals. Curb ramps could be upgraded but are complete.
5	11	Sunset	River	Y	Y	-	Y	Y	Y	Y	N	HAWK	N	Y (FLASHING LIGHTS MAYBE)	Y	N	Need to connect greenway to Sunset by sidewalk at least. Have pedestrians walk towards park from river - utilize wide planted median island across from park (more visibility around curve). Crossing needs to be highly-visible; utilize median islnsd for refuge. Most ideal would be a HAWK to stop fast-moving traffic - at the very least ped flashing lights should warn traffic.
6	15	Raleigh	Hazelwood	Y	Y	-	-	Y	Y	Y	N	HAWK	N	-	N	N	High speed traffic through here and destinations on both sides; Consider HAWK. At least add high visibility marked crosswalk and median refuge in turn lane; Consider speed limit reduction from 45mph to 35mph in this area
7	17	Sunset	Franklin	N	N	Y	-	N	N	N	N	Y	N	N	N	N	Make crosswalks highly-visible and add countdown signals
8	18	Thomas	Church	N	N	Y	-	Y	N	N	N	N	N	N	N	N	Crosswalks need restriping and should be highly-visible; curb ramps could be improved; Improve curb ramps and driveways should be improved.
9	25	Stokes	Hunter	Y	Y	N	Y	Y	Y	N	N	N	N	Y	N	N	Crosswalk needed across Hunter to connect to school and one across Stokes to connect folks east of Stokes to school; Sidewalk needed along Hunter on school side; Midblock crosswalks across Hunter need curb ramps, high-visibility crosswalks, and in-roadway signs
10	30	Hammond	Franklin	N	N	Y	-	Y	N	N	N	Y	N	N	N	N	Crosswalks need restriping and should be highly-visible; curb ramps could be improved. Countdown signals could be considered.
11	14	Raleigh	Nashville	Y	N	Y	-	Y	N	N	N	Y	N	N	N	N	Crosswalks need restriping and should be high-visibility; Countdown signals a must; curb bulbouts could be considered. Driveway overtakes sidewalk at tire store - sidewalk should be distinguished better here.
12	31	Raleigh	Coleman	N	N	Y	-	Y	N	N	N	N	N	-	Y	N	Make crosswalk high-visibility. Curb ramps could use improvement; Consider in-roadway sign to slow traffic
13	24	Grand	Raleigh	N	N	Y	-	Y	N	N	N	Y	N	N	N	N	Countdown signals are top priority here. Marked crosswalks should be upgraded to high-visibility when current striping fades; Curb ramps could use improvement.
14	51	Ridge	Peachtree	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	Marked crosswalks missing across Ridge on west side, existing crosswalks somewhat faded; opportunity for bulbout with onstreet parking along west side of Peachtree
15	37	Edwards	Neal	N	Y	-	Y	N	N	N	Y	N	N	Y	N	N	High-visibility marked crosswalks needed crossing Neal on east side and Edwards on north side to connect existing sidewalk. With wide roads, curb bulbouts could be added with signage.
16	45	Franklin	Thomas	Y (missing on one side)	N	Y	-	Y	N	N	N	Y	N	N	N	N	Restripe marked crosswalks and improve curb ramps.
17	46	Franklin	Nash	N	N	Y	N	Y	N	N	N	Y	N	Y	N	N	High-visibility marked crosswalks and countdown signals needed
18	8	Englewood	Sunset	Y	Y	Y	-	Y	Y	N	N	Y	Y (WITH SIGNAL)	-	N	N	Curb ramps need improvement, crosswalk is beginning to fade; Sidewalk is very much needed along all roads; Crossing guard should be considered.
19	12	Nash	Tillery	Y	Y	Y	-	Y	Y	N	Y	N	N	Y	N	N	Marked crosswalks need restriping and should be highly-visible. Bulbouts needed with on-street parking; Curb ramp should be added and others improved; Signage needed as well.
20	22	Church	Kingston	Y	Y	-	Y	Y	Y	N	N	Y	Y	Y	N	Y	Important intersection with destinations; improvements needed
21	23	Fairview	Bedford	N	N	Y	-	Y	N	Y (center turn lane - south side)	N	N	N	N	Y	N	With center turn lane not needed at existing crosswalk, construct a median refuge island with in-roadway crossing signs. Consider a crossing guard. Marked crosswalks should be high-visibility and curb ramps need some improvement.
22	26	Raleigh	Stokes	N	N	Y	-	N	N	N	N	-	N	Y	N	N	Make crosswalks high-visibility. Continue having crossing guard at this location (essential).
23	28	Grand	Myrtle	Y	N	Y	-	Y	N	N	N	Y	N	N	N	N	Curb ramps need upgrading (one with drainage problem); Sidewalk could be added at foot path on Myrtle; restripe crosswalks; add countdown signals.
24	33	Hill	George	N	Y	Y	Y	Y	Y	N	N	Y	N	Y	N	N	High- visibility crosswalks with advanced stop lines needed here; Curb ramp needs improvement; Consider countdown signals
25	5	Hunter Hill	Country Club	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N	Sidewalks most important in this area (at least to surrounding businesses); Marked crosswalks, countdown signals, and accessible curb ramps needed
26	20	Benvenue	Jeffreys	Y	Y	-	Y	Y	Y	N	Y	Y	N	Y	N	N	Sidewalk needed first. Crosswalk and countdown signals needed as well.
27	51	Redgate	Cokey	N	Y	Y	Y	Y	N	N	N	Y	N	Y	N	N	Need high visibility marked crosswalks across Cokey; make existing crosswalks across Redgate high-visibility; Improve curb ramps; Consider countdown signals
28	52	Jeffreys	Country Club	Y	Y	-	Y	Y	Y	N	Y	Y	N	N	N	N	Sidewalk needed first. Crosswalk and countdown signals needed. Curb radius should be reduced for traffic turning right onto Jeffreys from Country Club
29	54	Church	Senior Center Midblock	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	Existing midblock crosswalk should be 1) highly-visible, 2) have curb ramps, and 3) have median refuge in current turn lane.
30	29	Church	Grand	N	N	Y	-	Y	Y	N	N	Y	N	Y	N	N	Crosswalks need restriping and should be higly-visible; curb ramps should be improved.
31	50	Fairview	Tarboro	Y	Y	-	Y	N	Y	N	N	Y	Y	Y	N	Y	Consider removing vegetation. Sidewalks needed along with crosswalks and countdown signals.
32	51	Sunset	Buck Leonard	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	N	Y	Sidewalk on all legs is needed with marked crossswalks. Utilize the medians and pork chop islands as refuges for pedestrians. Additional study needed to add countdown signals (signal timing considerations).
33	7	Winstead	Sunset	Y	Y	-	Y	Y	Y	N	N	Y	N	Y	N	N	Sidewalk is needed first. Crosswalks and ped signals most critical here.
34	32	Church	Nashville	Y	Y	-	Y	Y	Y	N	N	Y	N	Y	N	N	Many pedestrians in area; Need marked crosswalks, countdown signals, advanced stop lines, curb ramp improvement - improve driveways for ped safety
35	42	Sunset	Halifax	Y	Y	-	Y	Y	Y	N	Y	Y	N	Y	N	N	Important intersection for crossing improvements with low income area. Sidewalk is most important, crosswalks and countdown signals needed. Curb extensions should be considered.
36	49	Thomas	Pine	Y	Y	-	Y	-	Y	N	N	Y	Y	Y	N	N	Marked crosswalks, countdown signals, and curb ramp improvements needed.

