

Pedestrian Master Plan

June 2016

ACKNOWLEDGEMENTS

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Thank you to the residents of the City of Gaffney for their participation in the charrette planning process and their passion for improving the place they call home.

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GAFFNEY PEDESTRIAN MASTER PLAN PROJECT STAKEHOLDERS

Thank you to the engaged leaders of the Gaffney community for their continued participation throughout the planning process and for their commitment to furthering the efforts of this Plan.

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PROJECT VISION

The City of Gaffney is a **healthy and active community** with **safe and inviting places to walk** for both residents and visitors. Scenic streetscapes and paths **connect** people to neighborhoods, downtown, historic sites, Limestone College, and other visitor and **community destinations**. Residents of all ages, abilities, and backgrounds **enjoy active transportation**, opportunities for physical activity, **access to healthy foods**, and a **high quality of life**.

PROJECT GOALS

- **Connect neighborhoods** and their residents to downtown
- Improve **pedestrian connectivity** between **Limestone College, downtown**, and local destinations for college students, faculty, and staff
- **Increase awareness** of safe and enjoyable places to walk
- Identify **near-term, feasible capital improvement projects** that will **positively impact the walking environment**
- **Leverage other capital improvement projects** already underway or planned
- **Engage the strong network of community partners** working to improve Gaffney in efforts that **advance walkability**
- **Walkability** and a **high quality of life** as a cornerstone of the City of Gaffney's **community image**
- **Leverage** the **Cherokee Foothills National Scenic Byway** and the **Overmountain Victory National Historic Trail**, as well as Gaffney's proximity to **Cowpens National Battlefield** and other historic sites





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INTRODUCTION



Don't underestimate the power of vision to change the world... What you contribute can fundamentally change the paradigm or way of thinking about problems.

-- Leroy Hood

PROJECT BACKGROUND

Through a recent grant from the Centers for Disease Control and Prevention (CDC), the South Carolina Department of Health and Environmental Control (DHEC) is leading an effort to increase pedestrian planning throughout South Carolina. The effort is part of the DHEC South Carolina Prevention and Health Across Systems and Environments (SC PHASE) Pedestrian Planning Project.

SC PHASE Pedestrian Planning is a 3 year project to develop pedestrian plans for 16 communities in 15 specific counties throughout the state. **Beyond the basic tenets of walkability and pedestrian safety, key elements of the program initiative are:**

- **Equity-based planning**
- **Community engagement**
- **Safe pedestrian access to healthy foods**

The City of Gaffney is one of the 16 communities to participate in SC PHASE Pedestrian Planning.

Pedestrian plans and policies play a critical role in fostering more walk-friendly communities by creating the conditions that support and encourage safe walking environments. Such plans provide the basis for new community norms where walking is seen as practical and appealing for people of all ages and abilities by providing for the infrastructure, programs, and amenities to support healthy choices and active transport. With 25.1 percent of South Carolinian adults reporting no leisure-time physical activity, and 56.6 percent of high school students reporting not being physically active on five or more days, **finding ways to support more walking as an accessible and convenient form of physical activity will be vital to improving the health of South Carolina's residents.**



The City of Gaffney is ripe with existing resources like the Overmountain Victory Historic Trail which, through improved design, have the potential to attract and encourage safe, pedestrian activity.

COMMUNITY CONTEXT

The City of Gaffney is the county seat of Cherokee County, in the northeast corner of South Carolina's Upstate Region. The city is located halfway between Charlotte, North Carolina and Greenville, South Carolina. Gaffney is a community of over 12,000 people who pride themselves on their title of "Peach Capital of South Carolina".¹ The City's iconic "Peachoid" water tower embodies this pride.

The City of Gaffney is governed by a mayor and 6-person City Council, along with a Planning Commission and Board of Zoning that guide the city's land use and community development. Gaffney is part of the Appalachian Council of Governments (ACOG), a regional forum that allows local governments to coordinate transportation planning and decision-making across a six-county region, including Anderson, Cherokee, Greenville, Oconee, Pickens, and Spartanburg counties.

Like many mid-size, Southern textile mill towns in the late 20th century, Gaffney saw a decline in economic activity. The city continues to prosper though due to a resurgence in downtown investment and redevelopment. Recent development projects include the Cherokee County History & Arts Museum and the Cherokee Alliance of Visual Arts which opened in 2008 and 2010, respectively.



Gaffney's rich history and inventory of historic resources are attractive assets which should be preserved and showcased for residents and visitors on foot to enjoy.



Reference map of the City of Gaffney within Cherokee County and the state



Gaffney streets with wide, landscaped medians are inviting places for people to walk. This pleasant boulevard style should be replicated city-wide.

¹ U.S. Census Bureau, 2010 Census.

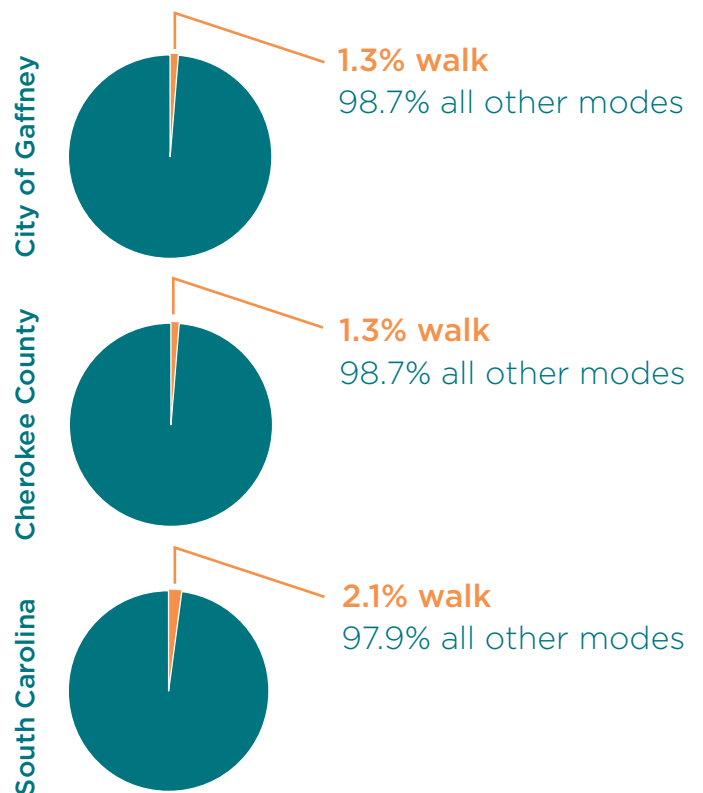
COMMUNITY PROFILE

The racial make-up of the City of Gaffney is relatively evenly split between white and Black (or African American) residents at 50.6% and 45.2%, respectively. For comparison, South Carolina is about 67% white and 28% Black or African American.²

The median income for households in the City of Gaffney is \$28,598, a figure well below that of the county (\$34,202) and state (\$44,779). Given this disparity in income level, it is not surprising then that the city's poverty rate of 28.6% is greater than the county and state poverty rate, 23.5% and 18.3%, respectively.²

In terms of mode share across the city, the vast majority of residents commute to work in private vehicles. **Only 1.3% of the working population walk to work which is equivalent to Cherokee County as a whole, but roughly 1% less than the state average.**

Walking as a percentage of commuting mode share per geography:



² U.S. Census Bureau 2010-2014 American Community Survey 5-Year Estimates

³ Dangerous by Design - South Carolina

It is important to note that mode share does not paint a full picture of need and demand. Mode share data is collected through an American Community Survey question which asks for the “primary” way a resident gets to work. This excludes walking commutes that occur as a secondary mode (for example, walking to a bus) and also excludes trips to destinations other than work. **Moreover, those households in the City of Gaffney who do not have access to vehicles (over 16%)** and those households with access to only one vehicle (almost 40%) may walk out of necessity, and residents who currently drive would opt to walk to work if a safe and comfortable walking environment with adequate facilities existed.²

Safety is key in encouraging and sustaining pedestrian activity. State traffic collision data show that **Cherokee County has a pedestrian fatality rate of 2.75 deaths per 100,000 people, compared to a rate of 2.3 fatalities per 100,000 people for the state.**³ Finding ways to lower this rate in the City of Gaffney will be an important goal for this project.



WHAT IS WALKABILITY?

Walkability is more than the ability to walk. It is a holistic approach for evaluating a streetscape or community's design, and a means to understand the factors that influence and encourage pedestrian activity. **The goals of a walkable place** are multi-faceted and context-specific but typically include the following:

- increase personal mobility by providing alternatives to driving private automobiles
- increase personal mobility with ADA-accessible streetscapes
- stimulate vibrancy in commercial and social realms of a community
- increase access, proximity, and convenience to more destinations through a well-connected network of sidewalks, crosswalks, and walking trails
- create an attractive place with inviting street orientations, landscaping, street furniture, and architectural design

There is no single, catchall walkability definition or one specific metric for measuring walkability. However, across the various attempts at a comprehensive definition, common themes emerge. Apart from the potentially obvious features that encourage walkability, like sidewalks and frequent, visible crossings, **walkable places also incorporate the following key principles:**

- human-scaled environment
- strong sense of place
- physical access
- connected walkways and street pattern
- mix of land uses
- density and location of facilities
- managed parking

The City of Gaffney has a basis of existing facilities and features that will support and contribute to the City's goal of becoming more pedestrian-friendly. This Plan presents opportunities to build off of those existing resources.



WHY PLAN FOR PEDESTRIANS?

Imagine Gaffney in 20 years...

as a place where **people choose to walk** — not out of necessity, but because **it is a convenient and enjoyable transportation choice**.

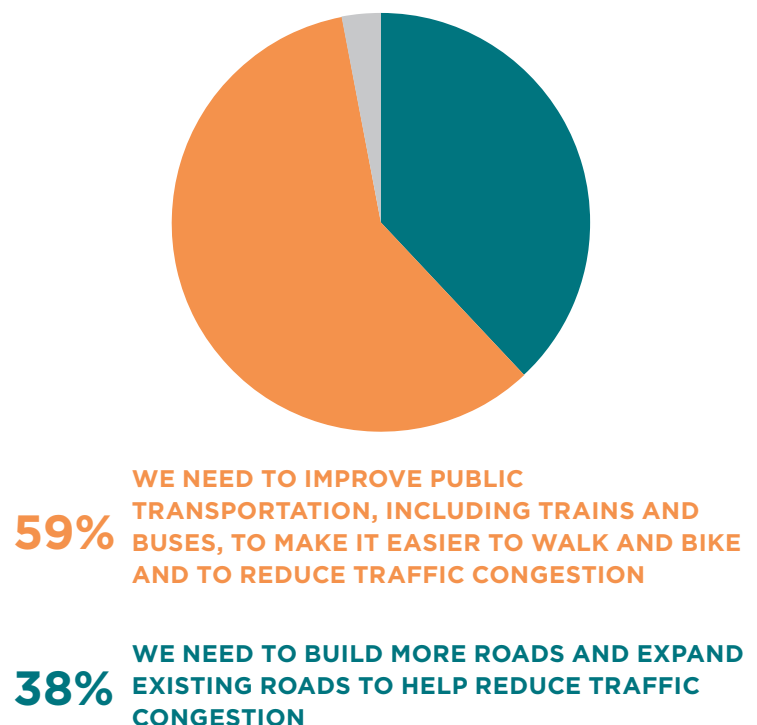
Development is well-designed and accessible so that residents have many of their everyday needs within walking distance. **Pedestrian-friendly streets are prevalent throughout the community**, and parents feel perfectly safe letting their **children walk or bike to school, parks, or other destinations by themselves**, or as part of an enjoyable and healthy family outing. Older adults who no longer drive can easily access grocery stores and medical appointments. Because the **streets are safer and a growing pedestrian network connects more people to more places**, people are walking in record numbers. Obesity rates decline, and **families in all parts of the community can easily access healthy food**. Serious **pedestrian collisions have dropped substantially**.

The cumulative result of this environment has resulted in substantial savings for the community and taxpayers. Road maintenance is less expensive as fewer cars are on the roads, and residents save money on gas while the air quality improves for everyone. **Downtown attracts more local businesses that want to invest in a vibrant, active community** and cater to the growing population.

An increasing number of communities and their leadership are seeing the potential of a future like this one; **a future where better active transportation environments are critical parts of transforming and revitalizing our communities, making them more desirable places to live, work, and visit**. This movement is a direct result of the nationwide demand for more livable communities and transportation options.

In 2010, Transportation for America conducted a nationwide survey that showed 59% of Americans in urban and rural areas preferred **a transportation future that “[improves] public transportation and making it easier to walk and bike over building more roads and expanding existing roads.”** See Figure 1.1 below. And 73% [of respondents felt] they ‘have no choice but to drive as much as they do’, with 57% desiring to spend less time in the car.”

Figure 1.1 Americans’ Preference to Reduce Traffic Congestion



SUMMARY TABLE OF WALKABILITY BENEFITS

ECONOMIC BENEFITS	
Public infrastructure savings	Compact, walkable communities save costs on road building, maintenance other public infrastructure.
Attracts businesses	Walkable communities have lower vacancy rates and increasingly attract businesses that want to offer convenient amenities and short commutes.
Reduces individual transportation costs	Residents of walkable communities save money on costs associated with transportation, including vehicle ownership costs, operating costs, and parking costs.
Magnet for millennials and baby boomers	Demand for walkable communities is growing, especially among millennials and boomers – both generations that wish to drive less and be able to easily reach destinations on foot.
Increases housing values	Walkable communities have higher housing values and have higher stability than auto dependent communities during a recession.
Improves socioeconomic mobility	Walkable areas have concentrated amenities such as jobs that are easily accessible to low-income residents and provide greater opportunities for economic mobility.
Attracts visitors	Walkable communities attract tourist dollars with lively streets, engaging storefronts, short distances between attractions and a unique sense of place.
Attracts recreation spending	Walkable communities are great places for outdoor recreation. Multi-use trails and safe streets can attract bicyclists and events such as triathlons that pump money into the local economy.

HEALTH BENEFITS

Improves physical health

Places that encourage walking have lower rates of chronic disease related to physical inactivity such as diabetes, heart disease, and osteoporosis. A simple walk improves balance, limits sickness, strengthens muscles and builds bone mass, as well as burns more fat than jogging. People who live in walkable neighborhoods are two times as likely to get enough physical exercise as those who do not.

Improves mental health

Walkable communities can prevent the onset of cognitive decline and improve mental function. Walking can also prevent and reduce the symptoms of depression and anxiety, stimulating a sense of well-being through released endorphins.

SAFETY BENEFITS

Improves safety for all road users

Streets that are designed for pedestrians have safety benefits for all users of the road, including bicyclists and drivers. Sidewalks, medians, and traffic calming have particular direct effects. Safety in numbers - more people walking and biking - has proven to be an indirect safety improvement that reduces the risk of a collision.

ENVIRONMENTAL BENEFITS

Improves air quality

By reducing the distance to amenities and increasing the safety of walking to destinations, more trips can be made by walking while reducing emissions and reliance on fossil fuels.

Preserves open space and greenspace

Compact, walkable development allows for more green space, water sources, and wildlife habitat to be preserved.



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EXISTING CONDITIONS

The background image shows a wide, brick-paved walkway leading towards a large, white, classical-style building with a central dome and columns. The building has "LIBERTY COLLEGE" inscribed on its facade. To the left of the walkway are large, leafless trees and a black lamppost with a blue banner. To the right is a landscaped area with dark mulch and yellow flowers. An American flag is visible on the right side of the image.

*Whether you live in a city or a small town, and whether you drive a car, take the bus, or ride a train, at some point in the day, **everyone is a pedestrian.***

-- Anthony Foxx

OVERVIEW

This chapter provides an overview of the major components of the City of Gaffney’s existing environment for walking. **This includes a review of previous planning efforts and an assessment of the primary opportunities and constraints that exist for the development of a safe and connected pedestrian network.** The assessment is based on the project team’s field observations and GIS-based mapping analysis, as well as public input which is detailed in the following chapter.

The Existing Conditions Chapter summarizes the information gained and critical outcomes of this assessment and discovery process, including:

- Review of Existing Planning Efforts
- Analysis of Opportunities and Constraints
- Pedestrian Safety Analysis
- Equity Analysis
- Healthy Food Access Analysis
- Active Space Access Analysis

REVIEW OF PREVIOUS PLANNING EFFORTS

This section describes recent planning efforts relevant to walkability and transportation in the City of Gaffney. Cherokee County and the City of Gaffney have adopted three transportation planning documents in recent years; the *City of Gaffney Wayfinding Signage Plan*, the *Carolina Thread Trail Greenway Master Plan for Cherokee County Communities*, and the *Limestone College Trail Feasibility Study*.

Common themes exist between these three existing plans. These themes center on Gaffney’s need for an improved quality of life including accessibility and connectivity for active modes of transportation.

To achieve a vision for walkability and an increased quality of life, the plans include the following recommendations:

- provide a seamlessly connected walking network, particularly across the four priority zones identified
- install signage at key points along the walking network to direct pedestrians to popular destinations
- provide a well-maintained greenway system
- support programs and policies aimed at mitigating chronic diseases

The City of Gaffney Pedestrian Master Plan combines, updates, and refines previous recommendations for sidewalks and greenways to present a proposed future network.

Plan	Agency	Year
City of Gaffney Wayfinding Signage Plan	City of Gaffney	2014
Carolina Thread Trail Greenway Master Plan for Cherokee County Communities	Carolina Thread Trail	2012
Limestone College Trail Feasibility Study	Limestone College	2010-2012

CITY OF GAFFNEY WAYFINDING SIGNAGE PLAN

The Gaffney Wayfinding Plan was created in 2014 to establish a unified branding and signage system for the city. The plan is design-oriented, with five proposed sign palettes for different uses.

Locations are recommended and mapped for pedestrian signs, interpretive signs, driver signs, and electronic kiosks. Intersection improvements are also recommended to accompany beautification and gateway efforts, along with a schedule for implementation. Specific signage recommendations are made at key destinations, including gateway signs for the Cherokee Foothills National Scenic Byway.

Proposed pedestrian wayfinding sign locations include:

- Intersection of Wall St. and Birnie St.
- Limestone St. just south of W. Meadow St.
- College Dr. and Johnson St.
- College Dr. and Union St.
- Union St. and S. Petty St.



CAROLINA THREAD TRAIL GREENWAY MASTER PLAN FOR CHEROKEE COUNTY COMMUNITIES

The Carolina Thread Trail Master Plan was adopted by the Gaffney City Council in September 2012. The Thread Trail Plan identifies 94 miles of walking and biking trails across 15 counties in North and South Carolina that will link more than 70 communities. The Thread Trail creates connections between natural destinations and area schools throughout Cherokee County. Of the eight sections in Cherokee County, four are located in Gaffney.

Community engagement efforts included public meetings to understand how residents will use the trails. In the City of Gaffney, 91% of the public meeting participants agreed that trails are very important to Cherokee County. Additionally, 90% of residents indicated walking is their preferred trail activity.

