



TOWN OF SMITHFIELD

December 2022

# Comprehensive Pedestrian Plan



## **Acknowledgements**

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The North Carolina Department of Transportation (NCDOT) Division 4

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## ***Town of Smithfield Comprehensive Pedestrian Plan***



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## Executive Summary

The Town of Smithfield Pedestrian Plan (Plan) is the culmination of a planning process to improve pedestrian safety, connectivity, health and wellbeing through recommended infrastructure projects and community policies and programs. This effort was led by the North Carolina Department of Transportation's (NCDOT) Integrated Mobility Division (IMD), AECOM as the project consultant, and the locally appointed Steering Committee.

### Brief History and Overview of the Community

The Town of Smithfield was chartered in 1777 on the site of a crossing of the Neuse River known as Smith's Ferry. The original town extended along the east bank of the river from Hancock Street southward to Church Street. Over time, the town has expanded outward, including the west side of the Neuse River. At the intersection of two major highways, US 70 and Interstate 95, Smithfield is home to industry, and regional attractions. And, as part of the greater Raleigh-Durham metro area, Smithfield is expected to continue to grow in population.

### *Past Planning Efforts*

The Town of Smithfield has had multiple planning efforts that have contributed to preserving town character and its natural resources while encouraging and managing growth. The following documents were reviewed to understand the land use and regulatory environment in the Town and the region:

- Smithfield Town Plan
- Johnston County Comprehensive Transportation Plan
- Johnston County Land Use Planning Guidance

The preservation of recreational resources and dedication to quality of life are common themes in past planning efforts. This contributes significantly to the dedication the Smithfield has to its natural assets and promoting active transportation.

### *Purpose and Process of this Plan*

The purpose of this Plan is to evaluate the existing pedestrian conditions within Smithfield and recommend programmatic and infrastructure projects to improve safety, connectivity, health and wellbeing. This effort was led by the NCDOT Integrated Mobility Division (IMD), a project consultant, and a Steering Committee. The Steering Committee, formed by the Town, along with representatives from the IMD and Upper Coastal Plain Rural Planning Organization (UCPRPO) were integral to Plan development throughout the planning process. Throughout the development of this Plan, the Committee approved goals and objectives that guided the set of recommendations for infrastructure projects, policies, and programs. Public meetings were held for residents and stakeholders to provide input on planning efforts, and close coordination with NCDOT Division 4 and UCPRPO was conducted.

A vision statement was formed in collaboration with the Steering Committee for this Plan with the desired outcome of implementing pedestrian projects, policies, and programs in Smithfield. The importance and connection between walkability and Smithfield’s legacy as a destination for recreation activities is underscored by the following vision statement:

#### Smithfield Pedestrian Plan Vision Statement

*“The Town of Smithfield will be a place where people of all ages and all backgrounds have access to pedestrian facilities and programs that promote the following: alternative and equitable transportation modes, exercise and wellbeing, safety, connectivity, and celebration and discovery of the Town’s rich culture, history, and “small town” charm.”*

## Plan Goals

- Improve on-road pedestrian safety, with an emphasis on heavily used routes.
- Create a network of multimodal transportation options for active and passive recreation that will enhance connections between community origins and destinations such as schools, stores, churches, parks, and recreation areas.
- Develop pedestrian projects that make land use, development, and transportation infrastructure more resilient to potential future risks including storm events or other threats.
- Educate the community as to the benefits of pedestrian activity and applicable rules and regulations.
- Provide a hierarchy of recommended pedestrian policies and programmatic support services for a strategic action plan.
- Outline funding opportunities that provide a clear pathway to building active transportation in Smithfield.

## Key Findings and Recommendations

The planning process identified pedestrian safety and access to recreational activities as important issues facing the Town of Smithfield. Challenges for pedestrians to access parks and recreation as well as shopping centers, including WalMart, Belk, and the outlet center, were cited by the steering committee and public throughout the planning process. The lack of pedestrian connections from West Smithfield to the town’s key destinations was also noted, and the railroad tracks that run through the town was noted as a significant barrier to pedestrians. Crossing Brightleaf Boulevard was noted as one of the most dangerous crossings for pedestrians due to a lack of crosswalks and pedestrian signals, as well as long distances between intersections. The lack of pedestrian infrastructure throughout the community results in a challenge for pedestrian mobility and safety of residents and visitors alike. Infrastructure projects, policies, ordinances, and programs have been recommended to address these issues and achieve the vision of this Plan. Specifically, the steering committee focused on creating a system of corridor improvements throughout the town that contains sidewalks on one side of the street, and a multi-use path on the opposite side.

### *Recommended Infrastructure Projects*

The existing pedestrian conditions of Smithfield were analyzed and prioritized according to project corridors. Prioritization was based on stakeholder input, constraints, opportunities, safety, and connectivity. Project corridors consisting of sidewalks, crosswalks, multiuse paths, wayfinding signage, and placemaking benefits (such as green infrastructure and lighting) were then recommended for each of the corridors. The corridors are listed below in priority order:

*Table ES-1. Proposed Project Corridors*

Rank	Description	Map Label* 1
1	Potential East Coast Greenway - Brightleaf Blvd/Off-road/Second St multiuse path	25
2	Sidewalk on S 2nd St (north side from W Wilson to E Parker St) and sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	29
3	Neuse River multiuse path improvements	9
4	Downtown sidewalk gap improvements (north of E Market St)	17
5	Brightleaf Blvd sidewalk improvements	21a
6	Brightleaf Blvd sidewalk improvements	21b
7	Potential East Coast Greenway -Off-road Neuse River multiuse path	11b
8	Booker Dairy Rd sidewalk improvements	13
9	Potential East Coast Greenway -Brightleaf Blvd/Off-road/Second St multiuse path	26
10	Multiuse path connector between Bob Wallace Park and Smith-Collins Park	20
11	Brightleaf Blvd sidewalk improvements	21c
12	W Market St sidewalk improvements	5b
13	M Durwood Stephenson sidewalk improvements	10a
14	Downtown sidewalk gap improvements (South of E Market St)	18

<sup>1</sup> See Figure ES-1 – Proposed Projects

Rank	Description	Map Label* 1
15	E Market St/Bus 70 multiuse path/sidewalk improvements	36a
16	Hospital Rd sidewalk improvements	14
17	Outlet Center Dr sidewalk improvements	40
18	M Durwood Stephenson Pkwy sidewalk and multiuse path improvements	10b
19	W Wellons St sidewalk improvements	28
20	College Rd multiuse path/sidewalk improvements	35a
21	E Market St/Bus 70 multiuse path/sidewalk improvements	36b
22	Cleveland Rd/NC HWY 210/W Market St multiuse path	2a
23	Wilson's Mills Rd sidewalk improvements	8b
24	Potential East Coast Greenway -Country Club Rd to Packing Plant Rd multiuse path connector	24
25	Outlet Center Dr sidewalk improvements	39
26	Multiuse path connector to Smithfield Neuse Riverwalk and Canterbury Rd	11a
27	College Rd pond multiuse path improvements	34
28	College Rd multiuse path/sidewalk improvements	35b
29	Buffalo Rd multiuse path improvements	11c
30	Buffalo Rd sidewalk improvements	12
31	Galilee Rd sidewalk improvement at W Smithfield Elementary	27
32	W Market St multiuse path	5a
33	NC HWY 210/W Market St boardwalk connector	4
34	Wilson's Mills Rd multiuse path improvements	8a
35	Canterbury Rd/E Peedin Rd/Venture Dr sidewalk improvements	15
36	Brogden Rd sidewalk improvements	30a
37	MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way sidewalk improvements	33
38	Country Club Rd sidewalk improvements	22
39	Brogden Rd multiuse path improvements	31
40	Berkshire Rd sidewalk improvements	16
41	Sidewalk on S Bright (north side) towards E Dundee St	19
42	Black Creek Rd and NC HWY 210 multiuse path and sidewalk improvements	1a
43	NC HWY 210/W Market St multiuse path connector	3

Rank	Description	Map Label* 1
44	Multiuse path on Barbour Rd, Wilson's Mills Rd to W Market St to greenway trail	7
45	Brogden Rd multiuse path improvements	30b
46	Blount St/E Lee St sidewalk improvements	32
47	Black Creek Rd and NC HWY 210 multiuse path and sidewalk improvements	1b
48	Cleveland Rd/NC HWY 210 sidewalk improvements	2b
49	W Market St/Barbour Rd sidewalk connector	6
50	Towne Centre Pl sidewalk gap improvement	38
51	Galilee Rd/Packing Plant Rd/Hillcrest Rd sidewalk improvements	23
52	Yelverton Grove Rd multiuse path/sidewalk improvements	37a
53	Yelverton Grove Rd multiuse path/sidewalk improvements	37b

Nature-based or green infrastructure is also recommended for all large multiuse paths to promote resilience and sustainability in the community. Nature based infrastructure refers to solutions that limit stormwater runoff and protect water quality. Wayfinding signage and lighting are recommended throughout the Town as a strategy for encouraging walking by making the town easier to navigate. It would also enhance the Town’s brand and identity and perceptions of safety.

### *Policies and Programs*

Policies, ordinances, and programs that complement infrastructure projects are critical to a successful pedestrian plan. Safety is dependent on physical elements, such as linear and spot improvements, as well as program and policy changes, such as pedestrian-friendly ordinances, educational programs, reduction of speed limits, and enforcement of laws.

A comprehensive set of recommendations for code and ordinance updates can be found in Section 4.5: Recommended Policies. This includes a table of existing code/ordinances and recommended amendments or updates. High-level recommendations were made to the following: Section 2.2 Sidewalks; Section 6.5 Overlay Zoning Districts, 6.5.2. ECO Entry Corridor Overlay District; Article 8 Zoning District Design Standards; Article 10,111 Street Connectivity Requirements and Article 10, Part VII Flood Damage Prevention.

This Plan also makes several programmatic recommendations to improve safety, encourage physical activity, and enhance the local aesthetics of Smithfield. Whereas infrastructure projects can be expensive to construct, programs are comparatively inexpensive to implement and can provide a tremendous benefit to the community. Other programmatic recommendations include safety campaigns to educate pedestrians, active transportation users and drivers, enhance safe access to schools, open street and walking events, public art, and environmental education, and enforcing existing drive laws and speed limits.

## Key Action Steps

The success of this Plan depends on its implementation. A newly created Active Transportation Advisory Committee (ATAC) would be entrusted with overseeing the implementation of the Plan with assistance from Town staff and participation by the stakeholders. The ATAC would be responsible for meeting regularly to receive updates and guide progress on the action steps. It would also author the annual progress update submitted to the Town Council on multimodal conditions in Smithfield. The key action steps for accomplishing the goals and objectives of this Plan are summarized on the following page.

Table ES-2. Key Steps to Implementation

Action	Description	Stakeholder	Timeline
Adopt the Smithfield Comprehensive Pedestrian Plan	Present the Plan to the Smithfield Town Council for adoption.	Planning Board, Town Council and town staff	Winter 2022/2023
Amend Smithfield's Town Plan – Transportation Element	Amend the Transportation Element of Smithfield's Town Plan to incorporate recommended projects from this plan into the CTP.	Town Council and town Staff	Winter 2023
Adopt a sidewalk overlay district	Adopt a sidewalk overlay district to require sidewalk infrastructure be built throughout the Town.	Town Council and town staff	Spring 2023
Create an Active Transportation Advisory Committee (ATAC)	Create a formal advisory committee that will be responsible for overseeing the implementation of the Plan.	Town Council and town staff	Winter 2023
Strengthen partnerships with UCPRPO and NCDOT Division 4	Hold an initial meeting with the stakeholders to provide an overview of the Plan's recommendations and identify opportunities for collaboration.	UCPRPO, NCDOT Division 4, and town staff	Winter 2023/ ongoing
Apply for Watch for Me NC	Apply to participate in NCDOT's Watch for Me NC campaign to raise awareness and provide educational resources to promote bicycle and pedestrian safety to residents, drivers, and law enforcement.	ATAC and town staff	Winter 2023/ ongoing
Identify potential funding sources during town budget planning	Identify potential funding sources for pedestrian programs, projects, and maintenance in the town's budget such as Powell Bill funds. Begin to accumulate funds that can be used for the local match required for most projects.	ATAC, Town Council, and town staff	Winter/ Spring 2023
Apply for alternative funding sources for the Plan's projects and programs	Refer to the funding sources identified in this Plan in Appendix D; apply for funds in addition to the STIP process to implement programs and projects. Establish a fund to use for local match requirements.	ATAC and town staff	Ongoing
Include requirements for pedestrian facilities in town ordinances and policies	Draft amendments to town ordinances and policies following the recommendations of this Plan and NCDOT's Complete Street Policy for pedestrian infrastructure in existing and new development.	Planning Board, and town staff	Winter/ Spring 2023

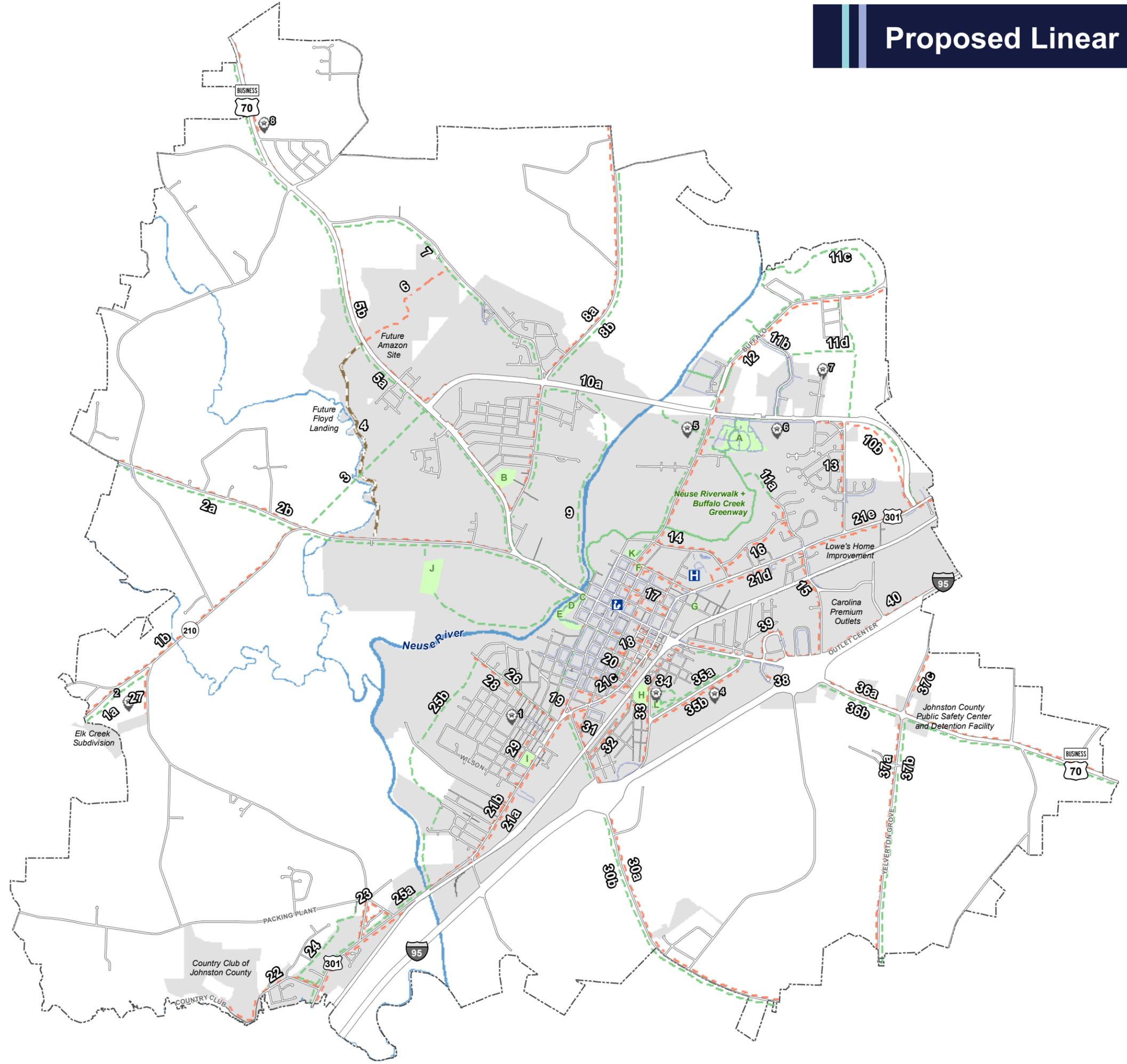
Action	Description	Stakeholder	Timeline
Coordinate with Johnston County Schools	Begin meeting with Johnston County Transportation Services to establish and develop policy for implementation and/or training or programs for Smithfield’s schools.	Johnston County Schools, town staff, NCDOT, NC Division of Public Health	Spring 2023
Partner with local artists, businesses, and the parks department	Partner with local artists, businesses, and the parks department to work on placemaking projects.	Local artists, art organizations, and town staff	Spring 2023
Prepare the Smithfield Comprehensive Pedestrian Plan Annual Report/Memo	Prepare the first Smithfield Pedestrian Plan Annual Report or memo assessing progress made annually using the performance and evaluation measures included in this Plan.	ATAC and town staff	Fall 2023

**Legend**

-  Hospital
-  School
-  Proposed Sidewalk
-  Existing Sidewalk
-  Proposed Boardwalk
-  Proposed Multiuse Path
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

- Parks:**
- A. Smithfield Community Park
  - B. Gertrude B Johnson Park
  - C. Legion Hut
  - D. Town Commons
  - E. Bob Wallace and Jacie Kiddie Park
  - F. Talton Field
  - G. Burlington Park
  - H. Smith-Collins Park
  - I. Civitan Field and Dog Park
  - J. Future West Smithfield Park
  - K. Talton Park
  - L. Splash Pad & Sarah Yard Community Center

- Schools:**
- 1. South Smithfield Elementary
  - 2. West Smithfield Elementary
  - 3. South Campus Community High
  - 4. Johnston County Early College Academy
  - 5. Smithfield Middle School
  - 6. Smithfield-Selma High School
  - 7. Neuse Charter School
  - 8. American Leadership Academy Charter



# 1.0 Introduction and Project Overview

## 1.1 Background

The Town of Smithfield is dedicated to improving its pedestrian infrastructure through a comprehensive planning effort. With strong support from the Town and Upper Coastal Plain Rural Transportation Planning Organization (UCPRPO), the area is primed for multimodal improvements. The focus of the Comprehensive Pedestrian Plan (the Plan) is to define the vision and goals, outline recommendations, and identify programs and policies for implementing pedestrian infrastructure and amenities that increase multimodal connectivity, safety, and quality of life. The Plan has been funded through a matching grant from the NCDOT Integration Mobility Division (IMD) with the Town of Smithfield providing the matching funds. The grant program provides funding for local governments to develop comprehensive active transportation plans focused on multimodal transportation infrastructure.

The Town of Smithfield is the civic center and second largest municipality in Johnston County with a population of almost 13,000 (2019 US Census). Located on the Neuse River, the Town’s history is deeply rooted in agriculture; however, being located approximately 25 miles from Raleigh, adjacent to US 70 and I-95 corridors, CSX/Amtrak/NCDOT Rail, and home to Johnston County Regional Airport and Johnston Community College contributes to the Town’s current appeal and economic growth. Access to nature and recreational activities is also an important characteristic of Smithfield with multiple of these outdoor amenities located along the Neuse River, including the Smithfield Neuse Riverwalk, Neuse River Amphitheater, and the Smithfield Town Commons. While the proximity to the Neuse River is significant to the Town historically and presently, it also places the community at risk during major weather events. The Town experienced severe flooding during both Hurricane Matthew and Hurricane Florence, impacting businesses, infrastructure, and even water supply during and after the storms.



Historic Downtown Smithfield

## 1.2 Community Vision

### Smithfield Pedestrian Plan Vision Statement

*“The Town of Smithfield will be a place where people of all ages and all backgrounds have access to pedestrian facilities and programs that promote the following: alternative and equitable transportation modes, exercise and wellbeing, safety, connectivity, and celebration and discovery of the Town’s rich culture, history, and “small town” charm.”*

## 1.3 Goals and Objectives

A series of goals were developed by the Plan’s Steering Committee throughout the planning process. These goals form the foundation of objectives and strategies that guide the creation and implementation of the Plan while also forming a strategic framework for developing and improving pedestrian mobility in the Town of Smithfield. In alignment with the North Carolina Statewide Bicycle and Pedestrian Plan, *WalkBikeNC*, these goals, objectives, and strategies were developed to further encourage consistency with key state and local active transportation initiatives and facilities.

## Goals of the Plan

- Improve on-road pedestrian safety, with an emphasis on heavily used routes.
- Create pedestrian opportunities that make land use, development, and transportation infrastructure more resilient to potential future risks including storm events or other threats.
- Create a network of multimodal transportation options for active and passive recreation that will enhance connections between community origins and destinations such as schools, stores, churches, parks, and recreation areas.
- Organize and support programs to become a walkable and multimodal community.
- Provide a hierarchy of recommended pedestrian infrastructure projects and programmatic support services.
- Have clear policies and development guidelines in coordination with the Smithfield Transportation Plan, the Johnston County Comprehensive Transportation Plan, and the Johnston County Land Use Planning Guidance.
- Educate the community as to the benefits of pedestrian activity and applicable rules and regulations.

## Objectives of the Plan

- Identify and develop pedestrian accommodations along Smithfield's roadways.
- Survey the Smithfield community to craft a pedestrian plan representative of the community.
- Partner with diverse stakeholders, including vulnerable populations, such as schools, community groups, the county health department, environmental groups, other stakeholders, and town government to plan and hold events that recognize and promote the health and environmental benefits of walking and promote active living.
- Identify policies that promote resiliency to mitigate the impact of potential, future weather events.
- Implement policies and programs to improve pedestrian safety and educate the community.
- Improve links between existing pedestrian infrastructure, organize and support programs and events on the benefits of pedestrian activity, and create incentives to encourage walking.

## 1.4 Purpose and Scope of the Plan

The purpose of this plan is to evaluate the existing pedestrian conditions within the Town of Smithfield and recommend programmatic and infrastructure projects to improve safety, connectivity, health and well-being. This effort was led by NCDOT's Integrated Mobility Division, AECOM as the project consultant, and the locally appointed Steering Committee. Public meetings were also conducted for Town residents to provide input on planning efforts. Engineering studies and construction were not included in the scope.

The scope of the plan included the following tasks:

- Analysis of existing conditions and demographics
- Review of existing plans and policies
- Policy and program recommendations
- Infrastructure improvements and cost estimates
- Identification of funding sources
- Public input through a Steering Committee and Public meetings
- Implementation strategies

## 1.5 Benefits of a Walkable Community

There are many benefits of pedestrian planning and the resulting programs and infrastructure projects. By working to develop walkable communities, municipalities are investing in building community through the promotion of improved health, economic resources and activity, sustainable transportation systems, and environmental consciousness. Planning and developing pedestrian facilities also create a valuable resource for future generations to use and expand upon. *WalkBikeNC*, the statewide bicycle and pedestrian plan, established a vision for North Carolina centered around five key benefits: safety, health, economic, mobility, and stewardship. The statistics and benefits discussed in this section were compiled from several sources: the *WalkBikeNC* plan, the Pedestrian and Bicycle Information Center based at the University of North Carolina Highway Safety Research Center, the CDC's Nutrition, Physical Activity, and Obesity Report, and the *North Carolina Pedestrian Crash Facts Summary Report* by the NCDOT Integrated Mobility Division.



### Health

Active transportation infrastructure such as sidewalks, multiuse paths, and trails promote active living and improve health by providing residents with opportunities to exercise and integrate physical activity into their daily lives. Programs such as Active Routes to School provide education and encouragement for more physical activity. Improving health is of critical importance in North Carolina where 35.6 percent of adults are overweight, and 34.0 percent of adults are obese according to data from the CDC. CDC data also shows that the percentage of North Carolina students in grades 9-12 who are obese jumped from 12.5% in 2013 to 16.4% in 2015 and has stayed above 15% since, showing an undesired positive trend in obesity rates. In 2019, 15.4% and 16% of students in grades 9-12 are classified as obese or overweight respectively. This indicates a need to decrease these numbers and promote active and healthy lifestyles remains imperative in North Carolina<sup>2</sup>.



### Economic Competitiveness

Investing in pedestrian infrastructure returns economic benefits to communities through increased property values, patronage of local businesses, and tourism. Improving transportation choices in a community encourages better connectivity between people and places and is closely tied to improved public health, access to jobs and resources, and business opportunities. Providing access to and connectivity between local businesses are important incentives for economic development, as convenient and appealing pedestrian facilities can encourage the movement of people and increase their access to economic resources.



### Safety

The need to improve safety for pedestrians is urgent. Between 2010 and 2019, an average of 2,997 pedestrian crashes occurred across the state, annually, for a total of almost 30,000 pedestrian crashes. In the same timeframe, an average of 194 of these crashes caused fatal injuries each year and an average of 227 of these crashes likely caused serious injury per year. With 87 pedestrian crashes leading to 6 fatalities in the Town of Smithfield between 2010 and

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<sup>2</sup> Center for Disease Control and Prevention (2019), Nutrition, Physical Activity, and Obesity: Data, Trends and Maps - North Carolina Category: Obesity / Weight Status. Retrieved from [https://nccd.cdc.gov/dnpao\\_dtm/rdPage.aspx?rdReport=DNPAO\\_DTM.ExploreByLocation&rdRequestForwarding=Form](https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.ExploreByLocation&rdRequestForwarding=Form)



2019 pedestrian safety is a major concern that needs addressing through greater protections for multimodal travelers.<sup>3</sup>

### Mobility

Mobility/transportation efficiency describes the effectiveness of the transportation system, which includes roads, rail, public transit, and sidewalks and bicycle facilities, to move people and goods safely and quickly. As roads become increasingly congested, one way that communities can improve transportation efficiency is by offering active transportation alternatives to automobiles and designing 'Complete Streets' that accommodate all modes of transportation. Providing the most appropriate types of transportation facilities can also improve transportation efficiency. In areas with multiple resources within proximity of one another, providing pedestrian facilities can reduce the number of short motor vehicle trips.



### Sustainability

Nationally, transportation is responsible for nearly 80 percent of carbon monoxide and 55 percent of nitrogen oxide emissions (US Pedestrian and Bicycle Information Center, 2015). Active transportation infrastructure encourages stewardship of our natural resources by providing residents with a fossil fuel-free mode of transportation. Impacts of facilitating and encouraging bicycling and walking as a standard mode of transportation include the following: fostering an appreciation for nature and protecting natural resources, reducing fossil fuel consumption and vehicle emissions, and encouraging overall energy conservation and land use planning that promotes diverse modes of transport and mix of land uses.

While reducing vehicle miles travelled in general yields environmental benefits, shorter trips are more polluting than long trips on a per-mile basis. This is due to the high levels of emissions caused by "cold starts" and the first few minutes of travel before pollution control devices work effectively. Therefore, consolidating the number of vehicle trips is an important environmental goal (US Pedestrian and Bicycle Information Center, 2015).



### Quality of Life

Quality of life is influenced by factors that include but are not limited to the following: commute options, access to recreation including parks and trails, safety, and economic competitiveness. Pedestrian amenities positively contribute to the overall quality of life of a community as such amenities encourage residents and visitors to be active, social, and enjoy more travel choices.

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<sup>3</sup>North Carolina Bicycle and Pedestrian Crash Data Tool

## 2.0 Existing Conditions

### 2.1 Demographics

Title VI of the Civil Rights Act of 1964 requires that each federal agency ensure that no person is excluded, denied, or discriminated based on race, color, national origin, age, sex, disability. Executive Order 12898, signed by President Bill Clinton in 1994, requires that each federal agency shall make achieving environmental justice part of its mission. This is relevant to Smithfield in that the Town would coordinate with federal agencies and apply for federal funds to implement the programs and projects recommended by this plan.

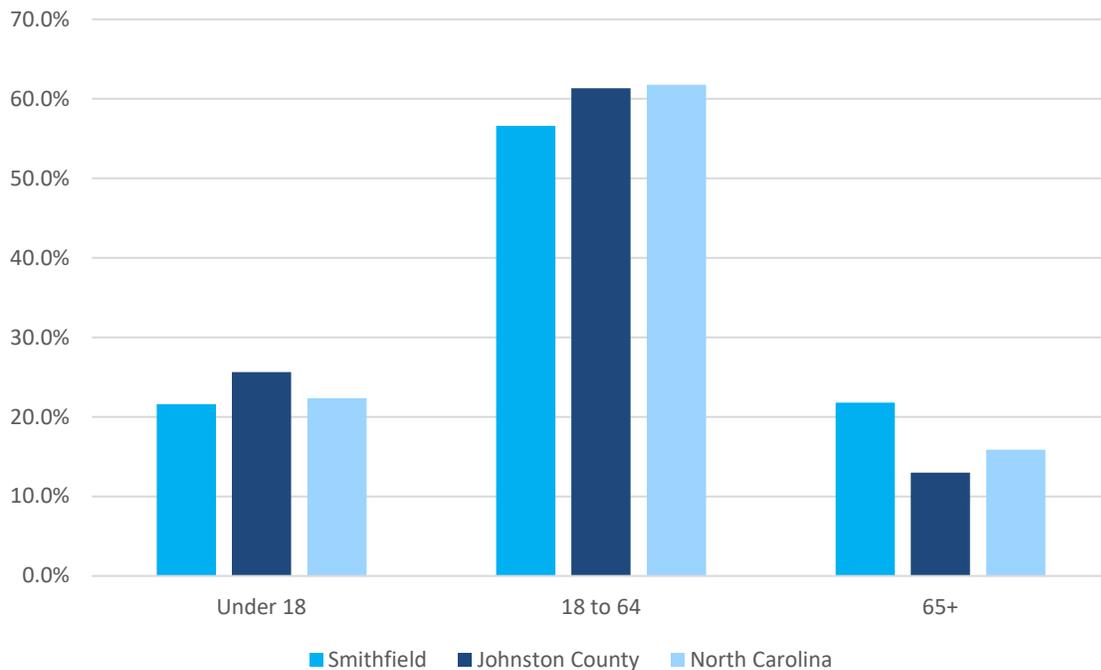
Datasets studied include the following: population, age, race characteristics, Hispanic/Latino and minority populations, poverty rates, limited English proficiency (LEP) populations, and zero car households. The demographic analysis was based on 2005-2009, 2010-2014, and 2015-2019 American Community Survey (ACS) 5-Year estimate data analyzed at the place, county, and state levels. All data is based on the U.S. Census Bureau unless noted otherwise.

#### Population and Age

The population of the town was 12,557 people in 2009 and decreased to 12,400 people in 2019, a 1.3 percent decrease. While the population did slightly decrease between 2009 and 2019, the population in 2014 was 11,357 people, meaning there was an increase in the population from 2014 to 2019. Johnston County's population was 156,896 people in 2009 and grew to 196,870 people in 2019, a 25.5 percent increase. The County's growth outpaces that of North Carolina, which was 13.5 percent between 2009 and 2019. With the rapid growth of Johnston County, a continuous dedication to quality-of-life benefits, such as active transportation infrastructure, may help attract both people and business to the Smithfield area.

Based on 2015-2019 ACS data, the median age is 44.9 in the Town of Smithfield, while Johnston County is younger with a median age of 38.4. Johnston County is comparable to the state median age of 38.7 (see Figure 2-1). This data suggests that Smithfield has a large proportion of working-age individuals. Improved multimodal infrastructure can help to retain or attract a more diverse population, while also serving the current population in Smithfield who may be interested in different modes of transportation. Those populations living in the community currently can gain health benefits from pedestrian facilities, while also benefitting from a greater quality of life.