TABLE H.2: INTERSECTION RECOMMENDATIONS (CONTINUED)

No.	ID #	Road 1	Road 2	Needs Sidewalk (Y/N)	Stripe New H/V Crosswalk Markings (Y/N)	Restripe Existing Crosswalk Markings - H/V (Y/N)	Advanced Stop Lines (Y/N)	Reconstruct Existing Curb Ramps (Y/N)	Construct New Curb Ramps (Y/N)	Median Refuge Islands(Y/N)	Curb Extensions; Curb Radius Reduction (Y/N)	Pedestrian Countdown Signal Heads (Y/N)	Restrict Right turn on Red	High - Visibility Pedestrian Warning Signs	In-Roadway Pedestrian Crossing Signs	Remove Sight-Distance Obstruction	Details and Extra Notes
37	21	Cokey	Old Wilson	Y	Y	N	Y	-	Y	N	N	-	N	N	N	N	Sidewalk is needed first. Crosswalks also critical here. If stoplight is added in future, consider countdown signals.
38	39	Old Mill/May	Wesleyan	Y	Y	-	Y	N	Y	Y	N	Y	N	Y	N	N	Although currently dangerous without ped accomodation, this is one of full opportunities to cross Wesleyan with a signal. Adding sidewalks is a first priority - ped crossing faciiliites would connect Englewood Park to future Tar River greenway and Downtown area.
39	3	Benvenue	Goldrock	Y	Y	N	Y	N	Y	N	Y	Y	N	Y	N	N	Sidewalks most important with shopping centers. Crossing needs crosswalks, stop lines moved back, and countdown signals.
40	1	Wesleyan	Bishop	Y	Y	N	Y	N	Y	Y	N	Y	N	Y	N	N	Not as high of a priority with Sheetz only destination. Sidewalk is needed - crosswalks and countdowns.
41	53	Englewood	Oakdale/Butler	N	N	Y	-	Y	Y	N	Y (Bulbout on school side where onstreet parking is present)	N	N	Y	Y	N	Curb bulbout and higher visibility marked crosswalk would enhance crossing. Curb ramps needed or need improvement.
42	9	Stone Rose/Tarrytown	Wesleyan	Y	Y	-	Y	N	Y	Y	N	Y	N	Y	N	N	Sidewalk a priority with marked crosswalk and countdown signals. This intersection may not be the highest priority.
43	10	Shadow Ridge	Winstead	Y	Y	-	N	N	Y	Y (north side in turn lane)	N	N	N	Y	Y	N	Marked crosswalk with median refuge should be considered. tttttggtggggyyyyyy In-roadway signs should be added too. Crossing guard should be considered as well.
44	4	Nicodemus Mile	Irene	Y	Y (across Nicodemus Mile on west side)	-	-	Y	N	Y (west side)	N	N	N	Y	Y	N	Crossing of Nicodemus Mile should be on west side in dead center turn lane (no left turn allowed into school at this entrance) - HV xwalk, median island; Crossing guard would be good too
45	41	Harbour West	Wesleyan	Y	Y	-	Y	N	Y	Y	N	Y	N	Y	N	N	Sidewalk needed along Harbour West to high school and to apts/Tree Lake Park on east side
46	36	Wesleyan	Tiffany	Y	Y	-	Y	-	Y	Y and pork chop island refuge	N	Y	N	Y	N	N	With recommended greenway corridor, have pedestrians come along north side of Tiffany, cross Tiffany, and then cross Wesleyan on southern side with median refuge, countdown signals, and crosswalks.
47	44	Hathaway	Battleboro	Y (On Hathaway)	Y	Y	Y	Y	Y	N	Y (Consider on SE corner with wide turn angle)	Y	N	Y	N	N	With existing sidewalk and marked crosswalks, some enhancements woujld improve intersection (Need high visibility marked crosswalks and countdown signals - consider curb extension photo rendering)
48	2	Wesleyan	Jeffreys	Y	Y	-	Y	-	Y	Y	N	Y	N	Y	N	N	Sidewalks needed most importantly; Crosswalks and signals necessary.
49	34	Church	US 64 Ramp	N	N	N	N	N	N	Y	N	-	Y	Y	N	N	To improve crossing, pedestrian crossing signage, a refuge island (in existing dead median space), and a No-Right Turn on Red restriction when ped signal is activated (for cars entering freeway ramp) could be added.
50	47	English	Winstead	Y	Y	-	Y	-	Y	N	N	Y	N	N	N	N	Needs sidewalk most importantly. Crosswalks and countdown signals needed.
51	6	Winstead	Curtis Ellis	Y	Y	N	Y	-	Y	N	N	Y	N	N	N	N	Sidewalk is needed first. Crosswalks and ped signals most critical here.
52	43	Goldrock	Cunningham	Y	Y	-	Y	Y	Y	N	Y	N	N	Y	N	N	Sidewalks most important with footpaths. Without stoplight, need clear signage and marked crosswalks. Some curb extensions could be added.
53	27	Meadowbrook	Springfield	Y	Y	-	Y	-	Y	Pork chop island refuges	N	N	N	N	N	N	Longer term project when development occurs. Sidewalk needed first. Painted pork chop islands should be developed into raised refuges.
54	40	Bethlehem	Old Mill	Y	Y	-	Y	Y	N	N	Y	Y	N	Y	N	N	Sidewalks needed first. Crosswalks and signalization with improved curb ramps.
55	48	NC 4	NC 48	Y	Y	-	Y	-	Y	Y	Y	Y	N	Y	N	N	Sidewalk needed first. Crosswalk and countdown signals needed. Opportunity to utilize median refuge island. Despite being near an interstate exit, curb extensions should be considered to shorten crossing distance.

# APPENDIX I: PRIORITIZATION TABLES



## METHODOLOGY FOR SIDEWALK PRIORITIZATION

The recommended sidewalk network (see Chapter 3) was divided into the individual street segments that are listed on the left-side of the following table. Each of these segments scored points and were ranked according to the weighted categories they fulfilled on the right-side of the table. This way, streets that provide direct access to schools, parks, and bus stops, for example, are prioritized higher than streets that do not. For all criteria used, please see the top right-hand portion of the table, where each category is listed.

TABLE I.1: SIDEWALK PRIORITIZATION

*This ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding and changes in site conditions. When opportunities arise for sidewalk construction, such as during roadway reconstruction or through local development, those opportunities could be taken, regardless of ranking within this table.*

TABLE 1.1: SIDEWALK PRIORITIZATION								This ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding and changes in site conditions. When opportunities arise for sidewalk construction, such as during roadway reconstruction or through local development, those opportunities could be taken, regardless of ranking within this table.																			
								Top 1-5 “Most in Need of Improvement”	Top 6-10 “Most in Need of Improvement”	Contains a Top 1 Intersection “Most in Need of Improvement”	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas	Priority Score Total
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)	Online Survey Results			School Proximity			Parks & Recreation			Transportation					Destinations			Total		
1	57	Sunset Ave	Englewood Dr	Buck Leonard Blvd	New	1	0.7	5		4	4		3				4	4	4	4	3	4	3			3	45
2	17	Leggett Rd	E Virginia St	Barnes St	New	1	0.8						3	3	4	2	4	4	4	4	3	4	3			3	41
3	56	Sunset Ave	Winstead Ave	Englewood Dr	New	1	0.4	5		4	4		3					4	4	4	3	4	3			3	41
4	266	N Church St	Grand Ave	Independence Dr	New	2	1.1						3	3	4		4	4	4		3	4	3	4		3	39
5	236	Benvenue Rd	Hunter Hill Rd	River Dr	New	2	1.0	5	3				3		4		4	4	4	4	3	4					38
6	186	Cokey Rd	Old Wilson Rd	S Fairview Rd	New	1	0.9						3	3		2	4	4	4	4	3	4	3			3	37
7	86	Raleigh Rd	Kingston Ave	Griffin St	New	1	0.6		3				3			2		4	4	4	3	4	3		4	3	37
8	324	Redgate Ave/ N Pineview St/ Rosewood Ave	Nugent St	Eastern Ave	Gap	1	0.4						3	3		2	4	4	4	4	3	4	3			3	37
9	4	N Winstead Ave	Curtis Ellis Dr	Sunset Ave	New	2	1.2	5		4			3			2			4	4	3	4	3			3	35
10	126	S Grace St	Nashville Rd	Clyde St	Gap	1	0.4						3	3			4	4	4	4	3	4	3			3	35
11	295	E Goldleaf St	Atlantic Ave	Myrtle Ave	Gap	1	0.2						3	3				4	4	4	3	4	3	4		3	35
12	106	Boone St	Kingston Ave	Nelson St	New	1	0.5						3			2	4	4	4	4	3	4	3			3	34
13	291	N Franklin St	Thomas St	Peachtree St	Gap	2	0.3						3	3		2		4	4	4	3	4		4		3	34
14	27	E Ridge St	N Pine St	Peachtree St	New	1	0.2						3	3		2		4	4	4	3	4			4	3	34
15	312	Eastern Ave	N Edgewood St	Rosewood Ave	New	1	0.2						3	3		2	4	4	4	4	3	4				3	34
16	303	Olive St	N Raleigh St	Shearin St	Gap	1	0.1						3	3		2	4	4	4	4	3	4				3	34
17	289	S Tillery St	Plnehaven Dr	Sunset Ave	Gap	1/2	0.6				4		3	3		2		4	4		3	4	3			3	33
18	172	E Virginia St	Hunter St	Stokes St	Gap	1	0.3				4		3				4	4	4	4	3	4				3	33
19	315	Nugent St	Redgate Ave	Drew St	New	1	0.2						3	3		2	4	4	4		3	4	3			3	33
20	234	Benvenue Rd	Jeffreys Rd	N Wesleyan Blvd	New	2	0.7	5		4								4	4	4	3	4			4		32