The four sections studied in Gaffney have different trail type recommendations to reflect their setting:

- Limestone College
1.3 mile loop trail
- Gaffney Residential Historical District
5.9 miles on sidewalks
- Downtown Gaffney
0.6 mile trail/existing sidewalks
- The Mill Neighborhood
1.8 mile trail/existing sidewalks

Additionally, the plan incorporated all ten objectives established in the Limestone College Trail Feasibility Study:

1. Increasing the quality of life in Gaffney
2. Developing Limestone College in the flagship position
3. Creating a vision for Limestone and Gaffney that would include the implementation of walking trail maps connecting all four zones
4. Living in a place that supports policy and environmental change relating to chronic diseases
5. Building on the natural connection already established through a safer, more walkable Gaffney
6. Designing a walking trail plan for Limestone College in Gaffney that could benefit the entire community
7. Using instruments and other pertinent information to identify safe and scenic walking routes
8. Creating walking maps that connect all four zones
9. Printing and distributing maps to the Gaffney community
10. Presenting the final report to local,



LIMESTONE COLLEGE TRAIL FEASIBILITY STUDY

This study assessed the walkability, bikeability and physical activity readiness status of Gaffney from 2010 to 2012. In particular, the study focused on four zones — Limestone College, Gaffney's Historic Residential Neighborhood, Downtown Gaffney, and the Mill Neighborhood. In addition to this geographic focus, the plan incorporated a special interest in walking as a means to decrease behavioral risk factors that contribute to chronic disease.

The study used a Rural Active Living Assessment (RALA) Segment Assessment Tool to evaluate the physical characteristics of road segments. The city as a whole scored a total of 76 points out of a maximum 104 points which is on par with municipalities of a similar size.

A Program and Policy Assessment Tool also revealed the following about active transportation in Gaffney:

- Snow removal from sidewalks managed by the city
- YMCA is open for public use
- Some public school recreational facilities permit public access
- Physical activity initiatives and national programs occur periodically within county public schools
- A city public recreation department does not exist
- Limited public transportation options exist

The study also identified a number of areas for mobility improvements, including:

- instituting a policy that requires walkways in new public infrastructure projects
- establishing a sidewalk maintenance program
- implementing traffic calming
- adding pedestrian infrastructure such as lighting, push buttons, and marked crosswalks

Through all of this analysis, the study emphasized community support for a connected network. Both the Limestone community and the citizens of Gaffney have a vested interest in prioritizing active transit needs.

Proposed Trail-Limestone College Feasibility Study

Zone 1
Limestone College



Proposed Trail-Limestone College Feasibility Study

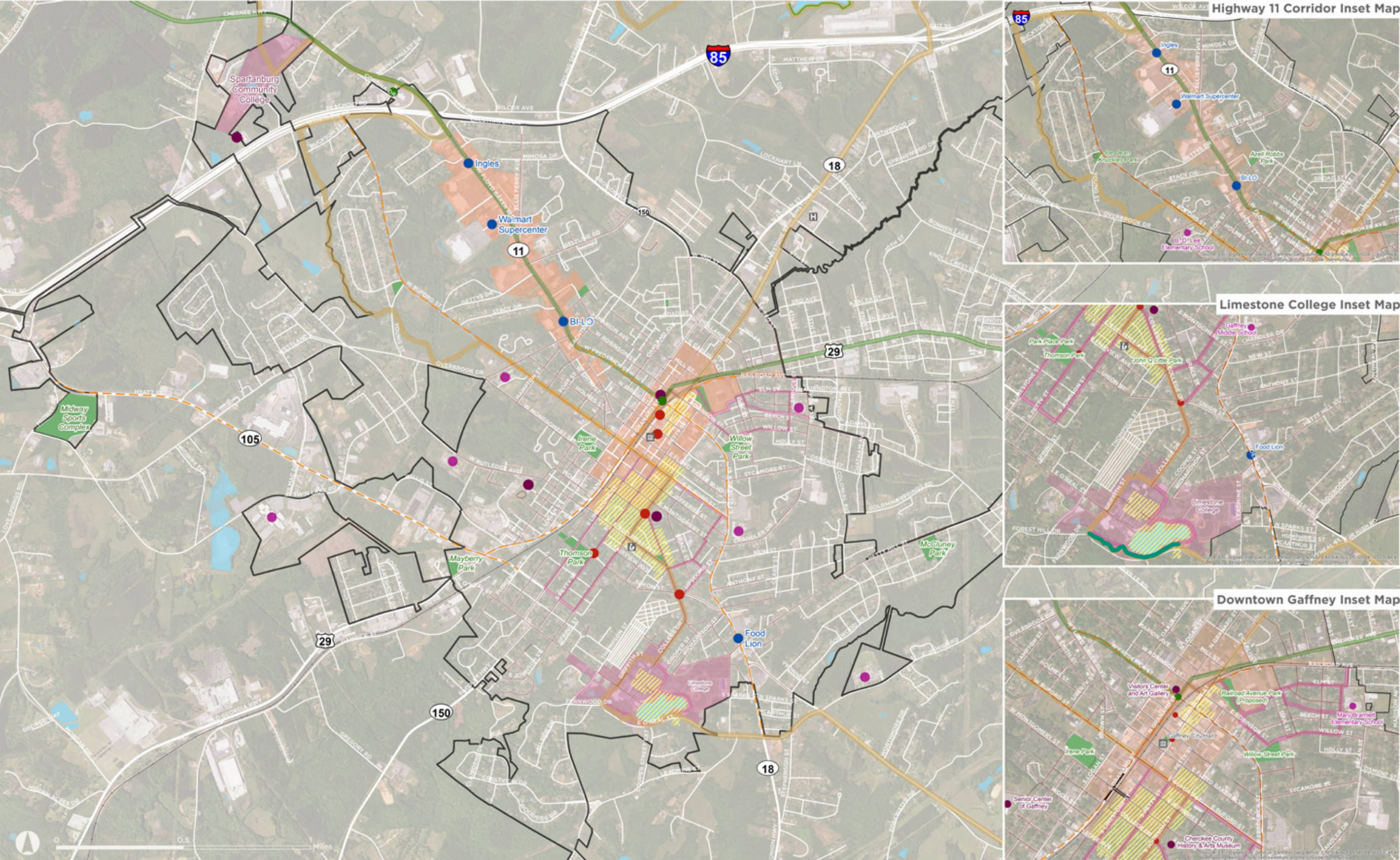
Zone 3
Downtown Gaffney



COMMUNITY BASE MAP DEVELOPMENT

A first step in evaluating the existing conditions of the City of Gaffney is the development of a comprehensive base map. Based on GIS data provided by the City and its partners, the project team created a map illustrating existing facilities. The map on the following page reflects other supporting information such as the city sidewalk network, existing and proposed trail networks, proposed bike lanes, schools, parks, grocery stores, other food retailers, and traffic counts, to paint a high-level picture of conditions in Gaffney.

COMMUNITY BASE MAP



**City of Gaffney
Pedestrian Master Plan**
Base Map

- | | | | | | |
|---|--|--|---|--|--|
| ● Farmers | ● Wayfinding (Proposed) | — Walking Trail (Proposed) | — Sidewalk | ▨ National Historic District | ■ Park |
| ● Grocery Store | Cherokee County Public Library | — Carolina Thread Trail | — Proposed Bike Lanes | ■ College Campus | ■ Water |
| ● Point of | Gaffney City Hall | — Northern Crescent Route | — Road (white) | ■ Core Commercial District | — City |
| ● School | Mary Black Hospital | | | | ■ Cherokee County |



PEDESTRIAN SAFETY ANALYSIS

Pedestrian fatalities are on the rise.

Between 2003 and 2012, 47,025 pedestrians were killed walking on streets in the U.S. In 2012 alone, 4,743 pedestrians died, an increase of 7% over 2011. Meanwhile, the number of vehicle drivers and passengers who died in traffic crashes declined by a third during this period. The rise in pedestrian fatalities while overall traffic fatalities declined means pedestrians now account for more than 15% of all traffic fatalities.

Pedestrian safety is a growing concern in South Carolina. Pedestrian fatalities in the state rose 23.8% between 2008 and 2012, outpacing national trends. The table below summarizes fatality figures for the state during this time.

South Carolina ranks 45th in the nation for levels of walking mode share, yet ranks 2nd in the nation for walking fatality rates. As previously mentioned, Cherokee County has a pedestrian fatality rate of 2.75 deaths per 100,000 people, slightly higher than the state rate of 2.3 deaths per 100,000 people.

While reasons for the increase in pedestrian crashes are difficult to pinpoint, demographic shifts, more people walking, and higher numbers of pedestrians on dangerous, high-speed arterials all likely play a role. A number of factors impact pedestrian safety. Visibility, driver and pedestrian behavior, time of day/year, access to safe crossings, and traffic volume all play a role. However, key factors such as speed, the number of traffic lanes, and roadway design disproportionately affect safety for vulnerable roadway users.

According to Fatality Analysis Reporting System data, **58.8% of all pedestrian deaths in South Carolina were on arterials** — wide, high speed roads built primarily for the purpose of motor vehicle throughput over other purposes. Similarly, **78.8% of South Carolina’s pedestrian fatalities occurred on roads with a speed limit of 40 mph or higher.**⁶

Pedestrian Fatality Figures for South Carolina:

	2008	2009	2010	2011	2012	% change
Pedestrian Fatalities	101	89	90	113	125	23.76%
Pedestrian Fatality Rate per 100,000 people	2.23	1.94	1.94	2.41	2.65	18.83%
Pedestrians as Percent of all Traffic Fatalities	10.97%	9.96%	11.12%	13.65%	11.6%	5.74%

Some populations are disproportionately affected by unsafe walking conditions. Households without access to vehicles are more reliant on walking, yet often live in areas where suburban street patterns and dangerous arterial roads predominate. Older adults require more time at crossings and are more vulnerable to injury when a collision occurs. Older adults are also more susceptible to other non-collision events which do not involve a motor vehicle but which can cause injury. These “pedestrian only” events such as tripping on sidewalks and slipping on curbs, are not typically captured when discussing pedestrian safety but are important considerations in this plan.⁷

Children are also disproportionately affected by unsafe walking conditions. Children often walk to schools built along unsafe arterial or major roads, putting them at higher risk. Children also use neighborhood streets as areas to ride bikes and play games. They often go unseen by drivers though.

Nearly one-third of all Americans do not drive.

This includes all children and adolescents who are not of age, 21% of all seniors over 65 years-old, people with disabilities, and those who cannot afford to drive.⁸

Pedestrian injuries occur at a higher rate than pedestrian fatalities. Official crash statistics, however, do not capture a significant portion of these injury-causing collisions. Collisions that go unreported and near miss incidents are not reflected in most collision statistics, and thus may not be fully representative of safe walking conditions. This is especially true when accounting for whether a pedestrian

injury occurred in the roadway (1.7 times more likely to report than non-roadway locations), the severity of the injury (1.3 times more likely to report when hospitalized), and the age of the pedestrian (ages 15-24 are significantly less likely to report a collision even after controlling for location and severity).⁷

In recent years, a series of successful national campaigns have targeted drunk driving, seat belt use, and distracted driving. For people in vehicles, the resources and focus dedicated to safety has saved thousands of lives. A similar dedication to creating safe streets for pedestrians will encourage walkability, improve health outcomes, and improve livability for all residents.



Dangerous by Design is a report issued by Smart Growth America's National Complete Streets Coalition. The Smart Growth organization also issues state-specific versions with nuanced relevant data. The report documents preventable pedestrian fatalities and details measures that can be taken to make streets safer for all road users.

⁶ Dangerous by Design - South Carolina

⁷ Federal Highway Administration Office of Safety - Bike/Ped Documents
*Police-reporting of Pedestrians and Bicyclists
Treated in Hospital Emergency Rooms*

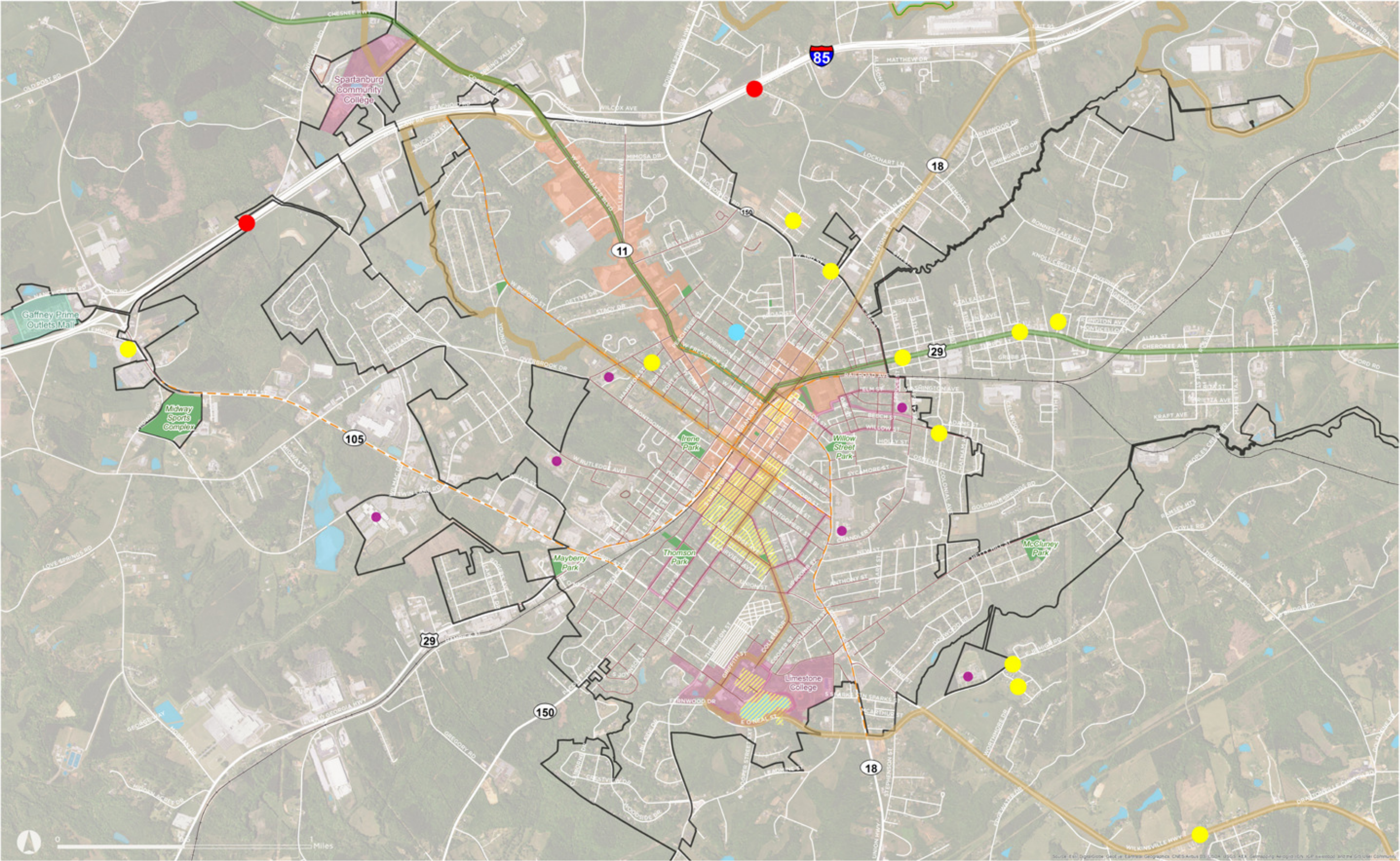
⁸ Smart Growth America Senate Fact Sheet

PEDESTRIAN COLLISIONS IN GAFFNEY

The map on the following page depicts pedestrian collision locations and the severity of each collision. Locations were geocoded using the latitude and longitude coordinates associated with the data. Collision types include pedestrian fatalities, pedestrian injuries, and property damage only events.

Property damage only events occur when the total property damage of all units (the vehicle, motorcycle, or bicycle) plus any property (things like fences and signs) involved in the crash is greater than \$1,000. If the amount is less than \$1,000 the collision is not considered reportable, according to South Carolina law. If an injury or fatality occurs, though, the collision is reported regardless of the property damage amount.

PEDESTRIAN COLLISION MAP



City of Gaffney
Pedestrian Master Plan
Pedestrian Collision Map

- | | | | | | | |
|-----------------------------|----------------------|--------------------------------|--------------------------|---------------------|----------------------------|-----------------|
| Pedestrian Collision | Fatality | School | Walking Trail (Proposed) | Sidewalk | National Historic District | Park |
| Injury | Property Damage Only | Cherokee County Public Library | Carolina Thread Trail | Proposed Bike Lanes | College Campus | Water |
| | | Gaffney City Hall | Northern Crescent Route | Road (white) | Core Commercial District | City |
| | | Mary Black Hospital | | | | Cherokee County |



EQUITY ANALYSIS OVERVIEW

An equity analysis provides insight about the areas of the City of Gaffney that have higher concentrations of vulnerable populations. When coupled with an overlay of healthy food outlet locations the results of the analysis bring attention to neighborhoods or corridors which may be most in need of improvements. For physical activity, the analysis sheds light on residents’ access to resources that are essential to a healthy lifestyle.

This quantitative analysis provides a starting point for identifying priority areas, however, the Plan’s recommendations are based on a synthesis of factors, including the equity analysis results, current best practices, stakeholder input, existing conditions analysis, and the pedestrian collision analysis,

This section describes the equity analysis process in more detail, and includes the following:

- Equity Analysis Methodology
- Equity Analysis Results
- Healthy Food Access Analysis
- Active Space Access Analysis

METHODOLOGY

The equity analysis incorporated the following seven socioeconomic criteria:

- seniors
- children
- non-white populations
- low-income households
- vehicle access
- linguistic isolation
- SNAP recipients

The measure and rationale for each criteria are further described below.

Seniors

Metric: senior citizens are defined as those who are 65 years old and older. This follows the *2010 Census Brief - The Older Population*.

Rationale: Walkable neighborhoods help seniors remain active, healthy, social and free to move around. Older adults socialize more when living in walkable neighborhoods, because regular social interaction is possible, convenient and more frequent. In a walkable neighborhood the senior citizens are more likely to know their neighbors, participate in politics, engage socially and even trust people.

According to Center for Disease Control and Prevention survey, 32.5 percent of Americans over the age of 65 don't have regular physical activity. There are many health benefits of walking, especially for people older than 50. Elderly adults who walk are less likely to suffer mental deterioration or dementia and physical activity may actually add years to their life. Therefore, living in a walkable neighborhood gives options for walking right out your front door.

A survey by AARP Public Policy Institute found that people over age 50 listed lack of walkability part of barriers to walking.

"Older adults perceive poor sidewalks, the absence of resting places and dangerous intersections as barriers to walking."

Thus, walkable environment benefits seniors, keeping mind and body healthy through their surroundings and neighborhoods.

Children

Metric: children are defined as individuals 14 years old and younger. This threshold was determined based on the legal age for driving in South Carolina. At age 15, young adults are eligible for a learner's permit, and after 180 days young adults are eligible for a provisional driver's license. While conditional, even a permit and provisional driver's license broaden a young person's mode of choice, and significantly increase their mobility.

Rationale: As parents, physicians and policy makers look for ways to curb childhood obesity, they may need to look no further than a child's own backyard. Studies show that children are less likely to be obese if they live in a neighborhood that is safe and within walking distance of parks and retail services.