Figure 2–1. Age Groups



### Race and Ethnicity

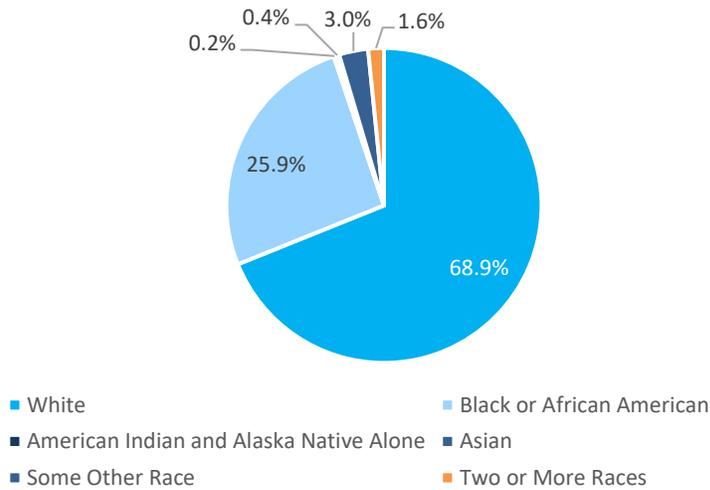
The minority population<sup>4</sup> in Smithfield is approximately 48.3 percent of the total population (5,995 people). The minority population for Johnston County is lower at 32.2 percent (63,392 people).

The Town is predominantly white (68.9 percent), with approximately a quarter of the population being Black/African American (25.9 percent) and a small percentage of American Indian and Alaska Native Alone (0.2 percent), Asian (0.4 percent), some other race (3.0 percent), and two or more races (1.6 percent) (see Figure 2-2). In Johnston County, the demographic composition is predominantly white (77.2 percent) with a lower Black/African American (16.0 percent) population. The remainder of its population defined as American Indian/Alaska Native (0.7 percent), Asian (0.6 percent), some other race (2.8 percent), and two or more races (2.7 percent).

In the state of North Carolina, the white (68.7 percent) and Black/African American (21.4 percent) populations define the majority with the remainder of the population defined as American Indian (1.2 percent), Asian (2.9 percent), Hawaiian/Pacific Islander (0.1 percent), some other race (3.1 percent), or two or more races (2.7 percent). Such minority and racial compositions indicate a diverse composition of people living in both Smithfield and Johnston County.

<sup>4</sup> Calculated by subtracting White, Non-Hispanic population totals from the Total Population based on 2015-2019 ACS data.

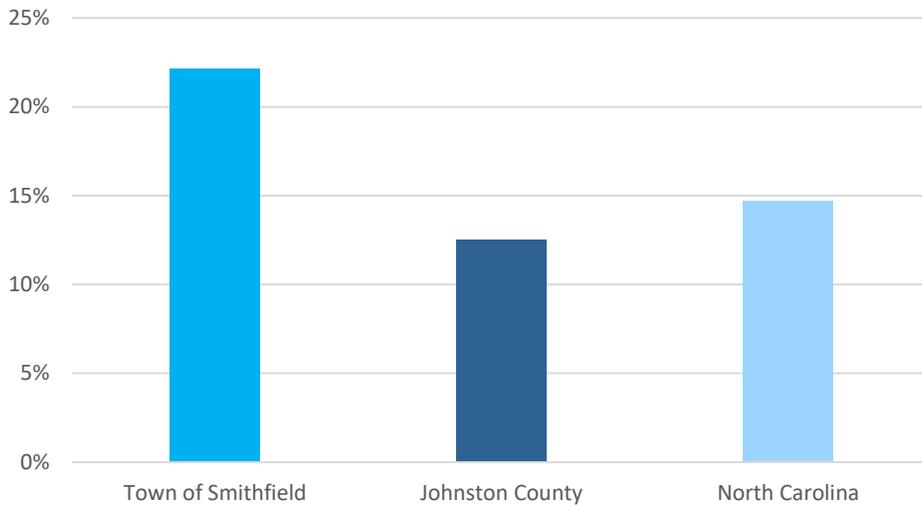
Figure 2–2. Racial Composition of Smithfield



### Regional Poverty Rates

Individuals living below the poverty line in Smithfield comprise approximately 22.1 percent of the population. This is higher than the County rate at 12.5 percent, and higher than the North Carolina poverty rate of 14.7 percent (Figure 2-3).

Figure 2–3. Poverty Rate Percentages



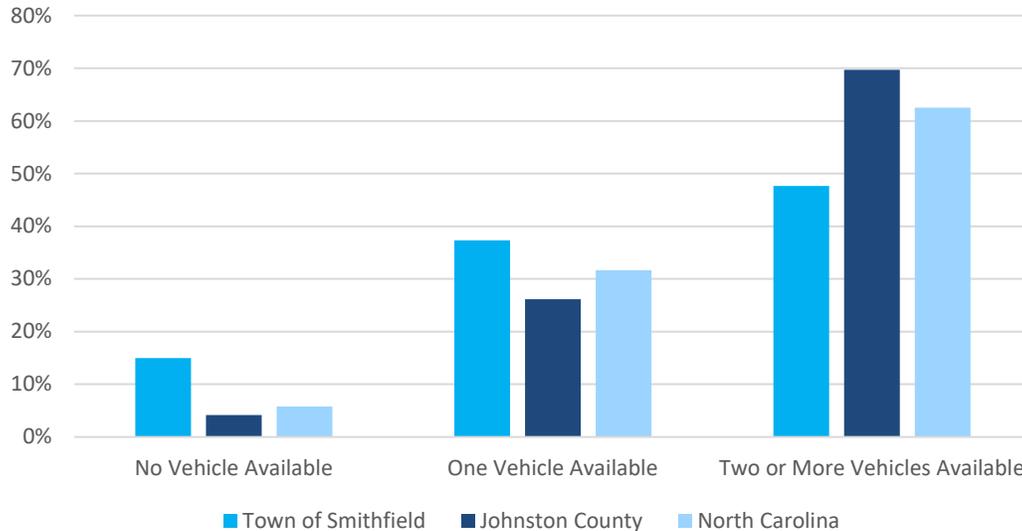
### Limited English Proficiency (LEP)

The populations in Smithfield that speak English “less than very well” comprise approximately 9.4 percent of adult individuals ages 18 and older. Of those in this category, the predominant language spoken other than English is Spanish (8.4 percent of the adult population over 18 years of age). In Johnston County, LEP populations are approximately 5.7 percent. Of those that speak English “less than very well,” Spanish is the predominant language making up 5.2 percent of the adult population over 18 years of age.

## Vehicle Availability

In the Town of Smithfield, 15.0 percent of households have no motor vehicle available, 37.3 percent of households have one vehicle available, and 47.7 percent of households have two or more vehicles available. In Johnston County, 4.2 percent of households have no vehicle available, 26.1 percent of households have one vehicle available, and 69.7 percent of households have two more vehicles available. Statewide, 5.8 percent of households have no vehicle available, 31.6 percent of households have one vehicle available, and 62.5 percent of households have two more vehicles available. Active transportation infrastructure projects would particularly benefit residents that do not have access to vehicles or share vehicles within a household.

Figure 2–4. Vehicles per Household



## Means of Transportation to Work<sup>5</sup>

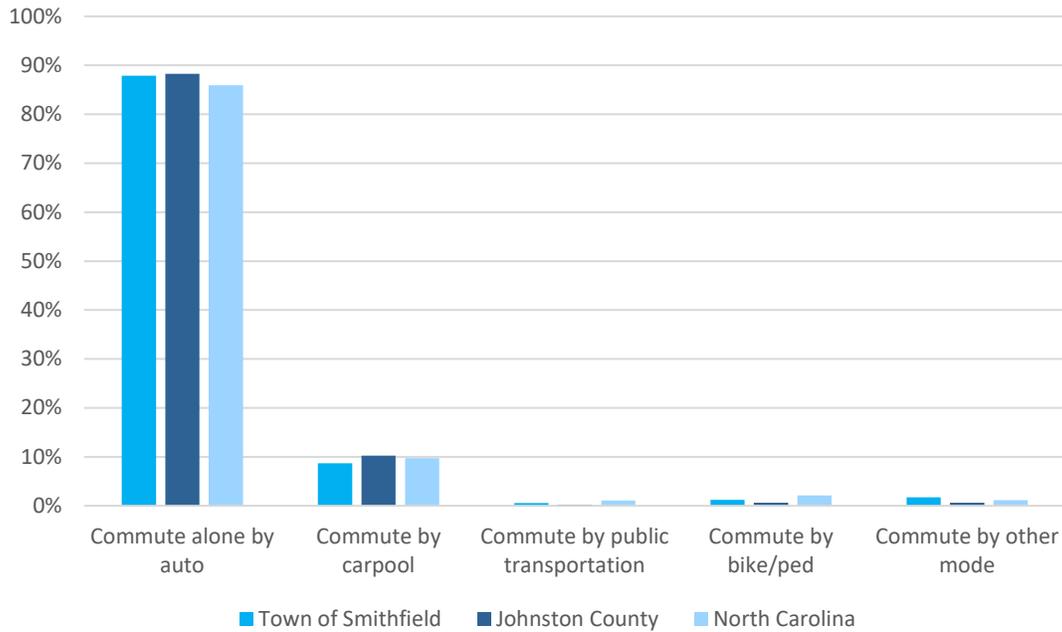
An overwhelming majority of Smithfield’s residents (86.7 percent) commute alone to work using a car. 8.7 percent of residents commute by carpool, while 0.6 percent of the population uses public transportation. Roughly 1.2 percent of residents commute by bicycling or walking and 1.7 percent commute by another mode. The Town’s average travel time to work is 20.9 minutes.

These figures are comparable to Johnston County and the state of North Carolina, where 88.3 percent and 85.9 percent commute alone by auto, respectively. In Johnston County, a total of 10.3 percent of workers carpool, while 9.7 percent of the state uses a similar mode of transportation. In the county, 0.2 percent of the population uses public transportation, 0.6 percent commutes by bike or walking, and 0.6 percent uses another mode to commute. Statewide, 1.1 percent use public transportation, 2.1 percent walks or bikes to work, and 1.2 percent uses another mode to commute. The County and State’s average travel time to work are 30.9 and 24.8 minutes, respectively.

These statistics show a higher dependency on vehicle usage in Smithfield which aligns with County and the statewide figures. Supporting the development and use of transportation networks for active modes may provide an opportunity for a variety of commuting options to work, as well as enabling workforce participation by people with limited access to vehicles.

<sup>5</sup> NCDOT Demographic Snapshot Tool, February 2021

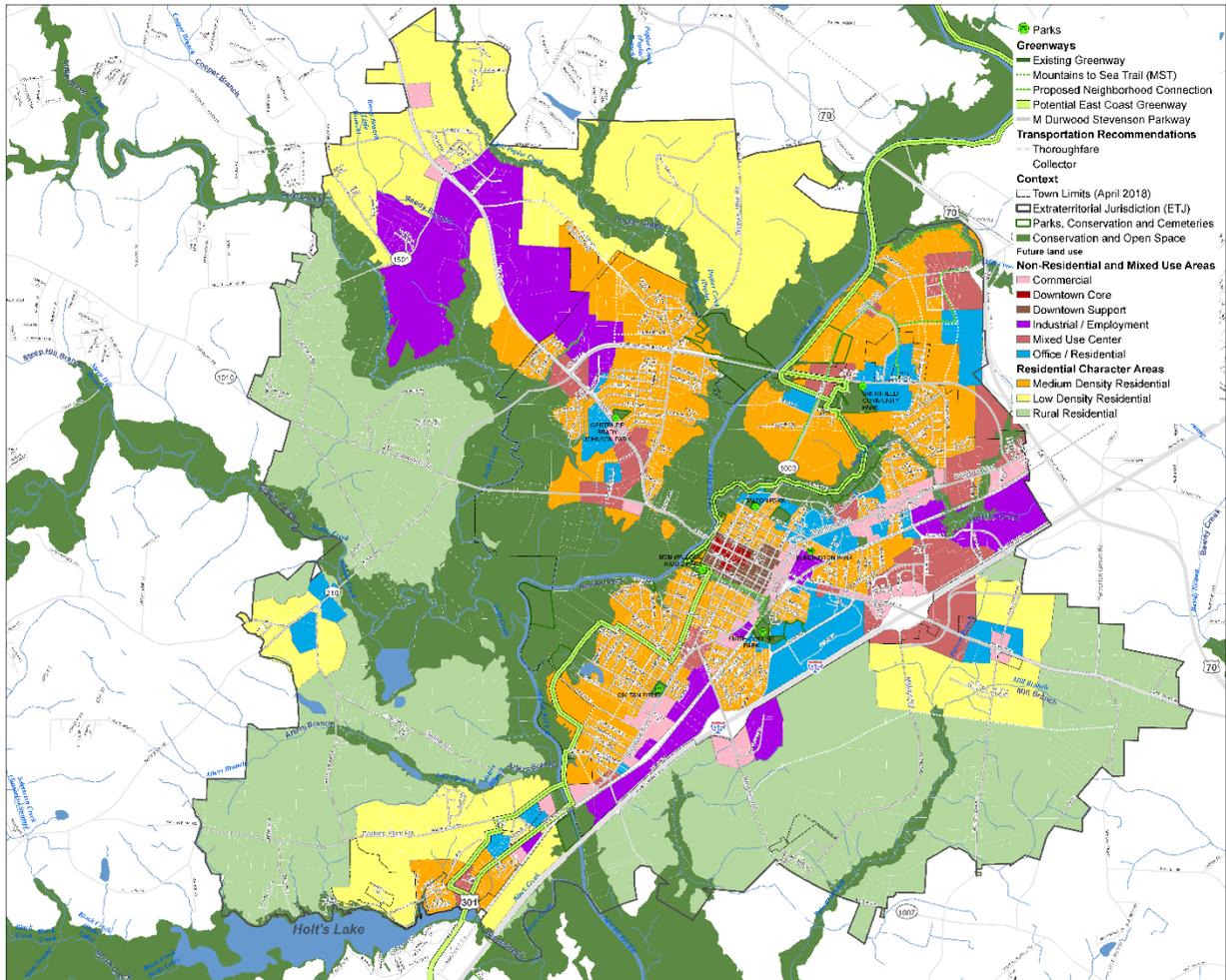
Figure 2–5. Means of Transportation to Work



## 2.2 Land Use and Development

The Town of Smithfield focuses on preserving its natural resources for conservation and recreation. This is reflected through its 10 recreational facilities dispersed throughout the Town’s boundaries, along with its dedication to conservation and open space (Figure 2-6). The Town’s edges are experiencing low density residential growth, while the center of the town is primarily composed of medium residential density, office/residential, and mixed-use town center land uses. Due to an incoming Amazon facility and growth pressure from Raleigh, additional single-family homes are anticipated to be constructed in the Town. The East Coast Greenway and Mountains to Sea Trail is expected to extend through the Town, linking recreational facilities, existing greenway segments, neighborhoods, and businesses.

Figure 2–6. Town of Smithfield Future Land Use Map



SMITHFIELD GROWTH MANAGEMENT PLAN  
Future Land Use Map

## 2.3 Existing Plans and Programmed Projects

The Town of Smithfield has multiple plans that outline the importance the Town places on the development of an active transportation network.

### Smithfield Town Plan

As noted in the *Smithfield Town Plan*, the Mountains-to-Sea Trail, and the East Coast Greenway runs through the Smithfield area as off-road, on-road, and trail facilities. The East Coast Greenway trail users have the option to hike on trails and roads within Smithfield or use the paddle route along the Neuse River. The Buffalo Creek Greenway is the only off-road portion of both the East Coast Greenway and the Mountains to Sea Trail and is three miles long. There are several sidewalks that link the greenways, recreational facilities, and downtown, but many of them are in poor condition.

The plan also focuses on pedestrian crosswalks and signals, which are recommended at almost every intersection along E Market Street to enhance the pedestrian safety and comfort. The Town also noted that it is interested in conducting a pavement quality inventory of all downtown sidewalk to locate gaps and identify new areas where improvement could be made.

To promote sidewalk improvement, the Town established a provision for pedestrian facilities in the Transportation Element of the Town Plan. Three Priority Areas were defined and identify general locations where pedestrian facilities may be important (Figure 2-7). These include priority areas for pedestrians, the community, and corridor connectivity. Pedestrian Priority Areas identify high-level locations of interest, such as major corridors, recreational facilities, and schools. Whereas Community Driven Pedestrian Priority Areas help pinpoint specific locations where pedestrian facilities are important to the Town, such as the East Coast Greenway, Downtown Smithfield, Johnston Health, and the Smithfield Recreation & Aquatics Center. Corridor Connectivity Pedestrian Priority Areas attract significant pedestrian use and/or link major destinations. These corridors include, but are not limited to M Durwood Stephenson Highway, Brightleaf Boulevard, and Market Street.

The plan outlined the following proposed timeline for recommendations:

#### Near-Term

- Downtown crossing enhancements.
- Greenway expansion.
- S Third Street traffic calming and enhanced crosswalks.

#### Mid-Term

- Create a downtown plan.
- Bicycle boulevards.
- Crossing enhancements across the railroad tracks.
- Enhanced crossings and streetscape.

#### Long-Term

- US 70 Business re-designation.
- Corridor space reallocation/updating the cross section and re-striping of E Market Street.



## Johnston County Comprehensive Transportation Plan (CTP)

The *Johnston County Comprehensive Transportation Plan* calls for various pedestrian infrastructure improvements within the Town of Smithfield. These include:

- New sidewalk along US 70 Business from Malta Street / Futrell Way to Industrial Park Drive (SR 2398).
- New sidewalk along US 301 (Brightleaf Boulevard) from Smithfield southern municipal limits to US 70 Business (Market Street).
- Add sidewalk to other side of road on US 301 (Brightleaf Boulevard) from Hancock Street to E. Booker Dairy Road (SR 1923).
- New sidewalk along US 301 (Brightleaf Boulevard) from E. Booker Dairy Road (SR 1923) to Smithfield northern municipal limits (Selma southern municipal limits).
- New sidewalk along M. Durwood Stephenson Highway (E. Booker Dairy Road Extension (SR 1923)) from Buffalo Road (SR 1003) to US 301.
- New sidewalk along Brogden Road (SR 1007) from US 301 (Brightleaf Boulevard) to Martin Luther King Jr. Drive.
- New sidewalk Buffalo Road (SR 1003) from North Street to US 70.
- New sidewalk along Industrial Park Drive (SR 2398) from US 70 Business (Market Street) to Component Drive.
- New sidewalk along E. Peedin Road / Venture Drive from US 301 (Brightleaf Boulevard) to Industrial Park Drive (SR 2398).
- New multi-use path along the Neuse River from I-95 that connects to West Saunders Street and South Second Street then ties into the existing Smithfield Neuse Riverwalk at the Riverside Cemetery.

## Johnston County Land Use Planning Guidance (2006)

Rapid growth in Johnston County led to the formation of the *Johnston County Land Use Planning Guidance* in 2006. This guidance document provides recommendations for identified areas of concern throughout the County. The following pedestrian recommendations were made in the plan:

- **Connectivity Policies:** Connectivity can also be improved through pedestrian access points between complimentary uses such as residential subdivisions and retail land uses even where vehicular connectivity is not desirable.
- **Make Schools Community Centers:** Design guidelines help developers build schools with a community-focus and with easy and safe pedestrian circulation.
- **Access management:** Access management is an umbrella term that covers any measure that attempts to reduce the number of conflict points between motorists, between motorists and pedestrians, or between motorists and cyclists. Effective access management programs have a long- and short-term focus, including driveway consolidation, driveway spacing standards, turn restrictions, cross-access between properties, and intersection design criteria.
- **Mobility and Accessibility Standards:** The design criteria for roads in their current and expected future setting should be designated into one of several categories, and the design for that type of roadway clearly laid out in terms of shoulder design, curb-and-guttering, landscaping, lighting needs, roadway lane travel widths, bicycle facilities, pedestrian facilities, intersection and turning treatments, and access level. The most useful device for considering this concept is the transect, which describes how roadways change as they transition from one environment to another.
- **Context Sensitivity:** Orientation of buildings, location of parking areas, landscaping requirements, setbacks, curvature, and other design elements can be used to help create a more attractive and safer streetscape.
- **Establish Design Standards:** Design standards addressing setbacks, facades, building heights, floor area ratios (FAR), and density of development standards can contribute to achieving the goals for community characteristics set forth in the inventory phase.

## 2.4 Key Community Features

Smithfield has several community features that provide important services and enrich the quality of life for its residents. These features serve as potential pedestrian origins and destinations. The Steering Committee identified the Carolina Premium Outlets, schools, parks, greenways, and future development sites as some key destinations that are currently inaccessible to pedestrians. By improving connectivity between these locations and Smithfield’s neighborhoods, residents would be more likely to walk. The community features identified during Plan meetings may not be all inclusive and were used as a starting point to guide the location of the proposed projects in the Plan. The community features are listed in Table 2-1 and mapped in Figure 2-8.

Table 2-1. Key Community Features

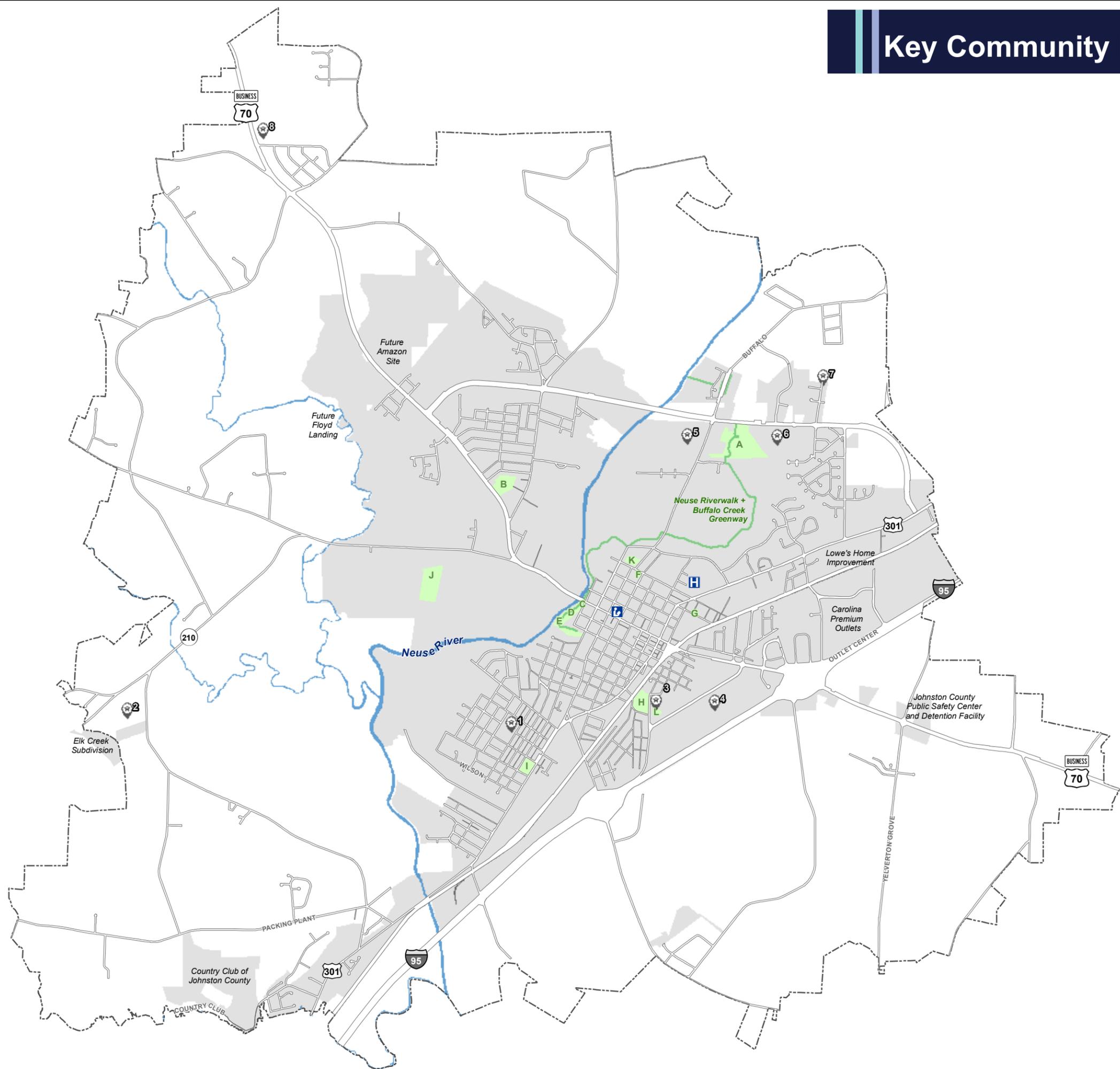
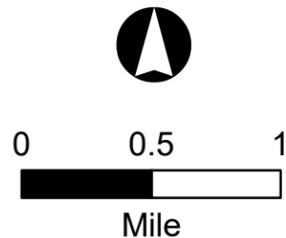
Name	Type
Smithfield Community Park	Recreational
Gertrude Brady Johnson Memorial Park	Recreational
Legion Hut	Recreational
Town Commons	Recreational
Bob Wallace Jaycee Kiddie Park	Recreational
Talton Field	Recreational
Burlington Park	Recreational
Smith-Collins Park	Recreational
Civitan Field and Dog Park	Recreational
Future West Smithfield Park	Recreational
Buffalo Creek Greenway	Recreational
Splash Pad and Sarah Yard Community Center	Recreational
Johnston Health	Hospital
Public Library of Johnston County & Smithfield	Civic
South Smithfield Elementary	Educational
West Smithfield Elementary	Educational
Johnston Community College	Educational
Johnston County Early College Academy	Educational
Smithfield Middle School	Educational
Smithfield-Selma High School	Educational
Neuse Charter School	Educational
American Leadership Academy Charter School	Educational
Downtown Smithfield	Point of Interest
Johnston County Regional Airport	Point of Interest
Carolina Premium Outlets	Point of Interest
Lowe’s Home Improvement	Point of Interest
Elk Creek Amazon Site	Point of Interest
Future Development (Galilee Rd)	Point of Interest
County Club of Johnston County	Point of Interest
Johnston County Public Safety Center and Detention Facility (Yelverton Grove Rd and Business 70)	Point of Interest

**Legend**

-  Hospital
-  School
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

- Parks:**
- A. Smithfield Community Park
  - B. Gertrude B Johnson Park
  - C. Legion Hut
  - D. Town Commons
  - E. Bob Wallace and Jacie Kiddie Park
  - F. Talton Field
  - G. Burlington Park
  - H. Smith-Collins Park
  - I. Civitan Field and Dog Park
  - J. Future West Smithfield Park
  - K. Talton Park
  - L. Splash Pad & Sarah Yard Community Center

- Schools:**
- 1. South Smithfield Elementary
  - 2. West Smithfield Elementary
  - 3. South Campus Community High
  - 4. Johnston County Early College Academy
  - 5. Smithfield Middle School
  - 6. Smithfield-Selma High School
  - 7. Neuse Charter School
  - 8. American Leadership Academy Charter



## 2.5 Infrastructure

The Town of Smithfield is located south of Wilsons Mills and southwest of Selma. Interstate 95 runs south of the Town’s municipal boundary. US 70 Business runs perpendicular with the Neuse River and Interstate 95. There are three bridges along the Neuse River that support roadways through the Town.

### Roads

The road network in Smithfield forms a grid-like pattern typical of many North Carolina cities. There are currently seven NCDOT STIP projects in the Town (Table 2-4). There are two upcoming resurfacing projects in the 2020-2024 Highway Maintenance Improvement Program (HMIP). A 2022 project runs along Brogden Road (SR 1007) beginning at US 301 and ending at the Wayne County line. A 2024 project runs along Packing Plant Road (SR 1343) beginning at Black Creek Road (SR 1162) and ends at US 301. Future STIP projects could help pay for future pedestrian accommodations through the Complete Streets Policy (2019).

Table 2-2. STIP Projects

TIP	Route	Description	ROW	Construction
I-5784	I-95	Mile marker 84 (end of I-5303) to 0.4 mile north of US 70 bypass (mile marker 96.5). Pavement rehabilitation.	N/A	N/A
I-5972	I-95	US 70 Business. Upgrade interchange.	2019	2020
P-5711	CSX A Line	Construct freight rail and intermodal terminal infrastructure (CCX) along national gateway corridor.	N/A	2018
U-3334B	SR 1923 (Booker Dairy Road) Extension	SR 1003 (Buffalo Road) to US 301 (Brightleaf Boulevard).	N/A	2018
U-5999	Kellie Drive	North of SR 1923 (Booker Dairy Road) to SR 1003 (Buffalo Road). Construct roadway on new location.	2018	2018
U-3334B	SR 1923 (Booker Dairy Road) Extension	SR 1003 (Buffalo Road) to US 301 (Brightleaf Boulevard).	N/A	2018
U-5726	US 301 NC 39 NC 96	SR 1623 (Booker Dairy Road) to SR 2302 (Ricks Road). Construct access management Improvements.	2023	2025

### Bridges

There are six bridges within the Town of Smithfield’s municipal boundary. These bridges cross either Interstate 95 or the Neuse River. Three bridges are marked as being functionally obsolete, meaning they do not meet current road design standards. Should the bridges be replaced in the future, sidewalks and railings must meet the standards, including recommended 42-inch height requirement.

### Greenways

The Neuse Riverwalk and Buffalo Creek Greenway is a 3-mile multiuse path that travels next to Spring Branch to the Neuse River, and later along Buffalo Creek. This greenway connects to several community features within Smithfield such as parks, roads, and creeks. Several trail entrances are displayed below in Figure 2–9. The Neuse

Riverwalk and Buffalo Creek Greenway serves as the backbone for potential Mountains to Sea and East Coast Greenway connections.

Figure 2–9. Neuse Riverwalk and Buffalo Creek Greenway



## Railroads

CSX Transportation runs an active railroad line through the Town, parallel to Brightleaf Boulevard. This railroad acts as a barrier to pedestrians in southeast Smithfield who wish to access Downtown Smithfield. Proposed pedestrian connections that run perpendicular with the railroad will need to be accompanied with safe pedestrian crossings.

## Transit

Johnston County Area Transit System (JCAT) provides demand response transit services to Johnston County residents. JCAT operates over 30 ADA compliant buses and vans. Johnston County Transit offers transportation for both the general public and through contracting human service agencies. Buses and vans operate Monday through Friday, 4:30 AM to 9:00 PM and on Saturdays between 4:30 AM and 5:00 PM. The fare is \$5.00 per ride in the county and \$15.00 per ride out of the county. JCAT provides medical trips in and out of the county, trips to workplace and job training, as well as senior centers, childcare centers, social services, public hearings, and dental care. The buses can accommodate riders in wheelchairs. In addition, JCATS strives to provide Rural General Public (RGP) transportation to school, work, and appointments, at a reduced cost to riders. RGP services are provided between 6:00 AM and 5:00 PM, Monday through Friday.

Although public transportation services are limited, they depend on a bicycle and pedestrian network for transit riders to safely access transit stops. Furthermore, the proposed pedestrian network links popular transit stops to

community destinations, residences, and businesses. A connected multimodal network would support future expansion in public transportation by providing safer access to transit stops on streets and sidewalks.

## Utilities

Utilities are an important consideration for pedestrian planning. Moving or replacing existing utilities to make room for new pedestrian infrastructure can be costly and, in some cases, cost prohibitive. Above-ground utilities frequently become barriers to pedestrian improvements. Often, sidewalks and multiuse paths are located on the side of the road where utilities are not present. The exact location of utilities would need to be surveyed during the feasibility and/or engineering phase of each project. Coordination would need to occur with utility providers before construction.

## Vulnerability to Storm Events

The state of North Carolina has recently completed its NC Climate Science Report (2020), a scientific assessment of climate trends and potential future climate change across the state in accordance with the Governors Executive Order 80 (EO80). This document along with other upcoming agency documentation, including NCDOT's Resilience Strategy Report, outlines climate change trends and actions. According to these assessments, changes in temperature, sea level rise, storm events, and flooding are all expected to increase, causing potential significant compounding events that change the magnitude of weather and health-related risk events. Resiliency of infrastructure assets has never been more important, both for public health and safety as well as infrastructure continuity during emergencies.

The Town of Smithfield has experienced several major flooding events along the Neuse River (Table 2-3). These events were determined by the National Oceanic and Atmospheric Administration (NOAA) National Weather Service Advanced Hydrologic Prediction Service. More information can be found here:

<https://water.weather.gov/ahps2/hydrograph.php?gage=smfn7&wfo=rah>

Table 2-3. Neuse River Historic Crests

Date	Crest (ft)
10/10/2016	29.09 ft
9/8/1996	27.40 ft
8/1/1908	27.10 ft
7/24/1919	26.80 ft
9/18/1999	26.72 ft

Note: Considered a major flood stage if over 20 feet.