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)								Online Survey Results																			
								Top 1-5 "Most in Need of Improvement"	Top 6-10 "Most in Need of Improvement"	Contains a Top 1 Intersection "Most in Need of Improvement"	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas	Priority Score Total
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)																				
21	171	Barnes St	Leggett Rd	Hunter St	New	1	0.4						3				4	4	4	4	3	4	3			3	32
22	115	Aycock St	Wilkins St	Edwards St	New	1	0.3				4		3				4	4	4		3	4	3			3	32
23	308	S Edgewood St	School St	Eastern Ave	Gap	1	0.3						3	3			4	4	4	4	3	4				3	32
24	173	Hunter St	Ryals St	Barnes St	Gap	1	0.2				4		3					4	4	4	3	4	3			3	32
25	3	Pennsylvania Ave	E Virginia St	Tar River Trail	Gap	1	0.1						3	3	4		4	4	4		3	4				3	32
26	174	Stokes St	E Virginia St	Hunter St	Gap	1	0.1				4		3					4	4	4	3	4	3			3	32
27	294	Ivy St	Albemarle Ave	Atlantic Ave	Gap	2	0.1						3	3				4	4	4	3	4		4		3	32
28	299	Atlantic Ave	Spruce St	Tar River Trail	Gap	1	0.1						3	3	4		4	4	4		3	4				3	32
29	273	River Dr	Sunset Ave	Carr St	Gap	1	0.7			4			3		4	2	4	4	4		3		3				31
30	188	S Fairview Rd	Tarboro St	Cokey Rd	New	1	0.6						3			2		4	4	4	3	4			4	3	31
31	307	S Mercer St	Cokey Rd	Hill St	Gap	2	0.4						3	3				4	4	4	3	4	3			3	31
32	292	N Grace St/ W Grand Ave	Peachtree St	NE Main St	Gap	1	0.3						3	3				4	4		3	4	3	4		3	31
33	316	Henna St	Cokey Rd	Nugent St	New	1	0.1						3	3			4	4	4		3	4	3			3	31
34	44	S Winstead Ave	Sunset Ave	Winstead Rd	New	2	1.0	5		4			3					4	4		3	4				3	30
35	59	Sunset Ave	Buck Leonard Blvd	River Dr	Gap	1/2	0.9	5		4						2		4	4	4	3	4					30
36	261	Country Club Rd	Hunter Hill Rd	Buck Leonard Blvd	New	1	0.7		3	4			3			2		4	4		3	4	3				30
37	43	Jones Rd	Curtis Ellis Dr	Sunset Ave	New	1	0.4						3			2		4	4	4	3	4	3			3	30
38	195	Wake St/ Nutrition St	N Raleigh St	N Fairview Rd	Gap	1	0.3				4		3	3		2		4	4		3	4				3	30
39	105	Vance St/ Norfolk St/ Arlington St	Mitchell St	Dunn St	Gap	1	0.3			4			3	3		2		4	4		3	4				3	30
40	187	Cokey Rd	Green Ave	Old Wilson Rd	Gap	1	0.2						3	3		2		4	4	4	3	4				3	30
41	29	S Franklin St	Raleigh Rd	Andrews St	Gap	1	0.1						3	3		2		4	4		3	4		4		3	30
42	45	S Winstead Ave	Winstead Rd	Michael Scott Dr	New	2	1.5	5			4		3			2		4	4	4	3						29
43	21	Forest Hill Ave	Old Mill Rd	Sunset Ave	New	1	0.7			4							4	4	4		3	4	3			3	29
44	93	Kingston Ave	Raleigh Rd	Boone St	New	1	0.7				4		3					4	4	4	3	4				3	29
45	87	Powell Dr	Raleigh Rd	Kingston Ave	New	1	0.7						3					4	4	4	3	4			4	3	29
46	19	Tarboro St	S Holder Dr	S Glendale Rd	Gap	1	0.5						3					4	4	4	3	4			4	3	29
47	314	Tarboro St	Edgewood St	Parrish St	Gap	1	0.4						3	3		2		4	4		3	4	3			3	29
48	116	Burton St	Williford St	Edwards St	New	1	0.2						3				4	4	4	4	3	4				3	29
49	114	Wilkins St/ Russell St	Russell St	Raleigh Rd	Gap	1	0.1				4		3					4	4	4	3	4				3	29
50	111	Nashville Rd	Raleigh Rd	S Franklin St	Gap	1/2	0.8						3					4	4	4	3	4	3			3	28
51	293	Albemarle Ave	Ivy St	Grand Ave	Gap	2	0.7						3	3				4	4		3	4		4		3	28
52	178	Meadowbrook Rd	N Raleigh St	Springfield Rd	New	1	0.7						3					4	4	4	3	4	3			3	28
53	28	West Haven Blvd	Hammond St	Raleigh Rd	New	1	0.5						3	3				4	4	4	3	4				3	28
54	191	N Glendale Dr	Marlee Dr	Tarboro St	New	1	0.5						3				4	4		4	3	4	3			3	28
55	278	Walnut St	Westwood Dr	Raleigh Rd	Gap	1	0.5						3	3				4	4	4	3	4				3	28
56	311	N Parker St	Sycamore St	N Raleigh St	Gap	1/2	0.4						3	3			4	4	4		3	4				3	28
57	271	N Pine St	W Thomas St	E Ridge St	New	1	0.4						3	3				4	4	4	3	4				3	28

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)								Top 1-5 “Most in Need of Im- provement”		Top 6-10 “Most in Need of Improvement”		Contains a Top 1 Intersection “Most in Need of Improvement”		Direct Access to/from a School		Direct Access to Local College		Elem., Middle, and High School Proximity (1/2 mile radius)		College/University Proximity (1 mile radius)		Direct Access to/from an Exist- ing or Funded Trail		Direct Access to/from a Pro- posed Trail		Direct Access to/from a Park or Recreation Center		Park or Recreation Center Prox- imity (1/2 mile radius)		Direct Access to/from an Exist- ing Sidewalk		Direct Access to Bus Stop		Bus Route Proximity (1/2 mile radius)		Serves Low Income Areas with Lower Car-Ownership Rates		Segment Contains Reported Ped Accidents		Direct Access to/from Down- town		Direct Access to Major Shopping Centers/Groceries		Direct Access to/from Higher Density Residential Areas		Priority Score Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