The U.S. has been experiencing a growing trend in overweight and obesity among youth and children and recent evidence shows that approximately 32 percent of youth are overweight or obese. Physical inactivity impacts weight and in an effort to curb the growing obesity epidemic there is an increasing research that has examined associations between local

area environmental factors and physical activity among youth. Greater availability of outdoor play/sports areas and parks, and access to commercial physical activity-related facilities have been associated with higher levels of youth and children physical activity.

Neighborhood design can also influence physical activity levels in youth and children. However, perceived environmental barriers, such as lack of access to these types of settings such as low connectivity street networks, have been associated with lower income neighborhoods. Whereas, high walkability (grid street network) neighborhoods have shown to have more physical activity and hence, less obesity among youth and children.

Non-White Populations

Metric: non-white is measured as the percentage of all races, excluding those that identified as white. This includes Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, or some other race.

Rationale: The urban communities with more racial and ethnic minority and lower-income residents generally lack specific features that support walking, such as clean and well-maintained sidewalks, trees and nice scenery and safety. Such deficits may undermine the generally favorable effects of walkable neighborhood design. The presence of parks, open space and other recreational facilities is consistently linked with higher physical activity levels among children and adolescents. However, many studies show that lower-income groups and racial and ethnic minorities have

limited access to well-maintained or safe parks and recreational facilities, and more crime and traffic.

The low leisure-time physical activity rates and high risk of obesity among racial or ethnic minority children, and those living in lower-income areas, can be partially explained by their generally poor access to parks and private recreation facilities. In light of this growing evidence, policy makers should pursue strategies that improve walkability, access to parks, green space and recreational facilities, and neighborhood safety.

Low-Income Households

Metric: low-income is measured as the percent of the population living below two times the federal poverty level. 2015 Federal Poverty Guidelines identified \$48,500 as the threshold for a four-person household. American Community Survey (ACS) data groups income by increments of \$4,999 so this analysis captures all household incomes at or below \$49,999.

Rationale: The U.S. Department of Housing and Urban Development (HUD) defines low income households as households earning less than 80% of the Area Median Income (AMI). Very low income households earn less than 50% of AMI.

These groups of people are the least likely to have access to a car and may depend on walking to reach work, school, public transportation, or other destinations. People with lower incomes are more likely to live in areas with high crime rates, perceive their neighborhoods as less safe, and report physical and social disorder in their neighborhoods, such

as broken windows, litter, graffiti, loitering and public drinking. These environmental variables may be why, in some cases, a higher proportion of lower-income children tend to be less active than their peers, overweight or obese. Walkable and safe access to healthy food outlets would support both nutrition and physical activity needs of low-income populations.

Vehicle Access

Metric: Vehicle access is measured from a question on the American Community Survey about whether a household has access to a car, truck, or van of 1-ton capacity or less.

Rationale: Access to private vehicles can be an indicator of mobility and access, particularly access to healthy food options and active spaces.

Linguistic Isolation

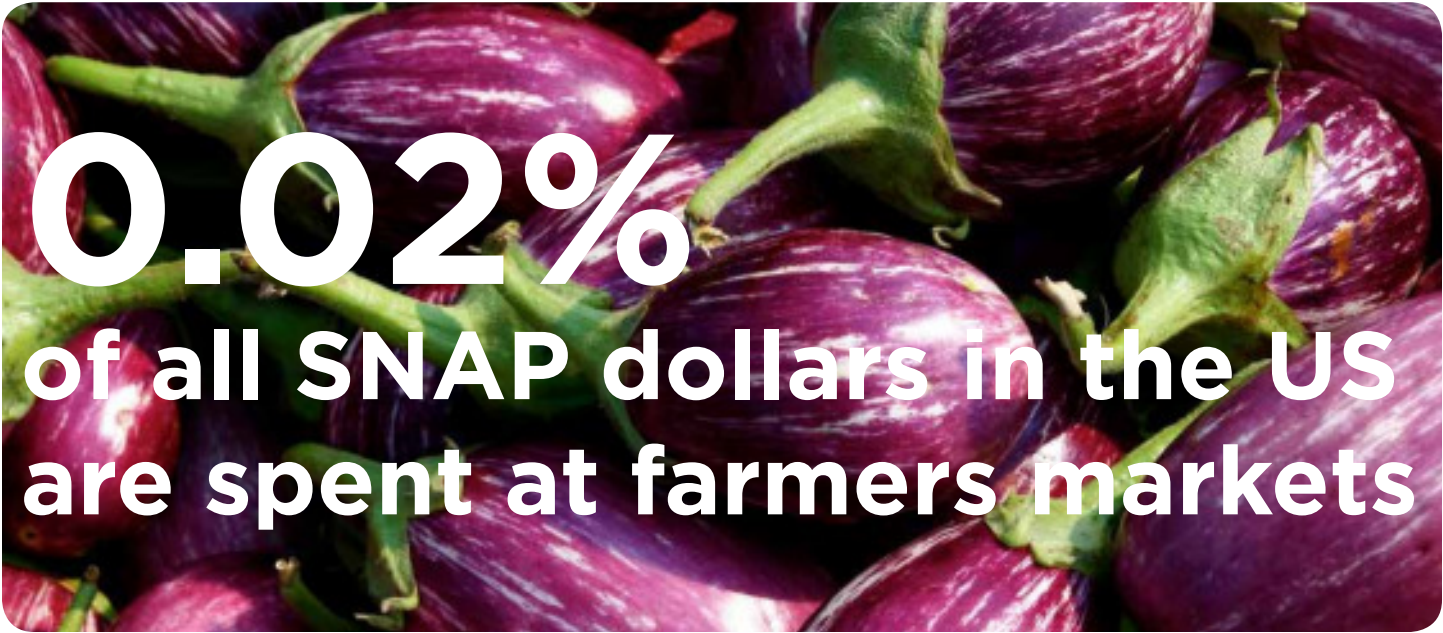
Metric: Linguistic isolation is measured as percentage of households in which those over the age of 5 speak English “not well” or “not at all”.

Rationale: Households that are linguistically isolated may have greater difficulty accessing services that are available to fluent English speakers, such as transportation services and social services.

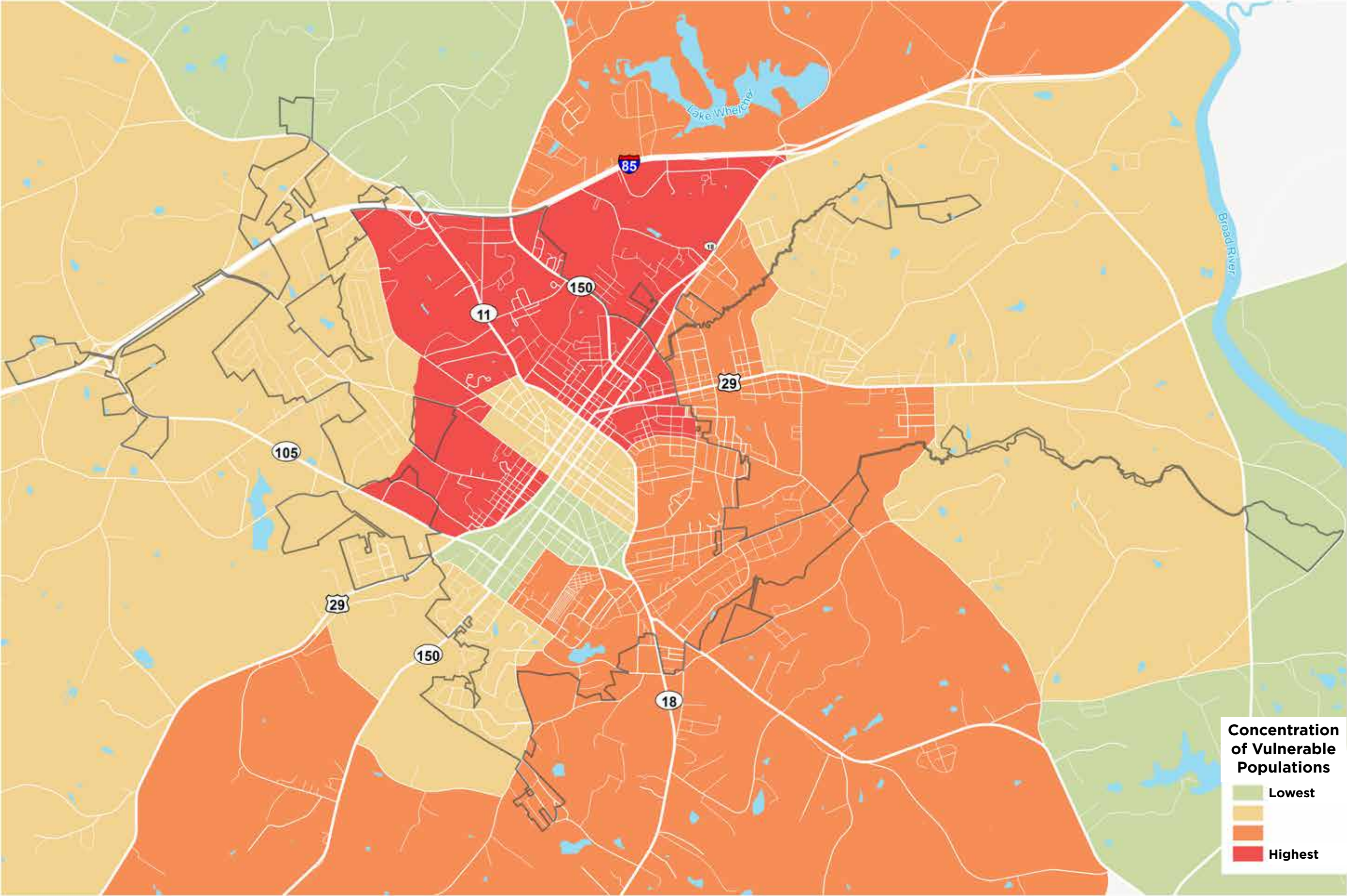
SNAP Recipients

Metric: SNAP recipients measures the percentage of households who have received SNAP assistance in the past 12 months..

Rationale: Current regulations require food retailers who accept SNAP to stock three varieties of foods in each of the following four food groups: fruits and vegetables, dairy, breads and cereals, and meat, poultry and fish. While a new rule requiring seven varieties in each food group was proposed in February of 2016, SNAP recipients still travel farther to access their food and are more likely to be affected by diet-related diseases, Additionally, only 0.02% of SNAP funds are redeemed at farmers markets indicating limited outreach and education efforts aimed at attracting households that receive SNAP assistance.



COMPOSITE EQUITY ANALYSIS MAP



HEALTHY FOOD ACCESS ANALYSIS

METHODOLOGY

Walkable and safe access to supermarkets, grocery stores, farmers markets, and specialty markets is important, because they give consumers access to a variety of fruits and vegetables. Diets rich in fruits and vegetables offer a number of health benefits and have been linked to a lower prevalence of obesity.

Most Americans, especially those with a low income, consume far fewer fruits and vegetables than recommended by current dietary guidance. Communities with limitations in resources, disposable income, language proficiency, and transportation often have restricted access to, and knowledge about, a variety of healthy food options.

While there is general agreement that consumption of fresh, healthy foods such as fruits, vegetables, and whole grains are necessary for health and nutritional well-being, many communities across the region have negative health and economic consequences caused by a lack of access to high-quality food. Grocery stores, farmers markets, and community gardens tend not to be as readily available to people in low-income, low-access communities. The result is an over-dependence on neighborhood convenience stores with limited offerings of fresh foods sold, frequently for a high price. This leads to myriad health and nutritional and long-term sustainability implications.

Therefore, creation of non-motorized routes such as sidewalks, pedestrian malls, and bicycle paths between all neighborhoods and grocery stores, farmers markets, or other healthy food outlets can ease this disparity in accessibility, and help lower rates of chronic disease and lower levels of obesity.



**23.5 million people
in America lack access to a
supermarket within one mile
of their home**

HEALTH RISKS

Specific health risk data at the city level does not exist, however, county level data shows that:

- **Over 30% of adults are obese. (Obesity is measures as a Body Mass Index [BMI] greater than 30)**
- **Over 14% of adults have type 2 diabetes**
- **The CDC recommends eating healthy and staying active as two key ways to prevent, delay, and manage diabetes.**
- **32.7% of children are overweight or obese**
- **Almost 45% of adults consume less than one serving of fruit daily**
- **Over 25% of adults consume less than one serving of vegetables daily**
- **The food insecurity rate for the county is 17.1%. This is slightly higher than the state average of 16.4%.**

While Cherokee County is not considered part of the CDC-designated “Diabetes Belt”, the South Carolina Department of Health and Environmental Control (SC DHEC) offers a number of strategies and solutions to combat obesity including, eating more meals at home, eating more fruits and vegetables on a daily basis, opting for water over a soda or other sugary beverage, and right-sizing portions.



FOOD RETAIL ENVIRONMENT

Food insecure areas experience reduced quality, variety, and availability of food. Food insecurity can also include a lack of affordable foods to maintain a healthy diet, or when households experience disruptive eating patterns or reduced food intake (hunger).

Food security, as a determinant of health, contribute to health status. In the City of Gaffney, where residents are food insecure they are more likely to have a poor diet. Poor diet significantly contributes to heart disease, obesity, diabetes, some cancers and stroke.

The City of Gaffney has a farmers market downtown, another market at the edge of the city, and six grocery stores within city limits. Grocery stores are not equally dispersed across the city, however. Nearly all of the full-service grocery stores — the BI-LO, Ingles, Walmart Supercenter, and Food Lion — are on arterial roads at largely at the city's periphery.

Much of Gaffney, particularly areas with concentrations of vulnerable populations are untouched by grocery store service, or the existing grocery store requires a car to get there safely. Thus local residents shop at convenience stores and discount variety stores to fill this gap. It is less likely that these informal food outlets sell fresh and nutritious food. Instead, they commonly sell pre-packaged and processed foods in both non-perishable and frozen packages. These types of foods have higher amounts of fat, sodium, sugar and calories.

The table below looks at healthy food opportunities by calculating the density of grocery stores and farmers markets. These outlets are referred to as food retail establishments or FRE. A healthy food outlet density of 0.2 or greater is desirable.

Summary Table of Gaffney's Food Retail Environment:

Food Retail Establishments (FRE)	8 (7 year round)
People/FRE	1,570
Square Miles/FRE	1.04 (year round) 1.2 (seasonal)
Grocery Stores	6
People/Grocery Stores	12,565
Square Miles/Grocery Stores	1.39
Healthy Food Outlet Density	.96 (.72 year round)

The results show that the City of Gaffney is not considered a food desert. However, accessibility is still a central issue, especially for residents with disabilities or residents with limited access to a vehicle. Another element of expanding accessibility is to encourage farmers markets to participate in SNAP. The maps on the following pages shed light on healthy food access for vulnerable populations.

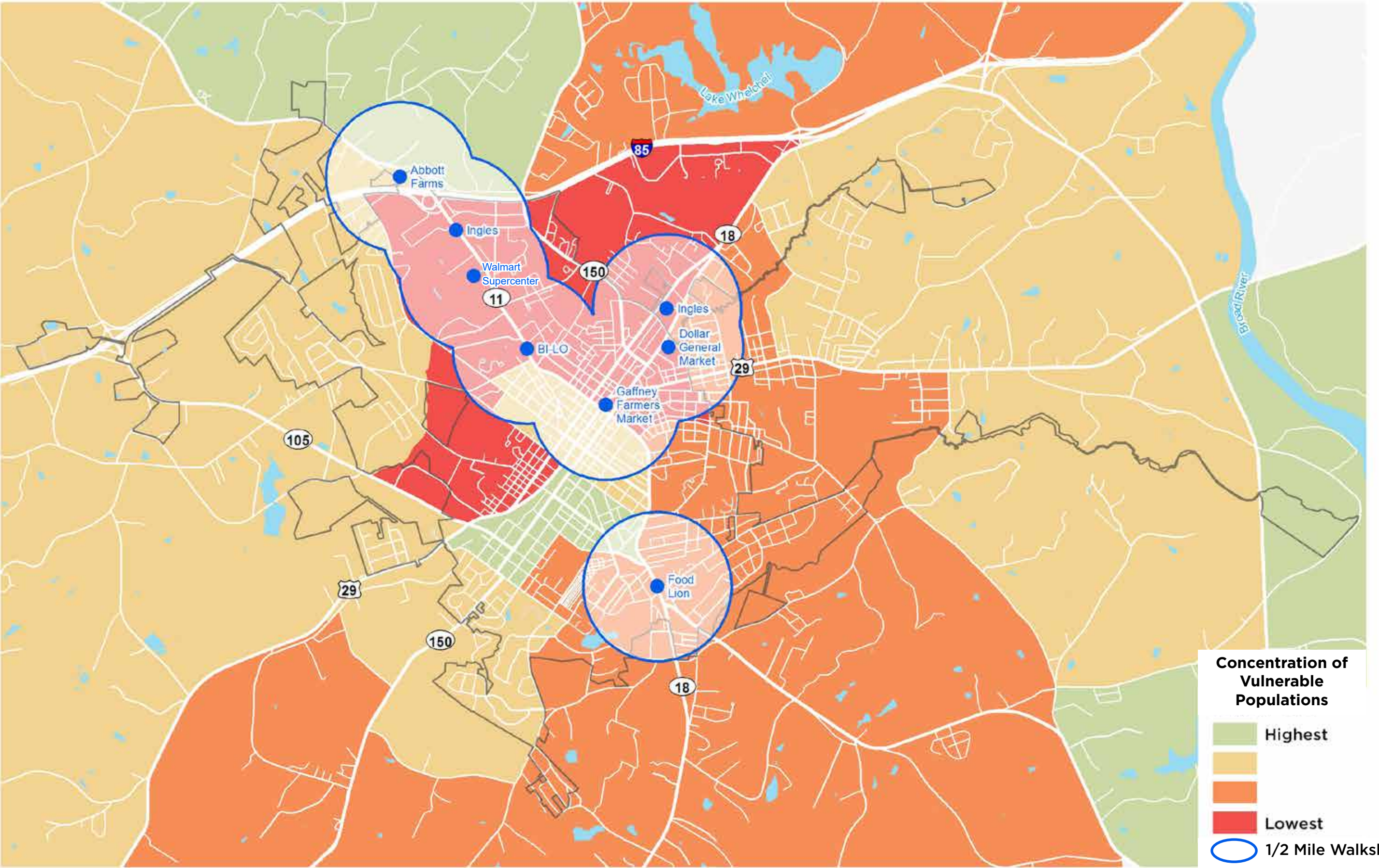
RESULTS

The results of the Composite Equity Analysis are combined with a mapping study of the locations and walkability of healthy food outlets. Healthy food outlets are defined to include all grocery stores and farmers markets. The downtown farmers market is seasonal so this is a limitation in determining true, year round access. The healthy food access map can be found on the following page.