Flood impacts to nearby infrastructure are described in Table 2-4. At 14 feet, the river overflows the left bank. At the peak of a flooding event (40 feet) water from the Neuse River reaches the railing of the US 70 bridge. Upstream and downstream photos from the National Weather Service are provided below.

Table 2-4. Flood Impacts

Description	Crest (ft)
Water reaches the railing of the US 70 bridge.	40 ft
The US70 bridge is inundated.	36 ft
Houses on the river side of Front Street flood.	30 ft
The water treatment plant will be flooded. Jaycee Park and North Front Street are flooded.	28.5 ft
Water begins to flow over the dike at the water treatment plant. Flooding threatens the plant's main operations building.	27.5 ft
Hospital and Buffalo Roads are flooded.	23 ft
Major Flood Stage. Flooding cuts off the water treatment plants access to the reservoir.	20 ft
The Smithfield town park and the Neuse Riverwalk at the US70 bridge are flooded.	18 ft
Flooding begins along the Neuse Riverwalk. Water nears the base of the holding tank at the water treatment plant.	15 ft
Water begins to overflow on the left bank.	14 ft

Neuse River Upstream at the Town Commons (National Weather Service).



Neuse River Downstream at the Town Commons (National Weather Service).



In North Carolina alone, 129,000 bridges are vulnerable to breach and/or flooding events due to being structurally deficient.<sup>6</sup> The deterioration and ultimate collapse of critical infrastructure reemphasizes the importance of designing for resilient communities. As a community that has experienced severe flooding events, the Town of Smithfield may benefit from considering how active transportation infrastructure can help support alternatives to mobility when large-scale infrastructure, such as bridges or dams, fail.<sup>7</sup> See Figure 2-9 for existing pedestrian facilities and flooding.

<sup>6</sup> Wright et al. (2012), Estimated effects of climate change on flood vulnerability of U.S. bridges: <https://link.springer.com/article/10.1007/s11027-011-9354-2>; This study found that more than 129,000 bridges were currently defined as deficient, with more than 100,000 bridges vulnerable to increased river flows.

<sup>7</sup> Association of State Dam Safety Officials, Extreme Rainfall Events: [https://damsafety.org/sites/default/files/ASDSO-LivingWithDams-ExtremeRainfallEvents-NO%202-WEB\\_0.pdf](https://damsafety.org/sites/default/files/ASDSO-LivingWithDams-ExtremeRainfallEvents-NO%202-WEB_0.pdf)

## Legend

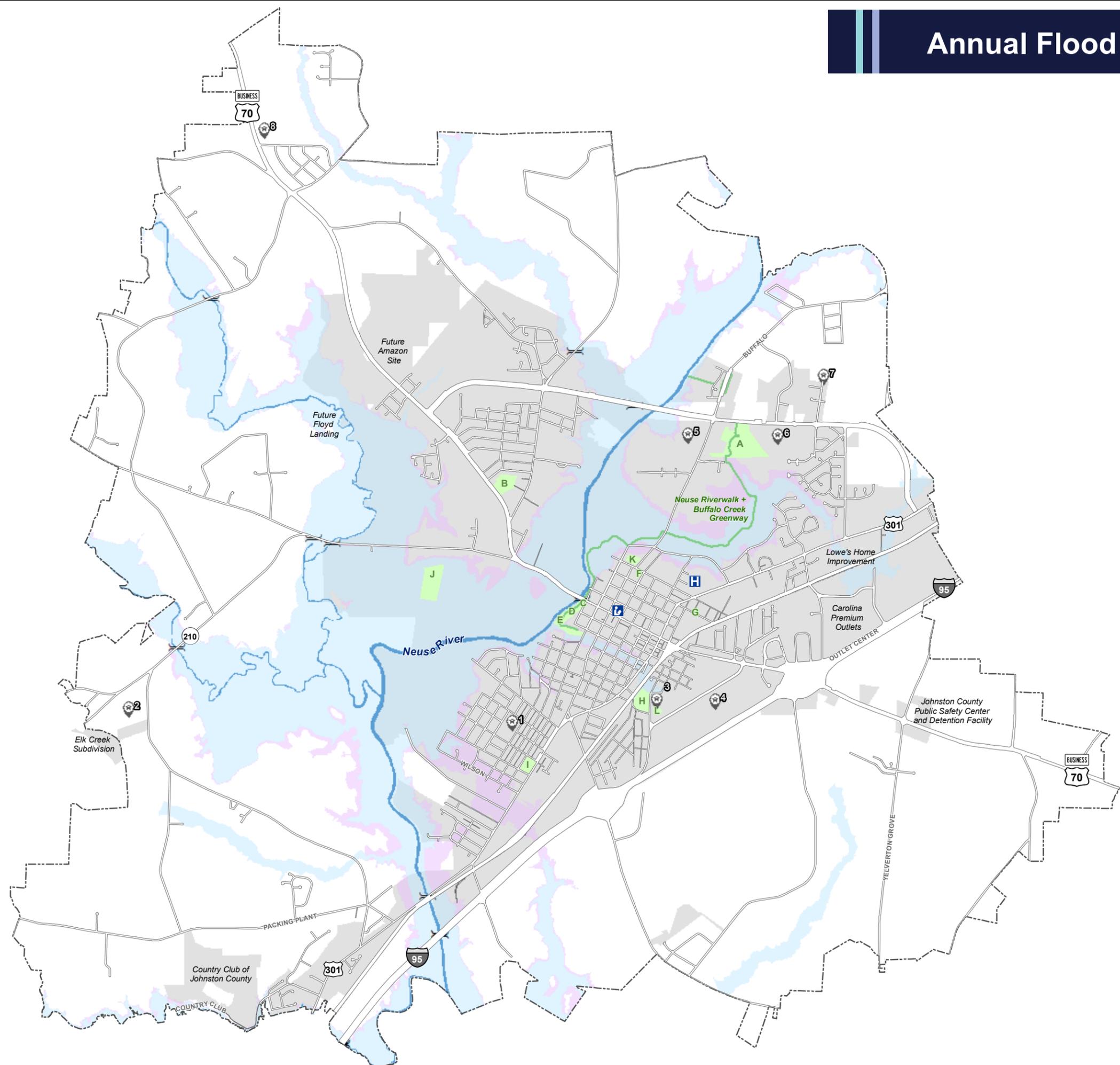
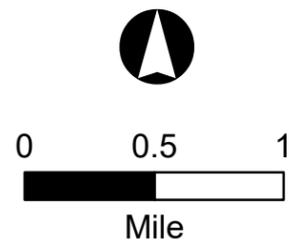
-  Bridge
-  Hospital
-  School
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ
-  Base Flood Elevation (BFE)
-  0.2% Annual Chance Flood Hazard

### Parks:

- A. Smithfield Community Park
- B. Gertrude B Johnson Park
- C. Legion Hut
- D. Town Commons
- E. Bob Wallace and Jacie Kiddie Park
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- 6. Smithfield-Selma High School
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- 8. American Leadership Academy Charter



## 2.6 Existing Pedestrian Facilities

The majority of the Town's sidewalks are concentrated around the downtown area with sidewalks on both sides of most streets. There are partial sidewalks located in the northeast quadrant of the Town. Based on input from the Steering Committee, the absence of pedestrian facilities is notable and creates a dangerous environment for multimodal travel in various locations, especially along Brightleaf Boulevard and near the new splash pad next to Johnston Community College. Several schools lack pedestrian crossings for students walking from or to nearby neighborhoods. Additionally, there are many recreational and natural areas in the town that generate pedestrian activity but have no pedestrian facilities connecting to neighborhood streets.

**Legend**

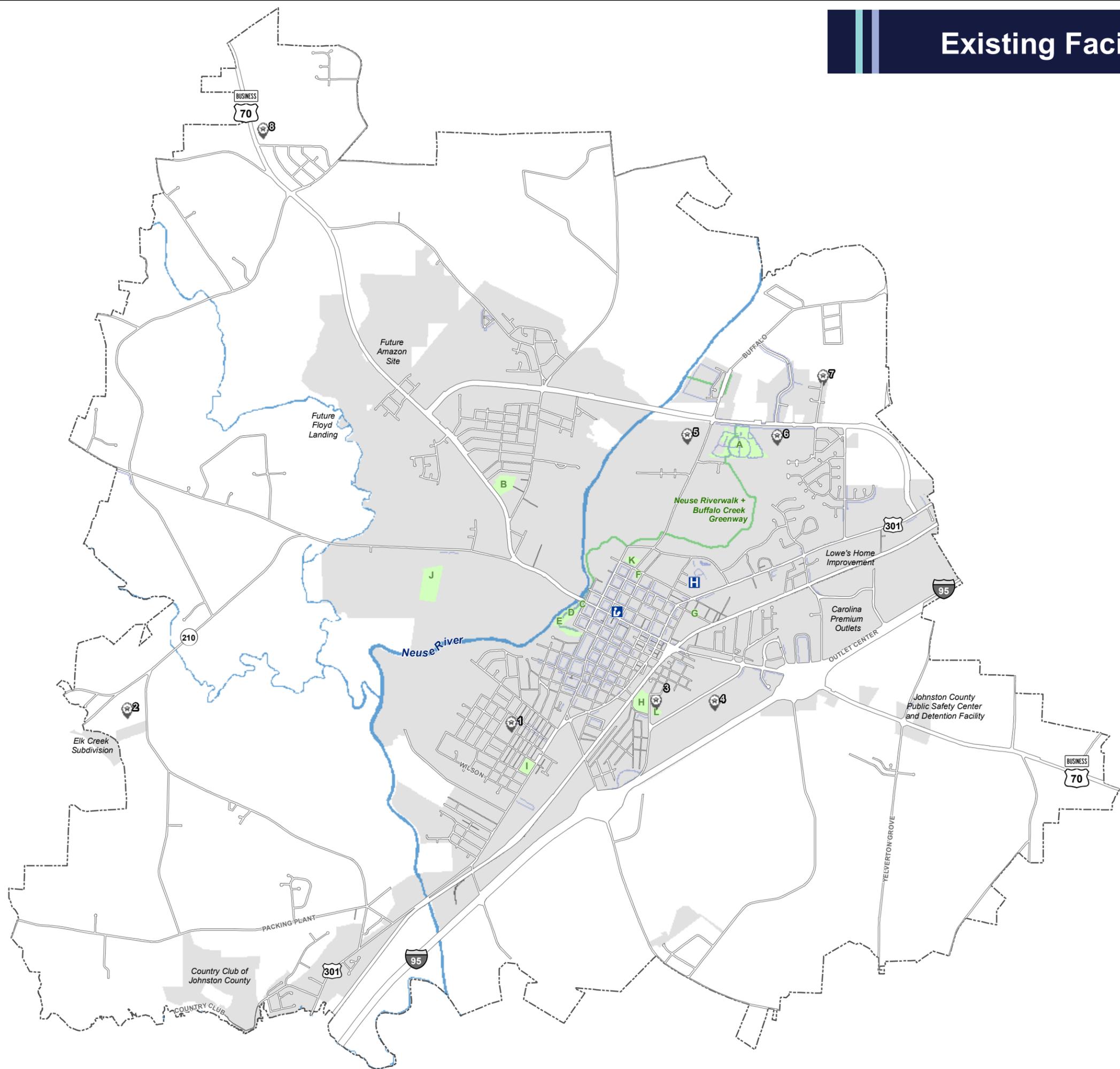
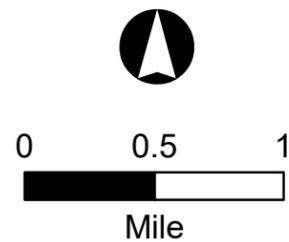
-  Hospital
-  School
-  Existing Sidewalk
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

**Parks:**

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## 2.7 Pedestrian and Vehicular Traffic Counts and Crash Data

Pedestrian and traffic counts were conducted using a qualitative and quantitative methodology. While specific traffic counts and crash data were available for some roadways, input from the public and Steering Committee were also considered throughout the development of the Plan. No quantitative data was available for pedestrian activity, so local input was used to understand current walking patterns as well as perceived safety concerns throughout the Town.

### Pedestrian Activity

The Steering Committee noted that pedestrian activity primarily occurs on residential streets and within the downtown area along both East Market Street and West Market Street, mostly where sidewalks exist.

### NCDOT Annual Average Daily Traffic Counts

NCDOT's Traffic Survey Group collects traffic data statewide to analyze and support planning, design, construction, maintenance, operation, and research activities required to manage North Carolina's transportation system. Several roadways within Smithfield's municipal boundary are owned and maintained by NCDOT. According to NCDOT's 2020 average annual daily traffic (AADT) findings, several roadways within Smithfield, carry high levels of traffic. For instance, the AADT along I-95 ranges between 37,500 and 42,000. This roadway runs along the southern edge of the town. A segment of West Market Street between Hill Street and Neuse River has an AADT of 22,000. The eastern-most section of Brightleaf Boulevard, connecting to Selma, ranges between 21,000 and 21,500 AADT. AADT for the town roads is not available; however, traffic along these roadways is largely residential.

**Legend**

-  Hospital
-  School
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

**2020 AADT**

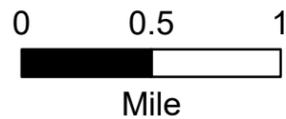
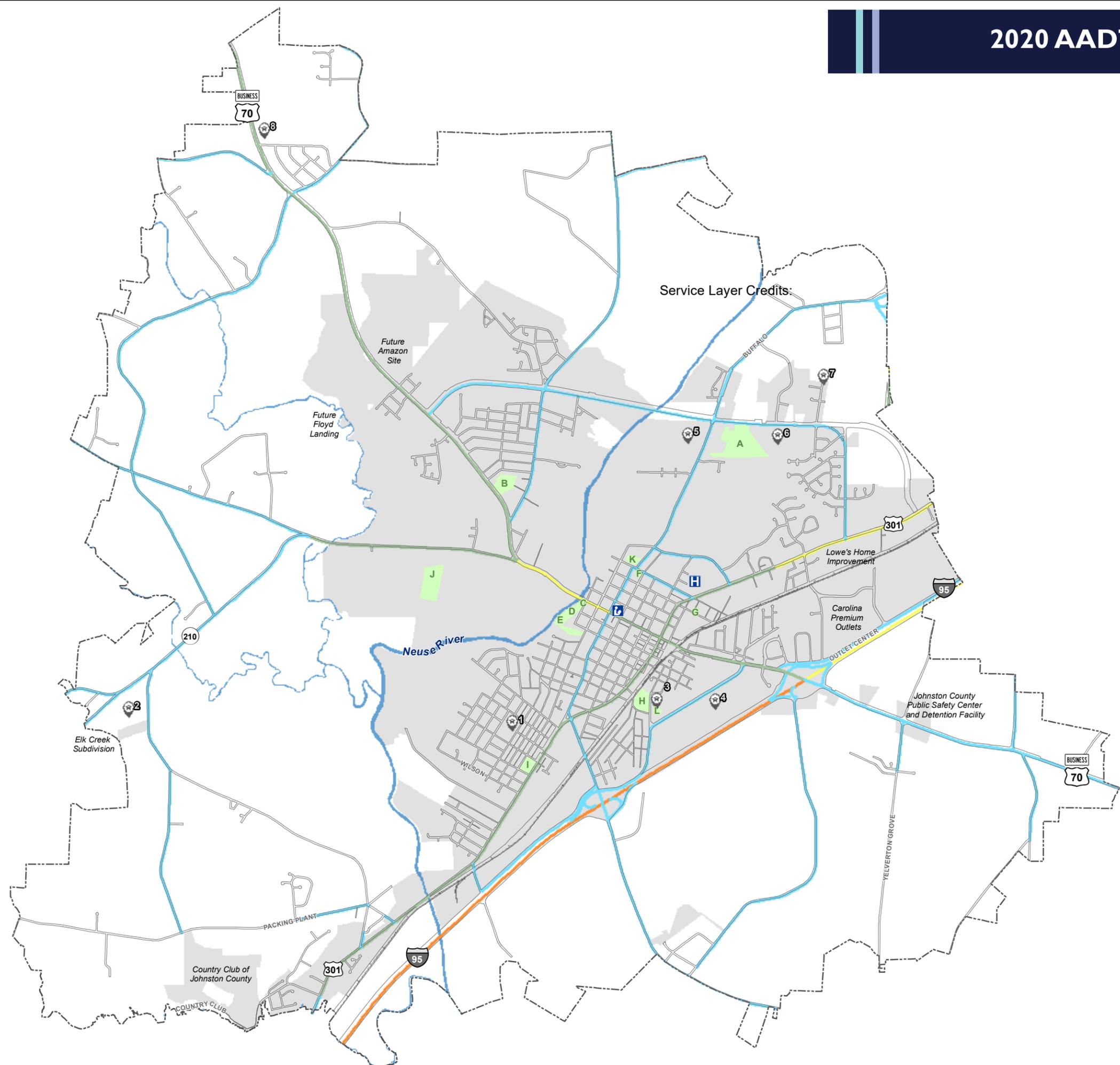
-  60 - 8,599
-  8,600 - 19,999
-  20,000 - 39,999
-  40,000 - 77,999

**Parks:**

- A. Smithfield Community Park
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- 1. South Smithfield Elementary
- 2. West Smithfield Elementary
- 3. South Campus Community High
- 4. Johnston County Early College Academy
- 5. Smithfield Middle School
- 6. Smithfield-Selma High School
- 7. Neuse Charter School
- 8. American Leadership Academy Charter



## Crash Data

Each year in North Carolina more than 2,000 pedestrians are involved in police-reported crashes with motor vehicles. Between 150 and 200 are killed, and an additional 200 to 300 are seriously injured. Older adults and young children are especially vulnerable.<sup>8</sup>

The NCDOT IMD in collaboration with local law enforcement departments developed the North Carolina Pedestrian and Bicycle Crash Data Tool which is an interactive dataset for all reported crashes involving pedestrians and/or bicyclists within the state between the years of 2015 and 2019. According to the dataset, 45 pedestrian-related crashes took place between 2015 and 2019. Crash event locations are listed in Table 2-5. Three pedestrians were killed between 2015 and 2019 (Table 2-6).

During workshop discussions, the Steering Committee noted safety concerns regarding pedestrian activity along Market Street in the downtown area. There was also concern about children walking to the new splash pad near Smith-Collins Park. Spot improvements, such as high-visibility crosswalks or rapid flashing beacons in these areas could improve the safety conditions for these areas of concern.

Table 2-5. Pedestrian Crash Locations

Crash Location	Crash Year					Total
	2015	2016	2017	2018	2019	
Driveway, Public	2	1	0	2	1	6
Four-Way Intersection	2	0	1	1	3	7
Missing	2	0	0	0	0	2
No Special Feature	10	0	6	7	6	29
On or Off Ramp	0	0	0	0	1	1
Total	16	1	7	10	11	45

Table 2-6. Pedestrian Crash Severity

Crash Severity	Crash Year					Total
	2015	2016	2017	2018	2019	
K: Killed	1	0	0	1	1	3
A: Suspected Serious Injury	1	0	0	2	3	6
B: Suspected Minor Injury	7	1	2	2	4	16
C: Possible Injury	7	0	3	3	3	16
O: No Injury	0	0	1	2	0	3
Unknown Injury	0	0	1	0	0	1
Total	16	1	7	10	11	45

According to pedestrian crash data provided by the NCDOT Traffic Safety Unit, there have been a total of 128 pedestrian-related crashes within Smithfield's extraterritorial jurisdiction (ETJ). Sixty-eight pedestrian crashes occurred on a roadway and sixty crashes were non-roadway events (Figure 2-13).

<sup>8</sup> North Carolina Pedestrian and Bicycle Crash Data Tool: [https://www.pedbikeinfo.org/pbcat\\_nc/index.cfm](https://www.pedbikeinfo.org/pbcat_nc/index.cfm)

## Legend

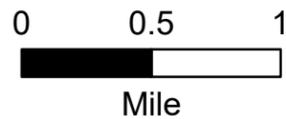
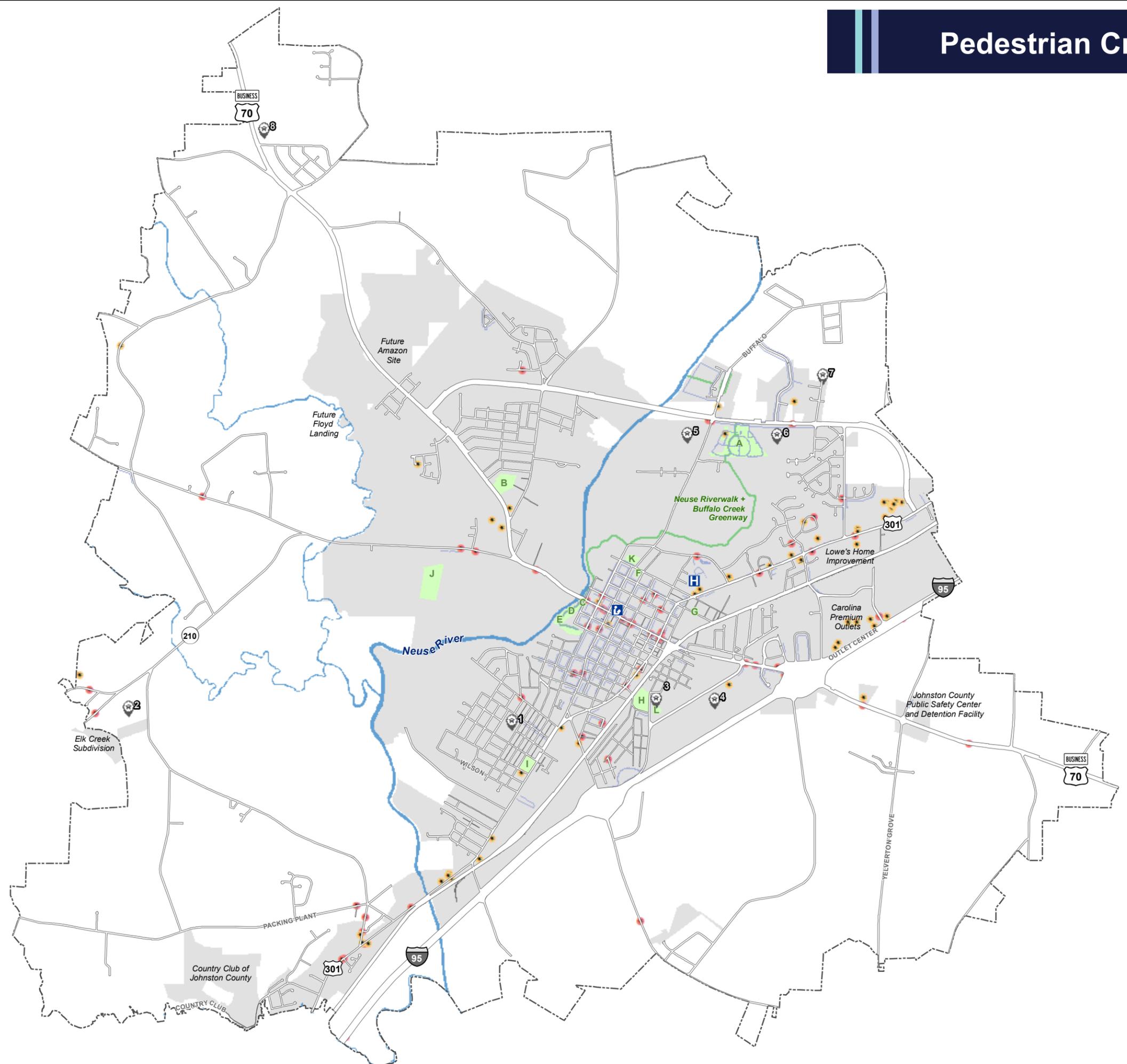
- Non-Roadway Crash
- On Roadway Crash
- Hospital
- School
- Existing Sidewalk
- Existing Greenway
- Railroad
- Park Property
- Town of Smithfield
- Smithfield ETJ

### Parks:

- A. Smithfield Community Park
- B. Gertrude B Johnson Park
- C. Legion Hut
- D. Town Commons
- E. Bob Wallace and Jacie Kiddie Park
- F. Talton Field
- G. Burlington Park
- H. Smith-Collins Park
- I. Civitan Field and Dog Park
- J. Future West Smithfield Park
- K. Talton Park
- L. Splash Pad & Sarah Yard Community Center

### Schools:

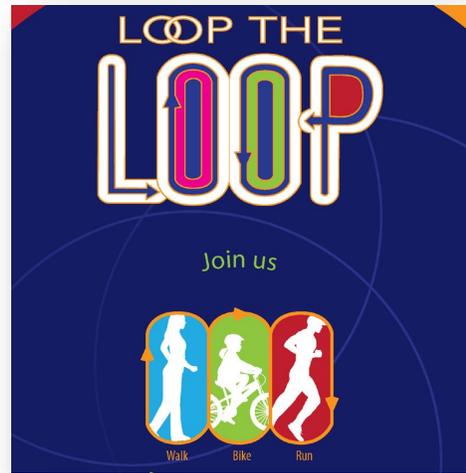
- 1. South Smithfield Elementary
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- 7. Neuse Charter School
- 8. American Leadership Academy Charter



## 2.8 Existing Pedestrian Programs

There are currently no pedestrian programs in Smithfield; however, there are annual events that bring people together as pedestrians. Examples of these include the Gobble Waddle 5K and 10K Run/Walk and the Ghost Walks at Smithfield's historic Riverside Cemetery. This presents an opportunity to introduce new pedestrian programs that can encourage active transportation and promote safety for all roadway users.

The *Smithfield Town Plan* identified “Loop the Loop” as a potential program to invest in.<sup>9</sup> The City of Kannapolis created the free program to help the community define downtown walking loops that are signed and promote and encourage healthy lifestyles. Participants can also log miles and compete for prizes in the program. The Town of Smithfield could do the same by promoting walking around the community features identified in Section 2.4 Key Community Features.



## 2.9 Opportunities and Constraints

In partnership with the Steering Committee, opportunities for improving pedestrian mobility and safety were identified, as well as potential constraints to overcome in order to transform The Town of Smithfield into a more walkable community. Constructing new pedestrian facilities will enable residents and tourists to explore and experience Downtown Smithfield, while also providing economic benefits to local businesses.

### Opportunities

The following existing conditions of the roadway network within Smithfield, present many opportunities for developing a well-connected network of pedestrian infrastructure.

1. The downtown corridor along Market Street is compact and suitable for sidewalks, enhancing the economic growth and investment in the town. Identifying sidewalk gaps could support further connectivity in the heart of the Town.
2. Many of the roadways have room for the addition of pedestrian facilities within the existing right-of-way.
3. Strategically selected pedestrian infrastructure projects could significantly enhance the connectivity and walkability of the Town given that a few key roadways provide most of the connectivity for the Town of Smithfield and connect to smaller, lower trafficked streets that reach residential areas.
4. The proximity of local resources and shops provides the opportunity for Smithfield to be a “park once” community.
5. Future development will provide opportunities for new active transportation infrastructure, just as infrastructure can induce growth.
6. Ample recreational areas, and connectivity between them, provide key destinations primed for improved active transportation assets both within the Town and to regional assets.

### Constraints

The following list includes constraints and challenges to developing a well-connected pedestrian network in the Town of Smithfield.

<sup>9</sup> City of Kannapolis Loop the Loop Walking Program: <https://www.kannapolisnc.gov/loophelooop>

1. A lack of existing active transportation infrastructure, particularly sidewalks, do not form a connected network and result in unsafe conditions for pedestrians.
2. There are many unsafe intersections for accessing key destinations and recreation facilities.
3. Existing infrastructure does not incorporate adaptation techniques that could mitigate impacts of potential, future flooding or weather events and should be incorporated in future policies and infrastructure designs.
4. Several roads are Town-owned and there are not many STIP improvement projects within the Town. Therefore, roadway ownership may prove complicated in obtaining funding for active transportation projects.
5. Right-of-way challenges increases engineering and construction costs of active transportation infrastructure.

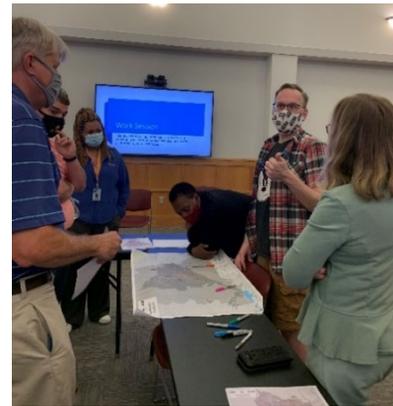
### 3.0 Public Involvement

#### 3.1 Steering Committee

The Steering Committee that guided this Plan was formed out of stakeholders including representatives from the Town’s planning, parks, and public works departments, Johnston County Visitor’s Bureau, the Downtown Smithfield Development Corporation, the local Chamber of Commerce, Homeowner’s Associations, Churches, the UCRPO, NCDOT Division 4, Johnston County Public Health, Community and Senior Services, the Johnston County Parks, Greenways and Open-Space Coordinator, and Johnston Community College, Tourism Committee, the Recreation Advisory Board, and Greenway Committee to guide the plan development.

Table 3-1. Steering Committee

Steering Committee Members	
Stephen Wensman	Stuart Lee
Mark Helmer	Sloan Stevens
James Salmons	David Barbour
Sam Lawhorn	Gary Johnson
Carlos Moya-Astudillo	Sarah Edwards
Marilyn Pearson	Bill Dreitzler
Chad Holloman	Lawrence Davis
Paul Worley	Captain Ryan Sheppard
Teresa Daughtry	



Steering Committee Meeting #1

The Committee focused on incorporating a diverse range of community perspectives. The committee met three times throughout the planning process to help shape the Plan by identifying goals and objectives, identifying pedestrian constraints and opportunities, and prioritizing proposed projects.

The first Steering Committee meeting took place on May 19, 2021, at the Town of Smithfield Town Council Chambers. During this meeting, the group discussed issues the community is facing with regards to pedestrian infrastructure. The committee broke into groups during a working session to define pedestrian origins, destinations, activity, and areas of concern. These areas of concern were used to start thinking about potential projects, policies, or programs. The committee discussed focusing on connectivity, safety, and implementable projects. In a post meeting survey, members focused on developing a vision and set of goals for the plan.

The second Steering Committee meeting was held on August 11, 2021. Sample projects, policies, and programs were presented to the committee in preparation for a working session. The working session captured committee input on pedestrian infrastructure projects, as well as relevant policies or programs. Specifically, focus was placed on linear facilities and spot improvements, connections and gaps in pedestrian infrastructure, and amenities. The feedback gathered during this meeting was used to develop preliminary recommendations.