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No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)																				
95	267	Riverside Dr	N Church St	Spruce St	New	1	0.3						3	3			4	4	4		3	4					25
96	286	Nash St	S Mayo St	S Vyne St	New	1	0.2				4		3	3			4	4	4		3						25
97	119	Oakey St	Aycock St	Russell St	New	1	0.1				4		3					4	4		3	4				3	25
98	121	Russell St	Oakey St	Wilkins St	Gap	1	0.1				4		3					4	4		3	4				3	25
99	259	S Wesleyan Blvd	May Dr	Harbour West Dr	New	2	2.2	5					3			2	4	4			3		3				24
100	241	Hunter Hill Rd	Country Club Rd	N Wesleyan Blvd	New	2	1.1	5		4								4	4		3	4					24
101	235	Benvenue Rd	N Wesleyan Blvd	Hunter Hill Rd	New	2	1.0	5										4		4	3	4			4		24
102	196	Goldrock Rd	Waterloo Dr	Benvenue Rd	New	1	0.8			4						2			4	4		3	4			3	24
103	9	S Church St	Cooley Rd	Clayton St	New	1	0.6						3					4	4		3	4	3			3	24
104	112	Nashville Rd	Hammond St	Raleigh Rd	New	1	0.5						3					4	4		3	4	3			3	24
105	124	Paul St/ Luper St	Boone St	End of Luper St	New	1	0.4						3	3				4	4		3	4				3	24
106	181	Lynne Ave	N Glendale Dr	Courtland Ave	New	1	0.4						3				4	4			3	4	3			3	24
107	95	Sutton Rd	S Church St	Vance St	New	1	0.4						3			2		4	4		3	4			4		24
108	298	E Virginia St	Albermarle St	Myrtle Ave	Gap	1/2	0.3						3	3				4	4		3	4				3	24
109	279	Westwood Dr	Hammond St	Walnut St	Gap	1	0.3						3					4	4		3	4	3			3	24
110	193	Bedford Rd	N Fairview Rd	N Glendale Dr	New	1	0.3						3				4	4	4		3		3			3	24
111	309	N Mercer St	Sycamore St	Rose St	Gap	2	0.2						3	3				4	4		3	4				3	24
112	296	Park Ave	Shearin St	E Highland Ave	Gap	1	0.2						3	3				4	4		3	4				3	24
113	128	S Washington St	Wye St	E Bassett St	Gap	2	0.2						3	3				4	4		3	4				3	24
114	32	Eastern Ave	N Raleigh St	N George St	Gap	2	0.1						3	3				4	4		3	4				3	24
115	16	Winstead Rd	Englewood Dr	S Wesleyan Blvd	New	1	1.0				4		3			2	4	4			3		3				23
116	233	Benvenue Rd	Northern Blvd	Jeffreys Rd	New	2	0.9	5		4									4		3				4	3	23
117	88	Kinchen Dr/ Blanch Ln	Raleigh Rd	Clayton St	New	1	0.5						3			2		4	4		3	4				3	23
118	7	Bethlehem Rd	West Mount Dr	Hammond St	New	1	0.4						3			2	4	4	4		3		3				23
119	282	Piedmont Ave	West Haven Blvd	Sunset Ave	New	1	0.2						3			2	4	4	4		3					3	23
120	288	S Howell St	Nance St	Alton St	Gap	2	0.1						3	3				4	4		3		3			3	23
121	248	Jeffreys Rd	Sutters Creek Blvd	Benvenue Rd	New	2	0.9		3	4									4	4	3				4		22
122	246	Country Club Rd	Hunter Hill Rd	Southern Blvd	New	2	0.6		3	4									4	4	3	4					22
123	144	Bishop Rd	Belmont Farms Pkwy	N Wesleyan Blvd	New	1	0.3					3	3	3		2					3	4			4		22
124	109	S Church St	Chapman St	Nashville Rd	Gap	1	0.2											4	4	4	3	4				3	22
125	254	S Wesleyan Blvd	Buck Leonard Blvd	US 64 W	New	2	1.2	5								2		4			3	4	3				21
126	169	Leggett Rd	Barnest St	Whitfield Ave	New	1	0.8						3					4		4	3	4				3	21
127	179	Courtland Ave	Meadowbrook Rd	Rosewood Ave	New	1	0.6											4		4	3	4	3			3	21
128	71	Harbour West Dr	End	Bethlehem Rd	New	1	0.5						3				4	4	4		3		3				21
129	194	Rosewood Ave	Fairview Rd	N Glendale Dr	New	1	0.3						3					4	4		3	4				3	21
130	123	Boone St	Paul St	Arrington Ave	New	1	0.2						3					4	4		3	4				3	21
131	269	E Ridge St	Bellevue Ave	Melton Dr	New	1	0.2						3					4	4		3	4				3	21
132	122	Evergreen Rd	Hammond St	Pinehaven Dr	Gap	1	0.2						3					4	4		3	4				3	21

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

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								Top 1-5 “Most in Need of Improvement”	Top 6-10 “Most in Need of Improvement”	Contains a Top 1 Intersection “Most in Need of Improvement”	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)	Online Survey Results			School Proximity				Parks & Recreation				Transportation				Destinations			Total
133	108	Union St	Bailey St	S Church St	New	1	0.1						3					4	4		3	4			3	21
134	12	Russell St	Nashville Rd	Williford St	New	1	0.1				4		3					4			3	4			3	21
135	321	N Raleigh St	N George St	E Thomas St	Gap	1	0.0						3	3				4	4		3	4				21
136	142	Cummings Rd	Goldrock Rd	Bishop Rd	New	1	1.8				4	3	3	3							3	4				20
137	252	N Wesleyan Blvd	Sutters Creek Blvd	Benvenue Rd	New	2	0.9	5										4			3	4		4		20
138	143	Bishop Rd	Belmont Farms Pkwy	Northern Connector	New	1	0.8				4	3	3	3							3	4				20
139	103	Vance St	Sutton Rd	Midway St	New	1	0.7									2		4	4		3	4			3	20
140	281	West Haven Blvdq	Piedmont Ave	Hammond St	New	1	0.6						3	3				4	4		3				3	20
141	182	Rosewood Ave	N Glendale Dr	End	New	1	0.5						3					4		4	3		3		3	20
142	24	Hunter Hill Rd	Nicodemus Mile Rd	Country Club Rd	New	2	0.5	5		4									4		3	4				20
143	12	Nottingham Rd/ Winchester Rd	Westridge Cr	Sheffield Dr	New	1	0.4						3			2	4	4	4		3					20
144	18	S Englewood Dr	Wellington Dr	Winstead Rd	New	1	0.3				4		3			2	4	4			3					20
145	317	Drew St	Nugent St	Pitt St	New	1	0.1						3	3				4			3	4			3	20
146	7	Sunset Ave	Halifax Rd	Candlewood Rd	New	2	1.4	5										4	4		3				3	19
147	257	S Wesleyan Blvd	Arbor Ln	Melrose Dr	New	2	1.3	5					3					4			3	4				19
148	151	College Rd	N Wesleyan Blvd	Windywood Ln	New	1	0.9					3	3	3							3	4			3	19
149	39	N Winstead Ave	English Rd	Curtis Ellis Dr	New	2	0.8	5					3						4		3	4				19
150	49	Jeremy Ln/ Nichole Ln	Mansfield Dr	Michael Scott Dr	New	1	0.6						3			2		4	4		3				3	19
151	85	Raleigh Rd	S Wesleyan Blvd	Kingston Ave	New	1	0.5		3							2			4		3	4			3	19
152	284	Glenn Ave	Sunset Ave	West Haven Blvd	New	1	0.3						3			2		4	4		3				3	19
153	133	Marriott St	E Battleboro Ave	W Bridge St	New	1	0.1										4	4	4			4			3	19
154	221	N Wesleyan Blvd	Jeffreys Rd	Construction Dr	New	2	1.1	5								2		4				4	3			18
155	2	Wellington Dr	End	Old Mill Rd	New	1	0.7				4		3					4	4			3				18
156	18	Dreaver St	Rosewood Ave	Meadowbrook Rd	New	1	0.6											4		4	3	4			3	18
157	202	Greyson Rd	Goldrock Rd	Southbriar Dr	New	2	0.5											4	4			4	3		3	18
158	125	Davis St	Nashville Rd	Estell St	New	1	0.4											4	4		3	4			3	18
159	134	Gainor Ave	E Battleboro Ave	Town Limit	New	1	0.4											4	4		3	4			3	18
160	2	Sunset Ave	Old Carriage Rd	I 95	New	2	1.6	5				3		3							3				3	17
161	46	S Winstead Ave	Michael Scott Dr	Bethlehem Rd	New	2	0.9	5					3			2		4			3					17
162	131	Hathaway St	Ernest St	Battleboro Ave	New	2	0.5									2		4	4			4			3	17
163	201	Cunningham Dr	Crown Point Ln	Goldrock Rd	New	1	0.5										2	4	4				4		3	17
164	225	Thorpe Rd	Benvenue Rd	Airport Rd	New	1	0.5										2	4	4			3	4			17
165	55	S Halifax Rd	Sunset Ave	Community Dr	New	2	0.4											4	4		3		3		3	17
166	62	May Dr	S Wesleyan Blvd	Sunset Ave	New	1	0.3									2		4	4			3	4			17
167	268	Melton Dr	E Ridge St	N Church St	New	1	0.3						3	3				4			3	4				17
168	277	Glenn Ave	Hammond St	West Haven Blvd	New	1	0.2						3					4	4		3				3	17
169	118	Azalea St	Williford St	Nashville Rd	New	1	0.1						3					4			3	4			3	17