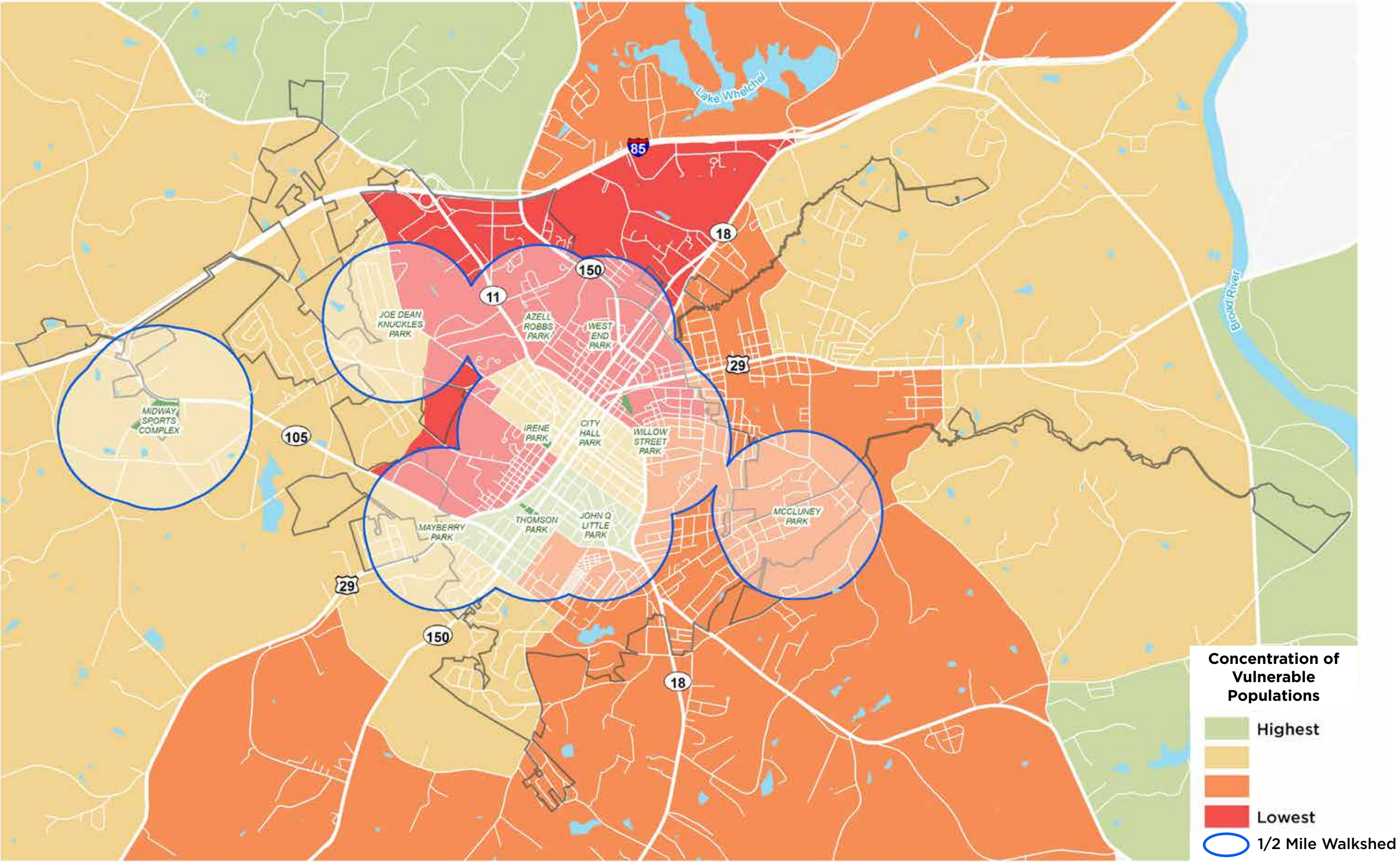
A half-mile walkshed is a widely accepted catchment area for pedestrian analyses. A half-mile is about a 10 minute walk for most pedestrians. This distance also serves as the Federal Transit Authority's (FTA's) designated catchment area for pedestrian improvements that are eligible for transit enhancement funds. This diameter presumes that, barring barriers to mobility and accessibility, individuals within the catchment area would be willing to walk to these activities and destinations. **Walksheds, in combination with equity data, assess connectivity and reveal opportunities where infrastructure improvements may have the greatest impact.**

The results of the healthy food access analysis reveal that a food access connection runs primarily along the Highway 11 and focuses on the northwest section of the town. This area of Gaffney has high concentrations of vulnerable populations. Additionally, Highway 11 can be a barrier for access and a walkability challenge given its street design and lack of pedestrian amenities that make it an uninviting corridor for people on foot.

HEALTHY FOOD ACCESS ANALYSIS MAP



ACTIVE SPACE ACCESS ANALYSIS MAP



ACTIVE SPACE ACCESS ANALYSIS

Walking can be a critical form of transportation, particularly for older adults who no longer drive, young people who cannot yet drive, and for people who do not have access to a vehicle. Apart from walking as a means for transportation, however, walking serves a vital role in maintaining and improving one's health.

The CDC recommends 60 minutes of physical activity for children per day, 150 minutes of physical activity for adults per week, and 150 minutes of aerobic and muscle-strengthening activity per week. The parks and recreation facilities in Gaffney provide ample access to exercise opportunities, however, accessing these destinations on foot is challenging.

County-level physical activity data show that:

- **64% of residents have access to exercise opportunities**
- **Men are almost 15% more physically active than women**
- **43.9% of all adults meet physical activity recommendations.** This is the same as the state rate but 8.8% lower than the nation.
- Of all South Carolina counties, **Cherokee ranks 30 out of 46 for health behavior.** Health behavior accounts for figures such as obesity, smoking, food environment index, and physical inactivity.
- The economic cost of physical inactivity is approximately \$1,106 per adult in Gaffney County

Additionally, **data on youth physical activity show that:**

- **Percent of children in poverty is steadily increasing at 32% in Gaffney County,** compared to 27% for the state as a whole. This is significant because **children living below the poverty line are 159% more likely to be deprived of recess.**
- **students who walk to school every day had 24 more minutes of physical activity per day.**

Physical inactivity and obesity rates in Gaffney have consistently worsened over the past few years. One way to reverse this trend, apart from diet and exercise, is to expand mobility options. Providing the freedom to walk to places supports a healthy lifestyle. In turn, this boosts not only the city's physical activity level, but also increases mobility, accessibility, and quality of life for all residents.

The results of the Composite Equity Analysis are similarly combined with a mapping study of the locations and half-mile walkshed of parks and recreation facilities. The active space access map can be found on the preceding page.



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PUBLIC INVOLVEMENT



We shall give people the opportunity to have a meaningful impact on the development of plans and programs that may affect them. Participation should be broad enough to include those who lack formal organization or influence.

-- AICP Code of Ethics



PROJECT VISION

The City of Gaffney is a **healthy and active community** with **safe and inviting places to walk** for both residents and visitors. Scenic streetscapes and paths **connect** people to neighborhoods, downtown, historic sites, Limestone College, and other visitor and **community destinations**. Residents of all ages, abilities, and backgrounds **enjoy active transportation**, opportunities for physical activity, **access to healthy foods**, and a **high quality of life**.

PROJECT GOALS

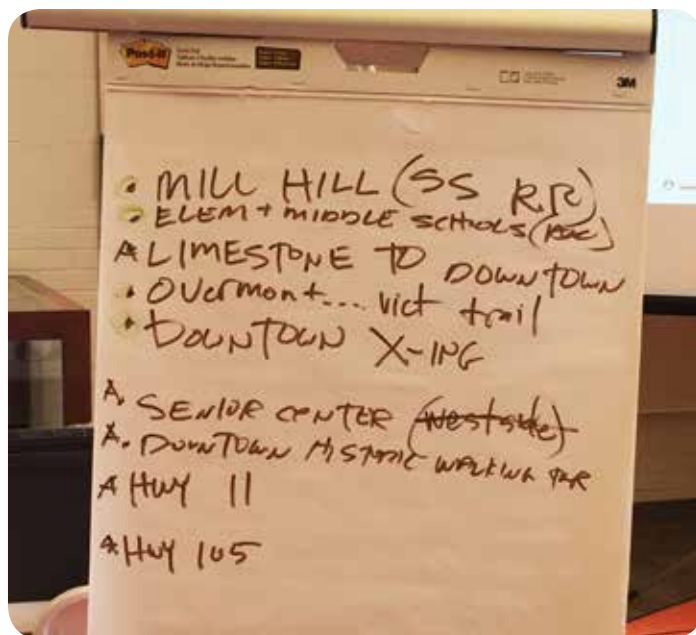
- **Connect neighborhoods** and their residents to downtown
- Improve **pedestrian connectivity** between **Limestone College, downtown**, and local destinations for college students, faculty, and staff
- **Increase awareness** of safe and enjoyable places to walk
- Identify **near-term, feasible capital improvement projects** that will **positively impact the walking environment**
- **Leverage other capital improvement projects** already underway or planned
- **Engage the strong network of community partners** working to improve Gaffney in efforts that **advance walkability**
- **Walkability** and a **high quality of life** as a cornerstone of the City of Gaffney's **community image**
- **Leverage** the **Cherokee Foothills National Scenic Byway** and the **Overmountain Victory National Historic Trail**, as well as Gaffney's proximity to **Cowpens National Battlefield** and other historic sites



OUTREACH SUMMARY

At the center of the planning process was the multi-day charrette conducted by the project team. Charrette activities included multiple progress presentations, public input sessions, and meetings with a variety of stakeholders. The adjacent agenda shows what each day held for charrette participants.

A summary of the charrette results are on the following page. A full focus group report can be found in the Appendix.



Priority corridors and areas, listed above, were distilled by the project team through public input and guidance from local stakeholders.

What is a charrette?

“Charrette” has come to describe the rapid, intensive, and creative work session in which a design team focuses on a particular design problem and arrives at a collaborative solution. Charrettes are solution-oriented.

Charrette Schedule

TUESDAY FEBRUARY 9TH

9AM	DESIGN TEAM DRIVING TOUR
3PM	KICK-OFF MEETING WITH LOCAL ELECTED OFFICIALS & CITY OF GAFFNEY STAFF

WEDNESDAY FEBRUARY 10TH

10AM	FOCUS GROUP #1, STAKEHOLDER MEETING
1PM	FOCUS GROUP #2
1-5PM	OPEN STUDIO SESSION
3PM	FOCUS GROUP #3
5PM	PROJECT UPDATE & PUBLIC DESIGN PIN-UP SESSION

THURSDAY FEBRUARY 11TH

9AM	FOCUS GROUP #4
1-4PM	STUDIO SESSION
5PM	PUBLIC PRESENTATION OF PRELIMINARY RECOMMENDATIONS

CHARRETTE RESULTS

LOCAL ELECTED OFFICIALS & CITY STAFF KICK-OFF MEETING (TUESDAY)

During this working meeting, guidelines, actions, methods, processes, and goals were identified. The charrette agenda was reviewed and input sessions established.

The base maps were reviewed and approved for use as the existing conditions map. The Elected officials and city staff shared their goals and vision for the project including potential priority corridors to be evaluated. Prior to this meeting, the Project Team toured the corridors several times with local stakeholders, noting special interest areas, opportunities, and constraints.



Focus group participants shared their thoughts about improving walkability in Gaffney.

FOCUS GROUPS & PROJECT STAKEHOLDERS (WEDNESDAY)

Part of the multi-day charrette included multiple progress presentations and meetings with a variety of stakeholders and focus groups including Fullterton Foundation, Granard Middle School, City of Gaffney Planning Commission, Boys & Girls Club, Cherokee County Chamber of Commerce, Limestone College, Eat Smart Move More, Know 2, Gaffney Rotary, Broad River Baptist Association, National Park Service, and residents and community members.

Over 50 people participated as part of the focus group meetings or individual meetings with the Project Team. During the second and third day of the charrette, Alta further developed illustrative conceptual plans, photosimulations, cross sections, and schematic level designs for the priority corridors identified during the focus group meetings. **Six priority projects were collectively decided upon** by the focus groups as specific areas needing pedestrian improvements. The six priority project areas included:

- Railroad Avenue South/Mill Hill Neighborhood
- Access to schools within city limits
- Limestone College
- Historic Districts
- Gaffney Senior Center
- Highway 11
- Highway 105

PRESENTATION OF FINDINGS & RECOMMENDATIONS (THURSDAY)

As each of the priority areas were developed, focus groups were encouraged to **develop key themes that related to each of the priority projects** but also set precedents for long range pedestrian development throughout the City of Gaffney.

Key themes that resulted from the charrette process include:

- Create mini destinations and attractions
- Recognize that beauty matters
- Add street lights and pedestrian-scale lighting
- Bring on the landscape medians
- Create a grand plan
- Partner with schools

The intensive research, field work, and analysis portions of the charrette led project team members to glean information about current walking conditions in the city, and to develop **targeted recommendations for addressing existing opportunities and constraints** related to walking. The following were identified as opportunities:

- Potential **partnership with schools** to initiate and champion programmatic walking efforts and also to solicit funding for infrastructure improvements to encourage students to walk to school
- Enhance **neighborhood streets** where people already like walking and replicate those **pedestrian-friendly spaces** elsewhere across the city
- **Leverage the existing sidewalk network** to create a more complete network by filling in critical gaps
- Leverage and **celebrate the city's historic resources** which **attract people** to the area - give them another reason to stay and enjoy Gaffney's walkable downtown



The following were identified as barriers:

- **Lack of enforcement** for residents and visitors who park their cars along the sidewalk. People appear to do this despite wide streets with ample room for parking. The buffer area between the sidewalk and street that has been paved over, effectively removing the buffer greenspace and creating a sidewalk that is at-grade with the street, allows these cars to pull up onto the sidewalk.
- **Unsafe crossings** with limited pedestrian facilities including high-visibility crosswalks, push buttons, and curb ramps. ADA compliance is a systemic issue at crossings.
- **Streetscapes that prioritize automobile throughput** at the expense of the pedestrian's sense of safety and comfort. Sidewalks are immediately adjacent to wide travel lanes with fast-moving cars.

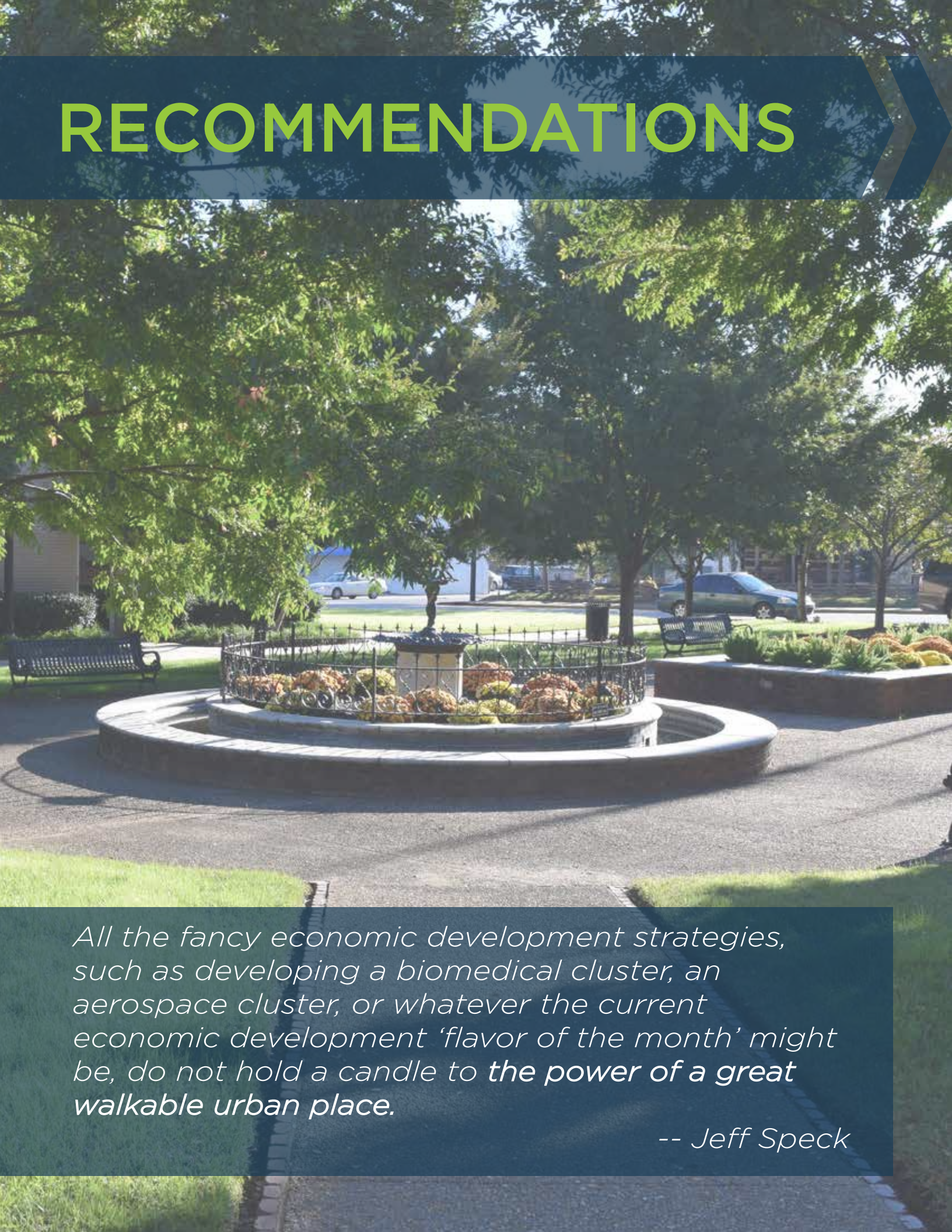
Alta formally presented this range of opportunities and constraints, as well as the conceptual recommendation plans as part of a public presentation on the evening of Thursday, February 11th.





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RECOMMENDATIONS

A photograph of a park with a central flower bed, benches, and trees. The flower bed is circular, surrounded by a low stone wall and a black metal fence. It is filled with various colorful flowers. There are several benches in the park, and large trees with green leaves are scattered throughout. In the background, a street with parked cars and buildings is visible.

*All the fancy economic development strategies, such as developing a biomedical cluster, an aerospace cluster, or whatever the current economic development 'flavor of the month' might be, do not hold a candle to **the power of a great walkable urban place.***

-- Jeff Speck

OVERVIEW

This chapter presents the proposed pedestrian network improvements that were identified during the charrette process and supplement through input from the project team, field work, and the equity analysis. The proposed improvements are intended to **make walking safer and more accessible for everyone** in the City of Gaffney. The recommendations are organized as follows:

- **Overview Map of Recommendations** — This map paints a high-level picture of corridors and areas that have been identified as community priorities. These projects have the potential to create the most positive impact for all road users.
- **Project Cutsheets** — These spreads are intended to convey what recommendations can look like to residents and stakeholders, as well as assist in applying for implementation funds. The six projects detailed in individual cutsheets are crucial catalysts for economic development, walkability, and quality of life in Gaffney.

It is important to note that while this plan offers an action plan for creating a more walkable Gaffney, **the recommendations of the plan should not preclude other investments in the pedestrian environment that are not included in this report.** This Plan provides a useful framework for proactively seeking funding and advancing projects from concept to implementation. This proactive approach does not, however, lessen the need to consider opportunistic improvements as well, such as the timeliness of capitalizing on a new development or capital project, streetscape enhancement project, SCDOT corridor improvement, upgrade to an intersection, or new trail connection.

FRAMEWORK

Research has shown that a comprehensive approach to walk- and bicycle-friendliness is more effective than a singular approach that would address infrastructure issues only. Recognizing this, the national the Walk Friendly Community program, administered by the National Center for Walking and Bicycling, recommends a multi-faceted approach based on the following five ‘E’s: Engineering, Education, Encouragement, Enforcement, and Evaluation. Also, a sixth ‘E’, Equity, is often included in order to ensure equal consideration for those whom pedestrian improvements may benefit the most.