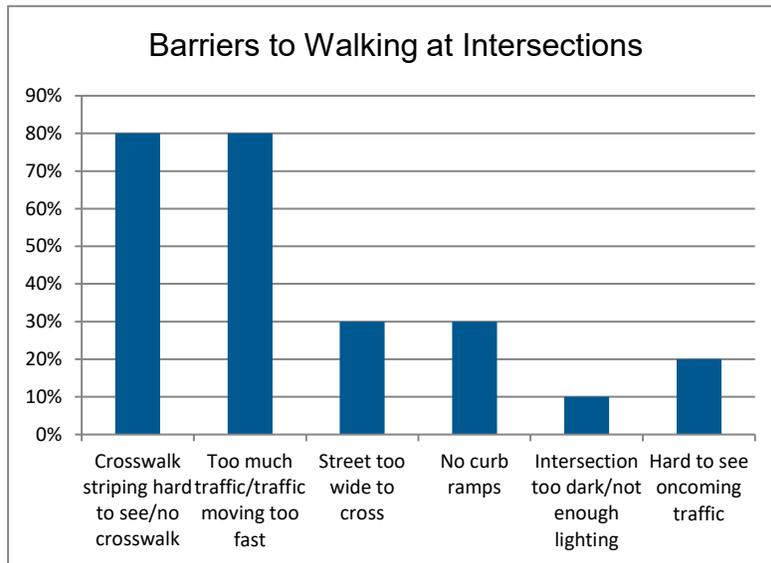
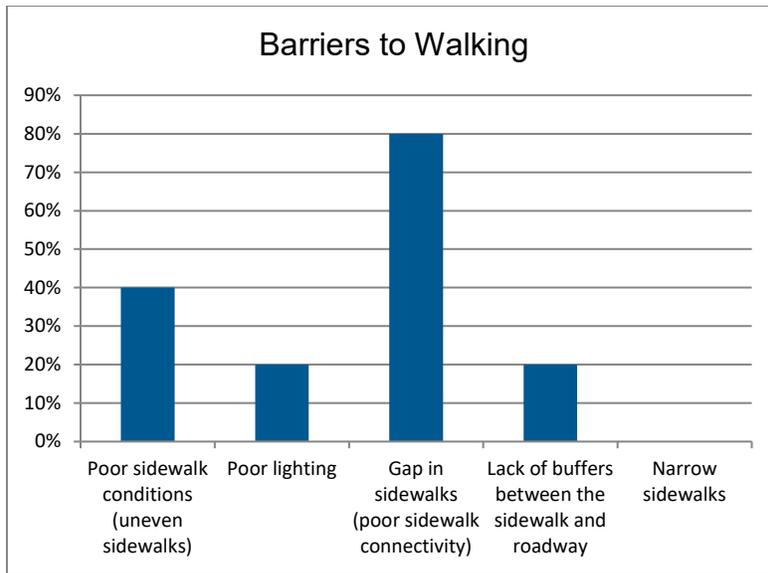


Steering Committee Meeting #2

## Kick-off Survey

Following the completion of the first Steering Committee Meeting, the Committee completed a survey to rank policies, programs, and help the project identify additional areas of concern around the Town. Based on the survey results, most of the steering committee believes the greatest challenge pedestrians face is the lack of a complete network of sidewalks. A lack of safe intersections/roadway crossings and poor sidewalk conditions were also discussed. Smithfield boasts a variety of educational, commercial, and recreational facilities; however, survey participants noted that these amenities are not accessible for pedestrians living in West Smithfield. Additionally, gaps in the sidewalk network make it difficult for many residents to access the Outlet Mall, Johnston County Community College, Johnston Health, parks, and other destinations without a motorized vehicle.

Some of the specific roadways identified for needed improvements include Wilsons Mills Road, Market Street, Bright Leaf Boulevard, M Durwood Stephenson Parkway, Buffalo Road, Outlet Center Drive, and Booker Dairy Road. Specific issues sited along these roadways include poor sidewalk conditions when sidewalks are present, gaps in the sidewalk network, and no sidewalks present. Concern was noted about a lack of lighting and buffer between sidewalks and roadways, both of which impact the safety of pedestrians and all roadway users. Concern was also noted for numerous intersections along Market Street, Brightleaf Boulevard, and Wilsons Mills Road in addition to more general concerns about intersections near schools and parks. Vehicular volume and speed were cited as areas of concern at many intersections. There are also many intersections where crosswalks are needed but are not marked or are poorly marked.



Goals identified by the steering committee are provided below ranked by highest number of votes:

- Create walking opportunities that integrate and link land use, development, and transportation infrastructure.
- Connect community destinations with parks and natural resources.
- Improve mobility through the Town's pedestrian networks.
- Establish a hierarchy for projects and support services.
- Encourage policies and zoning guidelines that promote walking.
- Provide policies that help increase Smithfield's resilience to potential future risks including storm events or other threats.
- Promote environmental, public health, and safety benefits of walking.
- Provide pedestrian education.

## 3.2 Public Meetings

The first public meeting was held on August 11, 2021, in the Town of Smithfield Town Council Chambers, immediately following the second Steering Committee Meeting. The consultant team presented a brief PowerPoint presentation to the public explaining the goals of the project. Following the presentation, the public engaged in a mapping exercise where they marked the maps to indicate areas with high pedestrian activity, areas of concern, and locations for potential projects.

The second public meeting for the Town of Smithfield Pedestrian Plan met on Thursday, February 17, 2022, at Smithfield’s Town Hall, following the second Steering Committee meeting. The meeting was conducted both in person and virtually. The Town posted meeting flyers for the public meeting and sent notice to the steering committee via email. Five individuals attended the public meeting, and no one attended virtually.



Public Meeting #1 at Town Hall.

The consultant team facilitated a working session where members of the public and the steering committee used table maps to rank the recommended pedestrian projects in their meeting packets. Attendees wrote additional comments related to the projects in their survey packets. Survey packets for both meetings were also made available online. A copy of all meeting materials is provided in Appendix A: Stakeholder Engagement.

## 3.3 Community Survey

A survey was made available to Smithfield’s residents from February through March 2022 to gather local information about current travel behaviors, priorities, and opportunities for pedestrian activity in the Town. The survey was made available online through Google Forms and on paper during the second Public Meeting. The online survey was posted to the Town’s website and available in paper form at Town Hall. No completed paper surveys were submitted outside of the Public Meeting. Information from the survey has been included in this Plan’s recommendations. The following sections summarize the key findings from the 42 survey responses submitted. See Survey questions and additional materials in Appendix A: Stakeholder Engagement.

Survey respondents were asked to participate in the survey to better understand the Town’s preferences and needs for pedestrian related projects and programs. The Town was divided into the following five focus group areas: north, east, south, west, and downtown. These focus areas were used to divide up the draft projects to make it easier for respondents to zoom into different areas of the Town. The selection of top projects throughout the Town supports a more equitable distribution of projects, rather than focusing on one specific area of the Town. First, the survey asked participants to rank their top projects by priority in each focus area of the Town. The top 15 projects are listed in the table below and are organized by focus area.

Table 3-2. Top 15 Projects

Rank	Description	Map Label
1	Potential East Coast Greenway - Brightleaf Blvd/Off-road/Second St multiuse path.	25
2	Sidewalk on S 2nd St (north side) from W Wilson to E Parker St and sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	29
3	Neuse River multiuse path improvements	9
4	Brightleaf Blvd sidewalk improvements	21b

Rank	Description	Map Label
5	Downtown sidewalk gap improvements (North of E Market St)	17
6	Brightleaf Blvd sidewalk improvements	21a
7	Potential East Coast Greenway, off-road Neuse River multiuse path	11b
8	Booker Dairy Rd sidewalk improvements	13
9	W Market St sidewalk improvements	5b
10	Potential East Coast Greenway Brightleaf Blvd/Off-road/Second St multiuse path	26
11	Brightleaf Blvd sidewalk improvements	21c
12	Downtown sidewalk gap improvements (South of E Market St)	18
13	E Market St/Bus 70 multiuse path/sidewalk improvements	36a
14	Hospital Rd sidewalk improvements	14
15	Multiuse path connector between Bob Wallace Park and Smith-Collins Park	20

## 4.0 Recommendations

Active transportation offers many benefits including improved health, reduced environmental impacts, and fewer financial commitments from decreased dependency on the automobile. This section describes the infrastructure improvements that are recommended to provide the Town of Smithfield with a safe, accessible, and connected pedestrian network. Chapter 4 proposes infrastructure and programmatic recommendations for achieving the goals and objectives of the Plan based on the review of existing conditions and public involvement.

### 4.1 Facility Types

Different types of pedestrian facilities that are considered for improving pedestrian connectivity, access, comfort, and safety are provided below. Facility types fall into two main categories: spot improvements and linear improvements.

#### Spot Improvements

Spot improvements address pedestrian challenges at specific locations, such as intersections, crossings, and short gaps in a pedestrian network. These types of improvements are generally low-cost and provide enhancements through surface improvements, signing, access enhancements, or functional upgrades.



#### *High-Visibility Crosswalk*

A crosswalk is the portion of the roadway intended for pedestrians to use for crossing the street and is typically located at roadway intersections. It may be distinctly indicated for pedestrian crossing by lines or other markings on the surface. High-visibility crosswalks are crosswalks marked with diagonal or longitudinal lines parallel to traffic flow, such as the ladder, continental or bar pair marking pattern.



#### *Mid-Block Crossing*

Midblock crossings are typically located on low-volume, low-speed roadways and provide a safe crossing option indicated by pavement markings and/or signs.



#### *Rapid Flash Beacon*

Rapid flash beacons are pedestrian-activated devices used to warn and control traffic at an unsignalized location to assist pedestrians in crossing at a marked crosswalk or mid-block crossing.



#### *Advance Yield Here Sign and Yield Line*

Advance Yield Here To (Stop Here For) Pedestrians signs are placed between 30 and 50 feet in advance of the marked crosswalk along with the stop line or “shark’s teeth” yield line.



### *Traffic Calming Study*

Intended to increase visibility of pedestrians along a roadway, traffic calming studies investigate measures such as speed tables, share the road signage, stop signs, or neighborhood roundabouts that would help address vehicular speeds and provide safety for pedestrians.



### *Curb Ramp*

A curb ramp provides a combined ramp and landing to accomplish a change in level at a curb between the sidewalk and the street. This element provides a transitional access between elevations for pedestrians using wheelchairs, strollers, or other devices with wheels, and must comply with ADA standards.



### *Nature Based/Green Infrastructure (G.I.)*

Infrastructure that supports water management through protection, restoration, or mimics the natural water cycle. This may include use of existing healthy ecosystems such as existing floodplains, wetlands, or forests or manmade protections such as increased landscaping, permeable pavement, vegetated buffers, berms, bioswales, rainwater collection, or retention ponds.



### *Wayfinding*

Wayfinding includes comprehensive signage and/or markings to guide travelers to their destinations along preferred routes. It is usually comprised of four types of signs that are informational (e.g., opening hours), directional (e.g., trail route information), identification (e.g., name of a park entrance), or regulatory (e.g., restricted areas).



### *Lighting Improvements*

Lighting improvements for active transportation typically includes street lighting such as light poles, lampposts, or streetlamps, or other raised source of light along a multi-use path or sidewalk. High-quality and well-placed lighting, including supplementing pedestrian-scale lighting at night-time crossing areas, increases safety and security for non-motorized and vehicular users. Dark sky lighting options should also be considered in response to dark sky considerations, and sensitive natural areas and wildlife.

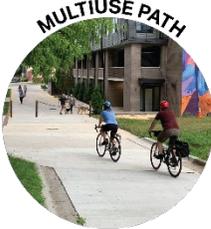
## Linear Improvements

Linear improvements address pedestrian challenges along portions of a roadway such as sidewalks, or in some cases, as separate facilities from the roadway such as multi-use paths. These types of improvements are generally larger infrastructure projects with higher costs and longer implementation timeframes. Together, they form a network of safe transportation choices for the community.



### *Sidewalks*

Sidewalks are the portion of a roadway right-of-way, beyond the curb or edge of roadway pavement, which is intended for use by pedestrians. As the primary element of the pedestrian environment, sidewalks are generally constructed of concrete, pavers, or another hard surface. The Federal Highway Administration (FHWA) and Institute of Transportation Engineers (ITE) recommend a minimum width of five feet for a sidewalk (Pedestrian and Bicycle Information Center, n.d.).



### *Multi-use Path*

A paved multi-use path should be designed to meet ADA standards for use by active transportation users. A multi-use path is separated from the roadway by an open space or a physical barrier, or within an independent-right-of-way.



### *Boardwalk*

A boardwalk is an elevated footpath, walkway, or a low type of bridge. It is typically built of wooden planks that allows active transportation users to cross wet or marshy land. Many boardwalks are typically used in natural areas to preserve the landscape while providing a minimally invasive walking path.

## Complete Streets

NCDOT adopted a “Complete Streets” policy (CS) in 2009, that has been updated in 2019. Complete streets consider and incorporate all modes of transportation when building new projects or making improvements to existing infrastructure. Complete Streets are designed to be safe and comfortable for all users, including pedestrians, bicyclists, transit riders, motorists, and individuals of all ages and capabilities. NCDOT has developed the P6.0 Complete Streets Project Sheet, which will require project submitters to note multimodal elements that are to be evaluated as a part of the proposed transportation project. If no multimodal facilities are to be evaluated with the proposed project, the sheet requires the project submitter to document why they are not to be evaluated.

Part of designing with CS principles in mind includes the impact of street patterns on trip length, connectivity between resources, intersection use, and the overall experience of the user. Both cyclists and pedestrians can benefit from a street that has been designed with the CS policy including improvements for children and individuals with accessibility needs, health advantages, improved public transportation services, economic revitalization, safety enhancements, roadway equity, and a more livable community.

## 4.2 Prioritization

Project corridors were prioritized during the second steering committee meeting and second public meeting. During these meetings, both the steering committee and the public placed votes next to their top ranked projects. Following this exercise, the Town reviewed the projects with the highest total number of votes and selected five projects for the consultant team to create cut sheets for. These top pedestrian infrastructure projects were identified as projects that would most likely be funded in the future.

### Prioritization Results

The results from the prioritization process are provided in Table 4-1 and listed in order of ranking. The highest-ranking project corridor is a potential East Coast Greenway off road connection that also uses Brightleaf Boulevard before leaving the Town. The lowest scoring project was improvements to Yelverton Grove Road. Prioritization results are meant to serve as a general guide.

There may likely be opportunities to implement project elements or entire projects in an order different from the order in which they were prioritized. The prioritization in this plan should generally be followed as it directly reflects Steering Committee input and community feedback captured during public meetings and an online survey. This should not, however, prevent the Town from taking advantage of pedestrian improvements as opportunities present themselves. It is beneficial to implement pedestrian projects on the same road segment simultaneously in order to realize cost savings and minimize disruptions due to construction. Detailed prioritization results for each corridor are provided in Appendix B: Prioritization.

Table 4-1. Prioritized Projects

Rank	Description	Map Label
1	Potential East Coast Greenway - Brightleaf Blvd/Off-road/Second St multiuse path	25
2	Sidewalk on S 2nd St (north side from W Wilson to E Parker St) and sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	29
3	Neuse River multiuse path improvements	9
4	Downtown sidewalk gap improvements (north of E Market St)	17
5	Brightleaf Blvd sidewalk improvements	21a
6	Brightleaf Blvd sidewalk improvements	21b
7	Potential East Coast Greenway -Off-road Neuse River multiuse path	11b
8	Booker Dairy Rd sidewalk improvements	13
9	Potential East Coast Greenway -Brightleaf Blvd/Off-road/Second St multiuse path	26
10	Multiuse path connector between Bob Wallace Park and Smith-Collins Park	20
11	Brightleaf Blvd sidewalk improvements	21c
12	W Market St sidewalk improvements	5b
13	M Durwood Stephenson sidewalk improvements	10a
14	Downtown sidewalk gap improvements (South of E Market St)	18
15	E Market St/Bus 70 multiuse path/sidewalk improvements	36a

Rank	Description	Map Label
16	Hospital Rd sidewalk improvements	14
17	Outlet Center Dr sidewalk improvements	40
18	M Durwood Stephenson Pkwy sidewalk and multiuse path improvements	10b
19	W Wellons St sidewalk improvements	28
20	College Rd multiuse path/sidewalk improvements	35a
21	E Market St/Bus 70 multiuse path/sidewalk improvements	36b
22	Cleveland Rd/NC HWY 210/W Market St multiuse path	2a
23	Wilson's Mills Rd sidewalk improvements	8b
24	Potential East Coast Greenway -Country Club Rd to Packing Plant Rd multiuse path connector	24
25	Outlet Center Dr sidewalk improvements	39
26	Multiuse path connector to Smithfield Neuse Riverwalk and Canterbury Rd	11a
27	College Rd pond multiuse path improvements	34
28	College Rd multiuse path/sidewalk improvements	35b
29	Buffalo Rd multiuse path improvements	11c
30	Buffalo Rd sidewalk improvements	12
31	Galilee Rd sidewalk improvement at W Smithfield Elm	27
32	W Market St multiuse path	5a
33	NC HWY 210/W Market St boardwalk connector	4
34	Wilson's Mills Rd multiuse path improvements	8a
35	Canterbury Rd/E Peedin Rd/Venture Dr sidewalk improvements	15
36	Brogden Rd sidewalk improvements	30a
37	MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way sidewalk improvements	33
38	Country Club Rd sidewalk improvements	22
39	Brogden Rd multiuse path improvements	31
40	Berkshire Rd sidewalk improvements	16
41	Sidewalk on S Bright (north side) towards E Dundee St	19
42	Black Creek Rd and NC HWY 210 multiuse path and sidewalk improvements	1a
43	NC HWY 210/W Market St multiuse path connector	3
44	Multiuse path on Barbour Rd, Wilson's Mills Rd to W Market St to greenway trail	7

Rank	Description	Map Label
45	Brogden Rd multiuse path improvements	30b
46	Blount St/E Lee St sidewalk improvements	32
47	Black Creek Rd and NC HWY 210 multiuse path and sidewalk improvements	1b
48	Cleveland Rd/NC HWY 210 sidewalk improvements	2b
49	W Market St/Barbour Rd sidewalk connector	6
50	Towne Centre PI sidewalk gap improvement	38
51	Galilee Rd/Packing Plant Rd/Hillcrest Rd sidewalk improvements	23
52	Yelverton Grove Rd multiuse path/sidewalk improvements	37a
53	Yelverton Grove Rd multiuse path/sidewalk improvements	37b

### 4.3 Cost Estimates

Costs for recommended pedestrian infrastructure projects were primarily estimated using NCDOT’s Bicycle and Pedestrian Cost Estimation (BPCE) Tool. The Pedestrian and Bicycle Information Center (PBIC)’s report titled *Costs for Pedestrian and Bicyclist Infrastructure Improvements* and the capital costs from similar projects were used to estimate costs for project types not included in the NCDOT cost estimator tool.<sup>10</sup>

#### Data Sources

The BPCE tool was adopted in July 2019 to assist NCDOT divisions, Metropolitan Planning Organizations, and Rural Planning Organizations in developing reasonable and comparable bicycle and pedestrian cost estimates for submittal through the Prioritization 6.0 process. The PBIC report was published in October 2013 with over 1,700 cost figures from construction and engineering bids compiled nationwide to provide cost estimates for over 70 types of bicycle and pedestrian facilities. The report provides the average, median, high, and low-cost estimates for each item. The median estimate was used for the purposes of this Plan as the average estimate may be skewed by outliers.

#### Methodology

The BPCE tool was used to estimate costs for signage, crosswalks, lighting, signals, sidewalks, and multiuse paths along recommended linear improvements. The PBIC report was used to estimate costs for curb radii reductions, traffic calming measures, wayfinding signs. The costs reported in this Plan include design, permitting, utility relocation, and construction as well as a required right-of-way estimate.

Results for the cost estimates can be found in Section 4.4, after each proposed project. A master table of projects costs can be found in Appendix C. Project Costs.

Infrastructure projects are recommended for the Town of Smithfield to improve pedestrian safety, connectivity, and mobility. These projects contain various land uses, community assets, and roadway characteristics, taken together, the projects proposed within these planning corridors will tie together to encourage pedestrian

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<sup>10</sup> PBIC receives funding from FHWA and is part of the University of North Carolina Highway Safety Research Center.

connectivity throughout the Town. Project recommendations include improvements such as multiuse paths, sidewalks, a road diet study, and a feasibility study at an intersection to improve pedestrian safety measures. Curb ramps compliant with ADA are recommended at intersections and crossings, but due to scale, are not shown on the figures. The projects are organized by corridor and focus on addressing the needs and challenges of the Town's top ranked projects. Pedestrian policies and programs are also recommended and are intended to work in tandem with these infrastructure projects, see Section 4.5.

#### *Assumptions and Disclaimers*

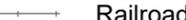
These estimates are intended for use as an aid to estimating project costs for pedestrian and active transportation projects associated with P6.0. This methodology should not be used to estimate projects of other modes (roadways or other). The tool contains estimations for design services, utilities, ROW, and construction with contingencies based on limited project knowledge and inputs. Due to the conceptual nature of project descriptors, the accuracy of cost estimates will be limited. More accurate cost estimates would result from an engineered feasibility study project. Estimated cost outputs are designed to assume federal transportation funding is used in compliance with all federal transportation regulations and FHWA-approved NCDOT Local Programs Management Office oversight requirements in place as of the date of this tool's publication.

## 4.4 Recommended Infrastructure Improvements

Recommended improvements in this plan include multiuse paths, sidewalks, a boardwalk, crossing improvements, a limited feasibility study, and a road diet within the community. All proposed projects are intended to provide safe connections between origins and destinations within the Town, while promoting exercise and mobility. The projects were developed through collaboration with the Steering Committee, field analysis, and public input. All pedestrian facility recommendations along NCDOT maintained roadways will require coordination with NCDOT Highway Division 4 as part of implementation.

For easy reference, linear projects were divided among five focus areas in the Town: North, East, south, West, and the Downtown area. These areas were identified in the *Smithfield Town Plan* and are mapped in Figure 4-1. The boundaries of the focus areas align with the Town's ETJ.

**Legend**

-  Hospital
-  School
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

**Parks:**

- A. Smithfield Community Park
- B. Gertrude B Johnson Park
- C. Legion Hut
- D. Town Commons
- E. Bob Wallace and Jacie Kiddie Park
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- 8. American Leadership Academy Charter

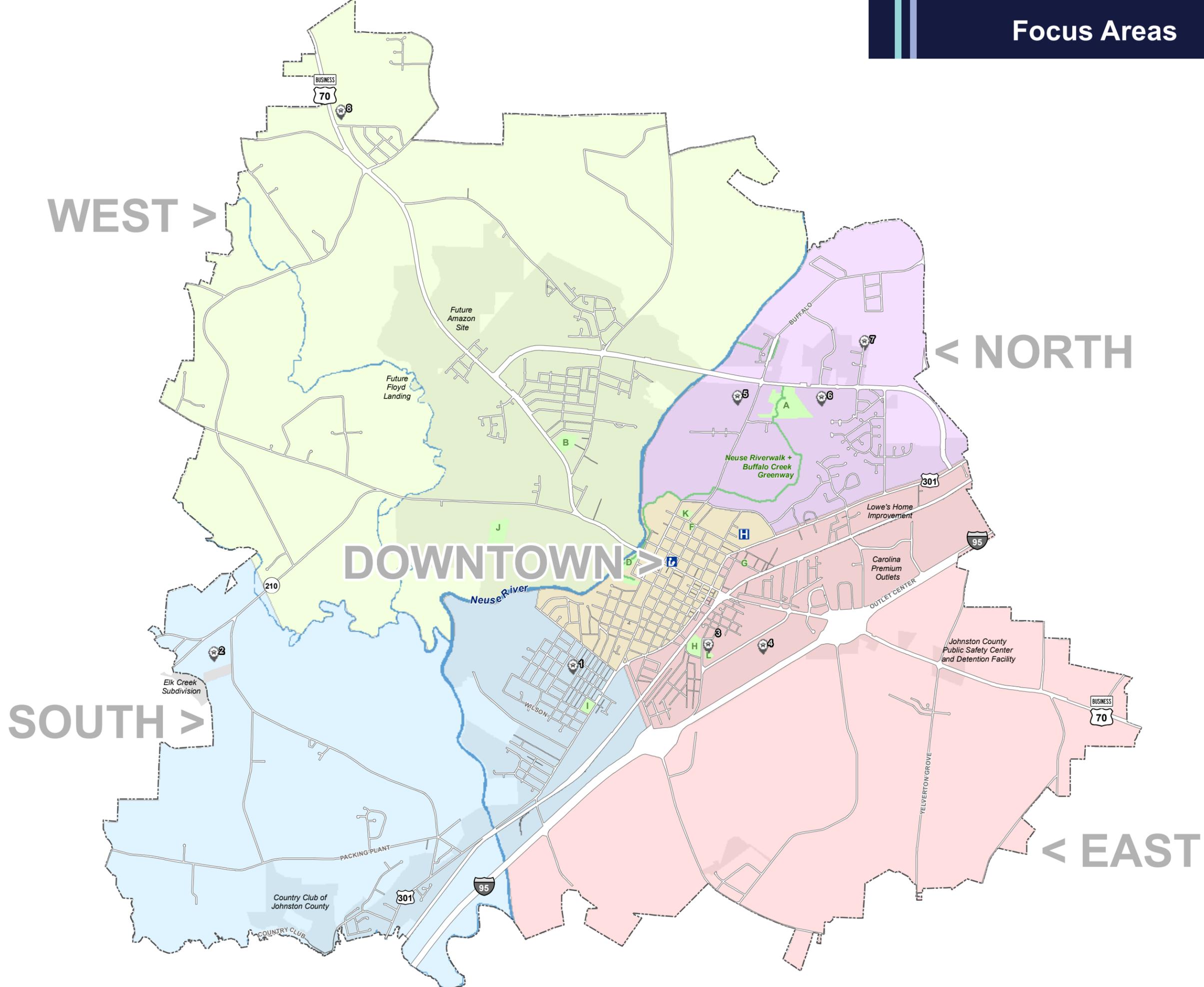
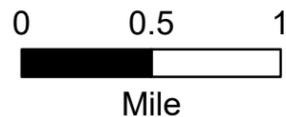


Table 4-2 provides an outline of the project corridors in detail, and Figure 4-2 shows the location of linear recommendations in the town.

Table 4-2. Proposed Project Corridors

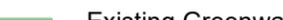
Corridor	Map Label	Location	Type	Approximate Length (Miles)	Cost
1	1a	Black Creek Rd and NC HWY 210	Multiuse Path	0.54	\$1,325,000
	1b	Black Creek Rd and NC HWY 210	Sidewalk	1.93	\$2,040,000
2	2a	Cleveland Rd/NC HWY 210/W Market St	Multiuse Path	2.85	\$8,055,000
	2b	Cleveland Rd/NC HWY 210	Sidewalk	2.75	\$3,650,000
3	3	NC HWY 210/W Market St	Multiuse Path	1.17	\$8,055,000
4	4	Between NC HWY 210/W Market St	Boardwalk	1.62	\$4,015,000
5	5a	W Market St/Bus 70 multiuse path	Multiuse Path	4.33	\$12,140,000
	5b	W Market St	Sidewalk	3.55	\$4,630,000
6	6	W Market St/Barbour Rd	Sidewalk	0.88	\$950,000
7	7	Barbour Rd to Wilsons Mills Rd to W Market St to Greenway Trail	Multiuse Path	1.83	\$5,070,000
8	8a	Wilsons Mills Rd	Sidewalk	2.53	\$3,340,000
	8b	Wilsons Mills Rd	Multiuse Path	3.12	\$9,550,000
9	9	Neuse River	Multiuse Path	2.98	\$7,745,000
10	10a	M Durwood Stephenson	Sidewalk	2.17	\$3,345,000
	10b	M Durwood Stephenson	Sidewalk	1.16	\$1,605,000
11	11a	Smithfield Neuse Riverwalk and Canterbury Rd and off-road connection along the Neuse River	Multiuse Path	0.31	\$815,000
	11b	Off-road next to the Neuse River	Multiuse Path	1.74	\$4,495,000
	11c	Buffalo Rd	Multiuse Path	3.35	\$9,675,000
	11d	M Durwood Stephenson and off road to Buffalo Rd	Multiuse Path	2.19	\$5,940,000
12	12	Buffalo Rd	Sidewalk	2.54	\$3,065,000
13	13	Booker Dairy Rd	Sidewalk	0.55	\$860,000
14	14	Hospital Rd	Sidewalk	0.62	\$895,000
15	15	Canterbury Rd/E Peedin Rd/Venture Dr	Sidewalk	1.04	\$1,475,000

Corridor	Map Label	Location	Type	Approximate Length (Miles)	Cost
16	16	Berkshire Rd	Sidewalk	0.56	\$845,000
17	17	North of E Market St	Sidewalk	1.70	\$1,970,000
18	18	South of E Market St	Sidewalk	1.20	\$1,400,000
19	19	S Bright (north side) towards E Dundee St	Sidewalk	0.21	\$370,000
20	20	Between Bob Wallace Park and Smith-Collins Park	Multiuse Path	0.78	\$2,930,000
21	21a	Brightleaf Blvd	Sidewalk	2.62	\$4,085,000
	21b	Brightleaf Blvd	Sidewalk	1.13	\$1,415,000
	21c	Brightleaf Blvd	Sidewalk	1.02	\$1,340,000
	21d	Brightleaf Blvd	Sidewalk	1.36	\$1,980,000
	21e	Brightleaf Blvd	Sidewalk	0.58	\$860,000
22	22	Country Club Rd	Sidewalk	0.83	\$1,035,000
23	23	Galilee Rd/Packing Plant Rd/Hillcrest Rd	Sidewalk	0.74	\$905,000
24	24	Country Club Rd to Packing Plant Rd	Multiuse Path	1.02	\$2,455,000
25	25a	Brightleaf Blvd/Off-road/Second St	Multiuse Path	1.04	\$2,955,000
	25b	Brightleaf Blvd/Off-road/Second St	Multiuse Path	1.83	\$4,520,000
26	26	Brightleaf Blvd/Off-road/Second St	Multiuse Path	1.35	\$3,570,000
27	27	Galilee Rd at W Smithfield Elm	Sidewalk	0.32	\$400,000
28	28	W Wellons St	Sidewalk	0.59	\$775,000
29	29	S 2nd St (north side from W Wilson to E Parker St) and on E Sanders St (east side) from S Second St to S Brightleaf Blvd	Sidewalk	0.41	\$570,000
30	30a	Brogden Rd (east side) from S Third St to MLK JR Rd and along Brogden Rd	Sidewalk	2.50	\$4,200,000
	30b	Brogden Rd	Multiuse Path	2.62	\$9,400,000
31	31	Brogden Rd	Sidewalk	0.16	\$245,000
32	32	Blount St/E Lee St	Sidewalk	0.63	\$785,000
33	33	MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way	Sidewalk	0.74	\$870,000

Corridor	Map Label	Location	Type	Approximate Length (Miles)	Cost
34*	34	Pond next to College Rd	Multiuse Path	0.40	\$1,135,000
35	35a	College Rd	Multiuse Path	0.67	\$1,630,000
	35b	College Rd	Sidewalk	0.73	\$785,000
36	36a	E Market St/Bus 70	Sidewalk	2.77	\$3,485,000
	36b	E Market St/Bus 70	Multiuse Path	2.62	\$7,365,000
37	37a	Yelverton Grove Rd	Sidewalk	1.62	\$1,700,000
	37b	Yelverton Grove Rd	Multiuse Path	1.71	\$4,010,000
	37c	Yelverton Grove Rd	Sidewalk	0.39	\$450,000
38	38	Towne Centre Pl	Sidewalk	0.08	\$150,000
39	39	Outlet Center Dr	Sidewalk	0.37	\$535,000
40	40	Outlet Center Dr	Sidewalk	1.37	\$1,655,000

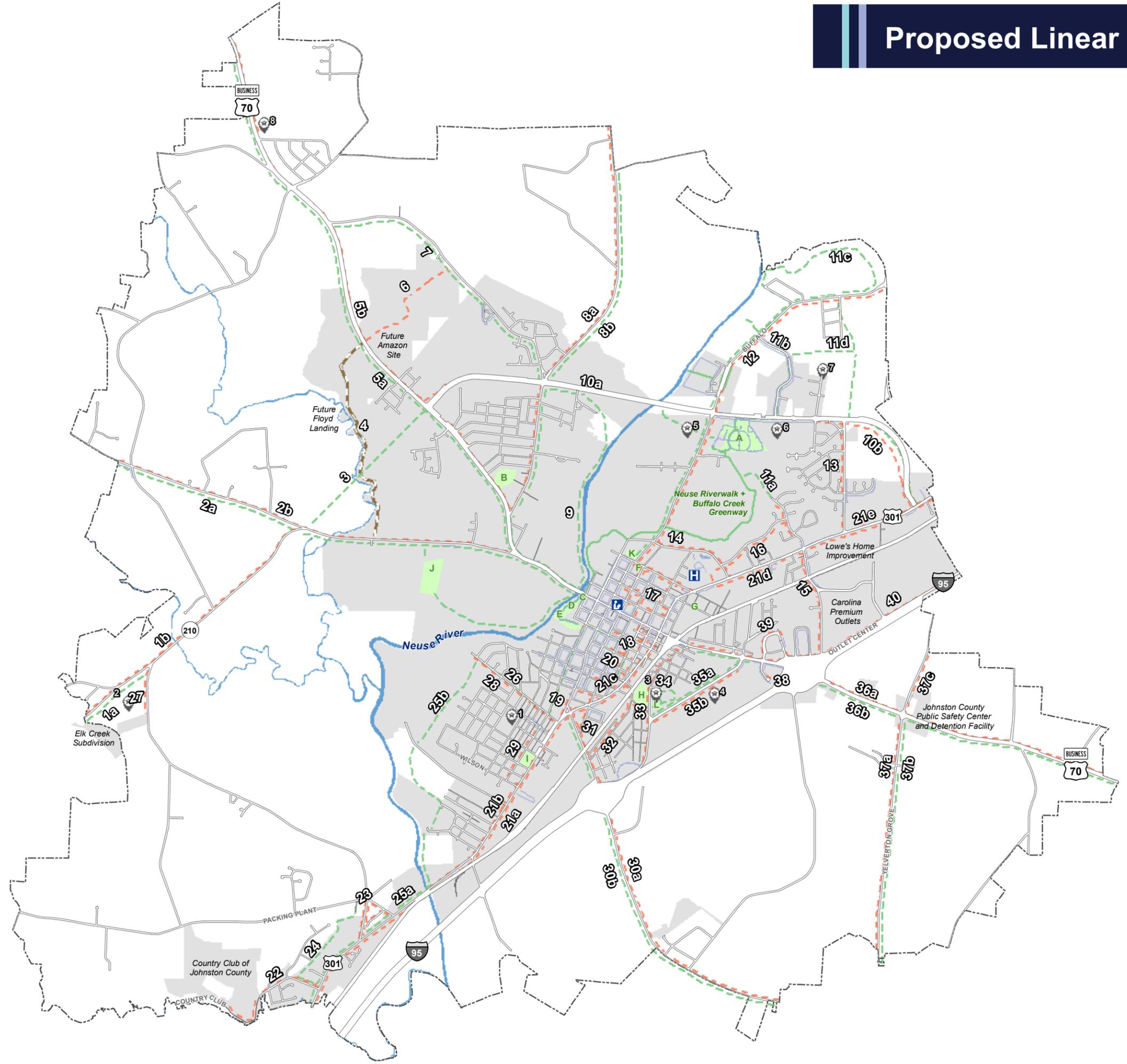
\*This project was recently completed with a grant from the legislature (December 2022).