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)								Online Survey Results																			
								Top 1-5 "Most in Need of Improvement"	Top 6-10 "Most in Need of Improvement"	Contains a Top 1 Intersection "Most in Need of Improvement"	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas	Priority Score Total
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)																				
170	52	S Halifax Rd	Community Dr	Ketch Point Dr	New	1	0.9									2	4	4			3					3	16
171	63	Old Mill Rd	Wellington Rd	Winstead Rd	New	1	0.8						3			2	4	4			3						16
172	145	Belmont Farms Pkwy	Fords Colony Dr	Bishop Rd	New	1	0.5					3	3	3						3	4						16
173	265	N Church St	Independence Dr	Airport Rd	New	2	1.7										4	4	4		3						15
174	38	N Winstead Ave	Hunter Hill Rd	English Rd	New	2	1.0	5					3						4		3						15
175	253	N Wesleyan Blvd	US 64 W	Sutters Creek Blvd	New	2	0.9	5												3	4	3					15
176	258	S Wesleyan Blvd	Harbour West Dr	Arbor Ln	New	2	0.9	5					3					4		3							15
177	211	Jeffreys Rd	Fenner Rd	N Wesleyan Blvd	New	2	0.8		3							2					4	3				3	15
178	251	Ring Rd	N Wesleyan Blvd	Jeffreys Rd	New	1	0.4											4		3	4			4			15
179	136	Morning Star Church Rd	Battleboro Legget Rd	Three Sisters Park	New	1	0.3										4	4		3	4						15
180	135	E Battleboro Ave	Old Battleboro Rd	Morning Star Church Rd	New	1	0.3											4	4	3	4						15
181	285	S Mayo St	West Haven Blvd	Western Ave	New	1	0.2						3			2		4		3					3		15
182	262	Nicodemus Mile Rd	Shearin Andrew Rd	Hunter Hill Rd	New	1	1.3				4		3						4		3						14
183	25	N Halifax Rd	Royal Ridge Dr	Sunset Ave	New	2	1.0											4	4	3					3		14
184	247	Jeffreys Rd	Country Club Rd	Sutters Creek Blvd	New	2	1.0		3	4										4	3						14
185	37	N Winstead Ave	Town Limit	Hunter Hill Rd	New	2	1.0	5					3								3		3				14
186	29	Green Hills Rd	Northern Nash Rd	Hunter Hill Rd	New	1	1.0				4		3					4							3		14
187	32	Hunter Hill Rd	Sportsman Trl	N Winstead Ave	New	2	1.0	5					3							3					3		14
188	165	US 64 Alt West Hwy	US 64 W	Cox Ave	New	2	0.8		3										4		3	4					14
189	96	Sutton Rd	Vance St	Old Wilson Rd	New	1	0.8											4		3	4	3					14
190	102	Arlington St	Vestal Rd	Sutton Rd	New	1	0.7		3									4		3	4						14
191	15	Winstead Rd	Nottingham Rd	S Englewood Dr	New	1	0.6				4		3					4		3							14
192	3	S Old Carriage Rd	Eastern Ave	Rons Country Ln	New	1	0.5					3	3	3		2				3							14
193	197	Goldrock Rd	Greyson Rd	Waterloo Dr	New	1	0.5											4			4	3			3		14
194	275	Wildwood Ave	Evergreen Rd	Piedmont Ave	New	1	0.5						3				4	4		3							14
195	13	Sheffield Dr	Nottingham Rd	Winstead Ave	New	1	0.3						3					4	4	3							14
196	132	Bridge St	Hathaway St	Gainor Ave	New	1	0.3											4		3	4				3		14
197	42	Curtis Ellis Dr	N Winstead Ave	Jones Rd	New	1	0.3						3						4	3	4						14
198	92	Gwen St	Kingston Ave	Clayton St	New	1	0.1						3					4		3	4						14
199	48	Michael Scott Dr	Bethlehem Rd	S Winstead Ave	New	1	0.8						3					4		3					3		13
200	73	West Mount Dr	Emerson Dr	Bethlehem Rd	New	1	0.7						3					4		3					3		13
201	9	Mayfair Dr	Sunset Ave	Railroad	New	1	0.5								2			4	4	3							13
202	146	Northern Connector	Fenner Rd	Bishop Rd	New	1	0.4					3	3	3							4						13
203	5	Hampton Dr/ Gloucester Rd	Sion Ct	Mansfield Dr	New	1	0.4								2			4	4						3		13
204	224	Smokey Rd	N Wesleyan Blvd	Thorpe Rd	New	1	0.3								2			4		3				4			13
205	97	Bershire Dr	Sutton Rd	Lincoln Dr	New	1	0.2											4		3		3			3		13
206	227	Tiffany Blvd	Benvenue Rd	Proposed Greenway	New	1	0.1									2			4		3				4		13

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)								Online Survey Results																	Priority Score Total	
								Top 1-5 “Most in Need of Improvement”	Top 6-10 “Most in Need of Improvement”	Contains a Top 1 Intersection “Most in Need of Improvement”	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown		Direct Access to Major Shopping Centers/Groceries
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)	Online Survey Results			School Proximity			Parks & Recreation			Transportation			Destinations			Total			
207	256	S Wesleyan Blvd	Melrose Dr	Raleigh Rd	New	2	1.2	5												3	4					12
208	189	S Glendale Rd	Tarboro St	Cokey Rd	New	1	0.7									2		4			3				3	12
209	229	Peele Rd	Acorn Trl	Benvenue Rd	New	1	0.7									2		4				3			3	12
210	13	W Battleboro Ave	Town Limit	Hathaway St	New	1	0.6											4	4			4				12
211	217	N Wesleyan Blvd	Instrument Dr	Fabrication Way	New	1	0.5	5						3								4				12
212	231	Benvenue Rd	Peele Rd	Northern Blvd	New	2	1.5	5												3					3	11
213	239	Hunter Hill Rd	Raper Dr	Nicodemus Mile Rd	New	2	1.0	5					3							3						11
214	199	Homestead Rd/ Gox Hall Dr	Goldrock Rd	Goldrock Rd	New	1	0.9											4				4			3	11
215	198	Goldrock Rd	Boseman Rd	Greyson Rd	New	1/2	0.8											4				4			3	11
216	238	Hunter Hill Rd	N Winstead Ave	Raper Dr	New	2	0.7	5					3							3						11
217	203	Greyson Rd	Southbriar Dr	Fenner Rd	New	1	0.7												4			4			3	11
218	137	NC 48	N Halifax Rd	Town Liimit	New	2	0.6												4	3	4					11
219	223	Airport Rd	Thorpe Rd	N Church St	New	1	0.6										4	4			3					11
220	207	Waterloo Dr	Goldrock Rd	Mashie Ln	New	1	0.5											4				4			3	11
221	64	Old Mill Rd	Bethlehem Rd	Wellington Rd	New	1	0.4						3			2					3				3	11
222	249	Kirby Dr	Hunter Hill Rd	Jeffreys Rd	New	1	0.3												4	3	4					11
223	99	Old Wilson Rd	Sutton Rd	Blandwood Dr	New	1	0.3											4	4		3					11
224	208	Roundtree Dr	S Hornbeam Dr	Goldrock Rd	New	1	0.0											4				4			3	11
225	98	Lincoln Dr	End	Bershire Rd	New	1	0.7											4			3				3	10
226	4	S Old Carriage Rd	Rons Country Ln	Edge of School	New	1	0.7				4		3	3												10
227	14	Hawthorne Rd	Mansfield Dr	Winstead Ave	New	1	0.6						3					4			3					10
228	1	Kandemor Ln	Sunset Ave	Sheffield Dr	New	1	0.6									2		4	4							10
229	176	Springfield Rd	US 64 Alt West Hwy	Meadowbrook Rd	New	1	0.6													3	4	3				10
230	5	Nash Central High Rd	S Old Carriage Rd	Edge of School	New	1	0.6				4		3	3												10
231	164	US 64 Alt West Hwy	Springfield Rd	Cox Ave	New	2	0.5		3													4	3			10
232	153	College Rd	Windywood Ln	Fountain School Rd	New	1	0.5							3								4			3	10
233	212	Jeffreys Rd	Northgreen Ln	Fenner Rd	New	2	0.5		3													4				10
234	228	Peele Rd	Boseman Rd	Acorn Trl	New	1	0.5											4					3		3	10
235	69	Bethlehem Rd	Old Mill Rd	West Mount Dr	New	1	0.5						3					4			3					10
236	84	E NC 97	W Gypsy Trl	S Wesleyan Blvd	New	1	0.5		3													4	3			10
237	263	Shearin Andrew Rd	Nicodemus Mile Rd	N Winstead Ave	New	1	0.5						3						4		3					10
238	68	Bethlehem Rd	Beechwood Dr	Old Mill Rd	New	1	0.4						3						4	3						10
239	149	Crusenberry Rd	Nancys Cr	Fenner Rd	New	1	0.4							3								4			3	10
240	147	Fenner Rd	Crusenberry Rd	Northern Connector	New	1	0.3						3	3								4				10
241	72	West Mount Dr	Harbour West Dr	Bethlehem Rd	New	1	0.2						3					4			3					10
242	264	Isabella Ln	Shearin Andrew Rd	School	New	1	0.1				4		3							3						10
243	255	S Wesleyan Blvd	Raleigh Rd	Cooley Rd	New	2	1.3	5														4				9