The infrastructure recommendations outlined in this chapter represent the “engineering” aspect of that multi-faceted approach, and are based on national best practices for pedestrian and bicycle design. The Appendix chapter provides a summary of recommended strategies for the remaining four “Es” through community programs and policy concepts. While the City and its agency and jurisdictional partners (namely SCDOT, the County, and SPATS) are responsible for infrastructure projects and policy development, community programs can and should be led by outside partners such as nonprofits, advocacy groups, foundations, private sector businesses, and interested citizens.

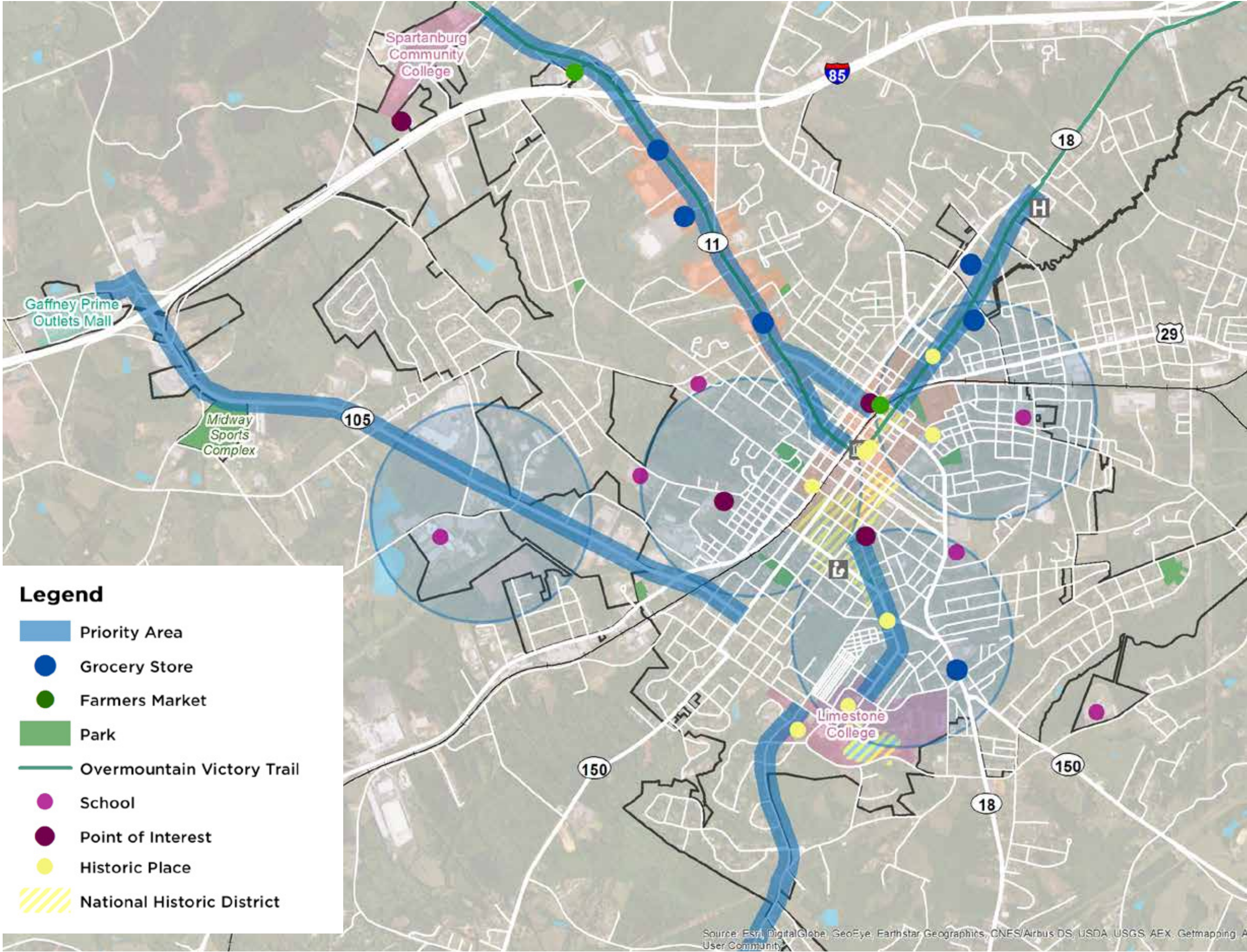
The recommendations of this plan provide a starting point for community partners to join the City in moving towards a culture of pedestrian friendliness and ultimately increasing walking activity in Gaffney.

OVERVIEW MAP OF RECOMMENDATIONS

The adjacent map depicts the extent of corridor and area recommendations across the City of Gaffney, as well as key supplementing points like parks and historic districts. The intent of these recommendations is to present a vision of walkability priorities, ensuring **citywide accessibility and mobility for pedestrians of all ages and abilities.**

- Priority recommendations include:
- Highway 105
 - Highway 11
 - North Limestone Street or Highway 18
 - Mill Hill Neighborhood Area
 - Senior Center Area
 - Access to Schools Area
 - Connectivity between Downtown and Limestone College Area

The specific recommendations of these priorities are spelled out via cutsheets on the following pages.



Limestone Street & Mill Village Neighborhood

The major goals of this corridor and neighborhood area are three-fold: to connect community members to the farmers market and planned Railroad Avenue Park, to provide safe pedestrian access to destinations downtown, and to instill a sense of community through cohesion.

Downtown Gaffney has lovely streetscapes, complete with historic buildings, short setbacks, sidewalks, benches, pedestrian-scale lighting, curb extensions, and street trees. However, this human-scaled design stops at the intersection of Limestone Street and Railroad Avenue. The streetscape design that continues on both of these corridors creates both a real and perceived barrier for pedestrians.

A holistic approach to the Limestone Street corridor and the Mill Village neighborhood area will unify and connect downtown to this community. On the infrastructure side, new pedestrian facilities and improvements to existing pedestrian facilities are needed. Other non-infrastructure based walkability efforts include parking enforcement, litter management, wayfinding and gateway branding, and partnering with Safe Routes to School to encourage local children to walk and bike to Mary Bramlett Elementary School.

KEY RECOMMENDED IMPROVEMENTS

- + Crossing Improvements
- + Seamless Sidewalk Network
- + Traffic Calming
- + Pedestrian-Scale Lighting
- + Parking Enforcement
- + Litter Management
- + Wayfinding



Limestone Street Corridor & Mill Village Neighborhood Location Map

Potential Partners

- » Boys and Girls Club
- » Cherokee County
- » City of Gaffney
- » SCDOT
- » Norfolk Southern
- » Neighborhood Residents
- » Safe Routes to School



Photosim of Willow Street at Milliken Park



Photosim of Spruce Street across from Mary Bramlett Elementary School

Access to Elementary & Middle Schools

Gaffney has a number of schools within or close to neighborhoods. If adequate pedestrian facilities existed students would be able to walk to school.

Over the past 50 years rates of children walking to school have steadily declined due to a number of factors including suburban sprawl, lack of sidewalks, high rates of car ownership, infrequent and unsafe roadway crossings, high volume and high speed roads, and perception of safety. The resounding impact has been a precipitous increase in childhood obesity, diminishing mental health, increased transportation costs for schools and families, and increased health care costs.

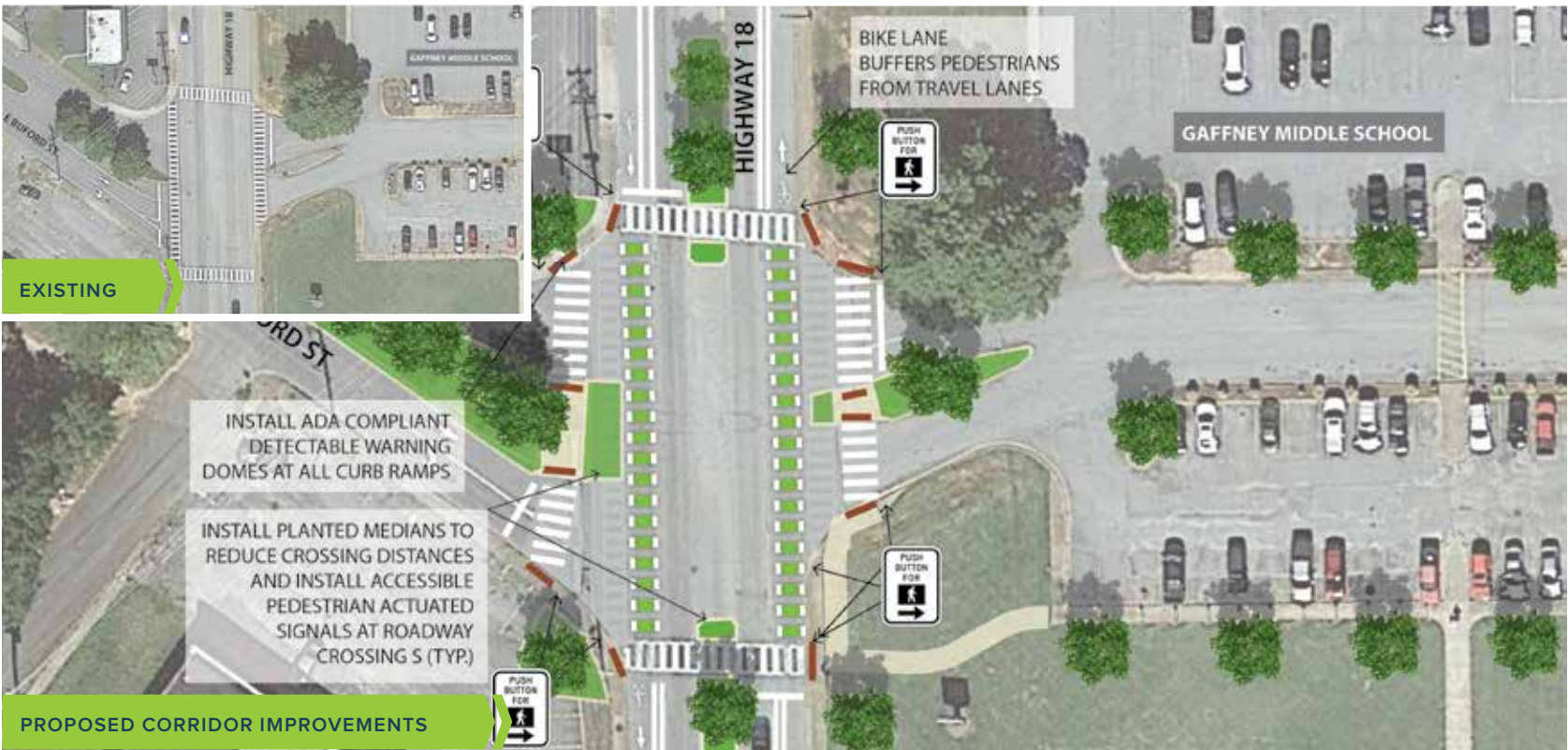
These schools and their associated corridors were thus identified as priority pedestrian connections. The underpinning of these priority connection recommendations is to address known safety issues. Safer, calmer streets promote walking and bicycling and are thus invariably conducive for active transportation users of all ages and abilities to enjoy.

KEY RECOMMENDED IMPROVEMENTS

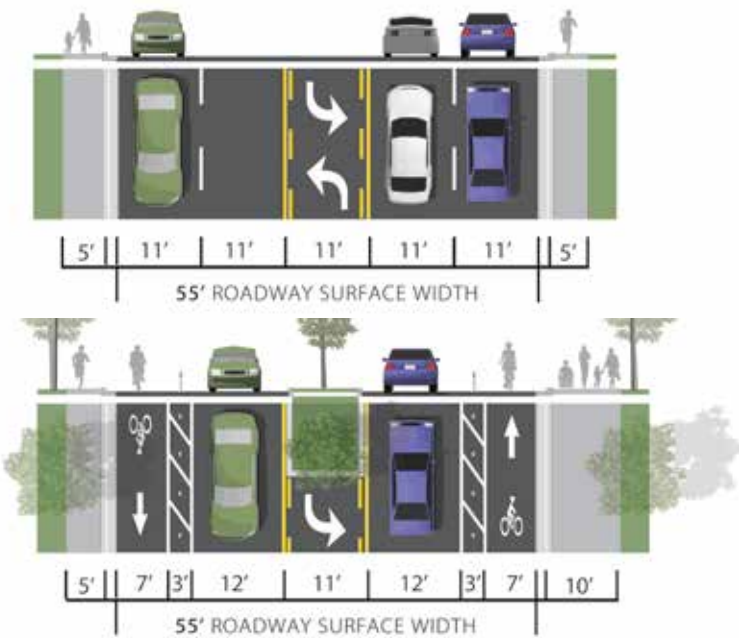
- + Crossing Improvements
- + Traffic Signals
- + Traffic Calming
- + Seamless Sidewalk Network
- + Pedestrian-Scale Lighting
- + Bicycle Facilities



Unsignalized intersection recommendations on E. Frederick Street (Highway 18) at Gaffney Middle School



Plan view of E. Frederick Street (Highway 18) at Gaffney Middle School



Existing (top) and proposed (bottom) section views of Frederick Street

Potential Partners

- » Cherokee County School District
- » City of Gaffney
- » SCDOT
- » Neighborhood Residents
- » Parent & Teacher Organizations
- » Safe Routes to School

Limestone College Connections

There is a disconnect in the continuity between downtown Gaffney and the Limestone College campus. As cornerstones of the city, creating links between the two are necessary to attract pedestrian activity and stimulate vitality.

Furthermore, despite their proximity, the neighborhoods adjacent to campus in both the west and south feel separated from Limestone College primarily due to a lack of sidewalk connectivity. Streetscape improvements, including a seamless sidewalk network, reinforce a sense of place and draw pedestrian activity into those previously untouched, inactive areas of Gaffney. The added benefits of an invigorated street life are that it makes walking a norm which in turn boosts mental and physical health, increases personal mobility, fosters a sense of community, and deters unlawful behavior with more eyes on the street looking out for neighbors.

Recommendations for this project area are to extend and enhance the current streetscape elements of College Drive that are inviting and encourage walking. Thompson Street and College Drive, the two main corridors identified, are intended to be the initial catalyst projects that prompt improvements on nearby secondary streets. The skewed intersection of College Drive, Thompson Street, East Rutledge Avenue, and Vernon Street will require further study but at a minimum crossing improvements will mitigate right-of-way confusion and create a fluid connection.

RECOMMENDED IMPROVEMENTS

- + Crossing Improvements
- + Traffic Calming
- + Parking Enforcement
- + Wayfinding
- + Seamless Sidewalk Network
- + Pedestrian-Scale Lighting
- + Bicycle Boulevard



View of College Drive. This corridor has a continuous, ADA accessible sidewalk network and medians with pleasant landscaping that exude community pride and a strong sense of place.

Potential Partners

- » City of Gaffney
- » Limestone College
- » Student Organizations & Athletic Departments
- » SCDOT



College Avenue Location Map



Thompson Street Location Map. This corridor will require sidewalk expansion.



EXISTING



PROPOSED CORRIDOR IMPROVEMENTS

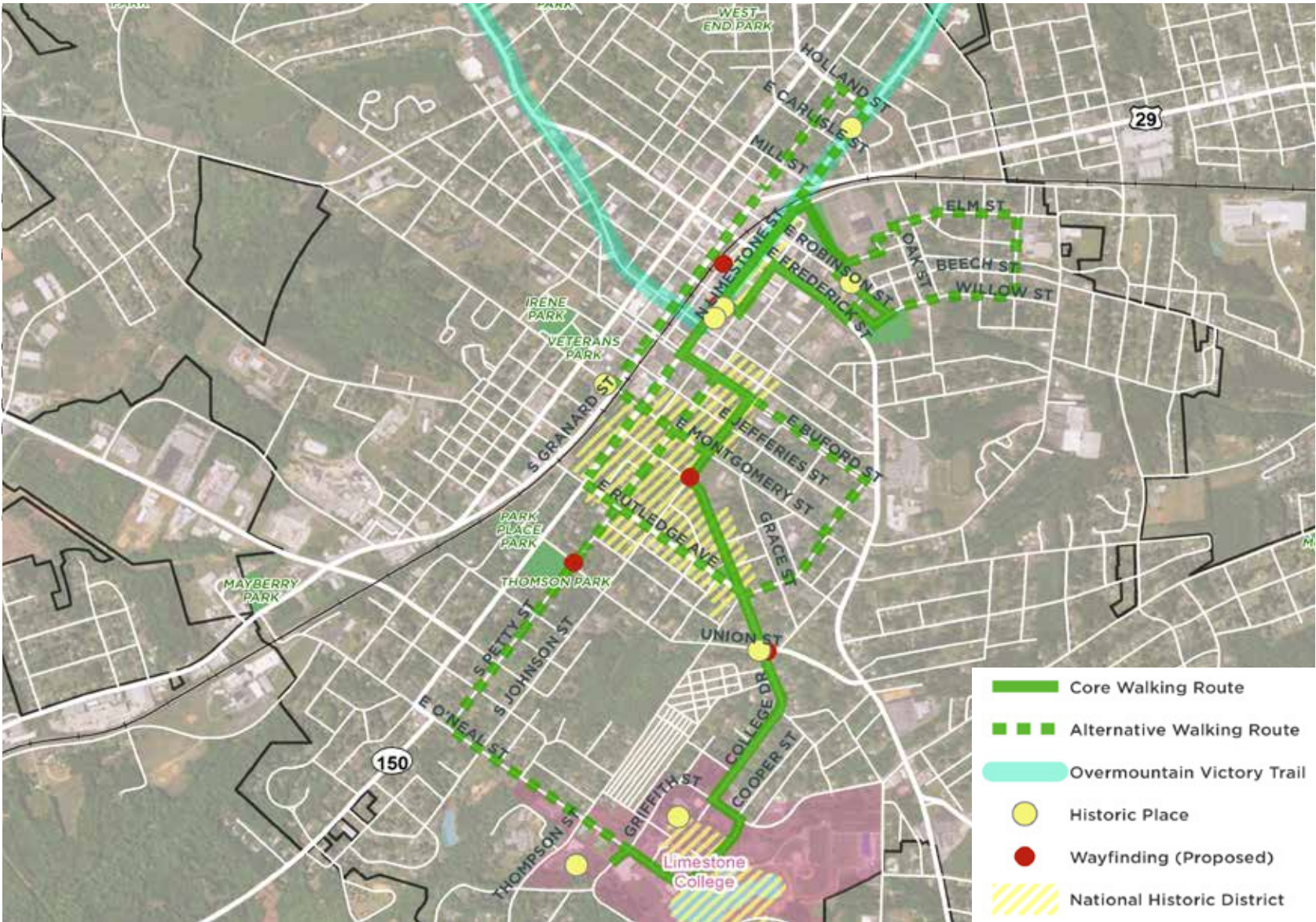
Photosim of a typical neighborhood street improvement - Grace Street

Historic Walking Route

Limestone College’s feasibility study on physical activity readiness has previously identified a walking route in Gaffney. However, opportunities exist to broaden the purpose of the urban trail and to extend the route itself.

Gaffney is fortunate to have three historic district and almost ten historic buildings within city limits. The Overmountain Victory National Historic Trail, a National Park Service designation, also goes through Gaffney. The City’s proximity to other National Park Service sites, Cowpens National Battlefield and Kings Mountain National Military Park, already support heritage tourism — a historic walking route will bolster this economy and brand Gaffney not only as a historic gem but as an active, healthy place to live.

The historic walking route uses the identified feasibility study route as its primary course but offers alternative spur routes to reach more historic destinations and offer variety. The walking route also considers the locations of previously proposed wayfinding but would add calories and minutes to encourage walking. The wayfinding system used in conjunction with existing and improved sidewalks will facilitate movement between the city’s cherished historic resources. In addition to infrastructure and streetscape improvements, the historic walking route will require a marketing and promotional effort to get the word out and entice visitors.



RECOMMENDED IMPROVEMENTS

- + Crossing Improvements
- + Seamless Sidewalk Network
- + Wayfinding
- + Pedestrian-Scale Lighting
- + Tourism Materials

FEATURED LOCATIONS



Winnie Davis Hall



Settlemyer House



Carnegie Library & Colonel James Williams Grave



Jeffries House



City of Gaffney Visitors Center

Highway 11 & Frederick Street

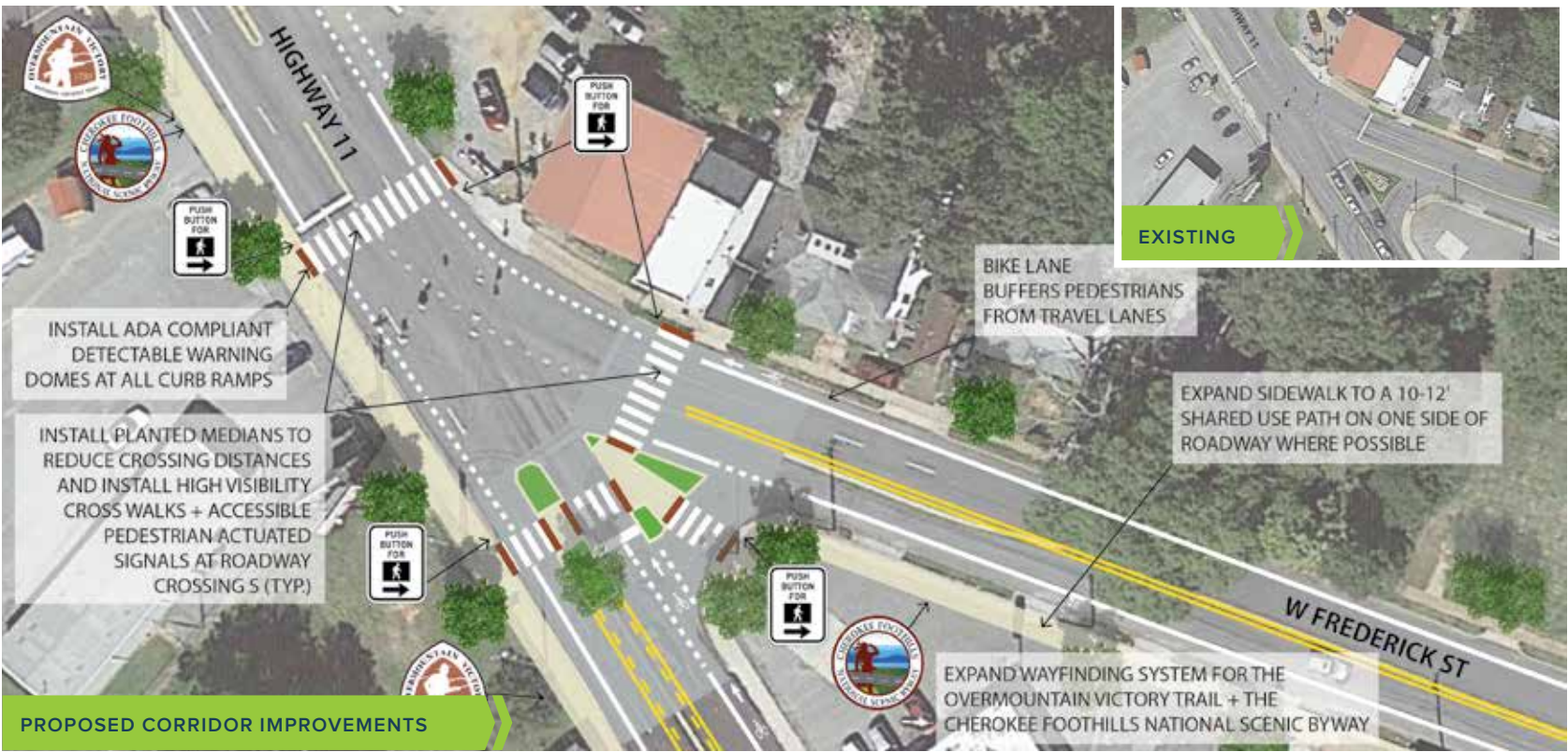
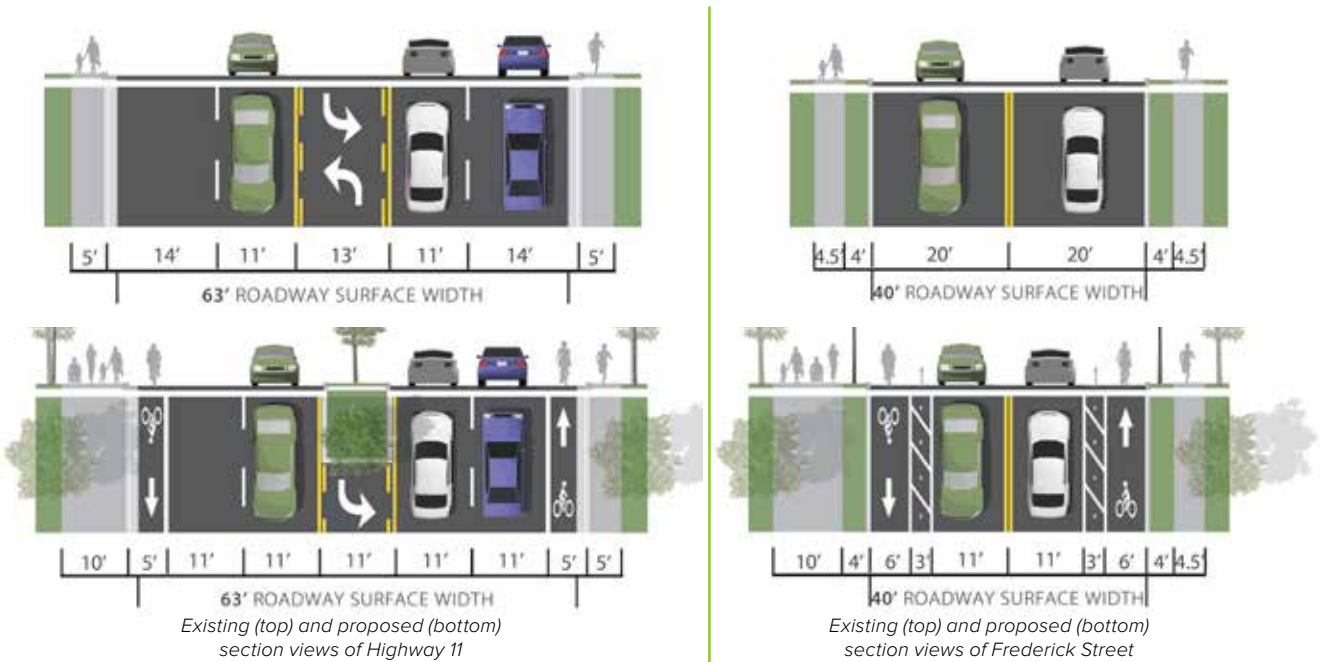
Highway 11 and Frederick Street serve as primary gateways into downtown Gaffney. As such, these culturally significant corridors should be inviting and have a strong sense of place.

Despite the clustering of restaurants, grocery stores, and shopping centers, especially along Highway 11, people use their cars to move between nearby destinations and to cross the street. Sidewalks are in need of maintenance and shade trees, and leave pedestrians immediately adjacent to wide travel lanes with fast-moving traffic.

These streetscapes, currently designed for vehicular passage with limited consideration for the pedestrian, can be improved to better accommodate all road users. Widening the existing sidewalks, adding high-visibility crosswalks, median refuge islands, trees, street furniture, and bicycle facilities will create a cultural shift that encourages walking as a normal, everyday activity.

RECOMMENDED IMPROVEMENTS

- + Crossing Improvements
- + Street Furniture
- + Landscaping
- + Seamless Sidewalk Network
- + Pedestrian-Scale Lighting
- + Bicycle Facilities



Plan view of the Highway 11 and Frederick Street intersection



Photosimulation of a typical downtown intersection gateway - Frederick Street and Granard Street.

Rutledge Avenue

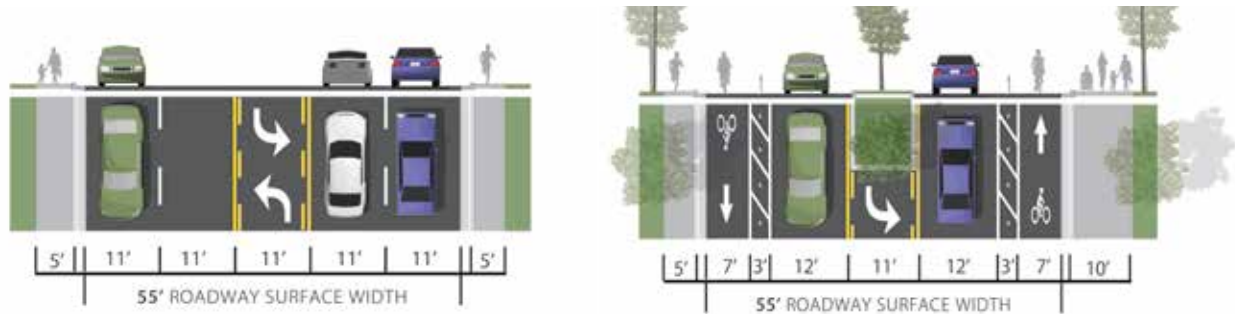
Rutledge Avenue is a major east to west thoroughfare, spanning the city from College Drive to the frontage road of I-85. This route touches a number of key sites and destinations. Streetscape improvements benefit the senior center in particular, as poor walkability is the biggest barrier to their mobility independence.

Current conditions are such that people walking on sidewalks (where they exist) are exposed to fast-moving vehicles on wide travel lanes, especially between the senior center and downtown. Naturally, this discourages residents of the senior center and surrounding neighborhoods from accessing nearby services like appointments at the health clinic, prescriptions at CVS, opportunities for exercise at Irene Park, and recreational outings at the public library, Veterans Museum, or the Cherokee County History & Arts Museum on foot. Adding wayfinding with associated distances will encourage walking and guide people between these destinations. Filling in sidewalk gaps and committing to maintain the sidewalk will also make walking a safe, convenient, and comfortable option for the 15% of Gaffney residents who are over 65 and may have limited healthy mobility options.

The addition of bicycle lanes where appropriate will also improve the pedestrian experience on Rutledge Avenue because they add buffer space between vehicular traffic and pedestrian activity. Bike lanes also “right-size” the roadway, narrowing over-sized travel lanes to create a multimodal corridor that serves more transportation needs than the car alone.

RECOMMENDED IMPROVEMENTS

- + Crossing Improvements
- + Street Furniture
- + Landscaping
- + Wayfinding
- + Seamless Sidewalk Network
- + Pedestrian-Scale Lighting
- + Bicycle Facilities



Potential Partners

- » Cherokee County
- » City of Gaffney
- » Neighborhood Residents
- » SCDOT
- » Senior Center Advisory Staff



EXISTING



PROPOSED CORRIDOR IMPROVEMENTS

Photosim of West Rutledge Avenue outside the Senior Center

PROGRAMMATIC RECOMMENDATIONS

INTRODUCTION

The Pedestrian Plan and infrastructure recommendations will provide safer, more comfortable places for residents and visitors alike, all while increasing livability, walkability, and local trail use. However, while improving infrastructure is critical to increasing walkability, the importance of education, encouragement, enforcement and evaluation efforts should not be underestimated.

Programs can ensure that more residents will know about new and improved facilities, learn about the many benefits of walking, and receive positive reinforcement about why and how to integrate walking into their everyday lives. In essence, programs can help to provide the maximum “return on investment” in the form of more people walking and a higher degree of safety and awareness around walking and pedestrians in Gaffney.

Education and encourage programs are designed to raise awareness of walking and bicycling; connect users to existing and future resources; and to encourage residents to walk more often. These program recommendations will give the City of Gaffney the tools they need to address travel behaviors and choices, public health, and increase community-wide physical activity. These recommendations contains an overview of best practices for education, encouragement, enforcement, and evaluation programs that should be pursued along with infrastructure investments.

SAFE ROUTES TO SCHOOL

Safe Routes to School (SRTS) programs use a “5 Es” approach that integrates Engineering, Education, Enforcement, Encouragement, and Evaluation strategies to improve safety and encourage children to walk and bicycle to school. Programs educate youth and parents about safe bicycling and walking skills, encourages schools and communities to support bicycling and walking, and help communities make the streets, trails, and sidewalks safe for bike riders of all ages.

The programs are usually run by a coalition of city governments, schools, school district officials and teachers, parents and students, and neighbors. The City should develop and implement a city-wide SRTS initiative to help schools start programs or sustain and enhance existing efforts, such as those at Luther Vaughan Middle School and Gaffney Middle School. To create a robust SRTS program involves assessing needs and identifying opportunities, collecting data, and convening an advisory committee to guide the City’s initiative.

Based off of the comments and findings from the Pedestrian Master Plan Focus Group Report, the following recommendations are advised to address the real and perceived concerns of the group, and to enhance the overall program initiative:

Speed Enforcement

- Greenville, NC participated in a [distracted driving research project](#), neighborhood speed watch program, installed speed feedback signs, and increased law enforcement before and after school.
- Volunteers in Arizona conducted a [neighborhood speed watch](#) routine detection event which assisted law enforcement efforts, putting serial speeders on notice and bringing down average speeds.
- One of the key elements of the [Watch for Me NC](#) program involves enforcement efforts by area police to crack down on some of the violations of traffic safety laws.

Environmental and Built Environment

- Annual and ongoing events that support stewardship could include an Earth Day celebration; school grounds trash clean-up day; and walking audits.
- Alameda County, CA, SRTS has the [Golden Sneaker Contest](#) where classrooms track their walking, bicycling, carpooling, and bus trips
- Marin County, CA's [Pollution Punchcard Guidebook](#) has tips on how to organize fun contests emphasizing environmental impacts.

Evaluation is a key component to Safe Routes to Schools. The benefits of data collection can help guide the planning process, provides information on how the program is working, shows areas that need improvements, and ensures all students and families are given equal opportunities to participate.

Evaluation is often required for applicants and recipients of the SRTS funds. Furthermore, evaluation results can support other funding opportunities to maintain and enhance pedestrian and bicycle infrastructure.

- **Semi-Annual Student Hand Tallies:**
Students are asked how they got to and from school over a 2-3 day period. Students raise their hand when the mode they took is called out, and the teacher or a volunteer records this. Hand tallies are generally required of state and federal SRTS grant recipients.
- **Bicycle and Pedestrian Traffic Counts:**
Automatic counters or manual counts provide an estimate of walking and/or bicycling activity. Counts can track change over time and indicate program effectiveness or need. Manual counts can be more expensive, but can also collect information about gender, age, bike helmet use, and turning movements.
- **Parent Surveys:** Parents are asked how their children got to/from school via a paper or online survey. Parent surveys also ask questions about the barriers to walking or biking to/from school, health information, or perception of crime and other social behaviors.

ACCESS TO HEALTHY FOODS

- **Walk Audits and Mobility Workshops:** Walk audits and mobility workshops involve the gathering of data about environmental conditions that affect walking and bicycling. They can be easily integrated into geography or civics course, in which students map existing conditions and recommend improvements.

Resources:

- The National Center for Safe Routes to School provides forms, [data collection guidelines](#), data center, and automatically generated reports.
- [Safe Routes to School South Carolina](#), provides statewide resources that support the 5 E's
- The [National Center for Safe Routes to School](#) guide on walking and bicycling audits provides a variety of assessment tools.

Physical activity and healthy eating improve overall public health and wellness. This important link can be highlighted in a fun and interactive manner through promoting healthy food outlets along with walking. The City with the help of volunteers should look to partnering with health food providers and growers to identify safe routes for walking to their locations. Health food outlet may be minimal at this time, however, there are options that the City can peruse to promote and educate the public on the benefits of healthy food options while also promoting physical activity.

- **Master Gardeners or Community Garden Walking Tours:** Working with residents, the city can identify locals who are willing to showcase their gardens to the public. These gardeners can share tips or best gardening practices, recipes, and allow visitors to explore their gardens.

The City could also partner with the Gaffney Garden Club to help lead the walks and present at the stops. Guest presenter topics can include; how these gardens help to foster community, help feed the hungry, as well as discuss local gardening practices.

The tour can also highlight more than just healthy food options. Other topics can include native wildflowers and stormwater facilities. Because this program is volunteer based, it is recommended that the walking tour be an annual or semi-annual event.



- **Walks to Farmers Market:** Working with volunteers, the City could coordinate neighborhood walks to the Gaffney Station Farmers Market. These walks would originate from nearby neighborhoods. Walk leaders could use this opportunity to discuss the best ways to carry market goods, talk about new pedestrian infrastructure and the City's goals of making Gaffney and walkable city, and talk about the many health and environmental benefits of walking and eating locally sourced foods.
- **Farmers Market Incentives:** The City of Gaffney Farmers Market is an easily accessible, centrally located resource of healthy food options for community residents. Building on this resource to make it more pedestrian-friendly means more customers arriving on foot to purchase fruits and vegetables, thus contributing to the local economy and supporting a healthy lifestyle. Farmers market activities include walking incentive programs which motivate people to walk, and events that take place at the market, such as walking tours, healthy cooking classes, or yoga. The market also presents an opportunity to share information on local events and causes, and to find volunteers for projects and programs related to walkability in Gaffney.

Resources:

- Columbia and Boone County, Missouri: [Community Garden Coalition Walking Tour](#)
- New York City, NY: [Health Bucks Program Guidelines for a Successful Market Tour](#)



Example of NYC's Health Bucks Program. Users who spend \$5 using EBT receive \$2 in Health Bucks.

HISTORIC WALKING TOURS

Rural communities often have unique assets to offer to visitors, such as open spaces, historic places, and the intimate experience that only small towns can provide. Along with tourism, residents of Gaffney should be encouraged to celebrate and explore their rich history.

The historic walking tours can be done as an annual or ongoing event, or as a self-guided tour. For ongoing events it is important to partner with local organizations such as, the Cherokee County History and Art Museum, to providing historical and cultural information. The City could also work with local historians, professors, architects, or interested individuals to help lead walking tours and to inventory cultural and historic resources along the existing and proposed recommended walkways, trails, and greenway networks and identify safe and enjoyable walking routes that connect to historic points of interest.

For self-guided tours, a map of points of interest, walking distances, facilities (restrooms, drinking water, safe crossing areas), and historical facts should be provided online and as a printed copy to be distributed by the City's Marketing and Tourism department. Printed maps and guides should be actively distributed to residents and visitors. The information should be updated on a regular basis as new pedestrian facilities are implemented (every three years or less).

Resources:

- Living Streets Alliance, Tucson, AZ: [Annual Architecture on Wheels Hike and Bike Tours](#)
- City of Albany, Albany, NY: [Tour Albany Walking Map](#)

SIDEWALK PARKING ENFORCEMENT

Creating safe and walkable streets includes making sure everyone is using them properly. Due to various reasons, it is not uncommon for vehicles to park on or block sidewalks. This creates conflicts and often puts the pedestrian into unsafe situations when trying to pass a blocked vehicle. This practice also limits the mobility of people with disabilities and increases their vulnerability.

Sidewalk Parking Enforcement can be done with the help of local law enforcement and through citizen-driven complaints. While local law enforcement would be responsible for issuing fines and following-up on complaints, the City in partnership with local law enforcement could create call-line, online reporting system, or social media reporting system to catalog incidents and issue fines.

It is recommended that before launching such a program, that educational materials accompany the initiative. This will educate residents on the local laws and ordinances, and give them fair warning before enforcement efforts increase. This can easily be done through creating an informational insert in utilities bills, or creating a more elaborate campaign with street banners, yard signs, and posters.

Resources:

- Philadelphia Parking Authority: [See an Illegally Parked Car? Let Us Know!](#)
- Street Blog SF: [Disability Advocates Launch Campaign to End Sidewalk Parking](#)

PARTNERSHIPS

Partnerships are the foundation of robust and sustainable programs. Partners may include public agencies, community organizations and nonprofits, major employers and educational institutions, local businesses, faith-based organizations, and individuals. Building partnerships with and among these actors will improve the City's capacity to design and deliver effective programs in a coordinated manner.

Partnerships can come in the form of grants, in-kind donations, volunteers, cooperative project management, staff support, grant match, and general support for pedestrian education and encouragement. Partnerships can help to build a culture and community that values and supports walking as a healthy and viable means of transportation.

There is much potential for partnerships in Gaffney that represent and support many of the benefits that are associated with walking. While not an exhaustive list, partners may include:

- Cherokee County History and art museums
- Cherokee County School District
- Local schools
- Limestone College
- Local businesses
- Cherokee County Library
- Nestle
- Upstate Carolina Medical Center
- Gaffney Garden Club

OTHER POTENTIAL PROGRAMS

Walking Programs:

- College: encourage students to take walks to help refresh their brain (physical and mental health focused)
- Workforce: Walk at Lunch Wednesdays targeted at local businesses, large employment centers and organizations
- Guided Nature and Trail Walks
- Walk Gaffney: Each participant would receive a Walk Gaffney kit that includes a pedometer, safety light, and a log sheet to record their daily steps. Participants also receive information on the benefits of walking and tips on safe walking. At the end of each month, participants turn in their step counts online. Walk Gaffney participants who turn in their monthly step counts on time are eligible to earn rewards in a monthly random drawing.

Walking Programs:

- Neighborhood walking maps - see [City of Wilsonville](#)
- Online resources/website - could focus on Walking for Health

Pedestrian/Trail Counts

Events:

- Open Streets
- Parking Day
- Running/walking races

Safety Campaign:

- Mutual respect between drivers/peds
- Drivers Look for peds (distracted driving)
- Peds look for cars/trains
- Normalizing campaign



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STEPS FOR MOVING FORWARD

A photograph of a city street scene. In the foreground, there are trees with green and some autumn-colored leaves. Behind the trees are several multi-story buildings. One building is yellow with green shutters, and another is pink. A red banner with a fire department logo is hanging from a lamppost. The sky is clear and blue. A teal banner with white text is overlaid on the top left of the image.

Few actions can do more to make urban areas safer, healthier, prettier, and more environmentally balanced than setting aside corridors or trails for walking, biking, wildlife watching, and just plain breaking up the monotony of cars and concrete.

- James Snyder
Publisher, Environment Today

Now that priority programs and projects have been identified, what are our next steps?

The implementation of the City of Gaffney Pedestrian Plan recommendations will require a comprehensive approach that includes multiple sources of funding, partnerships, design, construction, and management. It will also require the dedication of town staff and a commitment to the vision established by the steering committee and this plan.

As best practices for pedestrian facility design is a rapidly-evolving field, the recommendations in this plan should be re-evaluated at least every five years to ensure that these still constitute best-practices and still reflect Gaffney's long-term vision for an active, walkable community.

Achieving the vision that is defined within this plan requires a stable and recurring source of funding. Communities across the country that have successfully implemented pedestrian programs have relied on multiple funding sources to achieve their goals. No single source of funding will meet the recommendations identified in this plan. Stakeholders will need to work cooperatively across a range of private sector, municipality, state, and federal partners to generate funds sufficient to implement this network. A descriptive list of potential funding sources can be found in the appendix.

The resources provided herein — the pedestrian safety analysis, the access to healthy foods assessment, infrastructure recommendations, coupled with the following appendices resources — can serve as a daily reference material for the City of Gaffney and its implementing partners.

The City of Gaffney should strive to follow the priority recommendations, as each program, project, and policy was selected based on public input, need, and potential impact. However, the city should also look for opportunities to coordinate pedestrian enhancements with regularly-programmed maintenance activities, new developments, and large roadway construction projects, regardless of whether enhancements occur on priority corridors or intersections.



The following steps provide direction to ensure the City of Gaffney Pedestrian Plan serves as a valuable and accessible resource for the community.

1

CONTINUE THE STAKEHOLDER COMMITTEE

A team effort is required to move the plan forward. The stakeholder committee process includes citizens and community leaders that can partner to make programs and projects a reality. Capitalize on this momentum, and formalize the committee as an Gaffney Walkability Commission that meets quarterly, at a minimum.

2

PROGRAM AND FUND INFRASTRUCTURE PROJECTS

To kickstart the funding conversation, partner with Appalachian Council of Governments and other planning entities to identify eligible projects. Additionally, capitalize on this plan itself to garner regional, state, and federal funding.

3

DEVELOP & IMPLEMENT ONE PROGRAM AT A TIME

Programs have a big impact on walkability and are easy to accomplish without a major investment. A variety of community partners can assist by funding efforts or volunteering their time. Convene "Program Champions" as part a steering committee meeting to develop a list of communications strategies to promote each program and attract volunteers. Make a goal to implement each program within six months of announcing the program.



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APPENDIX



Lowly, unpurposeful and random as they appear, sidewalk contacts are the small change from which a city's wealth of public life must grow.

-- Jane Jacobs

APPLICABLE DESIGN GUIDELINES

OVERVIEW

At the state and national levels, there are existing guidelines that apply to pedestrian facilities, as well as shared use paths and bicycle facilities. While these documents are not absolute standards, many public agencies require projects to meet the guidelines as a minimum condition for key dimensions including slope, horizontal and vertical clearances, and surface condition, signage, and pavement markings.

The guidelines recommended in this document are intended to assist City of Gaffney staff and consultants in the selection and design of pedestrian facilities and their ancillary facilities. The standards draw together best practices by facility type from public agencies and municipalities nationwide. In addition, all applicable local design and construction standards will need to be followed.

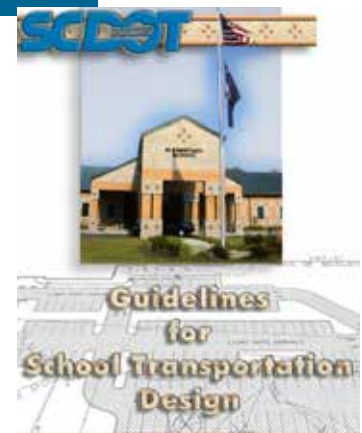
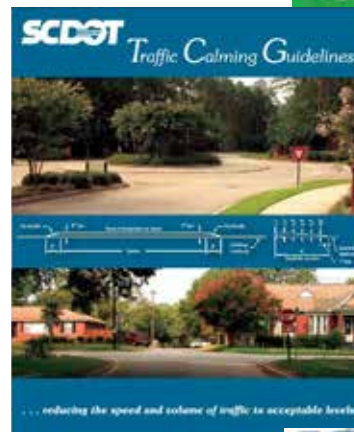
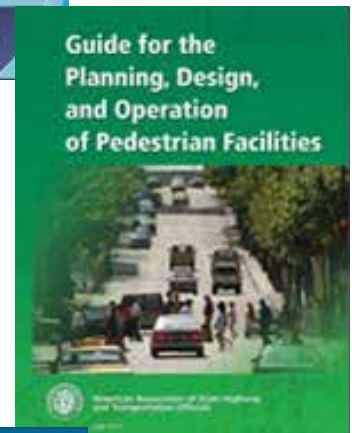
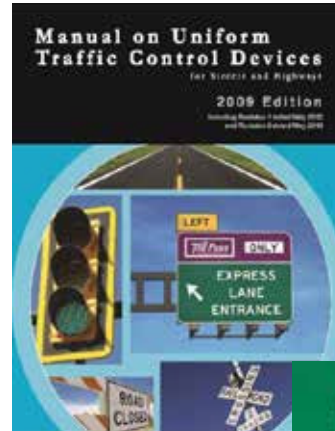
National Guidelines

- Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD) defines the standards used by road engineers nationwide to install and maintain traffic control devices on all public streets, highways, trails, and private roads open to public traffic. The MUTCD is the primary source for guidance on lane striping requirements, signal warrants, and recommended signage and pavement markings.
- American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Planning, Design, and Operation of Pedestrian Facilities* provides guidance on dimensions, use, and layout of specific pedestrian facilities. The standards and guidelines presented by AASHTO provide basic information, such as minimum sidewalk widths, and recommended signage and pavement markings.
- The United States Access Board's proposed *Public Rights-of-Way Accessibility Guidelines* (PROWAG), the ICC/ANSI A117.1 *Accessible and Usable Buildings and Facilities*, the 2010 ADA *Standards for Accessible Design* (2010 Standards) which contains standards and guidance for the construction of accessible facilities. This includes requirements for sidewalk curb ramps, slope requirements, and pedestrian railings along stairs. Some of these treatments are not directly referenced in the current versions of the AASHTO Guide or the MUTCD, although many of the elements of these treatments are found within these documents. In all cases, engineering judgment is recommended to ensure that the application makes sense for the context of each treatment, given the many complexities of urban streets.

State Guidelines

SCDOT has published a number of technical documents for traffic engineering which are available online. Specific publications and manuals include:

- *SCDOT Supplement to the MUTCD*
- South Carolina Department of Transportation *Highway Design Manual and Engineering Directive Memoranda*
- *2009 Edition of Signal Design Guidelines* which details standard methodology of handling signal requests, as well as the review, design, installation, operation, and maintenance of traffic signals.
- *Guidelines for School Transportation Design* is a supplement to SCDOT's Access and Roadside Management Standards (ARMS) and offers design assistance to maintain safe and efficient traffic operations in and around school premises.
- *Railroad Inspection Procedure Manual* provides guidance for grade crossing inspectors, ensuring compliance and uniformity.
- *Traffic Calming Guidelines* provides guidance concerning traffic calming by describing eligibility requirements, application forms, various traffic calming measures, and construction specifications.



DESIGN NEEDS OF PEDESTRIANS

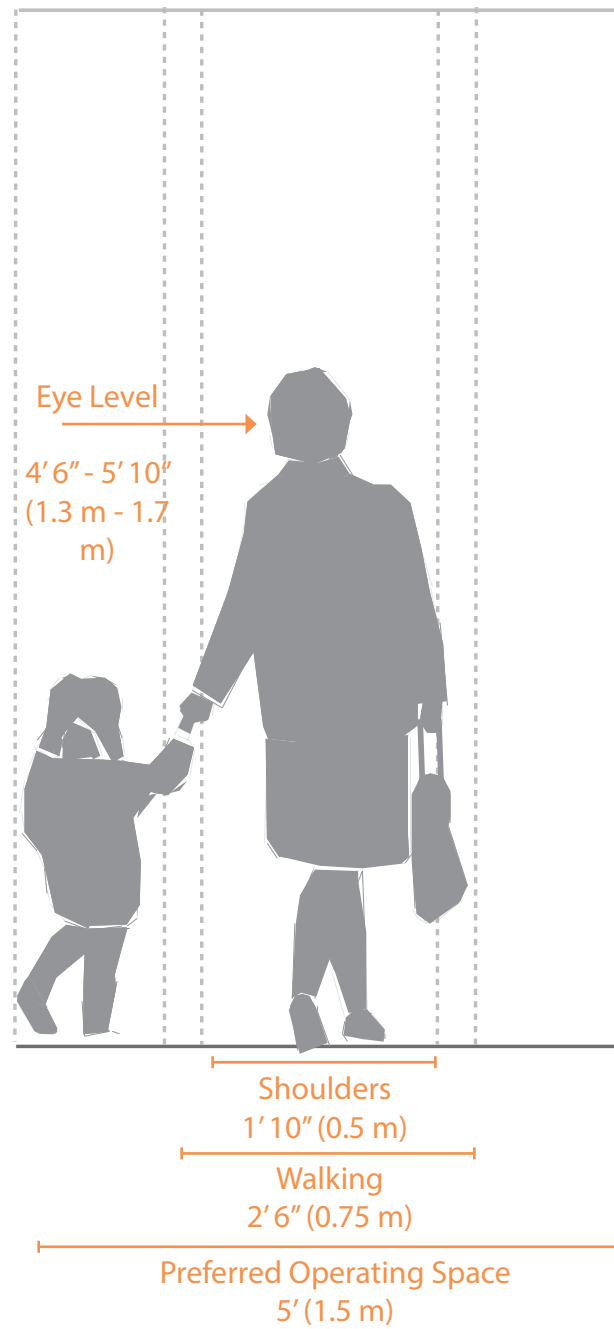
No one pedestrian is the same. Each pedestrian has a variety of characteristics and the network of pedestrian facilities in Gaffney should accommodate a variety of needs, abilities, and possible impairments. Age is one major factor that affects pedestrians’ physical characteristics, walking speed, and environmental perception. Children have low eye height and walk at slower speeds than adults. They also perceive the environment differently at various stages of their cognitive development. Older adults walk more slowly and may require assisted devices for walking stability, sight, and hearing. The adjacent table summarizes common pedestrian characteristics for various age groups.

As a rule of thumb, the MUTCD recommends a normal walking speed of three and one half feet per second when calculating the pedestrian clearance interval at traffic signals. The walking speed can drop to three feet per second for areas with older populations and persons with mobility impairments. While the type and degree of mobility impairment varies greatly across the population, the pedestrian network should accommodate these users to the greatest reasonable extent.

Pedestrian Characteristics by Age

Age	Characteristics
0-4	Learning to walk Requires constant adult supervision Developing peripheral vision and depth perception
5-8	Increasing independence, but still requires supervision Poor depth perception
9-13	Susceptible to “dart out” intersection dash Poor judgment Sense of invulnerability
14-18	Improved awareness of traffic environment Poor judgment
19-40	Active, fully aware of traffic environment
41-65	Slowing of reflexes
65+	Difficulty crossing street Vision loss Difficulty hearing vehicles approaching from behind

Source: AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities. 2004. Exhibit 2-1.



DESIGN NEEDS OF MOBILITY
ASSISTED DEVICE USERS

As the American population ages, the number of people using mobility assistive devices (such as manual wheelchairs or powered wheelchairs) increases.

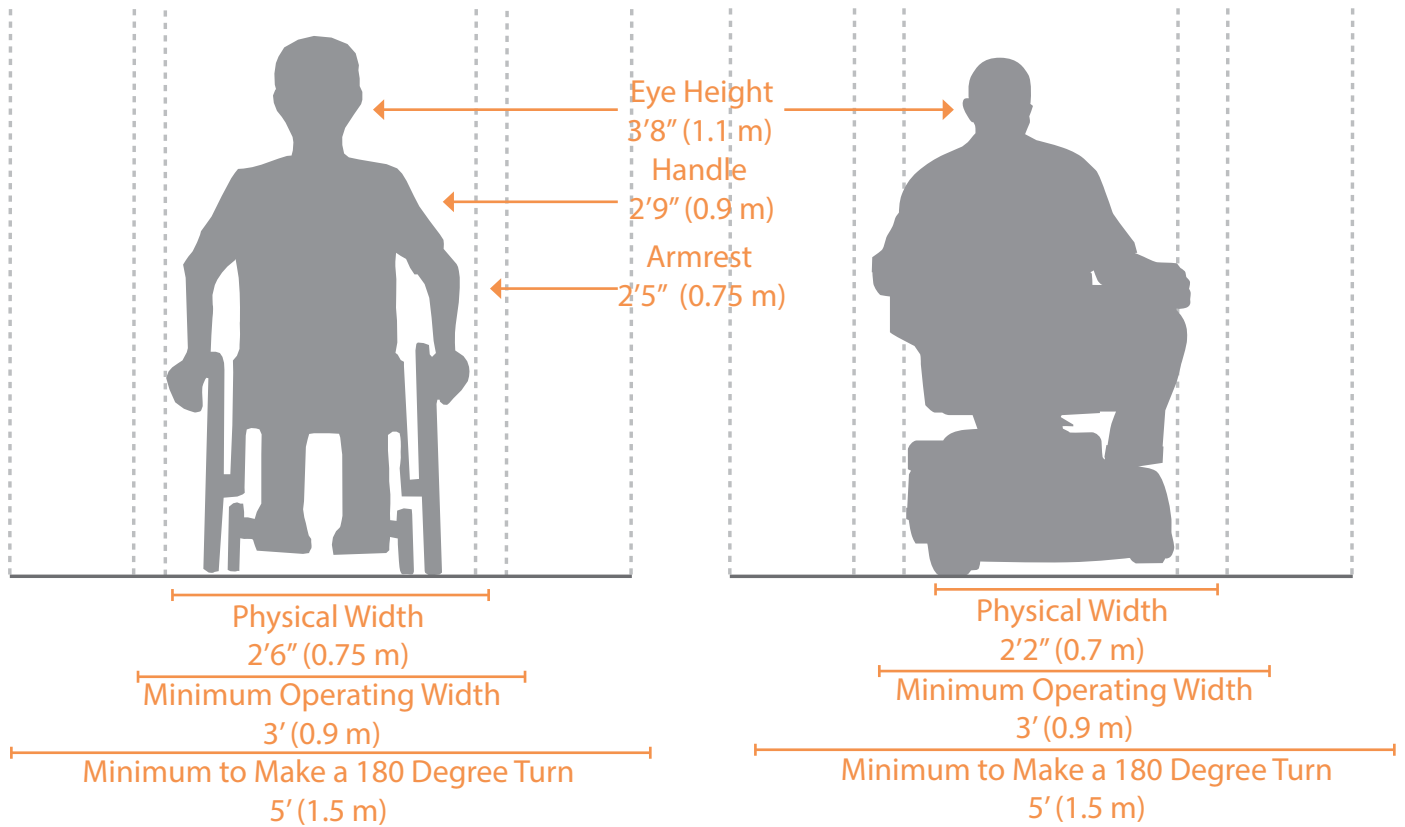
Manual wheelchairs are self-propelled devices. Users propel themselves using push rims attached to the rear wheels. Braking is done through resisting wheel movement with the hands or arm. Alternatively, a second individual can control the wheelchair using handles attached to the back of the chair.