**Legend**

-  Hospital
-  School
-  Proposed Sidewalk
-  Existing Sidewalk
-  Proposed Boardwalk
-  Proposed Multiuse Path
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

- Parks:**
- A. Smithfield Community Park
  - B. Gertrude B Johnson Park
  - C. Legion Hut
  - D. Town Commons
  - E. Bob Wallace and Jacie Kiddie Park
  - F. Talton Field
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  - 5. Smithfield Middle School
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  - 7. Neuse Charter School
  - 8. American Leadership Academy Charter



## Linear Recommendations

### *Sidewalks*

Recommended sidewalk improvements identified by the Steering Committee and public input are provided on the following pages in this Plan. Recommended sidewalks would improve pedestrian connectivity in the Town, providing pedestrian access from neighborhoods to and from community features including downtown, parks, businesses, and areas where businesses are clustered. These recommendations were selected to expand the existing sidewalk network, address safety concerns, and to better connect destinations and neighborhoods.

In addition to the location and extents of the proposed sidewalk projects, additional recommendations that relate to all the proposed sidewalks include:

- Sidewalks in Smithfield should be at least 5 feet wide, and, where possible, should include a landscaped buffer of 1-foot or 6-foot with trees/shrubs between the sidewalk and roadway.
- Drainage improvements may be necessary additions to a sidewalk project based on engineering assessment and existing conditions.
- Areas of higher pedestrian volume may require greater width. Two people should be able to walk side-by-side and pass a third comfortably. Sidewalks should be able to comfortably accommodate different walking speeds as well.

All sidewalks would be required to meet ADA minimum standards. Additionally, NCDOT requires that any sidewalk project that would cross a signalized intersection would require signal plans to be revised, and that those projects must have funding in place to install the upgraded signalization.

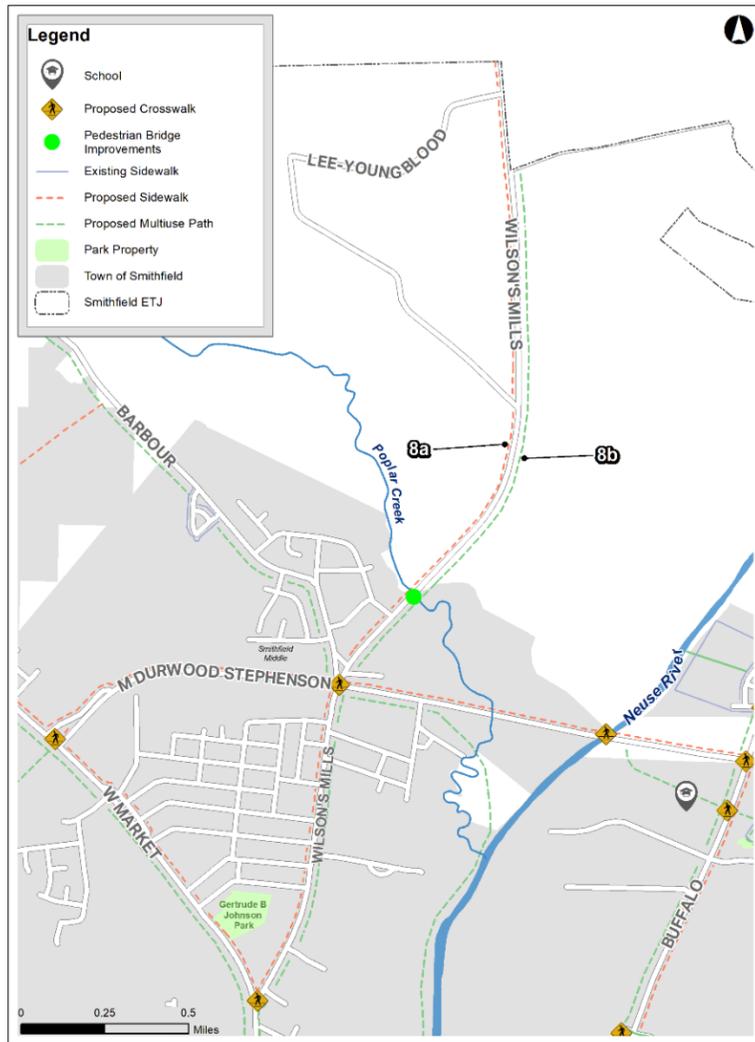
### *Multiuse Paths*

A multiuse path is a paved shared use path designed to meet ADA standards for use by both bicyclists and pedestrians. Multiuse paths are often separated from the roadway by an open space or a physical barrier, or within an independent-right-of-way. They are often referred to greenways when on an independent right-of-way or follow a utility easement.

## Priority Projects

Priority projects are those projects that are considered a high priority for the Town of Smithfield based on the outcomes of the prioritization process. Each of the top five priority projects received a visualization, or conceptual rendering of what the project location could look like in the future if implemented. Additionally, project descriptions, lengths, and cost estimate are provided. Cost estimates included in the priority projects are discussed in Section 4.3.

PROJECT 1: Wilson's Mills Road Pedestrian Improvements



activated signals. Additionally, improvements to the bridge over Poplar Creek may be needed to accommodate pedestrians, including, potentially a separate bridge facility for pedestrians.

Existing Conditions

Wilson's Mills Road is an NCDOT maintained road that extends north from W Market Street (US 70 Business) to the town limits north of Laurel Drive and on to the edge of the Town's ETJ. Wilson Mills Road is a two-lane facility widening to four lanes at the intersection with M Durwood Stephens Highway. There is no curb and gutter along the road. Land uses in the vicinity of the corridor include single family residential south of, and just to the north of the intersection with M Durwood Stephens Highway, and rural and undeveloped land north of the Town limits. There are currently no pedestrian facilities along the road. Wilson's Mills Road also crosses Poplar Creek on a 300-foot bridge. The bridge has insufficient pavement space and sub-standard sidewalk railing heights to support pedestrian traffic.

Challenges

Challenges to pedestrian improvements along Wilson's Mills Road include limited right-of-way, and lack of curb and gutter which would mean that any sidewalks constructed would likely require curb and gutter, increasing project costs. Additionally, the large intersection at M Durwood Stephens Highway would require crossing improvements such as crosswalks and pedestrian signals, as well as coordination with NCDOT on signal timing. An additional challenge is presented with the crossing of Poplar Creek as the bridge does not have pedestrian accommodations.

Recommended Improvements

Recommended improvements to Wilson Mills Road identified as projects 8a and 8b and include 5-foot sidewalks with curb and gutter on the east side of the road, and a 10-foot multi-use path on the west side of the road. In order to cross M Durwood Stephens Highway, crosswalks and pedestrian signals on all four legs of the intersection are recommended, as are pedestrian

Figure 4-3 Wilson Mills Road Pedestrian Improvements Rendering



Table 4-3. Wilson Mills Road Pedestrian Improvement Costs

Project Recommendation	Description	Estimated Cost
Sidewalk (Project 8a)	Wilson Mills Road sidewalks on the east side from Market Street north to M Durwood Stephenson Hwy	\$970,000
Sidewalk (Project 8a)	Wilson Mills Road sidewalks on the east side from M Durwood Stephenson Hwy to ETJ	\$2,440,000
Multiuse path (project 8b)	Wilson Mills Road multiuse path on the west side from Market Street north to M Durwood Stephenson Hwy	\$2,130,000
Multiuse path (project 8b)	Wilson Mills Road multiuse path on the west side from M Durwood Stephenson Hwy to ETJ	\$5,370,000

**PROJECT 2: Brightleaf Boulevard Pedestrian Improvements**

**Existing Conditions**

Brightleaf Boulevard travels northeast to southwest through Smithfield, paralleling I-95, and is a primary commercial corridor in the Town as well as the primary connection to Selma. Brightleaf Boulevard is a five-lane roadway with center turn north east of Brogden Road transitioning to a three-lane roadway with a center turn lane south of Brogden Road. A 350' two-lane bridge over the Neuse River is in the southern part of the corridor. The bridge has insufficient pavement space and sub-standard sidewalk railing heights to support pedestrian traffic. There are numerous driveways along the road that service businesses, retail locations, the Johnston Health Hospital and other medical providers. There are also intermittent residential uses along the corridor. Traffic volumes are highest on the northern end of the corridor which has an AADT of 21,500. Brightleaf Boulevard has some existing sidewalk, including sidewalk on both sides of the road from roughly the intersection of Market Street northeast to Hospital Road. But most locations have sidewalks on only one side of the road, and there are stretches of the road that have no sidewalks at all. Most of the road has existing curb and gutter.

**Challenges**

Challenges to pedestrian improvements along Brightleaf Boulevard include numerous driveways along the road which can potentially cause safety problems for pedestrians. Additionally, utility poles are in many areas where sidewalks are missing. Finally, the bridge over the Neuse River does not have the pavement width or sidewalk railing height to allow for pedestrian use. A replacement bridge is currently being designed by NCDOT.

**Recommended Improvements**

Recommended improvements include constructing sidewalk and closing sidewalk gaps to create a seamless pedestrian connection along Brightleaf Boulevard through the entirety of Smithfield. Because of the length of the proposed improvements, which are collectively identified as recommended project number 21, recommendations are split between five different sections (21a – e).

- Section A: Recommended improvements for Section A include the construction of sidewalks on the east side of Brightleaf Boulevard from the southern town limits to Brogden Road. This section also crosses the Neuse River on a two-lane bridge
- Section B: Sidewalks are recommended on the north side of Brightleaf Boulevard from the Neuse River north to Wellons Street. This section would connect to the recommended East Coast Greenway mixed use path (project 25b) along the Neuse River.
- Section C: Recommended improvements for Section C include constructing new sidewalks and closing sidewalk gaps on both sides of Brightleaf Boulevard between Brogden Road and Market Street.
- Section D: Section D recommendations include constructing sidewalks on the south side of Brightleaf Boulevard from where they currently end at the entrance to the UNC Health Care Early Learning Center to the Town limits (there is a short section of sidewalk in front of the Classic Ford dealership). Sidewalks are also recommended on the north side of Brightleaf Boulevard from Booker Dairy Road to M Durwood Stephens Highway.
- Section E: The final section of project 21 is from M Durwood Stephens Highway to Fieldale Drive. Sidewalks are recommended on the north side of Brightleaf Boulevard in this section.

Along with the recommended sidewalks pedestrian crossing facilities – such as high-visibility crosswalks – are recommended at all intersecting roads, and signalized intersections should be retrofitted with pedestrian activated crossing signals.

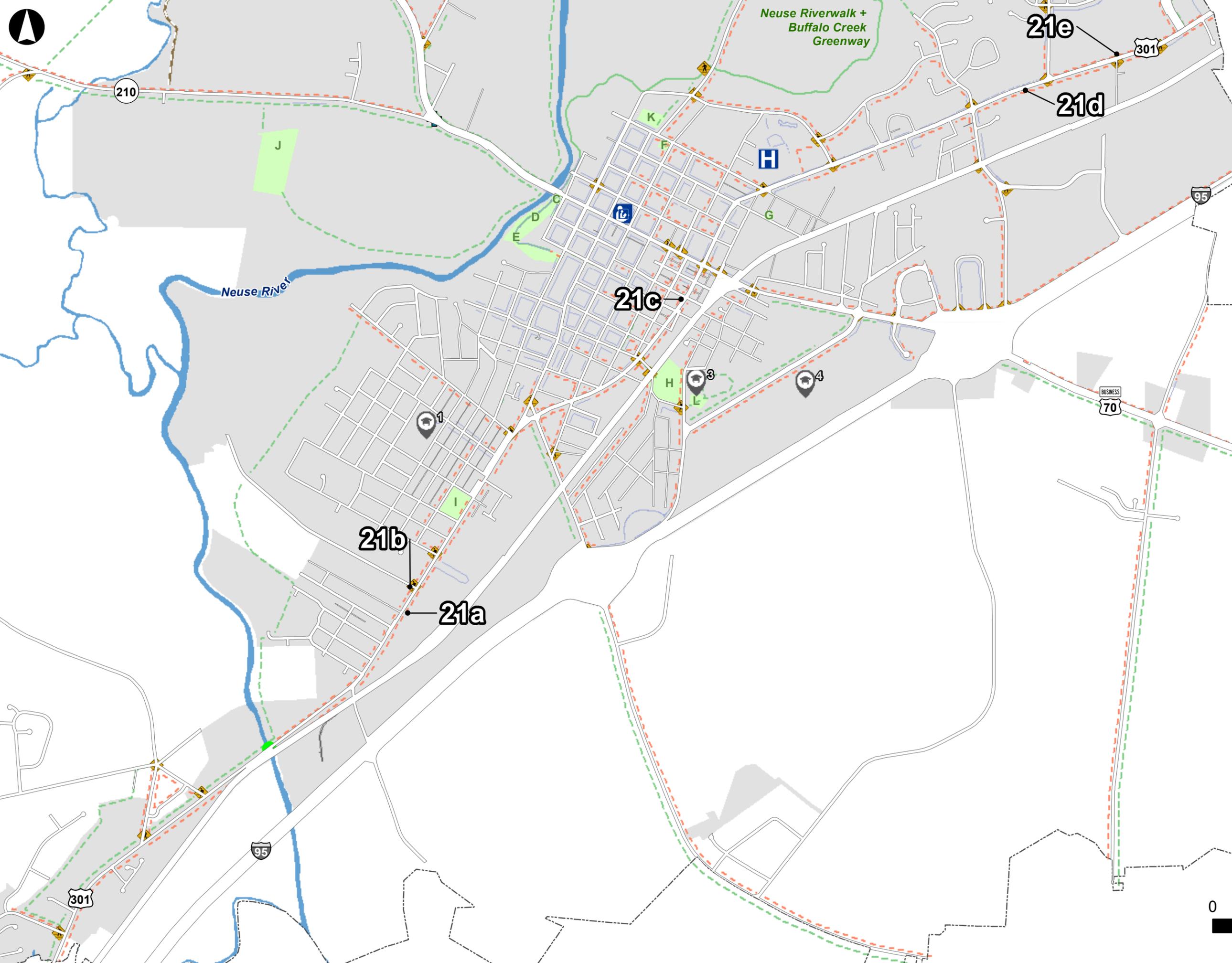
Figure 4–5. Brightleaf Boulevard Pedestrian Improvements Rendering



Table 4-4: Brightleaf Boulevard Pedestrian Improvement Costs

Project Recommendation	Description	Estimated Cost
Sidewalk (Project 21a)	Sidewalk on the south/east side of Brightleaf Boulevard from town limits to Brogden Road	\$4,085,000*
Sidewalk (Project 21b)	Sidewalk on the north/west side of Brightleaf Boulevard from Neuse River north to Wellons Street	\$1,415,000
Sidewalk (Project 21c)	Sidewalk on both sides of Brightleaf Boulevard between Brogden Road and Market Street	\$1,340,000
Sidewalk (Project 21d)	Sidewalk on south/east side of Brightleaf Boulevard from Booker Dairy Road to M Durwood Stephens Highway	\$1,980,000
Sidewalk (Project 21e)	Sidewalk on the north/west side of Brightleaf Boulevard from M Durwood Stephens Highway to Fieldale Drive	\$860,000

\* - Does not include Neuse River bridge improvements

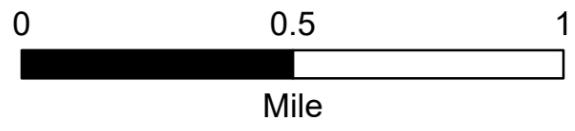


### Legend

-  Hospital
-  Public Library
-  School
-  Bridge Improvement
-  Proposed Crosswalk
-  Feasibility Study
-  Road Diet
-  Proposed Sidewalk
-  Existing Sidewalk
-  Proposed Boardwalk
-  Proposed Multiuse Path
-  Existing Greenway
-  Railroad
-  Park Property
-  Town of Smithfield
-  Smithfield ETJ

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  - 2. West Smithfield Elementary
  - 3. South Campus Community High
  - 4. Johnston County Early College Academy
  - 5. Smithfield Middle School
  - 6. Smithfield-Selma High School
  - 7. Neuse Charter School
  - 8. American Leadership Academy Charter



**PROJECT 3: Booker Dairy Road Pedestrian Improvements**

Existing Conditions

Booker Dairy Road extends from M Durwood Stephenson Highway south to Brightleaf Boulevard. The southern half of Booker Dairy Road is a three-lane road with a center turn lane and transitions to a two-lane road on the northern half of the road. Land uses in the vicinity of Booker Dairy Road range from commercial and office uses in the south and single-family residential uses in the north. There are existing sidewalks on the west side of the road in front of the Eden Woods Office Complex, and on the east side in front of the offices on either side of Bayhill Drive.

Figure 4-8. Booker Dairy Road Pedestrian Improvements Map



Challenges

Challenges to pedestrian improvements along Booker Dairy Road include a lack of curb and gutter which would mean that any sidewalks constructed would need to have a grassy strip between the edge of the road and the sidewalk, as shown in Figure 4-3. In areas where right-of-way is limited curb and gutter may need to be installed so the sidewalk can be installed, however this would increase project costs.

Recommended Improvements

A continuous sidewalk is recommended on the west side of Booker Dairy Road from Brightleaf Boulevard to M Durwood Stephenson Highway. A high-visibility crosswalk across all four legs of the intersection is also recommended at the intersection of Booker Dairy Road and Woodsdale Drive/Bayhill Drive.

Table 4-5. Booker Dairy Road Pedestrian Improvements

Project Recommendation	Description	Estimated Cost
Sidewalk (Project 13)	Construct sidewalk on the west side of Booker Dairy Road	\$860,000

Figure 4-7. Booker Dairy Road Pedestrian Improvements Rendering

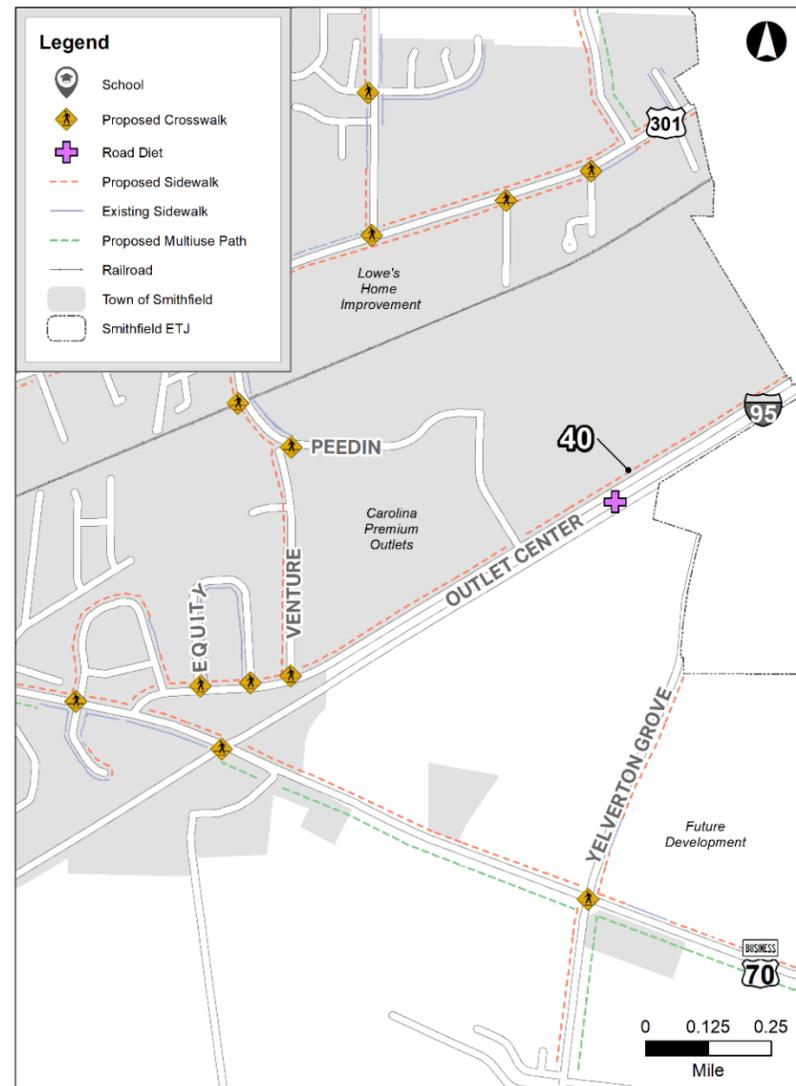


PROJECT 4: Outlet Center Drive Pedestrian Improvements

Existing Conditions

Outlet Center Drive begins at Market Street heading north east parallel to I-95 to the Smithfield town limits. Outlet Center Drive provides primary access to the Carolina Premier Outlet Mall, a regional shopping destination with over 80 stores and restaurants. Other land uses include hotels, retail, and restaurants, and a large manufacturing facility. Outlet Center Drive is a three-lane road, with two north east bound lanes and one southwest bound lane. Curb and gutter are present on the north west side of the road from Market Street to just before the intersection of Venture Drive (where the Super 8 hotel shown in Figure 4-3 is located).

Figure 4-10. Outlet Center Drive Pedestrian Improvements Map



Challenges

While there appears to be sufficient right of way for pedestrian improvements adjacent to the roadway, the lack of curb and gutter along most of the roadway means that either the sidewalk would need to be constructed with a grassed median between the sidewalk and the road, or curb and gutter would need to be installed so the sidewalk could be placed on the back of the curb. If the sidewalk is constructed separated from the road, additional right of way may be needed.

Recommended Improvements

Recommended improvements to Outlet Center Drive are shown as project number 40. Sidewalks are recommended on the north west side of Outlet Center Drive for its entire length. Where possible, sidewalks should be constructed with a grassed median between the sidewalk and the road. Along with the recommended sidewalks pedestrian crossing facilities – such as high-visibility crosswalks – are recommended at all intersecting roads. An additional, long-term recommendation is to reconfigure Outlet Center Drive (i.e., a road diet) to remove a lane, and add additional non-motorized options, such as a multiuse path.

Figure 4-9. Outlet Center Drive Pedestrian Improvements Rendering



Table 4-6. Outlet Center Drive Pedestrian Improvements

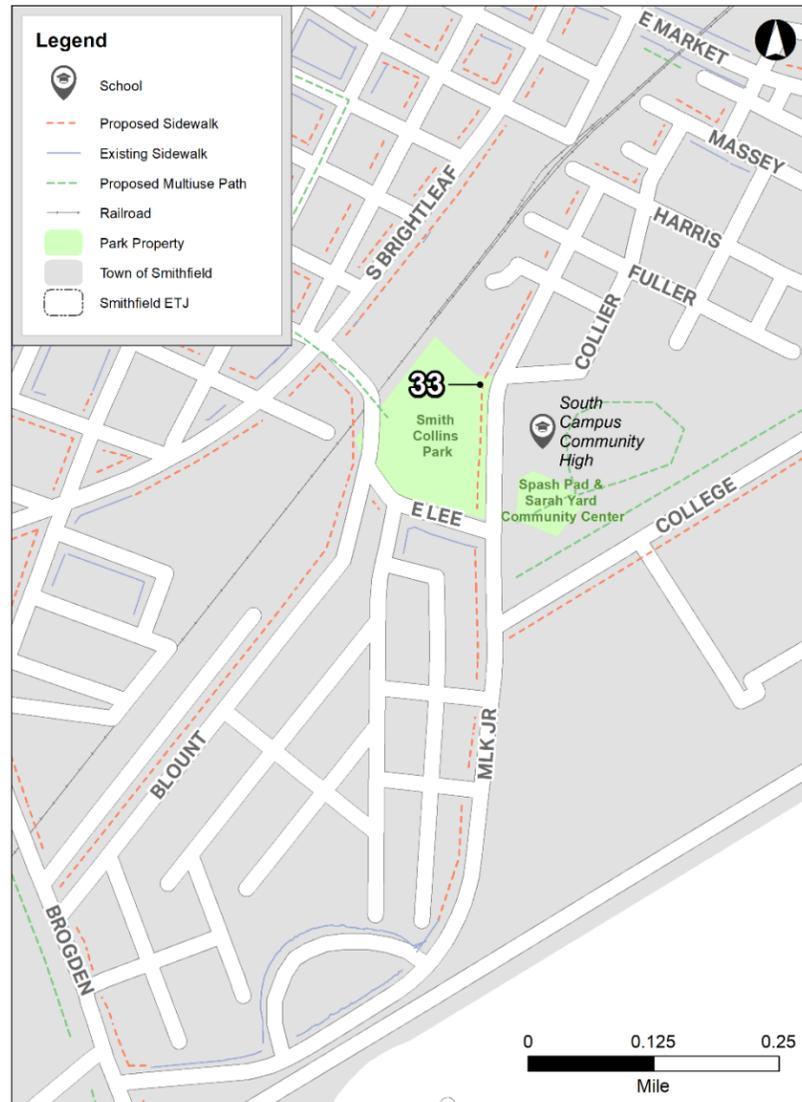
Project Recommendation	Description	Estimated Cost
Sidewalk (Project 40)	Construct sidewalk on the north west side of Outlet Center Drive.	\$1,670,000

**PROJECT 5: Martin Luther King Jr Dr/Harris St/Collier St/Massey St/Futrell Way Sidewalk Improvements**

Existing Conditions

Martin Luther King Jr Drive, Harris Street, Collier Street, Massey Street and Futrell Way are all residential streets located southwest of downtown Smithfield. While most of the land uses in the vicinity of these streets are single family residences, there are two park facilities – Smith Collins Park and the Eva E. Ennis Splash Pad – and the Innovation Academy at South Campus Middle School. There are no pedestrian facilities along any of the streets except for on Massey Street, which has sidewalks on both sides of the street.

Figure 4–12. Martin Luther King Jr Dr/Harris St/Collier St/Massey St/Futrell Way Sidewalk Improvements Map



Challenges

There is limited available right of way on the streets. Sidewalks would need to be constructed on the back of the curb

Recommended Improvements

Sidewalks are recommended on the west side of Martin Luther King Jr. Drive, Collier Street and Futrell Way, and on the north side of Harris Street and Massey Street.

Figure 4–11. Martin Luther King Jr Dr/Harris St/Collier St/Massey St/Futrell Way Sidewalk Improvements Rendering



Table 4-7. MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way Sidewalk Improvements

Project Recommendation	Description	Estimated Cost
Sidewalk (Project 33)	Construct sidewalk on the west side of Martin Luther King Jr. Drive, Collier Street and Futrell Way, and on the north side of Harris Street and Massey Street .	\$870,000

## Spot Projects

The purpose of a spot improvement is to address active transportation challenges at specific locations, such as intersections, crossings, and short gaps in a network. These types of improvements are generally low-cost and provide enhancements through surface improvements, signing, access enhancements, or functional upgrades. They can also include recommendations for specific locations of lighting improvements, street furniture, and wayfinding signage.

The following spot project types are recommended in this Plan:

- Crosswalks (Town-wide)
- Road diet (Outlet Center Dr.)
- Limited feasibility analysis (Intersection of NC 210 and W. Market St.)

All proposed spot improvements would be required to meet ADA standards, including ADA ramps, and include pedestrian amenities such as pedestrian scale lighting, which would light up crossing points. Any recommended midblock crossing on state roads would need to be approved by NCDOT and would require adequate sight distance to be approved. Finally, recommended crosswalks would need to have receiving sidewalks in place to be approved by NCDOT.

### *Spot Project Costs*

Planning-level costs are not included for intersection and other non-linear improvements in NCDOT's BPCE tool, so the PBIC report *Costs for Pedestrian and Bicyclist Infrastructure Improvements* (2013) was used. The PBIC's report utilizes a combination of recently constructed bicycle and pedestrian projects in North Carolina to estimate costs for spot projects. Estimated costs were adjusted to 2022 dollars by using an annual inflation factor of 3.5 percent.

Per unit cost estimate for spot projects are:

- |                             |                        |
|-----------------------------|------------------------|
| ▪ High Visibility Crosswalk | \$4,200/each           |
| ▪ Pedestrian Signal Head    | \$800/each             |
| ▪ Limited Feasibility Study | \$25,000 <sup>11</sup> |
| ▪ Road Reconfiguration/Diet | \$25,000 <sup>12</sup> |

### **Limited Feasibility Analysis:**

*NC 210 Intersection with W. Market St.*

A limited feasibility study is proposed to evaluate safe pedestrian crossing accommodations to assess traffic volumes, potential signals, changes to stop bar location and additions to pedestrian refugee islands.