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)								Top 1-5 “Most in Need of Im- provement”			Top 6-10 “Most in Need of Improvement”			Contains a Top 1 Intersection “Most in Need of Improvement”			Direct Access to/from a School			Direct Access to Local College			Elem., Middle, and High School Proximity (1/2 mile radius)			College/University Proximity (1 mile radius)			Direct Access to/from an Exist- ing or Funded Trail			Direct Access to/from a Pro- posed Trail			Direct Access to/from a Park or Recreation Center			Park or Recreation Center Prox- imity (1/2 mile radius)			Direct Access to/from an Exist- ing Sidewalk			Direct Access to Bus Stop			Bus Route Proximity (1/2 mile radius)			Serves Low Income Areas with Lower Car-Ownership Rates			Segment Contains Reported Ped Accidents			Direct Access to/from Down- town			Direct Access to Major Shopping Centers/Groceries			Direct Access to/from Higher Density Residential Areas			Priority Score Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

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								Top 1-5 "Most in Need of Improvement"	Top 6-10 "Most in Need of Improvement"	Contains a Top 1 Intersection "Most in Need of Improvement"	Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Proposed Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Segment Contains Reported Ped Accidents	Direct Access to/from Downtown	Direct Access to Major Shopping Centers/Groceries	
No.	Segment ID	Name	From	To	Type	No. of Sides	Total Length (miles)	Online Survey Results			School Proximity			Parks & Recreation			Transportation			Destinations			Total			
279	177	Meadowbrook Rd	Springfield Rd	Rouse Rd	New	1	0.9													3		3				6
280	51	Ketch Point Dr/ Providence Rd	S Halifax Rd	Hampton Dr	New	1	0.7															3			3	6
281	74	West Mount Dr	Beechwood Dr	Emerson Dr	New	1	0.6						3												3	6
282	47	Beechwood Dr	Bethlehem Rd	Old Mill Rd	New	2	0.6													3					3	6
283	245	Country Club Rd	Southern Blvd	Benvenue Rd	New	1	0.6		3											3						6
284	75	Culpepper Dr	Beechwood Dr	Emerson Dr	New	1	0.5						3												3	6
285	65	Old Mill Rd	Beechwood Dr	Bethlehem Rd	New	1	0.5						3							3						6
286	78	Beechwood Dr	Old Mill Rd	Culpepper Dr	New	1	0.4						3							3						6
287	216	Northern Blvd	Benvenue Rd	Goldrock Rd	New	1	0.3													3					3	6
288	76	Emerson Dr	End	West Mount Dr	New	1	0.2						3												3	6
289	183	Springfield Rd	Meadowbrook Rd	Cokey Rd	New	1	1.5								2					3						5
290	3	Hunter Hill Rd	Green Hills Rd	N Halifax Rd	New	1	0.9	5																		5
291	23	Benvenue Rd	N Winstead Ave	Peele Rd	New	1	0.6	5																		5
292	36	N Winstead Ave	Benvenue Rd	Town Limit	New	1	0.5	5																		5
293	154	Old Battleboro Rd	Fountain School Rd	NC 97 W	New	1	1.2														4					4
294	157	NC 97 W	Tanner Rd	Old Battleboro Rd	New	1	1.1														4					4
295	161	Cox Ave	Leggett Rd	Shrever Rd	New	1	0.9														4					4
296	205	Mashie Ln	Northgreen Ln	Waterloo Dr	New	1	0.2														4					4
297	163	Crestview Rd	Springfield Rd	Hunting Lodge Dr	New	1	0.2														4					4
298	2	Boseman Rd	Peele Rd	Goldrock Rd	New	1	0.2														4					4
299	215	Beaver Pond Rd	Chicora Ct	Goldrock Rd	New	1	0.2											4								4
300	209	Heritage Dr	Pinetree Ln	Fenner Rd	New	1	0.1														4					4
301	23	Greystone Dr/ Ashcroft Ct/ Stonybrook Dr	Coleberry Trail	N Halifax Rd	New	1	0.8													3						3
302	66	Bethlehem Rd	S Halifax Rd	Michael Scott Dr	New	1	0.8																		3	3
303	81	Cooley Rd	S Wesleyan Blvd	S Church St	New	1	0.8															3				3
304	242	Raper Dr	Hunter Hill Rd	Country Club Dr	New	1	0.6						3													3
305	67	Bethlehem Rd	Michael Scott Dr	Beechwood Dr	New	1	0.6													3						3
306	244	Bunn Ave/ Southern Blvd	Hunter Hill Rd	Country Club Rd	New	1	0.6													3						3
307	83	Pridgen Rd	E NC 97	Cooley Rd	New	1	0.5															3				3
308	53	S Halifax Rd	Ketch Point Dr	Bethlehem Rd	New	1	0.4																		3	3
309	139	NC 48	N Halifax Rd	Corporation Pkwy	New	1	0.3													3						3
310	175	Privettes Hedge Rd	Springfield St	End	New	1	0.2													3						3
311	35	Rosebud Dr	End	Hunter Hill Rd	New	1	0.2													3						3
312	79	W Tarboro Rd	Pridgen Rd	S Wesleyan Blvd	New	1	0.8																			
313	27	N Halifax Rd	Abbey Rd	Hunter Hill Rd	New	1	0.8																			
314	101	Vestal Rd	Arlington St	Old Wilson Rd	New	1	0.8																			

TABLE I.1: SIDEWALK PRIORITIZATION (CONTINUED)

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								Top 1-5 “Most in Need of Im- provement”			Top 6-10 “Most in Need of Improvement”			Contains a Top 1 Intersection “Most in Need of Improvement”			Direct Access to/from a School			Direct Access to Local College			Elem., Middle, and High School Proximity (1/2 mile radius)			College/University Proximity (1 mile radius)			Direct Access to/from an Exist- ing or Funded Trail			Direct Access to/from a Pro- posed Trail			Direct Access to/from a Park or Recreation Center			Park or Recreation Center Prox- imity (1/2 mile radius)			Direct Access to/from an Exist- ing Sidewalk			Direct Access to Bus Stop			Bus Route Proximity (1/2 mile radius)			Serves Low Income Areas with Lower Car-Ownership Rates			Segment Contains Reported Ped Accidents			Direct Access to/from Down- town			Direct Access to Major Shopping Centers/Groceries			Direct Access to/from Higher Density Residential Areas			Priority Score Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

METHODOLOGY FOR GREENWAY PRIORITIZATION

The recommended greenway network (see Chapter 3) was divided into the individual greenway segments that are listed on the left-side of the following table. Each of these segments scored points and were ranked according to the weighted categories they fulfilled on the right-side of the table. This way, greenway segments that provide direct access to schools, parks, and bus stops, for example, are prioritized higher than segments that do not. For all criteria used, please see the top right-hand portion of the table, where each category is listed.

The trail segment rows highlighted in gray have been chosen by the City of Rocky Mount Parks and Recreation Staff based on factors considered here in the prioritization, positive impacts for City residents, and constructibility. These projects are represented in project cutsheets in Chapter 3.

TABLE I.2: GREENWAY PRIORITIZATION

*This ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding and changes in site conditions. When opportunities arise for greenway construction, such as through land donation or through local development, those opportunities could be taken, regardless of ranking within this table.*

						Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1/2 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas	Priority Score Total
No.	Segment ID	Name	From	To	Total Length (Miles)	School Proximity			Parks & Recreation			Transportation			Destinations			Total
1	16	Cowlick Branch Trail South	Holly St Park	Martin Luther King Jr Park	0.7	4		3	3	4	4	4		3	4		3	32
2	47	Southeast Trail	Boone St	Church St/ Kingston Ave	0.4			3			4	4	4	3	4	4	3	29
3	51	Southeast Trail	Branch St	Eastern Ave Park	0.7			3	3		4	4	4	3	4		3	28
4	14	Cowlick Branch Trail	Eastern Ave Park	Holly St Park	0.6			3	3		4	4	4	3	4		3	28
5	54	BBQ Park Trail	Church St	Falls Rd	0.7			3		4	4	4	4	3	4			26
6	17	Cowlick Branch Trail North	Martin Luther King Jr. Park	Leggett Rd	0.3	4		3		4	4	4		3	4			26
7	50	Southeast Trail	Bracnh St Park	Redgate Ave	0.8				3		4	4	4	3	4		3	25
8	12	Parallel 301, Englewood Park -SRMCC	Tar River Trail Extension	Raleigh Rd	0.7			3				4	4	3	4	4	3	25
9	26	Douglas Blk - RM Mills Rail to Trail	Falls Rd	Ridge St	0.4			3	3			4	4	3	4	4		25
10	13	Southeast Trail	Eastern Ave Park	N Fairview Rd	0.9	4		3	3		4	4		3	4			25
11	35	Rail Trail	Piedmont Ave	Hammond St	0.8	4		3	3		4	4		3	4			25
12	37	Rail Trail	Raleigh Rd	Cokey Rd	1.1			3	3		4	4		3	4		3	24
13	15	Holly Street Park Trail	Cowlick Branch Trail	Olive St	0.1			3	3		4	4		3	4		3	24
14	36	Rail Trail	Hammond St	Raleigh Rd	0.7	4		3	3			4		3	4		3	24
15	46	Southeast Trail	Raleigh Rd	Boone St	0.6			3			4	4	4	3	4			22
16	27	Douglas Blk - RM Mills Rail to Trail	Middle St	N Church St	0.4			3	3			4		3	4		3	20
17	23	Wesleyan Greenway	Fenner Rd	Bishop Rd	0.7		3	3	3				4	3		4		20
18	34	Parallel 301, Englewood Park -SRMCC	Old Mill Rd	Piedmont Ave	0.8					4	4	4		3	4			19
19	43	Sunset Park - Hospital Area	N Wesleyan Blvd	Tar River Trail	0.8					4	4	4		3	4			19
20	9	Sunset Park-Englewood Pk Connector	Sunset Ave	Rail line	0.7					4	4	4		3	4			19
21	8	Sunset Park-Englewood Pk Connector	Tar River Trail	Sunset Ave	0.2					4	4	4		3	4			19
22	49	Southeast Trail	Vance St	Branch St Park	0.4						4	4		3	4		3	18
23	48	Southeast Trail	Church St	Vance St	0.6			3				4		3	4	4		18
24	45	Parallel 301, Englewood Park -SRMCC	Bethlehem Rd	S Community Center Connector	0.5			3			4	4		3	4			18
25	53	Old Mill Quarry - Farmington Park - Win Elem	S Winstead Ave	Maple Creek Trail	0.5	4		3			4	4		3				18

TABLE I.2: GREENWAY PRIORITIZATION (CONTINUED)

						Direct Access to/from a School	Direct Access to Local College	Elem., Middle, and High School Proximity (1/2 mile radius)	College/University Proximity (1/2 mile radius)	Direct Access to/from an Existing or Funded Trail	Direct Access to/from a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Direct Access to Major Shopping Centers/Groceries	Direct Access to/from Higher Density Residential Areas	Priority Score Total
No.	Segment ID	Name	From	To	Total Length (Miles)	School Proximity			Parks & Recreation			Transportation			Destinations			Total
26	40	Raleigh Rd Connector	Scott St	Raleigh Rd	0.2			3				4		3	4		3	17
27	38	Rail Trail	Cokey Rd	Fairview Rd	0.8			3	3			4		3	4			17
28	28	Douglas Blk - RM Mills Rail to Trail	Ridge St	Middle St	0.3			3	3			4		3	4			17
29	5	Horn Beam Swamp Trail	N Wesleyan Blvd	Tar River Trail/ Sports Complex	0.6					4	4	4		3				15
30	44	Parallel 301, Englewood Park -SRMCC	Lafayette Ave	Bethlehem Rd	1.2			3			4	4		3				14
31	6	Sunset Park - Hospital Area	Buck Leonard Blvd	N Wesleyan Blvd	0.9			3				4		3	4			14
32	30	Rail Trail	I 95 N	Halifax Rd	0.8				3			4		3	4			14
33	32	Rail Trail	Kandemor Ln	Winstead Ave	0.6			3			4	4		3				14
34	19	Mayfair Dr Connector	Gloucester Rd	S Winstead Ave	0.8	4		3				4		3				14
35	42	Sunset Park - Hospital Area	Winstead Ave	Buck Leonard Blvd	1.3			3				4		3			3	13
36	22	Wesleyan Greenway	Bishop Rd	NC 4	1.0		3		3					3		4		13
37	31	Rail Trail	Halifax Rd	Kandemor Ln	0.7							4	4	3				11
38	2	Horn Beam Swamp Trail	Cunningham Dr	Goldrock Rd	0.6						4	4					3	11
39	1	Horn Beam Swamp Trail	Peele Rd	Cunningham Rd	0.5						4	4					3	11
40	10	Sunset Park-Englewood Pk Connector	Old Mill Rd	Tar River Trail Extension	0.2						4	4		3				11
41	20	Mayfair Dr Connector	Mayfair Dr	Gloucester Rd	0.3							4		3			3	10
42	18	Maple Creek Trail	Tar River Trail	Old Mill Rd	1.1			3				4		3				10
43	33	Rail Trail	Winstead Ave	Old Mill Rd	0.9			3				4		3				10
44	24	Wesleyan Greenway	Instrument Dr	Fenner Rd	0.8			3	3					3				9
45	39	Rail Trail	Fairview Rd	Springfield Rd	1.1							4		3				7
46	4	Horn Beam Swamp Trail	Jeffreys Rd	N Wesleyan Blvd	0.8							4		3				7
47	11	Tar River Trail Extension	South Comm Center Connector	Raleigh Rd	0.8									3	4			7
48	52	Old Mill Quarry - Farmington Park - Win Elem	Old Mill Rd	Winstead Ave	0.8			3				4						7
49	29	Rail Trail	S Old Carriage Rd	I 95 N	0.7			3	3									6
50	21	Wesleyan Greenway	NC 4	Battleboro Ave	1.2							4						4
51	41	Northwest Trail	Abbey Rd	Winstead Ave	1.4									3				3
52	7	Northwest Trail	Hunter Hill Rd	Abbey Rd	0.9									3				3
53	3	Horn Beam Swamp Trail	Goldrock Rd	Jeffreys Rd	0.8									3				3
54	25	Wesleyan Greenway	Jeffreys Rd	Instrument Dr	1.0				3									3

METHODOLOGY FOR INTERSECTION PRIORITIZATION

Intersections recommended for improvements (see Chapter 3) are listed on the left-side of the following table. Each of these intersections scored points and were ranked according to the weighted categories they fulfilled on the right-side of the table. This way, intersections that are located by schools, parks, and bus stops, for example, are prioritized higher than segments that are not. For all criteria used, please see the top right-hand portion of the table, where each category is listed.