Power wheelchairs use battery power to move the wheelchair. The size and weight of power wheelchairs limit their ability to negotiate obstacles without a ramp. Various control units are available that enable users to control the wheelchair movement, based on user ability (e.g., joystick control, breath controlled, etc).

Maneuvering around a turn requires additional space for wheelchair devices. Providing adequate space for 180 degree turns at appropriate locations is an important element for accessible design.

Wheelchair User Typical Speed	
User	Typical Speed
Manual Wheelchair	3.6 mph
Power Wheelchair	6.8 mph

Wheelchair User Design Considerations	
Effect on Mobility	Design Solution
Difficulty propelling over uneven or soft surfaces.	Firm, stable surfaces and structures, including ramps or beveled edges.
Cross-slopes cause wheelchairs to veer downhill.	Cross-slopes of less than two percent.
Require wider path of travel.	Sufficient width and maneuvering space.



Source: FHWA. *Characteristics of Emerging Road and Trail Users and Their Safety*. (2004).

DESIGN NEEDS OF DOG WALKERS

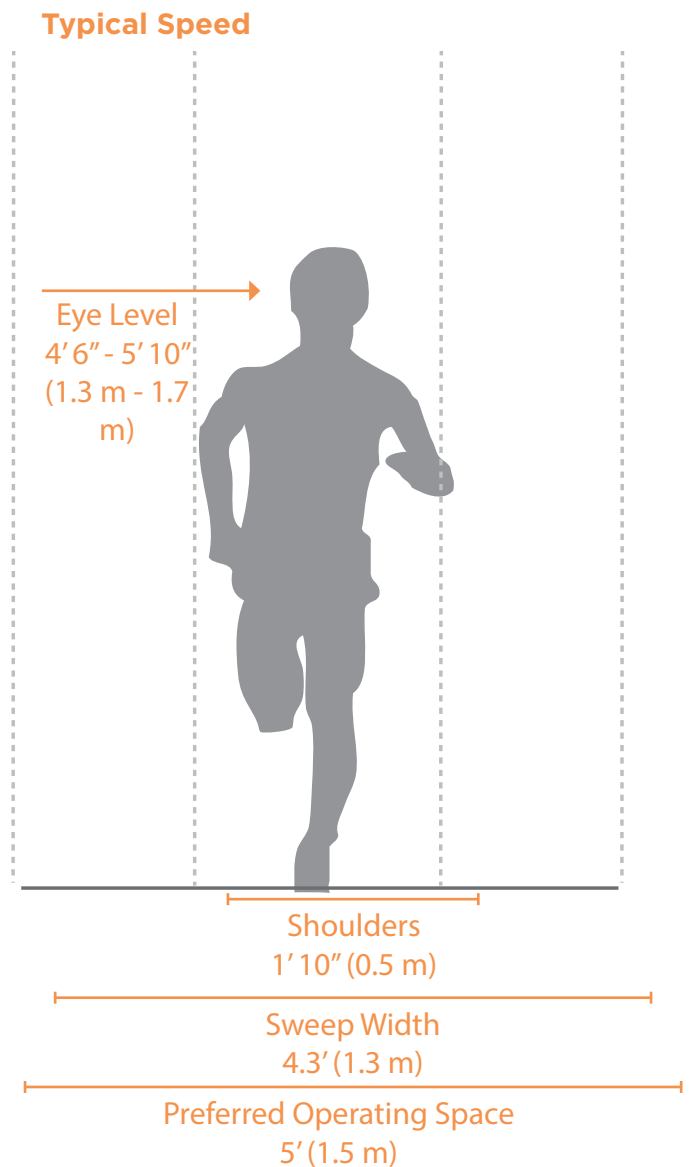
Dog walking is a common and anticipated use on sidewalks. Dog sizes vary largely, as does leash length and walking style, leading to wide variation in possible design dimensions.

Sidewalks designed to accommodate wheelchair users are likely to provide the necessary dimensions for the average dog walker. Amenities such as dog waste stations, particularly in downtown and residential settings, enhance conditions for dog walkers.



DESIGN NEEDS OF RUNNERS

Running is an important fitness and recreation activity commonly performed in neighborhoods, in and around parks, across college campuses, and through downtown.



Source: FHWA. *Characteristics of Emerging Road and Trail Users and Their Safety*. (2004).
USDOJ. *2010 ADA Standards for Accessible Design*. (2010).

PEDESTRIAN AT-GRADE RAILROAD CROSSINGS

Locations where sidewalks must cross railroad tracks are problematic for pedestrians, particularly for those with mobility or vision impairments. Wheelchair and scooter casters can easily get caught in the flangeway gap, and slippery surfaces, degraded rough materials, or elevated track height can cause tripping hazards for all pedestrians. Angled track crossings also limit sight triangles, impacting the ability to see oncoming trains.

Guidance

- Bells or other audible warning devices may be included in the flashing-light signal assembly to provide additional warning for pedestrians and bicyclists.
- Pedestrians need clear communication and warning to know that they may encounter a train and when a train is coming. Provide clear definition of where the safest place to cross is.

- The crossing should be as close as practical to perpendicular with tracks. Ensure clear lines of sign and good visibility so that pedestrians can see approaching trains
- The crossing must be level and flush with the top of the rail at the outer edge and between the rails.
- Flangeway gaps should not exceed 2.5 in (3.0 in for tracks that carry freight.)

Crossing design and implementation is a collaboration between the railroad company and highway agency. The railroad company is responsible for the crossbucks, flashing lights and gate mechanisms, and the highway agency is responsible for advance warning markings and signs. Warning devices should be recommended for each specific situation by a qualified engineer based on various factors including train frequency and speed, path and trail usage and sight distances.

Pedestrian automatic gate arms or manually operated swing gates may help control pedestrian movements.

Providing secondary installations of RRFBs on median islands improves driver yielding behavior

Concrete or rubber is the best material for pedestrian railroad crossings.



WAYFINDING

The ability to navigate through a city is informed by landmarks, natural features, and other visual cues. Wayfinding signs should indicate:

- Direction of travel
- Location of destinations
- Location of access points

Wayfinding signage can also include minutes to reach destinations, and calories burned by walking there.

These signs increase a pedestrian's comfort and accessibility to key destinations across the city. Wayfinding signage can serve many purposes including:

- Helping to familiarize users with the city's sidewalk network and the areas it reaches
- Helping users identify the best routes to destinations
- Helping overcome a "barrier to entry" for people who do not currently walk
- Wayfinding signs also visually cue motorists that they are driving near a pedestrian-oriented corridor and should use caution. Signs are typically placed at key locations leading to and along routes, including the intersection of multiple routes.



GATEWAY MONUMENTS

Municipalities often desire identification and a favorable image of their community. A Gateway Monuments are typically any freestanding structure or sign that will communicate the name of a local entity. Gateway signs provide the first welcome to visitors while reinforcing community identity, pride, and sense of place. They should be integrated into the greater wayfinding plan in order to create a unified, welcoming, and legible system.

Gateway monuments should:

- Be a maximum of one Gateway Monument, visible from the travel way, should be placed at the appropriate approach, to avoid distraction and visual clutter.
- Include the officially adopted City of Gaffney logo/seal, however this is not required.
- Be located well beyond the clear recovery zone or otherwise placed to minimize the likelihood of being struck by an errant vehicle (if along a roadway).
- Be kept clean, free of graffiti, and in good repair. Their care should be incorporated into City maintenance schedules prior to installation.
- Be developed and placed to require low or no maintenance to minimize exposure of workers and others to potential risks. Protective graffiti resistant coatings should be applied.
- Be composed of materials that are durable for the projected life span of the project.
- Be appropriate to the proposed setting and community context.
- Be in proper size and scale with its surroundings.

Gateway monuments should not:

- When placed along roadways, they should not create a distraction to the motoring public. For example, the proposed Gateway Monument shall be large enough to interpret at roadway speed, but not be so large that it demands attention from the motorist.
- Include reflective or glaring surface finishes
- Include illumination that impairs or distracts the vision of transportation system users.
- Contain religious, political, special interest, private, or commercial messages of any sort, including, but not limited to, symbols, logos, business names, trade names, jingles, or slogans.
- Display telephone numbers, street addresses, or Internet addresses.
- Make use of or simulate colors or combinations of colors usually reserved for official traffic control devices described in the FHWA Manual on Uniform Traffic Control Devices.
- Protrude or span over travel lanes or roadway.

AMENITIES

When designing functional, attractive, and inviting streetscapes, the small details matter. Elements such as a lighting fixtures, public art, benches, and other amenities help create a unique identity for each city. It is important that these details work together to create a complete experience for all users.

Trash & Recycle Receptacles

Trash and recycle receptacles provide for proper maintenance and appearance of the pedestrian facilities system. For recycling receptacles, signage should be provided indicating what recyclables are accepted. Consider including educational signage about the importance of recycling and the environmental benefits.

Guidance

- Locate receptacles at each intersection and each seating area (one per every two benches).
- Placement of other receptacles will depend upon the location of concessions, facilities and areas of group activities.
- Receptacles need to be accessible to maintenance personnel.
- Receptacles should be selected using the following criteria:
 - Expected trash/recycling amount
 - Maintenance and collection program requirements
 - Durability
- Receptacles should be appropriately situated on the sidewalk so as not to interfere with pedestrian movement.

Seating

Seating along sidewalks and paths provides a place for users to rest, congregate, contemplate, or enjoy art, nature, and interpretive elements. Benches can be designed to support the city's identity or be strictly utilitarian.

Guidance

- Locate benches along streetscapes where appropriate, or where there is a demand by users. Providing seating at every block is the goal.
- Provide benches in areas that provide interesting views, are close to other amenities like trash receptacles and lighting, and offer shade.
- Drainage should slope away from the bench.
- Wheelchair access should be possible alongside benches. Provide access with a hardened surface such as concrete or asphalt.
- Seating should be securely anchored to the ground.



Public Art & Sculpture

Public art engages the community through artists' work and creates a memorable experience for pedestrians. Art and sculpture can create an identity for the city and strengthen the emotional connection between the Gaffney and its residents and visitors. Depending on the scale and form, it can become an "event" in itself and serve as a public attraction.

Public art can be aesthetic and/or functional, and double as sitting or congregational areas. Memorable installations can act as landmarks and serve as valuable wayfinding tools. Public art can be a device for telling a compelling and memorable story about the area's history.

Guidance

- Artists can be commissioned to provide art at one or multiple locations throughout the City of Gaffney. When appropriate, artists could be engaged as part of the corridor planning and development process.
- Artists should be encouraged to produce artwork in a variety of materials for sites along the corridor.
- When appropriate, consider developing furnishings and amenities with artistic intent. Key locations could be areas to highlight through the inclusion of public art. Consider how to provide continuity between elements while maintaining the unique styles of multiple artists.
- Provide art displays on streetscapes with anticipated high use and user exposure.
- Consider community based art and temporary installations.

Lighting

Lighting along sidewalks and paths should be analyzed on a case-by-case basis with full consideration of the maintenance commitment lighting requires. In general, lighting is not appropriate for sidewalks where there is little to no development. Lighting can improve visibility along corridors and intersection crossings at night for all pedestrians. Lighting may also be necessary for day-time use in tunnels and underpasses.

Guidance

- Recommended locations for lighting include the following:
 - Entrances and exits of bridges and underpasses and in tunnels
 - Street crossings
 - Central business districts
 - Historic walking route
- Low-cost light emitting diodes (LED) offer a wide range of light levels and can reduce long term utility costs.
- Design lighting levels appropriate to each situation.
- Lighting should be at pedestrian scale.
- Solar powered lighting is available where utility collection is difficult or when alternative energy sources are desired.
- Avoid light fixtures at eye level that could impair visibility.
- Direct glare or excessive illumination on to adjacent properties, streets, or sidewalks should be avoided.



GATHER
STRATEGY + ENGAGEMENT

Gaffney Pedestrian Master Plan Focus Groups Report

Prepared for:

Alta Planning + Design

Prepared by:

Gather Consulting

March 7, 2016

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OVERVIEW

Background and Objectives

Alta Planning + Design contracted with Gather Consulting to conduct focus groups with residents of the City of Gaffney in February 2016. The groups were held as part of a three-day pedestrian planning charrette.

The primary objective of holding the focus group sessions was to seek input from residents on six priority projects and destinations in the city.

Methodology

Four focus groups were conducted on Wednesday February 10. One focus group was held on Thursday February 11.

All four sessions were held at the Gaffney Visitors Center and Art Gallery. Thirty community members participated in the four groups.

Focus group participants were chosen to include a diverse mix of city residents and other stakeholders who have a vested interest in improving active transportation, connectivity, and access to active living and healthy eating.

Limitations: The focus group methodology used for this study is qualitative in nature. The exact wording of each question and the discussion of each question area varied across groups. Also, the limited number of respondents involved in this type of research means the study should be regarded as exploratory in nature. Results should be used to develop directions rather than quantitatively precise or absolute measures.

KEY FINDINGS

Priority Projects and Destinations

Focus group participants were asked to discuss the opportunities that exist to improve walkability, connectivity, and/or pedestrian access in six priority areas of the city. The common themes from the discussions are summarized below:

1. Railroad Avenue South/Mill Hill Area

- The railroad tracks that border the Mill Hill area are a major obstacle for pedestrians and create a feeling of disconnection between the area and other parts of the city. Improving pedestrian safety and accessibility at railroad crossings would significantly improve both walkability and connectivity in the community.
- Dark streets, abandoned homes, and fears about personal safety are the biggest barriers to walkability in the area.
- Litter is a major problem in the area and throughout the entire city.
- There is a disparity between the blighted Mill Hill community and the relatively new county administrative building off of Railroad Ave. The contrast between the two areas will be even greater when the 3-acre Railroad Park is built adjacent to the county offices.
- Many Mill Hill residents lack their own vehicles and the neighborhood is not in walking distance to a major grocery store.

2. Areas near and around the city's elementary and middle schools

- Few students walk to school even in areas that are walkable.
- Most of the elementary schools in the city have high-quality playground equipment that could be utilized by neighborhood children in the evenings and on the weekends.
- The following infrastructure changes were recommended near schools:
 - Add a traffic light at the intersection of Beaufort & Frederick Streets near Gaffney Middle School.
 - Improve lighting near Mary Bramlet Elementary School and the Boys and Girls Club.
 - Slow traffic near Granard Middle School, which many drivers use as a cut through to get downtown from I-85.

- Deal with the litter and trash problem along the railroad tracks leading toward Mary Bramlet Elementary.

3. Limestone College and the Downtown Historic District

- Limestone is a community gem but it feels hidden from the rest of the community. “It feels like two separate worlds,” one focus group participant said.
- Students will only leave campus and head downtown if they have compelling reasons and interesting destinations to attract them.
- The pedestrian plan should incorporate the proposed walking trails created by Limestone Professor, Felicia Cavallini, which would connect the college to the downtown district.
- A large percent of Limestone students are athletes who are looking for opportunities to train outdoors. If there are adequate sidewalks, bike lanes, and trails throughout the city, they will use them.
- As the city grows and develops, the downtown area should be prioritized because it is the area that makes Gaffney special and unique.

3. Gaffney Senior Center

- The sidewalks leading to the senior center are in good condition, but the residential area surrounding it is blighted and residents do not feel safe walking there, especially in the evenings and at night.
- One of the four proposed fitness trails created by Limestone College professor Felicia Cavallini runs near the senior center. The proposed trail could be extended a few blocks to connect to the senior center.

4. Highway 11

- The business district is congested and unattractive.
- The area lacks personality and feels separate from the downtown district. There is little about the area that recognizes or celebrates what is special about Gaffney.
- Most residents are completely unaware that the highway is part the Cherokee Foothills Scenic Highway or the Overmountain Victory Trail.

- Because the city lacks design standards and sign ordinances, there is little incentive for new businesses to build facilities that are aesthetically pleasing or that support connectivity and active transportation.

5. Hwy 105

- The thoroughfare feels industrial and stark and needs an identity.
- It can feel dangerous. Traffic seems to travel faster than the limit on the highway where many high school and college athletes run.
- It is unattractive and filled with litter.
- It is a blank slate with lots of potential for beautification and infrastructure improvements.

Priority Strategies

Focus group participants identified the following priority strategies for developing a pedestrian plan for the city:

1. Create mini destinations. Create outdoor spaces that draw people together; celebrate Gaffney's history; bring college students downtown; and encourage congregating, sitting down, and hanging out. Gaffney residents want green spaces, splash parks, scavenger hunts, public art, benches, and pocket parks.
2. Create a model for landscaped medians. Focus group participants spoke at length about the desire to see landscaped medians added to Highway 105 to slow traffic and beautify the blank, industrial thoroughfare. Many said they hope that the improvements could serve as a model for other highways in the city and county.
3. Recognize that beauty matters. To get more people walking, the city will need to clean up and beautify Gaffney. Focus group participants said that in both high-needs residential communities and low-residential commercial districts, people won't feel safe enough or motivated enough to walk until they see reductions in blight and increased litter enforcement, code enforcement, landscaping, and beautification.
4. Add streetlights. Adding and improving lighting should be the number one priority in high-needs neighborhoods, focus group participants said. They said lighting improvements would go a long way toward making those communities feel safer and encourage walking.
5. Create a grand plan. The pedestrian plan should seek to connect disparate sections of the city, focus groups participants said. They said they want to see wayfinding signs that celebrate the city's history and/or direct residents and visitors to parks and trails. They also want to see the city adopt design standards that create visual consistency in signage, infrastructure, and lights.
6. Partner with schools. Gaffney's schools do a good job of partnering with the neighborhoods around them. Many focus group participants said they would like to see schools and communities build on those relationships by creating joint use agreements so that neighborhood children can utilize the outdoor facilities and equipment at schools. They said that in addition to improving infrastructure around schools, the pedestrian plan should include recommendations to build public support for walking and biking to school.

APPENDIX A

At the end of each focus group session, participants were asked to share one word that described how they felt about the issues discussed during the meeting.

Participants used the following words to describe their feelings:

- Connectivity
- Focus
- Facelift for downtown
- Lack of safety
- Accessibility to needed places
- Hopeful
- Collaboration
- Zoning
- Improvement
- Aesthetically safe
- Eating healthy
- Fitness
- Health
- Family
- Youth participation
- Quality of life
- Forward thinking
- Progress
- Cutting edge
- Right time
- Excited and interested
- Atmosphere
- Accessibility
- Excited
- Ahead
- Encouraged
- Progress
- Planning

APPENDIX B

- Direct quotes from focus group participants:
 - "Look at the successes we've had over the last years and connect them."
 - "Create a purpose to be downtown. Create a purpose to walk."
 - "Whatever I can get to have my grandkids come and visit so that we can do things together."
 - "I hope the attention doesn't go to the highest equity tier."
 - "We need spaces for the youth to mingle."
 - "Planning, vision, and a process to get there."
 - "I'd like to see more progress on the things in the works."
 - "Let's put the "scene" back in scenic highway."
 - "Planning is always the key to any kind of successful venture."
 - "To make this happen is really exciting."
 - "When you see your community coming together to improve lives it gives you pride."
 - [We hope people will] "Come and work...stay and live."



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Gaffney