<sup>11</sup> Source: AECOM

<sup>12</sup> Source: AECOM (costs include only feasibility study only)

**Legend**

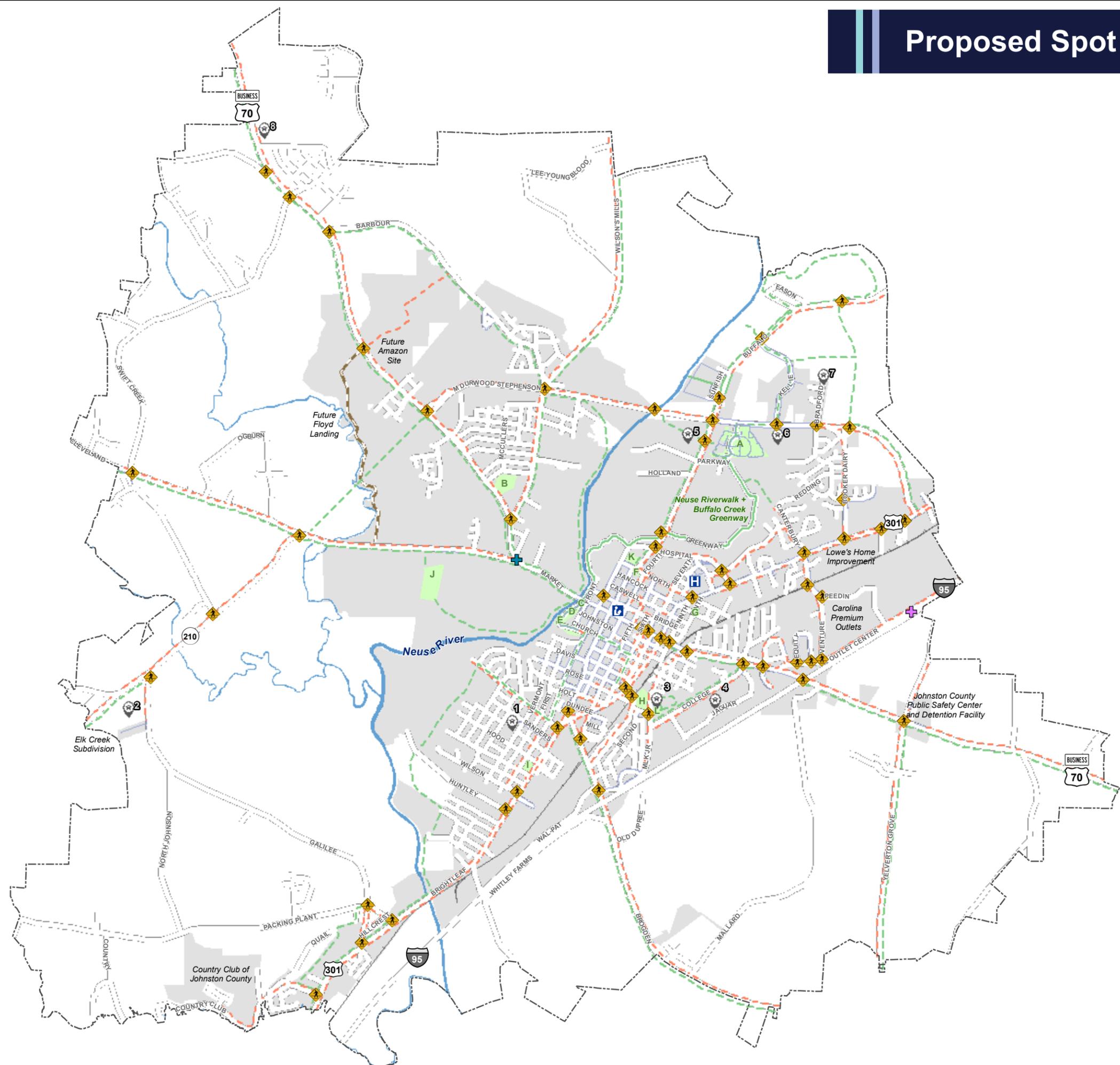
- Proposed Crosswalk
- Proposed Feasibility Study
- Proposed Road Diet
- Hospital
- School
- Proposed Sidewalk
- Existing Sidewalk
- Proposed Boardwalk
- Proposed Multiuse Path
- Existing Greenway
- Railroad
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## Additional Considerations

### *Green Infrastructure and Resiliency*

Developed areas with impermeable surfaces, such as pavement and building materials prevent groundwater infiltration, and instead exacerbate stormwater runoff. This direct flow of water into nearby water can carry pollutants and lead to erosion, flooding, and degradation of aquatic habitat, property, and infrastructure damage depending on the speed and flow of the runoff. Green infrastructure includes a range of approaches for managing stormwater, however, three approaches that will be applicable to the Plan are described briefly below.

#### *Permeable Pavement*

An environmentally friendly alternative to traditional asphalt or concrete. Permeable pavement helps reduce stormwater runoff, recharges groundwater, traps suspended solids and pollutants, reduces the heat island effect, and reduces the need for grey infrastructure including retention basins and water collection areas.<sup>13</sup>

#### *Bioswales and Bioretention Cells*

Low maintenance, linear landscaped depressions or channels designed to capture and treat stormwater. Bioswales are a low impact development method that typically contain mulch, native plants, and may contain drought tolerant plants.<sup>14</sup> These bioretention systems contain gently sloped sides that direct water, allowing for the slow absorption of water and pollutants, and are engineered and constructed to ensure adequate percolation and filtration of captured runoff.

#### *Native Landscaping*

Trees, shrubs, or other plantings that are native to the ecosystem help promote evapotranspiration which helps reduce the amount of stormwater runoff or flooding. Landscaping also helps absorb pollutants while promoting increased habitat for flora and fauna. This helps enhance the pedestrian experience as well, providing shade, and a buffer between active transportation routes and the roadway.

#### *Riparian Buffers*

Riparian buffers (also called greenbelts) are undeveloped areas adjacent to bodies of water, typically consisting of native plantings and shrubs.



<sup>13</sup> Green Building Alliance: Permeable Pavement at <https://www.go-gba.org/resources/green-building-methods/permeable-pavements/>

<sup>14</sup> EPA: Enhancing Sustainable Communities with Green Infrastructure at <https://www.epa.gov/sites/production/files/2016-08/documents/green-infrastructure.pdf>

They help capture runoff by increasing stormwater infiltration into soil, stabilize soils, reduce shoreline erosion, and provide increased wildlife habitat. These are measures that can be taken along active transportation routes that align with the Town's flood-prone areas.

### *Wayfinding and Lighting*

Wayfinding signage is currently located throughout the Town (see photo to right). Additional wayfinding signage and lighting is recommended throughout the Town as a strategy to achieve the following objectives:

- Promote Smithfield as a destination for walking and tourism
- Encourage walking by making the town easier to navigate
- Contribute to the Town's development projects and effort to improve walkability
- Improve the safety and overall visibility of the community through installation of lighting

Wayfinding signage should complement Smithfield's landscape and list nearby destinations with arrows for navigation. Walking distances may be included on the signs as space allows to further orient the pedestrian. Lighting should consider the lamp temperature and be mindful of long-term maintenance and operation costs. Dark sky lighting options may also be an important consideration to protect against light trespass for habitat-sensitive recreation areas.



*Existing Wayfinding Signage.*

## 4.5 Recommended Pedestrian Policies and Programs

In addition to recommended infrastructure and policy improvements, the planning team considered policies and programs that, if implemented, could encourage non-motorized transportation usage in the Town and improve safety conditions for pedestrians.

### Recommended Policies

The Town of Smithfield’s Unified Development Ordinance (UDO) was reviewed in order to understand how it influences the planning of pedestrian enhancements. One of the most cost-effective strategies for implementing this Plan would be to establish land development regulations and street design policies and standards that promote walkable new development and capital projects.

The consultant team reviewed regulatory and policy language from other communities in North Carolina and used best practices that provide successful land use and active transportation integration, alignment with sustainable nature-based and sustainable land use planning in response to flooding and to encourage resiliency, and Complete Streets. The goal is to encourage safe, alternative options to vehicular use through policy-level planning efforts. These should work in tandem with the infrastructure projects recommended throughout Section 4.4 Recommended Infrastructure Improvements. Including safe alternative options to vehicular use can help encourage residents to walk for both transportation and leisure purposes. Redevelopment and new development permitted in the Town of Smithfield should provide for active transportation facilities.

Table 4-10 identifies updates to the Town of Smithfield’s zoning ordinance that the Town Council can make to encourage pedestrian activity.

*Table 4-8. Recommended Zoning Ordinance Updates*

Existing Condition	Current Policy or Condition	Recommended Changes and Comments
Section 2.2 Sidewalks	Currently applies to O/I (Office/Institutional), B-1 (CBD), B-2 (General Business), and B-3 (Highway Entranceway Business) district construction requiring 5 ft sidewalks	Amend Section 2.2 to include 6.3.2. R-10 Single-Family Residential District. And 6.3.3. R-8 Single, Two, and Multi-Family Residential District.  Add new section stating that in lieu of sidewalk improvements, prior to issuance of a Certificate of Occupancy, the city may enter into an agreement with the developer to provide a fee in lieu of the improvements in cash, or other readily available instrument that equals the entire probable cost of the improvements.

Existing Condition	Current Policy or Condition	Recommended Changes and Comments
<p>Section 6.5 Overlay Zoning Districts, 6.5.2. ECO Entry Corridor Overlay District.</p>	<p>A district established to provide development standards for particular roadway corridor areas which are in addition to those provided by the other zoning districts established by the Unified Development Ordinance.</p>	<p>Amend Subsection 6.5.2 to create an Active Transportation Overlay Zoning District along all linear corridors defined and mapped in the Town of Smithfield Pedestrian Plan. See “proposed projects” in Section 4.4.</p> <p>This regulation is intended to require sidewalk/multiuse infrastructure requirements for any new or proposed construction or reconstruction projects that abut proposed pedestrian projects throughout the town.</p>
<p>Article 8 Zoning District Design Standards, Sections 8.4 R6, 8.6 O/I, 8.8 B2, 8.9 B-3</p>	<p>Zoning districts (including 8.4 High Density Residential, have minimum front setbacks of 25-feet, 8.6 Office/Institutional has 25-feet front setback. 8.8 General Business District has 25-feet front setback. 8.9 Highway Entranceway Business District has variable front setbacks of 100/50 feet for major, 50/35 feet for minor/other use.</p>	<p>Amend zoning to require minimum front setbacks in commercial and high-density residential districts of 15 feet to better align with Central Business District setback. Require new commercial buildings to be placed close to the sidewalk and require either rear or side parking.</p> <p>The standard setback of 25 - 50 feet or greater does not create a pedestrian-friendly environment. In walkable urban environments, buildings placed at the edges of sidewalks and public spaces, rather than being set back, can greatly enhance the character of the pedestrian environment. To promote design that fosters a safe and inviting pedestrian environment, the adoption of a smart growth, performance-based code provisions or standards are recommended. These types of zoning standards can help create vibrant walkable communities.</p> <p>More information regarding smart growth codes can be found at <a href="https://www.epa.gov/smartgrowth/codes-support-smart-growth-development">https://www.epa.gov/smartgrowth/codes-support-smart-growth-development</a> and <a href="https://formbasedcodes.org/">https://formbasedcodes.org/</a>.</p>

Existing Condition	Current Policy or Condition	Recommended Changes and Comments
	New Section	Parking lots should be located behind future developments to provide a safer entrance for pedestrians accessing the business.
Article 10,111 Street Connectivity Requirements	Requirements for an interconnected street system is necessary in order to protect the public health, safety, and welfare and to provide adequate access for emergency and service vehicles, to enhance nonvehicular travel such as pedestrians and bicycles, and to provide continuous and comprehensible traffic routes.	Amend this section to require sidewalks and sidewalk and roadway connections between both residential and nonresidential developments (stub outs) to allow greater multimodal connectivity and traffic flow between developments and to reduce and limit cul de sac streets to the maximum extent practicable to mitigate future traffic and access issues.
Section 10.112. 3	Subdivision fronting major thoroughfares are required to construct four (4) feet wide sidewalks along the frontage.	<p>Amend to require a minimum of five (5) feet wide sidewalks.</p> <p>Amend to include that all sidewalk facilities require compliance with ADA. This should include curb ramps on sidewalks at all crossings and a restriction of cross slopes of more than two (2) percent. National and statewide plans are used by NCDOT to guide the planning, design, and construction of bicycle and pedestrian infrastructure.</p> <p>Amend to include wider sidewalks, between 10'-15', in the general business district to allow for outdoor dining.</p>
Section 10.112 Sidewalks	Requirements for sidewalks	Amend to include active transportation (e.g., sidewalks or multiuse paths) shall be located on at least one side of each street or roadway of a new development, subdivision, redevelopment, or newly paved street within all residential and business zoning districts.
	New Subsection	<p>Amend to include new sub section that vegetative buffering and/or landscaping should be provided along newly constructed, developed, or re-developed sidewalks or multiuse paths to provide increased drainage during storm or flood events, shade, and natural resource protection. Permeable pavement should also be used, where feasible, to increase drainage.</p> <p>This should follow FHWA's <i>Nature-based Resilience for Coastal Highways</i> guidance.</p>
	New Subsection	Amend to include new sub section that when an existing sidewalk or multiuse path is closed for construction or maintenance reasons – on the walkway itself or on adjacent property – an adequate detour route should be established and signed, if feasible.

Existing Condition	Current Policy or Condition	Recommended Changes and Comments
Article 10, Part VII Flood Damage Prevention	Section 10.74.10 includes specifications for “Other Development” including fences, retaining walls, roads/watercourse crossings.	<p>Add sub article that requires hybrid green/nature-based infrastructure and stormwater infiltration, conveyance, and storage improvements be included on all roadway upgrades, new construction, or reconstruction to help mitigate impacts from stormwater and nuisance flooding.</p> <p>This may include larger-diameter grey infrastructure and combinations of green and gray infrastructure such as vegetative buffers, storm sewers, and culverts.</p> <p>This should follow FHWA’s <i>Nature-based Resilience for Coastal Highways</i> guidance.</p>
Article 10 Part III Sign Regulations	New Section	Signage that provides wayfinding for active transportation users should be required on construction of all active transportation facilities including greenways, shared use paths, bicycle facilities, and sidewalks.

- Town of Smithfield UDO: [https://www.smithfield-nc.com/page/planning\\_UDO](https://www.smithfield-nc.com/page/planning_UDO)
- NCDOT Complete Streets: <https://connect.ncdot.gov/projects/BikePed/Pages/Complete-Streets.aspx>
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities: [http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07\(263\)\\_FR.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07(263)_FR.pdf)
- WalkBikeNC North Carolina Statewide Pedestrian and Bicycle Plan: <https://altaplanning.com/wp-content/uploads/WalkBikeNCPlanChapterslowres.pdf>

The consultant team also reviewed the Smithfield Town Plan, Volume 3: Transportation Element. Below are policy amendments recommended for the Town Plan related to the recommendations made in this plan.

**A.1** Promote and incentivize the development of safe, efficient, reliable and interconnected multimodal transportation systems.

A.1.1 Require multimodal transportation. Amend development code to require accommodation of multimodal transportation to improve multiple forms of mobility including pedestrian (meeting ADA standards), bicycle and scooter.

A.1.2 Require alternative energy facilities. Require the installation of electric charging stations and/or alternative fueling stations and its infrastructure in both publicly accessible locations and new development projects that require additional off-site parking or additional on-street parking on public streets

A.1.3 Plan for first/last mile connectivity. Promote first/last mile travel options that do not require automobiles, such as walking, bikes, scooters, and other micro mobility options

**B.1** Require new street projects include green and complete streets, along designated corridors where proposed projects are planned.

B1.1 Adapt proposed development code amendments for new and existing streets that require pedestrian, bicycle and green infrastructure facilities, and utilize tools for incorporating nature-based solutions such as the Green-Growth Toolbox (<https://www.ncwildlife.org/conserving/programs/Green-Growth-Toolbox>).

B.1.2 Utilize green infrastructure best practices. Retrofit existing streets to incorporate green infrastructure elements that address stormwater management, and urban heat island impacts, and improve air quality and incorporate other natural system best practices.

**C.1** Require resilient infrastructure and development. New private and public development and infrastructure projects need to incorporate climate change considerations and solutions. The town should also look forward and

develop community plans and other tools that can help to inform development projects regarding climate change issues.

C1.1. Advocate for and lead the development of resilience, hazard mitigation, and Climate Adaptation Plans and incorporate into all town comprehensive planning processes.

C.1.2 Develop resilience-based design standards and building codes. Update development review process to require green and resilient standards. Collaborate with supporting professional organizations and NCORR to update and/or develop national resilient development design standards and codes for adoption into local regulations.

D.1 Plan for mixed land-use patterns to create walkable communities. Promote and incentivize the development of projects that create vibrant places that people want to experience and live in. Locating nonresidential uses near residential uses allows residents to walk or bike from home to work, shop, or play areas, resulting in fewer vehicular trips. These development patterns reduce the number of vehicle trips and vehicle miles traveled, reducing carbon emissions from automobiles or transit systems.

D1.1 Encourage mixed-use area development. Provide incentives for developing mixed-use neighborhoods, such as zoning code density bonuses for developments that include pedestrian and bicycle facilities with well-conceived neighborhood design elements such as open spaces, crosswalks, street furniture, significant landscaping etc.

D.1.2 Plan for and protect significant open space areas. Provide green spaces within and around mixed-use areas to allow all residents access to the natural environment.

## Recommended Programs

To encourage active transportation in Smithfield, a series of programs can be administered to socialize the public to multimodal activities and/or facilities. The focus is to educate both active transportation users and vehicular users while bringing awareness to proposed recommendations. Five programs that would be beneficial to the Town of Smithfield are as follows:

- Safety campaigns to educate pedestrians and drivers
- Enhance safe access to schools
- Provide open street and walking events
- Improve local aesthetics with public art
- Enforce existing driving laws and speed limits

### *Active Transportation Advisory Committee*

The Town should consider forming an Active Transportation Advisory Committee (ATAC) in order to encompass all multimodal activities and for alignment with NCDOT's Integrated Mobility Division nomenclature and multimodal directives. This group will be important to organize and maintain the proposed programs and identify and seek out funding sources that will help the town achieve its goal of becoming a more walkable community.

The ATAC will serve to research funding opportunities, assist with submission of grant applications, and play a role in selecting and monitoring the work of consultants and contractors designing and constructing pedestrian infrastructure. It would also serve to form partnerships between schools, businesses, and neighboring municipalities. The ATAC should continue to meet regularly and provide updates to the Town of Smithfield's

Commissioners. In addition to helping implement proposed projects, the Town Commissioners and ATAC should promote education, safety, encouragement, enforcement and evaluation, events, and beautification programs.

### *Safety Campaigns to Educate Pedestrians, Active Transportation Users, and Drivers*

Watch for Me NC is a comprehensive campaign aimed at reducing the number of active transportation users, including pedestrians, hit, and injured in crashes with vehicles. The campaign consists of educational messages on traffic laws and safety, and an enforcement effort by area police. With more than 3,000 pedestrians and 850 bicyclists hit by vehicles each year in North Carolina, NCDOT in collaboration with municipalities and universities has launched the Watch for Me NC campaign to reduce crashes through education and enforcement. Education materials in the form of a website, public service announcements, pamphlets, bus wraps, billboards, and bumper stickers have been developed and distributed to increase awareness of pedestrians and bicyclists and applicable laws. Many of the materials can be distributed at local festivals and other events, at local businesses. The campaign also provides increased training to law enforcement. Many of these resources are downloadable from Watch for Me NC at: <http://www.watchformenc.org/>.



To encourage safely walking and bicycling to school, the Town could facilitate its school's participation in the NCDOT program Let's Go NC! — Pedestrian and Bicycle Safety Curriculum. Aimed to instruct children between grades K-5, the program focuses on walking and biking skills to promote safety. To promote healthy and active lifestyles, a curriculum was developed that includes aspects of the SRTS program in addition to classroom, video, and exercise materials.



More information can be found at: [www.connect.ncdot.gov/projects/BikePed/Pages/LetsGoNC.aspx](http://www.connect.ncdot.gov/projects/BikePed/Pages/LetsGoNC.aspx)

### *Open Street & Walking Events*

The Town of Smithfield has unique characteristics that can be showcased through outdoor events that could be supported by pedestrian facilities. Downtown Smithfield closes part of South Third Street to traffic and opens it up to dining and music. This event is known as Third StrEATery and took place on select dates during Summer 2021 in the evening.

While most of Third Street is already lined with existing sidewalks, the implementation of nearby pedestrian projects could improve walkability to and from this event. New pedestrian infrastructure could also encourage more events in the future. In addition, the infrastructure would support walkable and inviting streets that would encourage festival attendees to explore the rest of Smithfield.



The Neuse River is a natural local attraction in Smithfield that encourages walking through use of the existing greenway network. The Town could develop informal walking tours to encourage pedestrian activity among visitors and highlight the attractions and resources one can find in the Town. To achieve this, the Town could designate a few different loops that are walkable and connect habitats, attractions, and local businesses. These loops could be mapped onto pamphlets that are made available at the Town Hall, local businesses along Market Street, schools, and Smithfield's numerous parks and recreational

facilities. Callouts on the maps could show parking options, pedestrian routes, animal and plant habitats, food options, and key attractions that are within walking distance of one another.

More information on open streets and walking events can be found at: [www.openstreetsproject.org](http://www.openstreetsproject.org)

### *Public Art & Environmental Education*

Creating a welcoming and enjoyable walking environment is an important component of developing a walkable community. Local art could also be incorporated with sidewalk projects and alongside signage for local businesses and seen as an advertising opportunity to promote economic vitality for local businesses, as well as environmental awareness and a sense of stewardship for the Neuse River. Small plaques including the name of local species along the Neuse River or artists with their business name and location could be placed along walking paths. The Town could encourage local artists to donate their art or pay a small fee to cover installation and maintenance fees in exchange for the advertising that would result from the public display of their art.

### *Educating Citizens on Existing Driving Laws & Speed Limits*

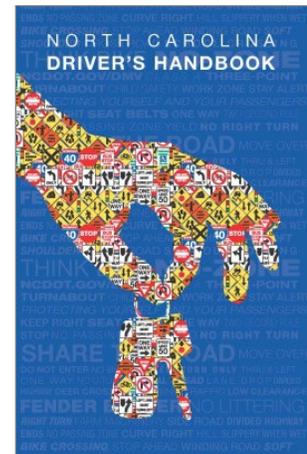
Education is essential for teaching and reminding drivers of all ages the applicable laws and responsibilities of motorists as they pertain to safely sharing the road with bicyclists and pedestrians. This also includes educating police officers on pedestrian and active transportation user laws.

Although children aged 5 to 15 years are not yet old enough to drive, it can be expected that the majority will become automobile users. Educating elementary and middle school students (the future driving population) about bicycle and pedestrian safety provides excellent opportunities to make a difference in a two-fold manner.

Pedestrian safety, as well as how to safely maneuver an automobile while in the presence of pedestrians and bicycles can be an instrumental part of any driver's education program in Smithfield. This training will allow new generations to be more aware of the simple fact that motorized vehicles do not have sole right to the transportation network, and it is everyone's responsibility to be careful when in the roadways.

More information can be found at: [www.ncdot.gov/dmv](http://www.ncdot.gov/dmv).

The NC Bicycle and Pedestrian laws can be found at: [www.ncdot.gov/divisions/bike-ped/Pages/bike-ped-laws.aspx](http://www.ncdot.gov/divisions/bike-ped/Pages/bike-ped-laws.aspx).



## 5.0 Implementation

Achieving the vision, goals, and objectives of this Plan will require the commitment of Town officials and staff, Task Force or ATAC, UCRPO, NCDOT, and the support and leadership from the community and other partner organizations. Guided by the goals, objectives, and strategies, Smithfield will continue working to improve pedestrian safety and connectivity.

The implementation strategy for this Plan includes several components to assist with translating this document into implemented programs and constructed pedestrian facilities:

- Key Action Steps: Describing actions to help the town implement the recommendations of this Plan and improve overall pedestrian facilities
- Project Development Strategies: Utilizing key action steps to implement specific projects
- Funding Process and Sources: Identifying and mobilizing funding for projects
- Performance Evaluation Measures: Evaluating the effectiveness of projects

Adopting this Plan is a necessary first step for improving pedestrian safety and mobility in Smithfield. Coordination with NCDOT Division 4 and UCRPO will be critical to implementing the infrastructure projects proposed in this Plan.

### 5.1 Key Action Steps

The newly formed ATAC is entrusted with overseeing the implementation of the Plan with assistance from Town staff and participation by the stakeholders. The ATAC would be responsible for meeting regularly to receive updates and guide progress on the action steps. It would also author the annual progress update submitted to the Town Council on multimodal conditions in Smithfield.

In addition, all infrastructure recommendations along NCDOT-maintained roadways would require review and approval by NCDOT Division 4 prior to implementation. All roadway projects along NCDOT owned roads should be compliant with the NCDOT Complete Streets policy and implement pedestrian recommendations in this Plan. The key actions are listed in Table 5-1. The timeline for the action steps is meant as a general guide and can be modified as necessary.

Table 5-1. Key Steps to Implementation

Action	Description	Stakeholder	Timeline
Adopt the Smithfield Comprehensive Pedestrian Plan	Present the Plan to the Smithfield Town Council for adoption.	Planning Board, Town Council and town staff	Winter 2022/2023
Amend Smithfield’s Town Plan – Transportation Element	Amend the Transportation Element of Smithfield’s Town Plan to incorporate recommended projects from this plan into the CTP.	Town Council and town Staff	Winter 2023
Adopt a sidewalk overlay district	Adopt a sidewalk overlay district to require sidewalk infrastructure be built throughout the Town.	Town Council and town staff	Spring 2023
Create an Active Transportation Advisory Committee (ATAC)	Create a formal advisory committee that will be responsible for overseeing the implementation of the Plan.	Town Council and town staff	Winter 2023
Strengthen partnerships with UCRPO and NCDOT Division 4	Hold an initial meeting with the stakeholders to provide an overview of the Plan’s recommendations and identify opportunities for collaboration.	UCRPO, NCDOT Division 4, and town staff	Winter 2023/ ongoing

Action	Description	Stakeholder	Timeline
Apply for Watch for Me NC	Apply to participate in NCDOT’s Watch for Me NC campaign to raise awareness and provide educational resources to promote bicycle and pedestrian safety to residents, drivers, and law enforcement.	ATAC and town staff	Winter 2023/ ongoing
Identify potential funding sources during town budget planning	Identify potential funding sources for pedestrian programs, projects, and maintenance in the town’s budget such as Powell Bill funds. Begin to accumulate funds that can be used for the local match required for most projects.	ATAC, Town Council, and town staff	Winter/ Spring 2023
Apply for alternative funding sources for the Plan’s projects and programs	Refer to the funding sources identified in this Plan in Appendix D; apply for funds in addition to the STIP process to implement programs and projects. Establish a fund to use for local match requirements.	ATAC and town staff	Ongoing
Include requirements for pedestrian facilities in town ordinances and policies	Draft amendments to town ordinances and policies following the recommendations of this Plan and NCDOT’s Complete Street Policy for pedestrian infrastructure in existing and new development.	Planning Board, and town staff	Winter/ Spring 2023
Coordinate with Johnston County Schools	Begin meeting with Johnston County Transportation Services to establish and develop policy for implementation and/or training or programs for Smithfield’s schools.	Johnston County Schools, town staff, NCDOT, NC Division of Public Health	Spring 2023
Partner with local artists, businesses, and the parks department	Partner with local artists, businesses, and the parks department to work on placemaking projects.	Local artists, art organizations, and town staff	Spring 2023
Prepare the Smithfield Comprehensive Pedestrian Plan Annual Report/Memo	Prepare the first Smithfield Pedestrian Plan Annual Report or memo assessing progress made annually using the performance and evaluation measures included in this Plan.	ATAC and town staff	Fall 2023

## 5.2 Project Development Strategy

The development process to prepare for a project’s construction involves six key components described below. This strategy can be used to implement infrastructure projects proposed in this Plan. When applicable, each component of the strategy will incorporate action steps described in Table 5-1, demonstrating how Town officials can implement the project through the following:

- Identification of funding source(s)
- Public involvement
- Feasibility Study (right-of-way availability and needs)
- Engineering and design
- Analysis of affected property owners
- Design-level cost estimates

The project development process will vary depending on whether the project is on-road or off-road on a new location. Roadway re-striping and traffic calming measures, such as speed tables, are on-road improvements

typically constructed within the road right-of-way. However, adding sidewalks may involve obtaining additional right-of-way and/or easements from adjacent property owners.

### Identification of Funding Sources

Funding for pedestrian infrastructure projects needs to be identified early in project development. Many funding options are presented in Section 5.3 of this Plan. Relevant action steps include the following:

- Coordinate with the UCPRPO to include infrastructure projects in the regional planning process
- Align with Town budget planning
- Apply for alternative funding sources for the Plan's projects and programs
- Partner with North Carolina Department of Commerce for grants and technical assistance
- Form public-private partnerships

### Scoping Report/Feasibility Study

Regardless of whether the proposed facility is on-road or off-road, the project will require a project scoping report (part of express designs) or a feasibility study (usually part of large corridor projects). A project scoping report or feasibility study would likely be done for each proposed project, a small group of inter-related projects, or an entire project corridor. The study will examine the utility and right-of-way issues associated with a proposed facility and provide concept plans, profiles, and high-level cost estimates. The study will determine utility constraints, and if right-of-way acquisition is necessary for the project. The study should be conducted in consultation with NCDOT where occurring within an NCDOT right-of-way.

Some of the pedestrian projects proposed in this Plan would be on-road facilities within NCDOT rights-of-way that require coordination with NCDOT. On NCDOT roads in the Town, roadway re-striping to reallocate road space has the potential to be accomplished cost-effectively through the division's resurfacing projects. As identified in the key action steps table, coordination with NCDOT Division 4 should be initiated following the adoption of this Plan. There may be opportunities to include pedestrian facilities proposed by this Plan in road repaving and widening projects. An important role for the ATAC would be to monitor the NCDOT Division 4 resurfacing schedule. This could be accomplished through arranging quarterly check-ins with the Division Operations and Maintenance personnel to determine upcoming resurfacing plans or coordinating with the UCPRPO. Although NCDOT communicates with local municipalities concerning upcoming resurfacing plans and the 2019 Complete Streets Policy ensures pedestrian plans be considered in resurfacing projects, coordination with NCDOT is recommended to ensure projects in this Plan can be implemented through resurfacing.

Project scoping reports or a feasibility study could require coordination at multiple levels from the Town to NCDOT. The following actions would assist in coordinating and conducting feasibility studies:

- Adopt the Smithfield Comprehensive Pedestrian Plan
- Strengthen partnerships with Johnston County and the UCPRPO
- Coordinate with NCDOT Division 4
- Coordinate with the UCPRPO to include infrastructure projects in the regional planning process and in the CTP
- Include in Town budget planning
- Develop partnerships with local and regional businesses to help fund wayfinding, arts, and streetscape elements

## Engineering and Design

In the engineering and design phase, concepts developed in the feasibility study will be developed and advanced using more in-depth engineering to develop a preliminary design. During this phase additional, more specific information on right-of-way and utility constraints will be developed. As with the feasibility study, the planning and design phase should be conducted in consultation with NCDOT where occurring within an NCDOT right-of-way. Because engineering and design follow feasibility studies closely, many applicable action steps are the same:

- Coordinate with NCDOT Division 4
- Coordinate with the UCPRPO to include infrastructure projects in the regional planning process
- Align efforts with Town budgeting and planning

## Analysis of Affected Property Owners

It is best to develop projects within existing town or NCDOT right-of-way to minimize right-of-way acquisition and costs. Typically, pedestrian infrastructure projects, including those in this Plan, utilize existing roadways, sidewalks, and rights-of-way, as the acquisition of private property would reduce the feasibility of the project. Shared use paths are an example of a project that typically requires right-of-way acquisition. However, if a project requires the acquisition of additional rights-of-way, the feasibility study, engineering, and design identify property owners who could be impacted by a project's alignment and construction. Once those property owners are identified, town officials should coordinate with NCDOT (if on NCDOT road) on the process to initiate contact with impacted property owners and acquire right-of-way.

As part of the project selection process, this Plan considered available right-of-way and based on high-level analysis, only proposes projects that would fit within the existing right-of-way. Pedestrian projects that could require the acquisition of rights-of-way typically include those that are not using existing roadways or sidewalks.

## Design-level Cost Estimates

A critical component of a project's engineering and design is developing the design-level cost estimates for proposed project alternatives. Detailed cost estimates allow the Town Council to evaluate alternatives, present options to the public, receive public input, and ultimately decide on the alternative that best fits the Town's goals and budget. Design-level cost estimates are generated by the project engineers tasked with designing the project alternatives. Cost estimates include the following details, at a minimum:

- Roadway/path/sidewalk construction
- Utility construction or relocation
- Right-of-way acquisition
- Contingencies that could arise during project construction

## Public Involvement

This is a critical component for soliciting community input on the location, design, and function of the proposed facility. In addition, public involvement is critical in forming partnerships with local advocacy organizations and educating the community about the overall benefits of active transportation. Public involvement should be included in all phases of project development. Practical action steps include the following:

- Form an Active Transportation Advisory Committee (ATAC) that periodically reaches out for public input into pedestrian planning activities and implementation strategies

- Carry out programs that educate residents on the health benefits of active transportation
- Conduct wayfinding and traffic calming studies
- Participate in Watch for Me NC

## 5.3 Funding Sources

This section discusses the state funding process and other potential funding sources. Funding for pedestrian projects will likely not come from a single source, and instead will need to be combined with several funding sources that can be used for a variety of activities, including the following: feasibility studies, planning, design, implementation, and maintenance. Although funding is available from outside sources, it is highly recommended that the Town establish a source of local matching funds for potential grants. Even small amounts of local funding are essential for matching and leveraging outside sources. Local matching funds can be achieved through allocations to a reserve fund from the capital budget. In addition, many grants allow in-kind matching (e.g., local staff time).