TABLE I.3: INTERSECTION PRIORITIZATION

*This ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding and changes in site conditions. When opportunities arise for intersection improvements, such as through roadway resurfacing or through local development, those opportunities could be taken, regardless of ranking within this table.*

TABLE I.3: INTERSECTION PRIORITIZATION				<div><div>This ranking of projects is for general guidance only. The actual order of construction will vary depending on factors that may change over time, such as the availability of funding and changes in site conditions. When opportunities arise for intersection improvements, such as through roadway resurfacing or through local development, those opportunities could be taken, regardless of ranking within this table.</div></div>																			
				Top 10 Intersection “Most in Need of Improvement”	Located on a Top 1-5 “Most in Need of Improvement” Segment	Located on a Top 6-10 “Most in Need of Improvement” Segment	Located by a School	Elem., Middle, and High School Proximity (1/2 mile radius)	Located by a Local College	College/University Proximity (1/2 mile radius)	Located by an Existing or Funded Trail	Located by a Proposed Trail	Located by a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Located by a Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Reported Ped Accidents near Intersection	Located Downtown	Located by a Major Shopping Center/Grocery	Located within Higher Density Residential Areas	Priority Score Total
				5	4	3	4	3	3	3	4	2	4	4	4	4	3	4	3	4	4	3	
No.	Point Id	Road 1	Road 2	Online Survey Results			School Proximity				Parks & Recreation			Transportation					Destinations			Total	
1	13	N Grace St	W Thomas St	5				3		3				4	4	4	3	4	3	4	4	3	44
2	19	Arlington St	Raleigh Rd			3		3		3				4	4	4	3	4	3	4		3	38
3	16	Raleigh Rd	S Grace St			3		3						4	4	4	3	4	3	4		3	35
4	38	Tarboro St	Arlington St			3		3	3	3				4	4	4	3	4		4			35
5	11	Sunset Ave	River Dr	5	4							2	4	4	4		3	4	3				33
6	15	Hazelwood Dr	Raleigh Rd			3		3				2		4	4	4	3		3		4	3	33
7	17	Sunset Ave	N Franklin St		4			3		3				4	4	4	3	4		4			33
8	18	N Church St	W Thomas St					3		3				4	4	4	3	4	3	4			32
9	25	Hunter St	Stokes St				4	3						4	4	4	3	4	3			3	32
10	30	Hammond St	S Franklin St					3		3				4	4	4	3	4	3	4			32
11	14	Nashville Rd	Raleigh Rd			3		3						4	4	4	3	4	3			3	31
12	31	N Raleigh St	Coleman Ave					3		3				4	4	4	3	4	3			3	31
13	24	E Grand Ave	N Raleigh St	5				3						4	4	4	3	4				3	30
14	51	Ridge St	Peachtree St				4	3			4			4	4	4	3	4					30
15	37	Edwards St	Neal St				4	3						4	4	4	3	4				3	29
16	45	W Thomas St	N Franklin St					3		3				4	4	4	3	4		4			29
17	46	Nash St	S Franklin St					3		3				4	4	4	3	4		4			29
18	8	Sunset Ave	Englewood Dr.		4		4	3						4	4	4	3		3				29
19	12	Nash St	S Tillery St				4	3						4	4		3	4	3			3	28
20	22	Kingston Ave	S Church St					3				2		4	4	4	3	4			4		28
21	23	N Fairview Rd	Bedford Rd				4	3						4	4		3	4	3			3	28
22	26	Stokes St	N Raleigh St					3						4	4	4	3	4	3			3	28
23	28	E Grand Ave	Myrtle Ave					3						4	4	4	3	4	3			3	28
24	33	S George St	Hill St					3		3				4	4	4	3	4				3	28
25	5	Hunter Hill Rd	Country Club Rd	5	4	3								4	4	3	4						27

TABLE I.3: INTERSECTION PRIORITIZATION (CONTINUED)

TABLE 1.3: INTERSECTION PRIORITIZATION (CONTINUED)				Online Survey Results			School Proximity			Parks & Recreation			Transportation						Destinations			Total
				Top 10 Intersection “Most in Need of Improvement”	Located on a Top 1-5 “Most in Need of Improvement” Segment	Located on a Top 6-10 “Most in Need of Improvement” Segment	Located by a School	Elem., Middle, and High School Proximity (1/2 mile radius)	Located by a Local College	College/University Proximity (1/2 mile radius)	Located by an Existing or Funded Trail	Located by a Proposed Trail	Located by a Park or Recreation Center	Park or Recreation Center Proximity (1/2 mile radius)	Direct Access to/from an Existing Sidewalk	Located by a Bus Stop	Bus Route Proximity (1/2 mile radius)	Serves Low Income Areas with Lower Car-Ownership Rates	Reported Ped Accidents near Intersection	Located Downtown	Located by a Major Shopping Center/Grocery	Located within Higher Density Residential Areas
No.	Point Id	Road 1	Road 2																			
26	20	Cokey Rd	Redgate Ave								2		4	4	4	3	4	3			3	27
27	51	Benvenue Rd	Jeffreys Rd	5	4	3								4	4	3				4		27
28	52	Jeffreys Rd	Country Club Rd	5		3									4	3	4			4	3	26
29	54	Church	Senior Center Midblock					3					4	4	4	3	4		4			26
30	29	W Grand Ave	N Church St					3					4	4	4	3		3	4			25
31	50	Tarboro St	N Fairview Rd					3					4	4		3	4			4	3	25
32	51	Sunset Ave	Buck Leonard Blvd	5	4								4	4	4	3						24
33	7	Sunset Ave	N Winstead Ave	5	4			3						4		3					3	22
34	32	Nashville Rd	S Church St										4	4	4	3	4				3	22
35	42	Sunset Ave	Halifax Rd		4								4	4		3	4				3	22
36	49	W Thomas St	Pine St					3					4	4		3	4				3	21
37	21	Cokey Rd	Old Wilson Rd								2		4	4		3	4				3	20
38	39	Old Mill Rd	S Wesleyan Blvd		4						2	4	4			3		3				20
39	3	Benvenue Rd	Goldrock Rd	5	4									4		3				4		20
40	1	Bishop Rd	N Wesleyan Blvd		4				3	3		2				3				4		19
41	53	Englewood Dr	Oakdale Rd				4	3					4	4		3						18
42	9	N Wesleyan Blvd	Tarrytown Ctr		4										4	3	4	3				18
43	10	S Winstead Ave	Shadowridge Ln		4		4	3					4			3						18
44	4	Irene Ln	Nicodemus Mile Rd				4	3								3	4					14
45	41	Harbour West Dr	S Wesleyan Blvd		4			3					4			3						14
46	36	Tiffany Blvd	N Wesleyan Blvd		4						2		4			3						13
47	44	Battleboro Ave	Hathaway St								2		4	4							3	13
48	2	Jeffreys Rd	N Wesleyan Blvd		4	3					2							3				12
49	34	US 64	N Church St							4			4	4								12
50	47	English Rd	N Winstead Ave		4			3								3						10
51	6	N Winstead Ave	Curtis Ellis Dr		4											3						7
52	43	Cunningham Dr	Goldrock Rd										4								3	7
53	27	Meadowbrook Rd	Springfield Rd													3		3				6
54	40	Bethlehem Rd	Old Mill Rd					3								3						6
55	48	NC 4	NC 48													3						3