### State Funding Process for Transportation Improvements

In June 2013, the North Carolina General Assembly overhauled the process for funding state transportation projects with the Strategic Transportation Investments law (House Bill 817). This law establishes the Strategic Mobility Formula to allocate funds through a competitive process based on quantitative criteria and local input. The formula is intended: “to maximize North Carolina’s existing transportation funding to enhance the state’s infrastructure and support economic growth, job creation and high quality of life.” This formula is applied in creating the State Transportation Improvement Program (STIP), which is NCDOT’s ten-year transportation improvement plan for the state. The STIP is updated every two years and includes projects across six transportation modes: highway, aviation, bicycle/pedestrian, public transportation, ferry, and rail.

Active transportation projects that are submitted through the NCDOT project prioritization process as part of a roadway project must meet the following requirements based on the latest round of prioritization (Prioritization 6.0):

- Minimum project cost of \$100,000 for stand along pedestrian (or bicycle) projects (this does not apply for active transportation elements that are part of a roadway project).
- According to the 2019 Complete Streets Policy, if the pedestrian facility is included in an adopted local plan, the Town will not be responsible for the cost. If the pedestrian project component is not included in a plan, the Town will have to provide a local match.
- Must be included in an adopted plan (pedestrian plans, bicycle plans, greenway plans, Safe Routes to School action plans, CTPs, and long-range transportation plans)
- Right-of-way must be secured prior to receiving federal construction funding
- The formula funds projects according to the three following categories:
  - Division Needs (30 percent)
  - Regional Impact (30 percent)
  - Statewide Mobility (40 percent)

Pedestrian (and bicycle) projects that are independent of larger roadway projects are only funded through the Division Needs category. Projects in this category compete equally against all six transportation modes within the division. Selection is based on 50 percent on the quantitative score and 50 percent on local input. Local input is

split evenly between the NCDOT division and metropolitan planning organization or Rural Planning Organization (or RPO). The public may comment on the local input point assignment, which the Division Engineer will review prior to final local input point assignment. UCPRPO also provides a public comment period.

### Powell Bill Funds

The Town may use its allocation of Powell Bill funds from the state to fund pedestrian (and bicycle) infrastructure projects. These funds are generated by the motor fuel sales tax and appropriated annually by the State to qualifying municipalities. According to state statutes, municipalities may use Powell Bill funds to resurface, repair, or widen streets, or for the planning, construction and maintenance of bikeways, greenways, or sidewalks. The use of these funds would be at the discretion of the Town Council.

### Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant

The RAISE Transportation Discretionary Grant program (formerly BUILD) is a federal program by the United States Department of Transportation (USDOT) to fund projects that invest in road, rail, transit and port projects that promise to achieve national objectives. The eligibility requirements of RAISE allow project sponsors at the state and local levels to obtain funding for multimodal, multijurisdictional projects that are more difficult to support through traditional USDOT programs. RAISE can provide capital funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, MPOs, or others in contrast to traditional federal programs which provide funding to very specific groups of applicants (mostly state departments of transportation and transit agencies). Bicycle (and pedestrian) projects are eligible for funding under the RAISE program. RAISE grants are competitive and are selected based on merit criteria, including safety, environmental sustainability, and quality of life. The application and award processes occur annually. The maximum award amount is \$25 million. In urban areas, the award minimum is \$1 million while there is no minimum in rural areas.

### National Endowment for the Arts

The National Endowment for the Arts' Our Town program is a creative placemaking initiative that would likely be appropriate for Smithfield, given the Town's focus on placemaking. The grant requires "a partnership between a local government entity and nonprofit organization, one of which must be a cultural organization; and should engage in partnership with other sectors (such as agriculture and food, economic development, education and youth, environment and energy, health, housing, public safety, transportation, and workforce development)" (NEA, 2020). Additional information regarding specific grant requirements and the application can be found on the National Endowment for the Arts' website: <https://www.arts.gov/grants/apply-grant/grants-organizations>.

### Other Funding Sources

Smithfield may consider alternate funding sources to augment state funds for pedestrian projects, which are limited and competitive. The programs listed below may be used to fund entire projects or be directed towards covering the cost of spot improvements like crosswalks or amenities such as benches and signage. Note that many of the federal funding sources are distributed by NCDOT through the prioritization process and are not directly attributed to municipalities or RPOs. Additional and more detailed information concerning what these funds can be used for, the required local match, and other characteristics is included in Appendix D: Funding Sources.

#### *Federal Funding Sources*

- Congestion Mitigation and Air Quality Improvement
- Highway Safety Improvement Program
- National Priority Safety Program (Section 405)
- State and Community Highway Safety Grant Program (Section 402)
- Surface Transportation Block Grant Program

- Transportation Alternatives

### *State Funding Sources*

- Clean Water Management Trust Fund
- Land and Water Conservation Fund
- Parks and Recreation Trust Fund
- Recreational Trails Program
- Safe Routes to School

### *Local Funding Sources*

- Capital Reserve Fund
- Fees (town-wide/local)
- General Obligation Bonds
- Special Tax District
- Tax Increment Financing

### *Nonprofit Funding Sources*

- Blue Cross Blue Shield of North Carolina Foundation
- Kate B. Reynolds Charitable Trust
- North Carolina Community Foundation
- Robert Wood Johnson Foundation

## Community Crowdfunding

In the last several years the internet has revolutionized fundraising. This new form of fundraising, called crowdfunding enables people all over the world to start a fundraising effort and provides an easy mechanism for others to make donations. Platforms such as Kickstarter and Indiegogo are online communities that act as funding platforms for a diverse range of projects. Individuals or organizations post projects for a nominal fee and individuals make contributions via credit card. This type of fundraising is likely to be a minor source, but might be useful for funding spot improvements, such as crosswalk markings or benches.

**Kickstarter:** Crowdfunding platform to help artists, musicians, filmmakers, designers, and creators fund new ideas and projects. <https://www.kickstarter.com/>

**Indiegogo:** Similar to the successful crowdfunding platform, Kickstarter, Indiegogo is more locally oriented and trends toward civic-based projects. <http://www.indiegogo.com/>

## 5.4 Performance and Evaluation Measures

To evaluate the progress and effectiveness of the Smithfield Comprehensive Pedestrian Plan, Table 5-2 lists evaluation criteria and examples of achieved progress that the ATAC and Town Council can use. These criteria and milestones are based on the goals and objectives of this Plan. The table is intended to serve as a general guide—the ATAC should tailor these evaluation criteria to the community by adopting more specific, locally applicable quantitative metrics.

The evaluation of the Plan should occur annually and be published in the form of a memo or report made available to the residents of Smithfield. The report should detail the progress made to date and the priorities for the coming year. This annual report will help to demonstrate the benefits of pedestrian infrastructure and programs as well as generate further support for the ongoing work of the ATAC.

Table 5-2. Implementation Evaluation Criteria

Goals	Performance Evaluation	Examples of Progress Achieved
Identify and develop pedestrian programs and infrastructure projects to improve safety and enhance connectivity within the Town of Smithfield that complement the town’s focus on the natural environment and public space.	Miles of pedestrian facilities constructed and number of spot improvements	Miles of pedestrian facilities constructed in a specific period of time (e.g., 1 mile within 5 years)
	Number of programs implemented to encourage walking and safety	Participation in the Watch for Me NC program annually or bi-annually
	Number of ATAC meetings held	ATAC meets quarterly
Prioritize pedestrian infrastructure projects in the Town in order to improve walkability, increase safety, and encourage economic development.	Compliance of pedestrian facilities with ADA standards	Number of curb cuts updated to meet ADA standards
	Reduction in speeding vehicles along the roadway	Reduced number of speeding cars recorded
	Number of local stores along Brightleaf Boulevard or Market Street that can be accessed from pedestrian facilities	Increase number of stores that are accessible from multiuse paths and sidewalks (e.g., 5 additional local businesses adjacent)
Provide wayfinding for pedestrian navigation between community origins and destinations, including local parks and the greenway.	Expansion of wayfinding system	Number of new signs per year.
	Number of wayfinding signs located within the Town.	Wayfinding signs that direct tourists to the Downtown area or recreation centers.
Recognize and promote the health, economic, safety, and mobility benefits of active transportation.	Consecutive miles of pedestrian facilities to encourage walking to resources as well as walking recreationally	Establishment of a walkable “loops” for recreational purposes that connects the various public spaces in Smithfield.
Educate the community as to the benefits of pedestrian activity, applicable rules, and regulations.	Number of programs, campaigns, or events annually in the community meant to encourage pedestrian activity	Number of programs or partnerships annually
Coordinate with UCPRPO and NCDOT to implement the recommendations of the Plan.	Successful adoption the Smithfield Comprehensive Pedestrian Plan	Plan is approved by NCDOT and the UCPRPO
	Implementation of projects proposed in the Smithfield Comprehensive Pedestrian Plan	Number of programs and infrastructure projects implemented following the adoption of the Plan

## REFERENCES

Centers for Disease Control and Prevention (2016), North Carolina State Nutrition, Physical Activity, and Obesity Profile: <https://www.cdc.gov/nccdphp/dnpao/state-local-programs/profiles/pdfs/north-carolina-state-profile.pdf>

Wright et al. (2012), Estimated effects of climate change on flood vulnerability of U.S. bridges: <https://link.springer.com/article/10.1007/s11027-011-9354-2>

Association of State Dam Safety Officials, Extreme Rainfall Events: [https://damsafety.org/sites/default/files/ASDSO-LivingWithDams-ExtremeRainfallEvents-NO%202-WEB\\_0.pdf](https://damsafety.org/sites/default/files/ASDSO-LivingWithDams-ExtremeRainfallEvents-NO%202-WEB_0.pdf)

FHWA, Pedestrian Safety Guide for Transit Agencies: [https://safety.fhwa.dot.gov/ped\\_bike/ped\\_transit/ped\\_transguide/ch3.cfm](https://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/ch3.cfm)

Natural Resources Conservation Service, Bioswales: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs144p2\\_029251.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_029251.pdf)

AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities: [http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07\(263\)\\_FR.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07(263)_FR.pdf)

Indiegogo: <http://www.indiegogo.com/>

Kickstarter: <https://www.kickstarter.com/>

Let's Go NC! [www.connect.ncdot.gov/projects/BikePed/Pages/LetsGoNC.aspx](http://www.connect.ncdot.gov/projects/BikePed/Pages/LetsGoNC.aspx)

National Endowment for the Arts': <https://www.arts.gov/grants/apply-grant/grants-organizations>

North Carolina Bicycle and Pedestrian Laws: [www.ncdot.gov/divisions/bike-ped/Pages/bike-ped-laws.aspx](http://www.ncdot.gov/divisions/bike-ped/Pages/bike-ped-laws.aspx)

North Carolina Division of Motor Vehicles: [www.ncdot.gov/dmv](http://www.ncdot.gov/dmv)

Open Street Events: [www.openstreetsproject.org](http://www.openstreetsproject.org)

Safe Routes to School: <https://www.ncdot.gov/bikeped/safetyeducation/safeRoutesToSchools/>

WalkBikeNC North Carolina Statewide Pedestrian and Bicycle Plan: <https://altaplanning.com/wp-content/uploads/WalkBikeNCPlanChapterslowres.pdf>

Watch for Me NC at: <http://www.watchformenc.org/>

## **PHOTO CREDITS**

Bioswale: <https://www.flickr.com/photos/87297882@N03/7994695423>

Permeable Pavement: <https://www.flickr.com/photos/131402048>

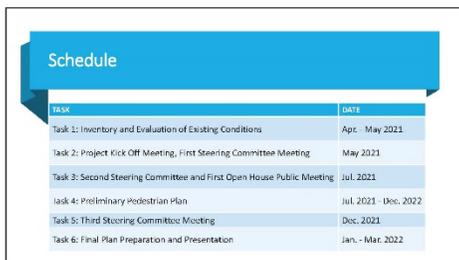
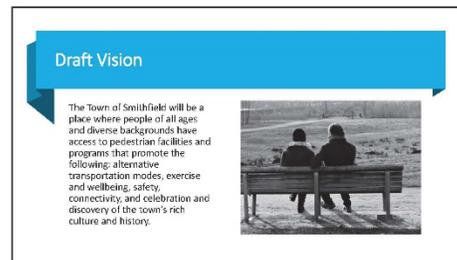
# APPENDIX A: STAKEHOLDER ENGAGEMENT

## Steering Committee Meeting #1 Presentation



5/14/2021

5/14/2021



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### Project Types

<b>Signage</b>	Describe signage to "lead" paths and ways to connect. Signage should encourage pedestrian use and help to be consistent.
<b>High-Quality Crosswalks</b>	A signpost that encourages pedestrian use. They are designed to be visible and provide information.
<b>Shared Use Paths</b>	Provide the separation needed for safety and may include way points and rest. They are a preferred mode.
<b>Sidewalks</b>	Make sure you have clear sidewalks.
<b>Curb Ramps</b>	Make sure you have ADA requirements.
<b>Street Furniture</b>	Examples include benches, trash cans, bike racks, and other "street" items.
<b>Lighting Improvements</b>	Examples include streetlights, lighting for signage and other "street" items. Lighting should be added to encourage use.
<b>Accessibility</b>	Make sure the project meets current standards, including ADA requirements for pedestrian use.



9

### Work Session

Identify pedestrian opportunities, constraints, and community features or destinations. Identify specific pedestrian routes or connections.

11

### Planning for Pedestrian Infrastructure

#### Smithfield Town Plan

US 70 BUSINESS & MARKET STREET  
RAILROAD BRIDGES  
SIDEWALK AND MULTI-USE PATH



Existing

Proposed

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### Survey

<https://www.surveymonkey.com/r/Smithfield1>

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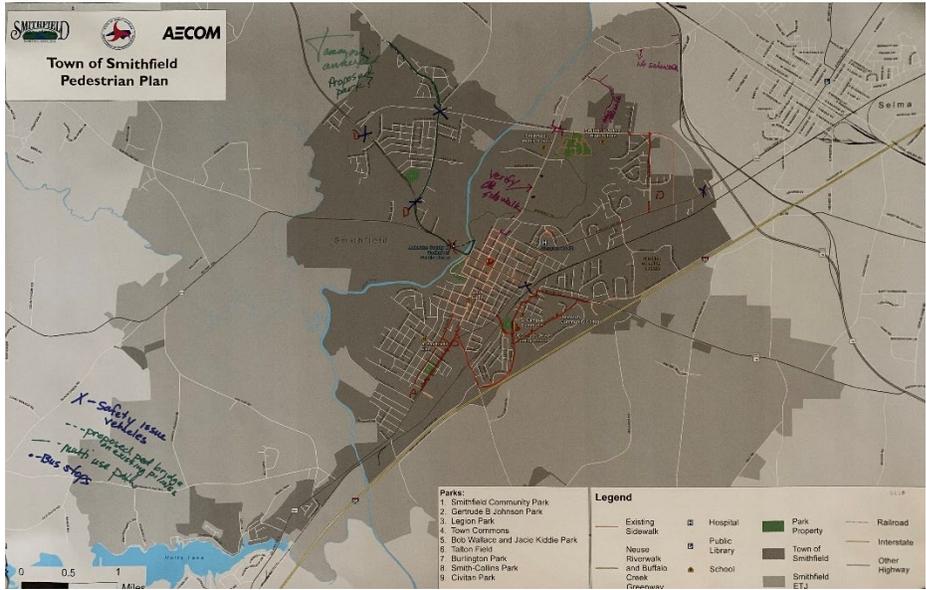
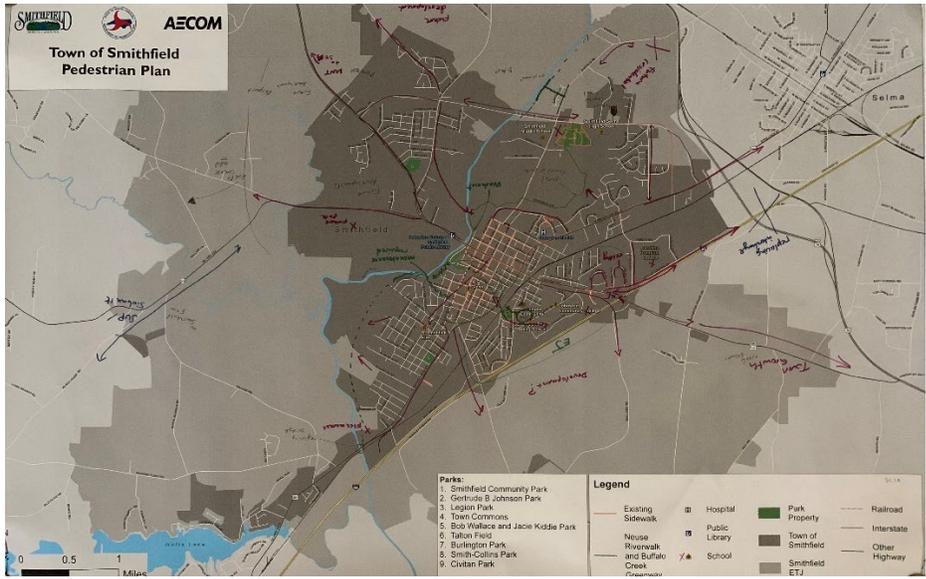
5/14/2021

### Thank You

Cindy Camacho | AECOM  
[cindy.camacho@aecom.com](mailto:cindy.camacho@aecom.com)



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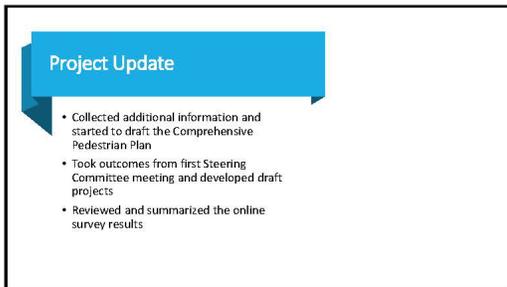
# Steering Committee Meeting #2 and Public Meeting #1 Presentation



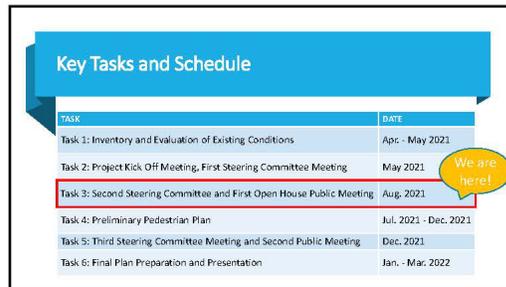
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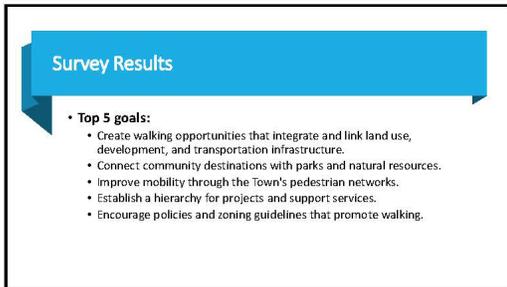
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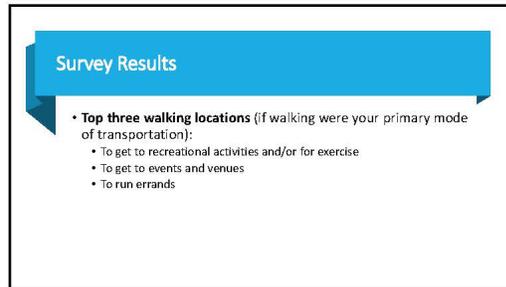
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### Survey Results

- **Biggest challenge facing pedestrians in Smithfield?** A lack of complete network of sidewalk/gaps in sidewalks (80%).
- **Inaccessible destinations?**
  - Outlet Mall and shopping centers
  - Parks and schools
- **Intersections needing pedestrian improvements?**
  - Market Street
  - Brightleaf
  - Outlets

7

### Survey Results

**Revised Vision Statement:** The Town of Smithfield will be a place where people of all ages and all backgrounds have access to pedestrian facilities and programs that promote the following: alternative and equitable transportation modes, exercise and wellbeing, safety, connectivity, and celebration and discovery of the Town's rich culture, history, and "small town" charm.

8

### Project Types: Spot and Linear

9

### Project Types: Lighting and Wayfinding

**Wayfinding** promotes Smithfield as a destination for walking and tourism and can help encourage walking by making the town easier to navigate through signage and resource information.

**Lighting** improves the safety and overall visibility of the community.

Install street furniture to serve different users such as the differently abled, children, and the elderly.

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### Placemaking: Green Infrastructure

Green infrastructure includes a range of approaches for managing stormwater such as building with permeable surfaces, preventing groundwater infiltration, directing flow of water, or limiting impacts to erosion.

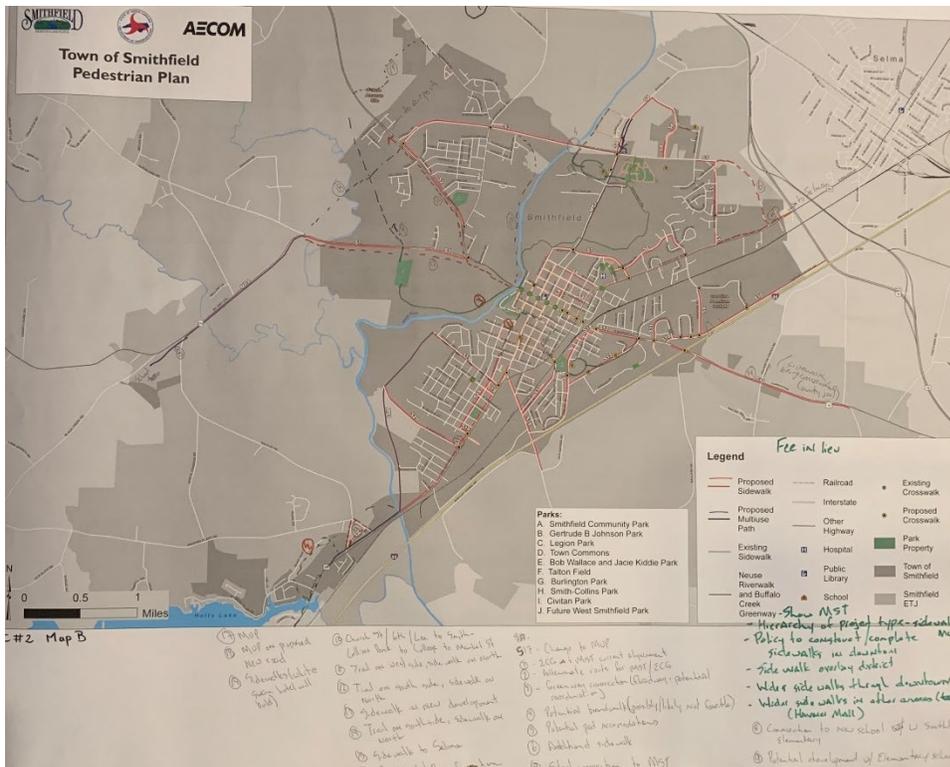
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### Policies and Programs

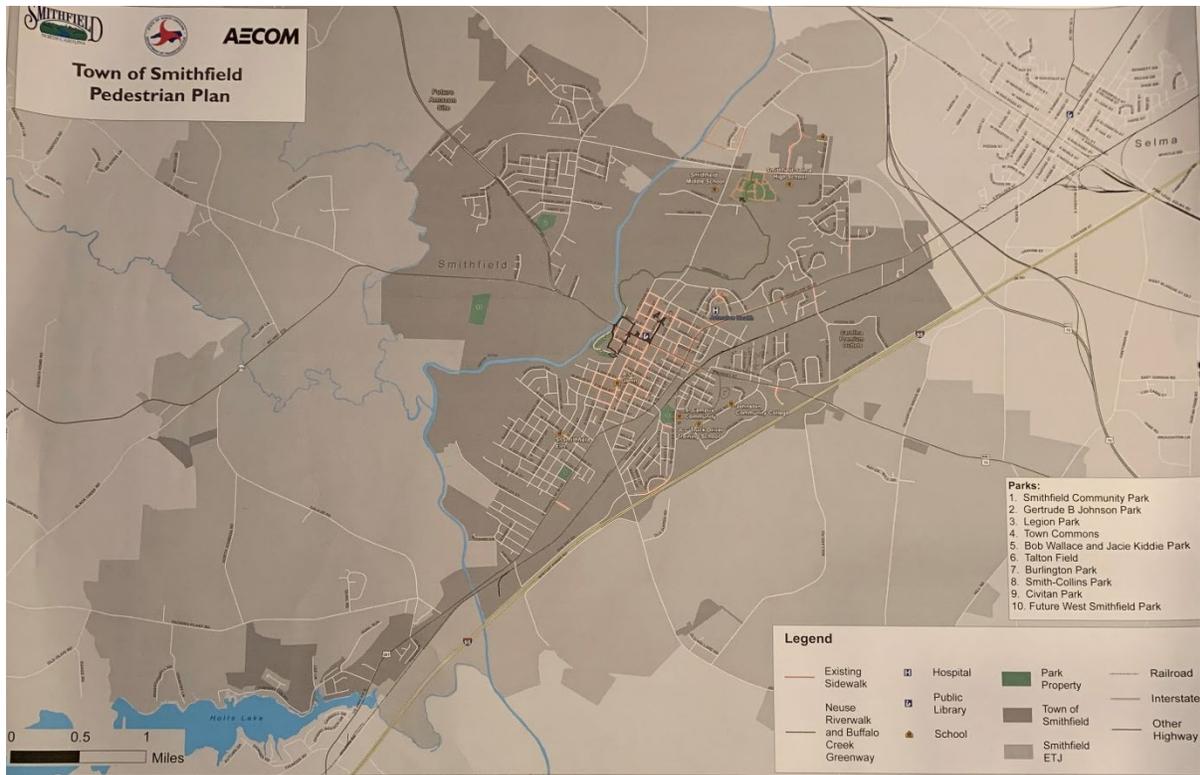
- Review of existing policies
- Safety campaigns to educate pedestrians and drivers
- Enhance safe access to schools
- Provide open street and walking events
- Improve local aesthetics with public art
- Enforce existing driving laws and speed limits

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# Steering Committee Workshop Maps



## Public Workshop Map



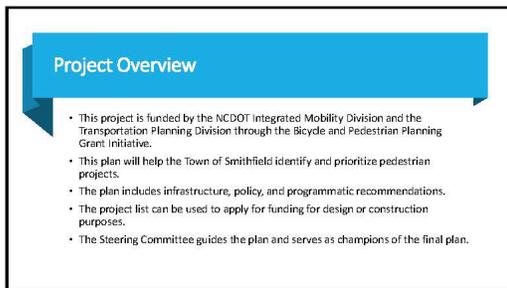
# Steering Committee Meeting #3 and Public Meeting #2 Presentation



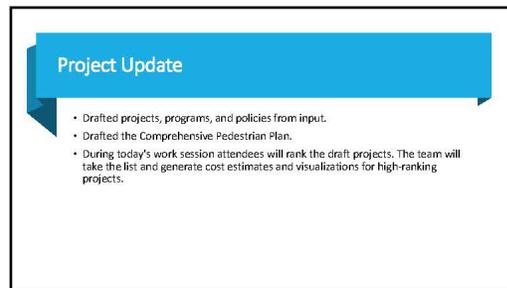
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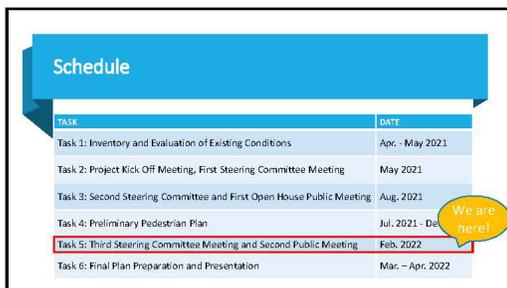
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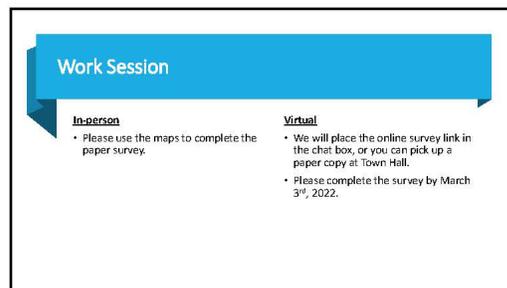
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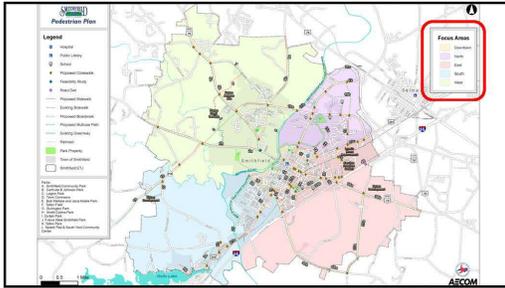
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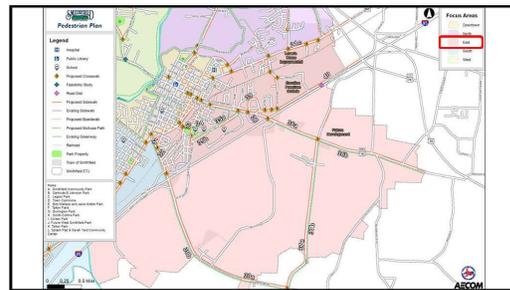
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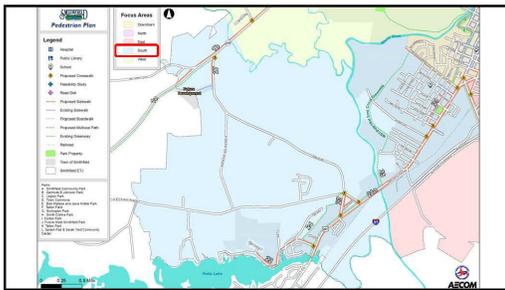
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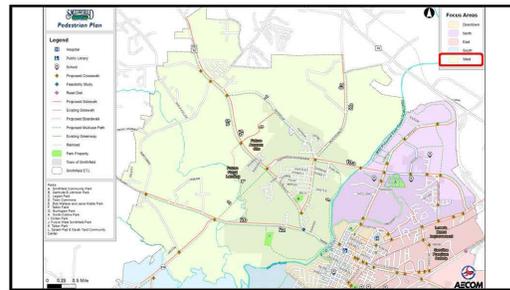
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### Next Steps

- Following the meetings today, the team will summarize the surveys and generate cost estimates and visualizations for high-ranking projects.
- Project team will complete the draft plan:
  - Incorporating feedback from today's meeting
  - Finalize projects, policies, and program recommendations
- Coordinate with the Town, NCDOT, and the RPO to finalize the plan.

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### Thank You

Cindy Camacho, AICP | AECOM  
[cindy.camacho@aecom.com](mailto:cindy.camacho@aecom.com)

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# Steering Committee Survey Packet

**Please complete and return the survey by March 3rd, 2022.**

## Welcome!

This survey is meant to gain feedback on the projects identified based on the first two steering committee meetings and input from the public. Please review the projects and select your favorite linear and spot projects. This exercise will help the project team prioritize the projects in the Pedestrian Plan, but please note that all the projects will be included as recommendations in the final plan.

Five focus areas have been identified to facilitate the project review process and ensure projects are equitably distributed throughout the Town. The focus areas are titled South, West, North, Downtown, and East. These areas extend to the ETJ and were created to help identify potential project locations throughout the Town of Smithfield.

**Focus Areas**

- Downtown
- North
- East
- South
- West

## Project Rankings

Please see the draft maps to help you complete this survey. Please note that "MUP" stands for multiuse path.

**Question #1.** Please review the list of projects in the **South focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
1a	MUP	Black Creek Rd and NC HWY 210	
1b	Sidewalk	Black Creek Rd and NC HWY 210	
21a	Sidewalk	Brightleaf Blvd	
22	Sidewalk	Country Club Rd	
23	Sidewalk	Galilee Rd/Packing Plant Rd/Hillcrest Rd	
24	MUP	Country Club Rd and Packing Plant Rd - Potential East Coast Greenway connection	
25	MUP	Brightleaf Blvd to W Wellons St - Potential East Coast Greenway connection	
27	Sidewalk	Galilee Rd at West Smithfield Elementary School	
29	Sidewalk	S 2nd St (north side from W Wilson to E Sanders St) AND Sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	

**Question #2.** Please review the list of projects in the **West focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
2a	MUP	Cleveland Rd/NC HWY 210/W Market St	
2b	Sidewalk	Cleveland Rd/NC HWY 210	
3	MUP	NC HWY 210/W Market St	
4	Boardwalk	NC HWY 210/W Market St	
5a	MUP	W Market St	
5b	Sidewalk	W Market St	
6	Sidewalk	W Market St/Barbour Rd	
7	MUP	Barbour Rd	
8a	MUP	Wilson's Mills Rd	
8b	MUP	Wilson's Mills Rd	
9	MUP	Neuse River	
10a	Sidewalk	M Durwood Stephenson	

**Question #3.** Please review the list of projects in the **North focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
10b	MUP	Off-road improvements between Buffalo Rd and N Brightleaf Blvd	
11a	MUP	Between the Smithfield Neuse Riverwalk and Canterbury Rd	
11b	MUP	Potential East Coast Greenway north of M Durwood Stephenson	
11c	MUP	Buffalo Rd (on-road and off-road)	
12	Sidewalk	Buffalo Rd	
13	Sidewalk	Booker Dairy Rd	
14	Sidewalk	Hospital Rd	
16	Sidewalk	Berkshire Rd	

**Question #4.** Please review the list of projects in the **Downtown focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
17	Sidewalk	North of E Market St	X
18	Sidewalk	South of E Market St	
19	Sidewalk	S Bright (north side) towards E Dundee St	
20	MUP	Connector between Bob Wallace Park and Smith-Collins Park	
21b	Sidewalk	Brightleaf Blvd	
26	MUP	W Wellons St and Second St	
28	Sidewalk	W Wellons St	

**Question #5.** Please review the list of projects in the **East focus area** and select your three favorite projects with an "X" below.

Label	Project Type	General Location	"X"
21c	Sidewalk	Brightleaf Blvd	
30a	Sidewalk	Brogden Rd	
30b	MUP	Brogden Rd	
31	Sidewalk	S 5th St	
32	Sidewalk	Blount St/E Lee	
33	Sidewalk	MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way	
34	MUP	College Rd pond	
35a	MUP	College Rd	
35b	Sidewalk	College Rd	
36a	Sidewalk	E Market St/Bus 70	
36b	MUP	E Market St/Bus 70	
37a	Sidewalk	Yelverton Grove Rd	
37b	MUP	Yelverton Grove Rd	
38	Sidewalk	Towne Centre Pl	
39	Sidewalk	Outlet Center Dr (Near Smithfield Crossing Dr)	
40	Sidewalk	Outlet Center Dr	



**Please complete and return the survey by March 3rd, 2022.**

## Welcome!

This survey is meant to gain feedback on the projects identified based on the first two steering committee meetings and input from the public. Please review the projects and select your favorite linear and spot projects. This exercise will help the project team prioritize the projects, policies, and programs in the Pedestrian Plan, but please note that all the projects will be included as recommendations in the final plan.

Five focus areas have been identified to facilitate the project review process and ensure projects are equitably distributed throughout the Town. The focus areas are titled South, West, North, Downtown, and East. These areas extend to the ETJ and were created to help identify potential project locations throughout the Town of Smithfield.

### Focus Areas

- Downtown
- North
- East
- South
- West

## Project Rankings

Please see the draft maps to help you complete this survey. Please note that "MUP" stands for multiuse path.

**Question #1.** Please review the list of projects in the **South focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
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21a	Sidewalk	Brightleaf Blvd	
22	Sidewalk	Country Club Rd	
23	Sidewalk	Galilee Rd/Packing Plant Rd/Hillcrest Rd	
24	MUP	Country Club Rd and Packing Plant Rd - Potential East Coast Greenway connection	
25	MUP	Brightleaf Blvd to W Wellons St - Potential East Coast Greenway connection	
27	Sidewalk	Galilee Rd at West Smithfield Elementary School	
29	Sidewalk	S 2nd St (north side from W Wilson to E Sanders St) AND Sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	

**Question #2.** Please review the list of projects in the **West focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
2a	MUP	Cleveland Rd/NC HWY 210/W Market St	
2b	Sidewalk	Cleveland Rd/NC HWY 210	
3	MUP	NC HWY 210/W Market St	
4	Boardwalk	NC HWY 210/W Market St	
5a	MUP	W Market St	
5b	Sidewalk	W Market St	
6	Sidewalk	W Market St/Barbour Rd	
7	MUP	Barbour Rd	
8a	MUP	Wilson's Mills Rd	
8b	MUP	Wilson's Mills Rd	
9	MUP	Neuse River	
10a	Sidewalk	M Durwood Stephenson	

**Question #3.** Please review the list of projects in the **North focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
10b	MUP	Off-road improvements between Buffalo Rd and N Brightleaf Blvd	
11a	MUP	Between the Smithfield Neuse Riverwalk and Canterbury Rd	
11b	MUP	Potential East Coast Greenway north of M Durwood Stephenson	
11c	MUP	Buffalo Rd (on-road and off-road)	
12	Sidewalk	Buffalo Rd	
13	Sidewalk	Booker Dairy Rd	
14	Sidewalk	Hospital Rd	
16	Sidewalk	Berkshire Rd	

**Question #4.** Please review the list of projects in the **Downtown focus area** and select your two favorite projects with an "X" below.

Label	Project Type	General Location	"X"
17	Sidewalk	North of E Market St	X
18	Sidewalk	South of E Market St	
19	Sidewalk	S Bright (north side) towards E Dundee St	
20	MUP	Connector between Bob Wallace Park and Smith-Collins Park	
21b	Sidewalk	Brightleaf Blvd	
26	MUP	W Wellons St and Second St	
28	Sidewalk	W Wellons St	

**Question #5.** Please review the list of projects in the **East focus area** and select your three favorite projects with an "X" below.

Label	Project Type	General Location	"X"
21c	Sidewalk	Brightleaf Blvd	
30a	Sidewalk	Brogden Rd	
30b	MUP	Brogden Rd	
31	Sidewalk	S 5th St	
32	Sidewalk	Blount St/E Lee	
33	Sidewalk	MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way	
34	MUP	College Rd pond	
35a	MUP	College Rd	
35b	Sidewalk	College Rd	
36a	Sidewalk	E Market St/Bus 70	
36b	MUP	E Market St/Bus 70	
37a	Sidewalk	Yelverton Grove Rd	
37b	MUP	Yelverton Grove Rd	
38	Sidewalk	Towne Centre Pl	
39	Sidewalk	Outlet Center Dr (Near Smithfield Crossing Dr)	
40	Sidewalk	Outlet Center Dr	



## Policies

**Question #9.** The **policies** below were identified by the Steering Committee and during the first public engagement meeting. Please select your top three by marking with a "X."

Policies	"X"
Promote and incentivize the development of safe, efficient, reliable, and interconnected multimodal transportation systems.	
Require projects include green and complete streets, with sidewalks and multi-use paths along all streets within Smithfield and its ETJ.	
Require resilient infrastructure and development.	
Plan for mixed land-use patterns to create walkable communities.	
Amend zoning standards to require parking lots to be located behind or adjacent to future developments to provide safer entrance for pedestrians accessing the businesses.	

Additional comments (optional):

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## Programs

**Question #10.** The **programs** below were identified by the Steering Committee and during the first public engagement meeting. Please select your top three by marking with a "X."

Programs	"X"
Partner with the police on enforcement of existing driving laws/speed limits.	
Provide agency staff training of pedestrian laws for police officers, drivers education programs, or other safety related programs.	
Enhance safe access to school through participation in the Safe Routes to School or other programs.	
Start open streets events after a recommended project is constructed.	
Work with walking tour companies to develop informal walking tours to encourage pedestrian activity among residents as well as visitors and highlight the attractions and history of Smithfield.	
Develop a wayfinding program and signage.	
Demonstrate pedestrian improvements through pop-up projects.	

Additional comments (optional):

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## Final Questions

Thank you for your input so far!

Please answer a few optional questions. Your personal information will be kept anonymous.

How often do you walk in the Town?

- Everyday
- Three or more times per week
- Several times per month
- Less than 1-2 times per month

What is your primary reason for walking?

- Exercise/recreation
- Commuting to work
- Walking to school
- Shopping
- Government services
- I do not typically walk

What makes it difficult to walk in the Town?

- Lack of sidewalks and crosswalks
- Heavy traffic
- Speeding
- Poor lighting
- Don't know
- Other: \_\_\_\_\_

Gender:

- Male
- Female
- Non-binary
- Prefer not to answer
- Other: \_\_\_\_\_

Age:

- 17 or younger
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or older

What else should we know?

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## Thank You!

## APPENDIX B: PRIORITIZATION

High-level Project Description	Type	Sub-project	SC Votes	Public Vote	Total Votes (Priority Ranking)	Main Project	Focus Area
Potential ECG-Brightleaf Blvd/Off-road/Second St MUP	Multiuse Path	25	2	24	26	25	South
Sidewalk on S 2nd St (north side from W Wilson to E Parker St) AND Sidewalk on E Sanders St (east side) from S Second St to S Brightleaf Blvd	Sidewalk	29	1	24	25	29	South
Neuse River MUP improvements	Multiuse Path	9	1	21	22	9	West
Downtown sidewalk gap improvements (North of E Market St)	Sidewalk	17	1	20	21	17	Downtown
Brightleaf Blvd sidewalk improvements	Sidewalk	21a	4	17	21	21	South
Brightleaf Blvd sidewalk improvements	Sidewalk	21b		21	21	21	Downtown
Potential ECG-Off-road Neuse River MUP	Multiuse Path	11b	5	15	20	11	North
Booker Dairy Rd sidewalk improvements	Sidewalk	13	3	15	18	13	North
Potential ECG-Brightleaf Blvd/Off-road/Second St MUP	Multiuse Path	26	4	12	16	26	Downtown
MUP connector between Bob Wallace Park and Smith-Collins Park	Multiuse Path	20	4	11	15	20	Downtown
Brightleaf Blvd sidewalk improvements	Sidewalk	21c	2	12	14	21	East
Downtown sidewalk gap improvements (South of E Market St)	Sidewalk	18	1	12	13	18	Downtown
M Durwood Stephenson sidewalk improvements	Sidewalk	10a	2	11	13	10	West
E Market St/Bus 70 MUP/sidewalk improvements	Sidewalk	36a	1	12	13	36	East
W Market St sidewalk improvements	Sidewalk	5b		13	13	5	West
Hospital Rd sidewalk improvements	Sidewalk	14		12	12	14	North
Outlet Center Dr sidewalk improvements	Sidewalk	40	3	9	12	40	East
W Wellons St sidewalk improvements	Sidewalk	28		11	11	28	Downtown
M Durwood sidewalk and MUP improvements	Sidewalk/MUP	10b		11	11	10	North
College Rd MUP/sidewalk improvements	Multiuse Path	35a		11	11	35	East
E Market St/Bus 70 MUP/sidewalk improvements	Multiuse Path	36b	2	9	11	36	East
Potential ECG-Country Club Rd to Packing Plant Rd MUP connector	Multiuse Path	24	3	7	10	24	South
Outlet Center Dr sidewalk improvements	Sidewalk	39		10	10	39	East
Cleveland Rd/NC HWY 210/W Market St MUP	Multiuse Path	2a		10	10	2	West
Wilson's Mills Rd sidewalk improvements	Multiuse Path	8b	5	5	10	8	West
College Rd pond MUP improvements	Multiuse Path	34		9	9	34	East
MUP connector to Smithfield Neuse Riverwalk and Canterbury Rd	Multiuse Path	11a	1	8	9	11	North
College Rd MUP/sidewalk improvements	Sidewalk	35b	1	7	8	35	East
Buffalo Rd sidewalk improvements	Sidewalk	12		7	7	12	North
Galilee Rd sidewalk improvement at W Smithfield Elm	Sidewalk	27		7	7	27	South
Buffalo Rd MUP improvements	Multiuse Path	11c	1	6	7	11	North
W Market St MUP	Multiuse Path	5a		6	6	5	West
NC HWY 210/W Market St Boardwalk Connector	Boardwalk	4	1	4	5	4	West
Canterbury Rd/E Peedin Rd/Venture Dr sidewalk improvements	Sidewalk	15		5	5	15	East
MLK Jr Dr/Harris St/Collier St/Massey St/Futrell Way sidewalk improvements	Sidewalk	33	1	4	5	33	East
Brogden Rd sidewalk improvements	Sidewalk	30a		5	5	30	East
Wilson's Mills Rd MUP improvements	Sidewalk	8a	1	4	5	8	West
Country Club Rd sidewalk improvements	Sidewalk	22		4	4	22	South
Brogden Rd MUP improvements	Sidewalk	31		4	4	31	East
Berkshire Rd sidewalk improvements	Sidewalk	16		3	3	16	North
Sidewalk on S Bright (north side) towards E Dundee St	Sidewalk	19		3	3	19	Downtown
NC HWY 210/W Market St MUP Connector	Multiuse Path	3		2	2	3	West

MUP Barbour Rd to Wilson's Mills Rd to W Market St to Greenway Trail	Multiuse Path	7		2	2	7	West
Blount St/E Lee St sidewalk improvements	Sidewalk	32		2	2	32	East
Black Creek Rd and NC HWY 210 MUP and sidewalk improvements	Multiuse Path	1a		2	2	1	South
Brogden Rd MUP improvements	Multiuse Path	30b		2	2	30	East
W Market St/Barbour Rd sidewalk connector	Sidewalk	6		1	1	6	West
Towne Centre PI sidewalk gap improvement	Sidewalk	38		1	1	38	East
Black Creek Rd and NC HWY 210 MUP and sidewalk improvements	Sidewalk	1b		1	1	1	South
Cleveland Rd/NC HWY 210 sidewalk improvements	Sidewalk	2b		1	1	2	West
Galilee Rd/Packing Plant Rd/Hillcrest Rd sidewalk improvements	Sidewalk	23		0	0	23	South
Yelverton Grove Rd MUP/sidewalk improvements	Sidewalk	37a		0	0	37	East
Yelverton Grove Rd MUP/sidewalk improvements	Sidewalk/MUP	37b		0	0	37	East

# APPENDIX C: PROJECT COSTS

## APPENDIX D: FUNDING SOURCES

The table below provides a list of funding sources, eligible projects, potential award amounts, and match requirements for active transportation infrastructure projects and programs in Smithfield.

Table: Funding Sources

Source	Eligible Activities	Characteristics and Requirements
<b>Federal Funding Sources</b>		
Better Utilizing Investments to Leverage Development (BUILD) Grants	<ul style="list-style-type: none"> <li>Bicycle and pedestrian planning and construction projects are eligible</li> </ul>	<ul style="list-style-type: none"> <li>Federal program by the USDOT</li> <li>Annual, competitive grant program that is merit-based.</li> </ul>
Highway Safety Improvement Program (HSIP)	<ul style="list-style-type: none"> <li>Safety projects that are consistent with the state's Strategic Highway Safety Plan (SHSP)</li> <li>Pedestrian hybrid beacons</li> <li>Roadway improvements that provide separation between pedestrians and motor vehicles, including medians and pedestrian crossing islands.</li> <li>Road diets</li> </ul>	<ul style="list-style-type: none"> <li>Typically requires 10% match</li> <li>\$2.318 billion authorized in FY 2018</li> </ul>
National Priority Safety Program (Section 405)	<ul style="list-style-type: none"> <li>Training law enforcement on state laws applicable to pedestrian and bicycle safety</li> <li>Enforcement mobilizations and campaigns designed to enforce those state laws</li> <li>Public education and awareness programs designed to inform motorists, pedestrians and bicyclists of those state laws</li> </ul>	<ul style="list-style-type: none"> <li>Only states where the annual combined pedestrian and bicyclist fatalities exceed 15 percent of the total annual crash fatalities are eligible</li> <li>Requires 20% state match</li> <li>\$14 million authorized in FY 2017</li> </ul>
State and Community Highway Safety Grant Program (Section 402)	Education, enforcement, and research programs designed to reduce traffic crashes, deaths, injuries, and property damage	<ul style="list-style-type: none"> <li>Administered by the Governor's Representative for Highway Safety</li> <li>\$250 million authorized in FY 2017</li> </ul>
Surface Transportation Block Grant (STBG) Program	<ul style="list-style-type: none"> <li>Recreational trail projects eligible under 23 U.S.C. 206</li> <li>Pedestrian and bicycle projects in accordance with 23 U.S.C. 217</li> <li>Modifications to comply with accessibility requirements under the ADA</li> <li>Safe Routes to School Program</li> </ul>	<ul style="list-style-type: none"> <li>Project must be identified in STIP and consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan(s)</li> <li>State may obligate up to 15 percent of the STBG amounts suballocated for that year for use in areas with a population of 5,000 or less on roads functionally classified as minor collectors.</li> <li>\$11.7 billion authorized in FY 2018</li> </ul>
Transportation Alternatives (TA) <i>Set-aside of the STBG Program</i>	<ul style="list-style-type: none"> <li>Bicycle and pedestrian facilities</li> <li>Recreational trails</li> <li>Safe Routes to School projects</li> <li>Technical assistance</li> <li>Programmed through the Strategic Transportation Investments – Strategic Mobility Formula process</li> </ul>	<ul style="list-style-type: none"> <li>Typically requires 20% match</li> <li>Can be received directly by local governments</li> <li>Competitive funding process</li> <li>\$850 million set aside in FY 2018</li> </ul>
<b>State Funding Sources</b>		

Source	Eligible Activities	Characteristics and Requirements
Clean Water Management Trust Fund (CWMTF)	<ul style="list-style-type: none"> <li>• Projects that enhance or restore degraded waters, acquire land with ecological, cultural, and historic significance</li> <li>• Greenway (shared use path) projects are eligible</li> <li>• Innovative stormwater projects</li> </ul>	<ul style="list-style-type: none"> <li>• Requires matching funds</li> <li>• Annual grant cycle</li> </ul>
Downtown Associate Community Program	<ul style="list-style-type: none"> <li>• Technical assistance for downtown revitalization projects from the NC Main Street &amp; Rural Planning Center</li> </ul>	<ul style="list-style-type: none"> <li>• Competitive application process every other year</li> <li>• Municipalities with populations less than 50,000 and that are not already designated as an active Main Street or Small Town Main Street community</li> </ul>
Land and Water Conservation Fund (LWCF)	<ul style="list-style-type: none"> <li>• Land acquisition and/or development projects for public outdoor recreation and/or to protect outstanding natural or scenic resources</li> <li>• Can include new or renovated outdoor recreational facilities and support facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Requires 50% match</li> <li>• Projects must be on a single site</li> <li>• Administered by the Division of Parks and Recreation</li> </ul>
Parks and Recreation Trust Fund (PARTF)	Acquisition and/or development of park and recreational projects	<ul style="list-style-type: none"> <li>• Requires 50% match</li> <li>• Administered by the Division of Parks and Recreation</li> </ul>
Powell Bill	Municipalities may use Powell Bill funds to resurface, repair, or widen streets, or for the planning, construction and maintenance of bikeways, greenways, or sidewalks.	<ul style="list-style-type: none"> <li>• Annual allocation from the State to qualifying municipalities</li> </ul>
Recreational Trails Program (RTP)	<ul style="list-style-type: none"> <li>• Trail construction</li> <li>• Trail facilities and amenities</li> <li>• Programs that promote safety and environmental protection as they relate to recreational trail projects</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum grant award \$200,000</li> <li>• Requires 25% match</li> <li>• Federal funds managed by the Division of Parks and Recreation</li> </ul>
Safe Routes to School (SRTS)	<ul style="list-style-type: none"> <li>• Infrastructure projects within 2 miles of a K-8 school</li> <li>• Project must be within the public right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>• No match required</li> <li>• Currently funding with leftover SRTS funds, once expended TA funds will be used and programmed through the Strategic Transportation Investments – Strategic Mobility Formula process</li> </ul>

**Local Funding Sources**

Source	Eligible Activities	Characteristics and Requirements
Capital Reserve Fund	May be used to fund pedestrian infrastructure projects	<ul style="list-style-type: none"> <li>• The Town Council would establish the fund through an ordinance</li> <li>• May be financed through Town budget allocations, grants, and donations</li> </ul>
Community Crowdfunding	Unrestricted source of funds, would apply to pedestrian infrastructure projects and programs	<ul style="list-style-type: none"> <li>• Residents make monetary contributions through online platforms such as Indiegogo</li> <li>• Town would pay a nominal fee</li> </ul>
Fees	The fee ordinance would establish which projects are eligible	<ul style="list-style-type: none"> <li>• Would require adoption by the Town Council</li> <li>• Fee types may include stormwater fees assessed per area of impervious surface or streetscape fees assessed per length of street frontage</li> </ul>
General Obligation Bonds	May be used to fund pedestrian infrastructure projects	<ul style="list-style-type: none"> <li>• Would require adoption by the Town Council</li> <li>• Would require approval by Town residents</li> </ul>
Special Tax District	May be levied by the municipality to raise funds to provide services or fund projects such as pedestrian infrastructure projects	Would require adoption by the Town Council
Tax Increment Financing	Pedestrian infrastructure improvements, land acquisition, utilities, and other improvements	Increased property values resulting from the constructed facility are used to pay the debt borrowed to build the facility

Figure: Federal Funding Matrix

**Pedestrian and Bicycle Funding Opportunities**  
**U.S. Department of Transportation Transit, Highway, and Safety Funds**  
 Revised May 24, 2018

This table indicates potential eligibility for pedestrian and bicycle projects under U.S. Department of Transportation surface transportation funding programs. Additional restrictions may apply. See notes and basic program requirements below, and see program guidance for detailed requirements. Project sponsors should fully integrate nonmotorized accommodation into surface transportation projects. Section 1404 of the Fixing America's Surface Transportation (FAST) Act modified 23 U.S.C. 109 to require federally-funded projects on the National Highway System to consider access for other modes of transportation, and provides greater design flexibility to do so.

Key: \$ = Funds may be used for this activity (restrictions may apply). \$* = See program-specific notes for restrictions. ~\$ = Eligible, but not competitive unless part of a larger project.															
Activity or Project Type	Pedestrian and Bicycle Funding Opportunities														
	U.S. Department of Transportation Transit, Highway, and Safety Funds														
	BUILD	TIFIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA 402	NHTSA 405	FLTPP
Access enhancements to public transportation (includes benches, bus pads)	\$	\$	\$	\$	\$		\$	\$	\$						\$
ADA/504 Self Evaluation / Transition Plan								\$	\$	\$		\$			\$
Bicycle plans			\$					\$	\$		\$	\$			\$
Bicycle helmets (project or training related)								\$	\$SRTS		\$		\$*		
Bicycle helmets (safety promotion)								\$	\$SRTS		\$				
Bicycle lanes on road	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
Bicycle parking	~\$	~\$	\$	\$	\$		\$	\$	\$	\$	\$				\$
Bike racks on transit	\$	\$	\$	\$	\$			\$	\$						\$
Bicycle repair station (air pump, simple tools)	~\$	~\$	\$	\$	\$			\$	\$						\$
Bicycle share (capital and equipment; not operations)	\$	\$	\$	\$	\$		\$	\$	\$						\$
Bicycle storage or service centers (example: at transit hubs)	~\$	~\$	\$	\$	\$			\$	\$						\$
Bridges / overcrossings for pedestrians and/or bicyclists	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Bus shelters and benches	\$	\$	\$	\$	\$		\$	\$	\$						\$
Coordinator positions (State or local)					\$ 1 per State			\$	\$SRTS		\$				
Crosswalks (new or retrofit)	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Curb cuts and ramps	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Counting equipment			\$	\$		\$	\$	\$	\$	\$	\$	\$*			\$
Data collection and monitoring for pedestrians and/or bicyclists			\$	\$		\$	\$	\$	\$	\$	\$	\$*			\$
Historic preservation (pedestrian and bicycle and transit facilities)	\$	\$	\$	\$				\$	\$						\$
Landscaping, streetscaping (pedestrian and/or bicycle route; transit access); related amenities (benches, water fountains); generally as part of a larger project	~\$	~\$	\$	\$			\$	\$	\$						\$
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	\$	\$	\$	\$		\$	\$	\$	\$	\$	\$				\$
Maps (for pedestrians and/or bicyclists)			\$	\$	\$			\$	\$		\$	\$*			
Paved shoulders for pedestrian and/or bicyclist use	\$	\$			\$*	\$	\$	\$	\$		\$				\$

Key: \$ = Funds may be used for this activity (restrictions may apply). \$* = See program-specific notes for restrictions. ~\$ = Eligible, but not competitive unless part of a larger project.															
Activity or Project Type	Pedestrian and Bicycle Funding Opportunities U.S. Department of Transportation Transit, Highway, and Safety Funds														
	BUILD	TIFIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA 402	NHTSA 405	FLTP
Pedestrian plans			\$					\$	\$		\$	\$			\$
Recreational trails	~\$	~\$						\$	\$	\$					\$
Road Diets (pedestrian and bicycle portions)	\$	\$					\$	\$	\$	\$					\$
Road Safety Assessment for pedestrians and bicyclists							\$		\$	\$		\$			\$
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike safety									\$SRTS	\$SRTS		\$	\$*	\$*	\$*
Safety education positions									\$SRTS	\$SRTS		\$	\$*		
Safety enforcement (including police patrols)									\$SRTS	\$SRTS		\$	\$*	\$*	
Safety program technical assessment (for peds/bicyclists)									\$SRTS	\$SRTS		\$	\$*	\$	
Separated bicycle lanes	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
Shared use paths / transportation trails	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Sidewalks (new or retrofit)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
Signs / signals / signal improvements	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
Signed pedestrian or bicycle routes	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$				\$
Spot improvement programs	\$	\$	\$			\$	\$	\$	\$	\$	\$				\$
Stormwater impacts related to pedestrian and bicycle projects	\$	\$	\$	\$		\$	\$	\$	\$	\$	\$				\$
Traffic calming	\$	\$	\$			\$	\$	\$	\$		\$				\$
Trail bridges	\$	\$			\$*	\$	\$	\$	\$	\$	\$				\$
Trail construction and maintenance equipment								\$RTP	\$RTP	\$					
Trail/highway intersections	\$	\$			\$*	\$	\$	\$	\$	\$	\$				\$
Trailside and trailhead facilities (includes restrooms and water, but not general park amenities; see program guidance)	~\$*	~\$*						\$*	\$*	\$*					\$
Training					\$	\$		\$	\$	\$	\$	\$*	\$*		
Training for law enforcement on ped/bicyclist safety laws								\$SRTS	\$SRTS		\$			\$*	
Tunnels / undercrossings for pedestrians and/or bicyclists	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$

**Abbreviations**

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973  
**BUILD**: Better Utilizing Investments to Leverage Development Transportation Discretionary Grants  
**TIFIA**: Transportation Infrastructure Finance and Innovation Act (loans)  
**FTA**: Federal Transit Administration Capital Funds  
**ATI**: Associated Transit Improvement (1% set-aside of FTA)  
**CMAQ**: Congestion Mitigation and Air Quality Improvement Program  
**HSIP**: Highway Safety Improvement Program  
**NHPP**: National Highway Performance Program  
**STBG**: Surface Transportation Block Grant Program

**TA**: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)  
**RTP**: Recreational Trails Program  
**SRTS**: Safe Routes to School Program / Activities  
**PLAN**: Statewide Planning and Research (SPR) or Metropolitan Planning funds  
**NHTSA 402**: State and Community Highway Safety Grant Program  
**NHTSA 405**: National Priority Safety Programs (Nonmotorized safety)  
**FLTP**: Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Nationally Significant Federal Lands and Tribal Projects)

**Program-specific notes**

Federal-aid funding programs have specific requirements that projects must meet, and eligibility must be determined on a case-by-case basis. For example:

- BUILD: Subject to annual appropriations. See <https://www.transportation.gov/BUILDgrants> for details.

- TIFIA: Program offers assistance only in the form of secured loans, loan guarantees, or standby lines of credit, but can be combined with other grant sources, subject to total Federal assistance limitations.
- FTA/ATI: Project funded with FTA transit funds must provide access to transit. See [Bicycles and Transit](#) and the FTA Final Policy Statement on the [Eligibility of Pedestrian and Bicycle Improvements under Federal Transit Law](#).
  - Bicycle infrastructure plans and projects funded with FTA funds must be within a 3 mile radius of a transit stop or station, or if further than 3 miles, must be within the distance that people could be expected to safely and conveniently bike to use the particular stop or station.
  - Pedestrian infrastructure plans and projects funded with FTA funds must be within a ½ mile radius of a transit stop or station, or if further than ½ mile, must be within the distance that people could be expected to safely and conveniently walk to use the particular stop or station.
  - FTA funds cannot be used to purchase bicycles for bike share systems.
  - FTA encourages grantees to use FHWA funds as a primary source for public right-of-way projects.
- CMAQ projects must demonstrate emissions reduction and benefit air quality. See the CMAQ guidance at [www.fhwa.dot.gov/environment/air\\_quality/cmaq/](http://www.fhwa.dot.gov/environment/air_quality/cmaq/) for a list of projects that may be eligible for CMAQ funds. Several activities may be eligible for CMAQ funds as part of a bicycle and pedestrian-related project, but not as a highway project. CMAQ funds may be used for shared use paths, but may not be used for trails that are primarily for recreational use.
- HSIP projects must be consistent with a State’s [Strategic Highway Safety Plan](#) and either (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem.
- NHPP projects must benefit National Highway System (NHS) corridors.
- STBG and TA Set-Aside: Activities marked “\$SRTS” means eligible only as an SRTS project benefiting schools for kindergarten through 8<sup>th</sup> grade. Bicycle transportation nonconstruction projects related to safe bicycle use are eligible under STBG, but not under TA (23 U.S.C. 217(a)).
- RTP must benefit recreational trails, but for any recreational trail use. RTP projects are eligible under TA and STBG, but States may require a transportation purpose.
- SRTS: FY 2012 was the last year for SRTS funds, but SRTS funds are available until expended.
- Planning funds must be used for planning purposes, for example:
  - Maps: System maps and GIS;
  - Safety education and awareness: for transportation safety planning;
  - Safety program technical assessment: for transportation safety planning;
  - Training: bicycle and pedestrian system planning training.
- Federal Lands and Tribal Transportation Programs (FLTTP) projects must provide access to or within Federal or tribal lands:
  - Federal Lands Access Program (FLAP): Open to State and local entities for projects that provide access to or within Federal or tribal lands.
  - Federal Lands Transportation Program: For Federal agencies for projects that provide access within Federal lands.
  - Tribal Transportation Program: available for federally-recognized tribal governments for projects within tribal boundaries and public roads that access tribal lands.
- NHTSA 402 project activity must be included in the State’s Highway Safety Plan. Contact the State Highway Safety Office for details: <http://www.ghsa.org/html/about/shsos.html>
- NHTSA 405 funds are subject to State eligibility, application, and award. Project activity must be included in the State’s Highway Safety Plan. Contact the State Highway Safety Office for details: <http://www.ghsa.org/html/about/shsos.html>

**Cross-cutting notes**

- FHWA Bicycle and Pedestrian Guidance: [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/)
- **Applicability of 23 U.S.C. 217(i) for Bicycle Projects:** 23 U.S.C. 217(i) requires that bicycle facilities “be principally for transportation, rather than recreation, purposes”. However, sections 133(b)(6) and 133(h) list “recreational trails projects” as eligible activities under STBG. Therefore, the requirement in 23 U.S.C. 217(i) does not apply to recreational trails projects (including for bicycle use) using STBG funds. Section 217(i) continues to apply to bicycle facilities other than trail-related projects, and section 217(i) continues to apply to bicycle facilities using other Federal-aid Highway Program funds (NHPP, HSIP, CMAQ). The transportation requirement under section 217(i) is applicable only to bicycle projects; it does not apply to any other trail use or transportation mode.
- There may be occasional DOT or agency incentive grants for specific research or technical assistance purposes.
- Aspects of many DOT initiatives may be eligible as individual projects. For example, activities above may benefit Ladders of Opportunity; safe, comfortable, interconnected networks; environmental justice; equity; etc.

Source: FHWA Pedestrian and Bicycle Funding Opportunities, May 24, 2018, [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/funding/funding\\_opportunities.cfm](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm)