

COLLETON COUNTY

Bicycle and Pedestrian Master Plan

Prepared for:



Prepared by:



DRAFT: JANUARY 2015

1: Introduction

1.1 Plan Overview

The Colleton County Bicycle and Pedestrian Master Plan provides a vision for a better transportation future for Colleton County. Crafted through months of background research using best practice tools for bikeway and walkway network planning, the document identifies priority projects as well as long-term goals. By including specific implementation guidelines, the document becomes a guide that will positively impact the region's residents and visitors for years to come.

1.2 Setting

Colleton County is an area proud of its Lowcountry charm and hospitality. The region's earliest settlers planted the seeds for iconic architectural style, quaint tree-lined streets for strolling, and a rural economy. Colleton County's current residents enjoy a way of life based in these traditions and updated with contemporary culture. The Plan seeks to complement these traditions while continuing the County's progress and advancing community assets.

1.3 Planning Process

The Project Advisory Group, along with Colleton County and Walterboro staff, guided the development of the *Colleton County Bicycle and Pedestrian Master Plan*. The committee is made up of citizen advocates and representatives from multiple stakeholder organizations and local groups. The committee met several times throughout the process and provided guidance on the overall vision, facility recommendations, programs, policies, and draft plan development.

1.3.1 Data Collection and Analysis

The Project Advisory Group, staff of the County, municipalities, and regional planning organizations, and stakeholders provided baseline information about the

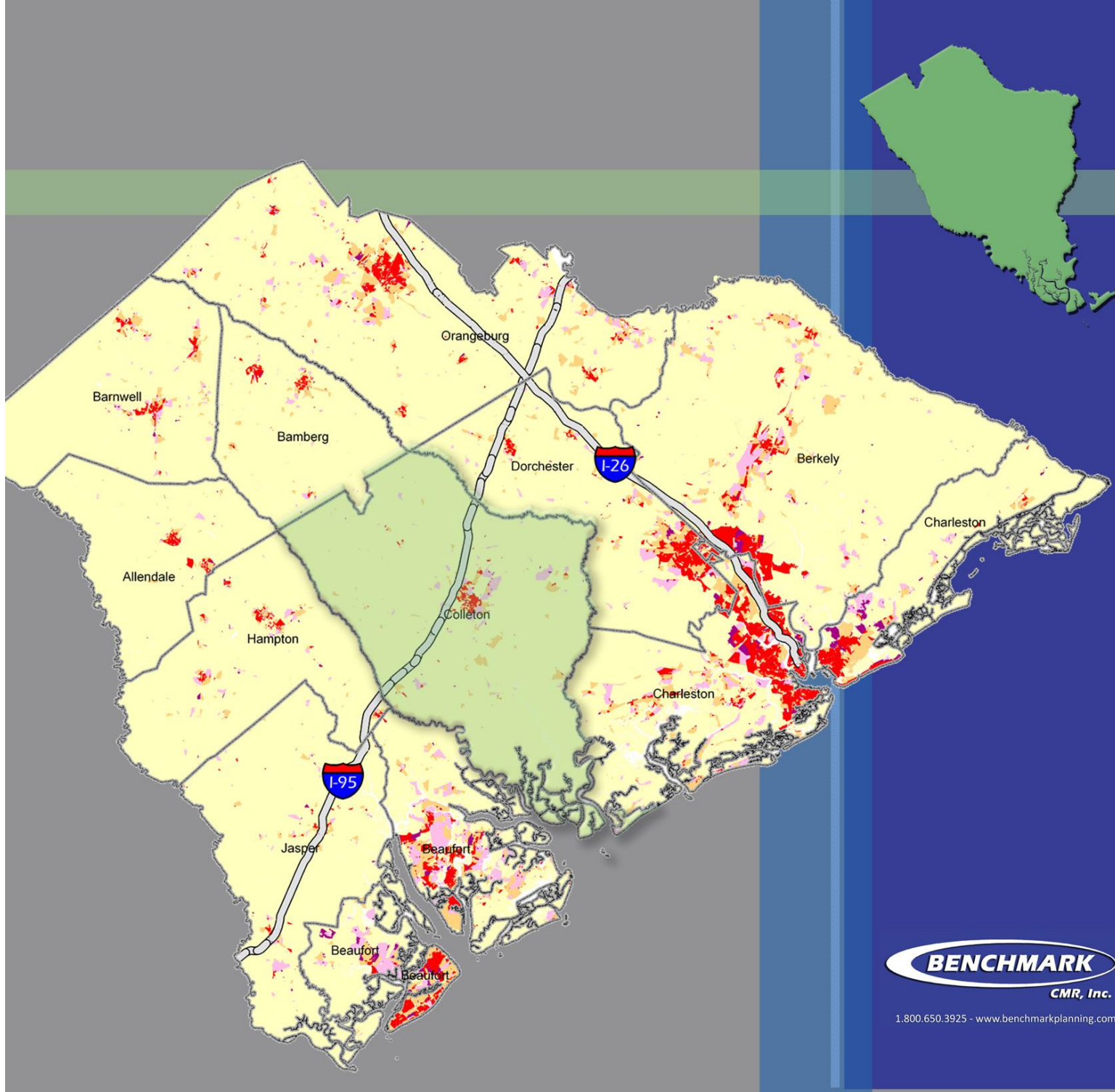


Residents and visitors gave feedback at public workshops. The Plan reflects their desire for new walking and biking routes, intersections in need of improvement, and ideas to improve the County's active transportation options.

existing conditions of Colleton County. Through aerial photography, geographic information systems (GIS) data, and on-the-ground field investigation, the project consultants identified opportunities and constraints for bicycle and pedestrian facility development. Field research also included examining potential corridors, verifying road widths, studying lane configurations, and preparing a photographic inventory. A review of planning documents, policies, bicycle and pedestrian access to outlets for healthy foods, and existing cultural and recreational programs supplemented the analysis of the physical environment.

1.3.2 Public Involvement

Outreach to the citizens and visitors of Colleton County included two public workshops, an online and hard-copy citizen comment form, and progress updates provided through the Colleton County website. For development of this Plan, the Project Advisory Group provided a key source of public input. Three Project Steering Committee meetings provided useful information about public concerns and preferences. Throughout the planning process, the project team shared information about key events and activities related to the Plan with local media.



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Geographic and Health Context

Population

Income

Education &

Lifestyle

2.1.2 Who Lives, Works, and Plays in Colleton County?

Understanding demographic characteristics provides a nuanced and complete understanding of Colleton County’s current conditions.

Colleton County’s workforce is employed in the retail trade; health care and social assistance; public administration; accommodation and food services; and manufacturing.⁵ Businesses and industry locate in Colleton County to enjoy the County’s location near distribution centers, airports, and waterways, competitive tax credits for job creation, and the low cost of land.⁶

Countywide Demographics

The five most populous towns in Colleton compose only 28.5% of the population of Walterboro, the most populous city in the County. Colleton County is much more rural than the state as a whole. Approximately 37 people are found per square mile versus just under 154 people per square mile in the entire state.⁷ Walterboro’s population density is 832.0 residents per square mile.⁸ Charleston has a population density of 1,101.9 people per square mile.⁹

Age and Sex Data

38,892 people live in the County. The age-sex distribution (also called a “population pyramid”) illustrates the high numbers of middle-aged to older adults who live in Colleton County. These groups are generally more populous than adults in their 20s, 30s, and 40s.¹⁰ The median age in the County is 40.7 years old.¹¹ Walterboro’s median age is 38.9. As residents between the ages of 50-65 age over time and retire, they will need a variety

5 <http://www.cceainc.com/wage-salary>

6 <http://www.cceainc.com/>; <http://www.cceainc.com/wage-salary>

7 Colleton County, Geography QuickFacts, US Census: <http://quickfacts.census.gov/qfd/states/45/45029.html>

8 Walterboro, Geography QuickFacts, US Census: <http://quickfacts.census.gov/qfd/states/45/4574275.html>

9 Charleston, Geography QuickFacts, US Census: <http://quickfacts.census.gov/qfd/states/45/4513330.html>

10 2010 Demographic Profile Data, US Census http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1

11 Ibid.

Table 2-1: Population¹

| City/Town | Population |
|--------------|------------|
| Cottageville | 762 |
| Edisto | 414 |
| Lodge | 120 |
| Smoaks | 126 |
| Walterboro | 5,398 |
| Williams | 117 |

1 www.colletoncounty.org/walterboro

of resources for retirement, including a supportive transportation system.

Walterboro’s population has grown 4.75% since 2000, which is far lower than the 9.71% national average and 15.29% average for South Carolina.¹² By comparison, the countywide population has grown only 1.64% since 2000.¹³ There are slightly more females (52%) than males (48%) living in the County. In Walterboro, the population percentage by gender is 44% male and 55% female.

Race Data

As expected, the bulk of the population lives in the area surrounding Walterboro. The following chart examines the racial demographics of Colleton County. 55.9% of residents identify as White, Non-Hispanic. 38.8% of residents identify as Black, Non-Hispanic and 2.8% of residents identify as Hispanic or Latino.

The County’s racial diversity varies throughout the region. The maps to the left show a scale (from zero to 100) to measure minority population.¹⁴ The darker shading signifies a higher value and greater racial diversity.

12 www.usa.com/walterboro-sc-population-and-races.htm#PopulationGrowth

13 www.usa.com/colleton-county-sc-population-and-races.htm#

14 [http://www.city-data.com/county/Colleton_County-SC.html#mapOSM?mapOSM\[z\]=9&mapOSM\[c1\]=32.82575&mapOSM\[c2\]=-80.6650500000001&mapOSM\[s\]=sq11&mapOSM\[fs\]=false](http://www.city-data.com/county/Colleton_County-SC.html#mapOSM?mapOSM[z]=9&mapOSM[c1]=32.82575&mapOSM[c2]=-80.6650500000001&mapOSM[s]=sq11&mapOSM[fs]=false)

Figure 2-1: Colleton County Population Pyramid

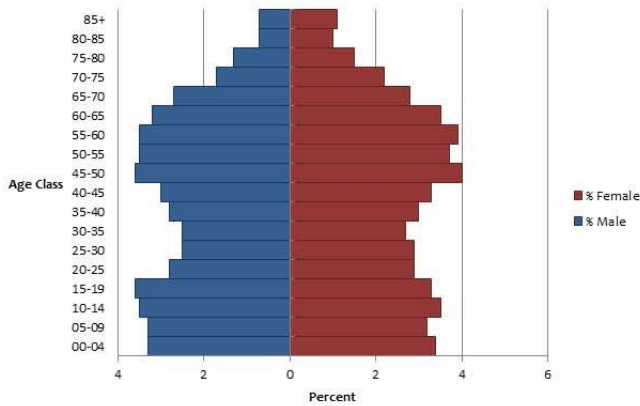


Figure 2-2: Walterboro, SC Gender and Age Comparison

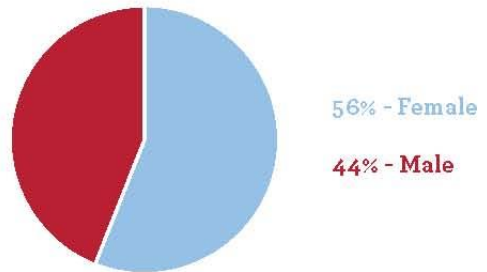


Figure 2-3: Colleton County, SC Gender and Age Comparison

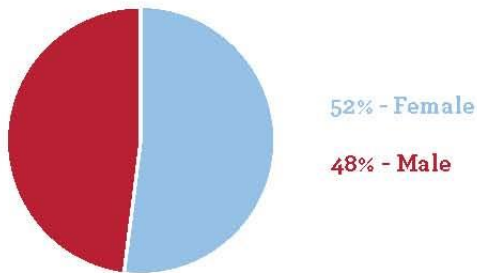


Figure 2-4: Race Comparison in Colleton County

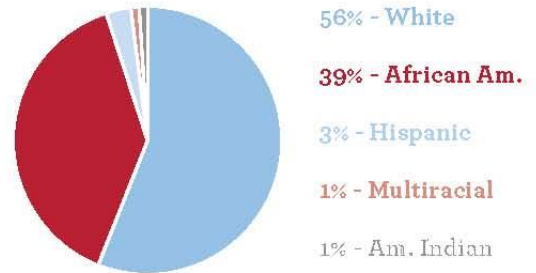


Figure 2-5: Colleton Co. Low to Moderate Income by Census Tract

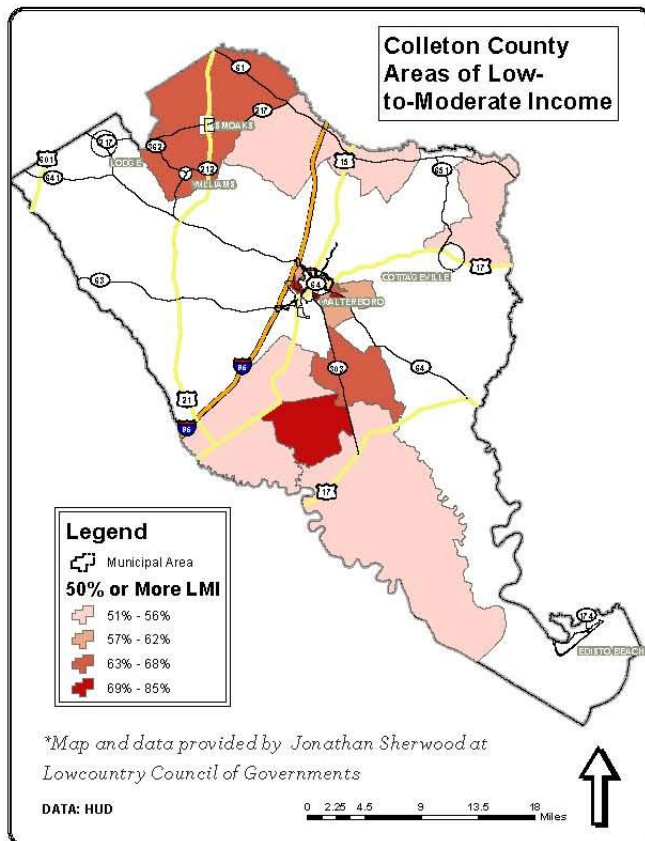
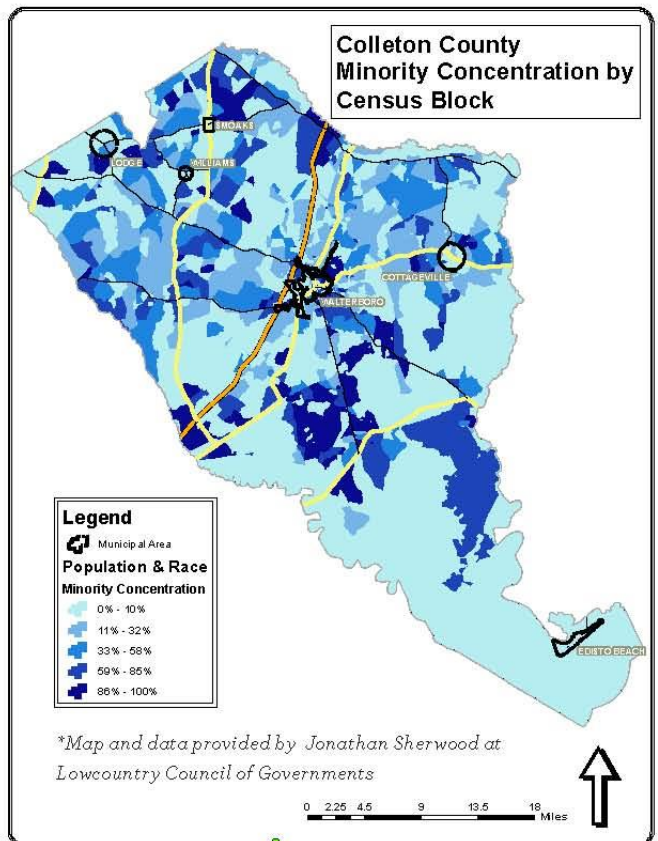


Figure 2-6: Colleton Co. Minority Concentration by Census Block



Physical Fitness and Health

Studies have shown a relationship among education, health and economics; these numbers, therefore serve as additional economic indicators.

Table 23: Health Indicators

| | Beaufort County | | Colleton County | | Hampton County | | Jasper County | |
|--------------------------------------|-----------------|------------|-----------------|------------|----------------|------------|---------------|------------|
| | 2015 | Rank of 46 | 2015 | Rank of 46 | 2015 | Rank of 46 | 2015 | Rank of 46 |
| Health Outcomes | | 1 | | 38 | | 25 | | 24 |
| Length of Life | | 1 | | 44 | | 19 | | 27 |
| Premature death | 5,741 | | 12,251 | | 8,935 | | 9,417 | |
| Quality of Life | | 1 | | 29 | | 27 | | 17 |
| Poor or fair health | 10% | | 20% | | 23% | | 16% | |
| Poor physical health days | 2.7 | | 4.4 | | 4 | | 3.7 | |
| Poor mental health days | 2.9 | | 4.1 | | 3.1 | | 3.5 | |
| Low birthweight | 8.60% | | 10.40% | | 11.30% | | 10.80% | |
| Health Factors | | 1 | | 41 | | 38 | | 42 |
| Health Behaviors | | 1 | | 41 | | 30 | | 43 |
| Adult smoking | 17% | | 24% | | 19% | | 26% | |
| Adult obesity | 22% | | 38% | | 43% | | 40% | |
| Physical inactivity | 17% | | 32% | | 33% | | 26% | |
| Access to exercise opportunities | 81% | | 43% | | 37% | | 70% | |
| Food Insecurity | 13% | | 20% | | 22% | | 18% | |
| Limited Access to Healthy Food | 9% | | 12% | | 7% | | 5% | |
| Excessive drinking | 19% | | 11% | | 11% | | 19% | |
| Sexually transmitted infections | 440 | | 841 | | 815 | | 414 | |
| Teen births | 45 | | 66 | | 57 | | 68 | |
| Clinical Care | | 7 | | 43 | | 34 | | 46 |
| Uninsured | 22% | | 24% | | 20% | | 28% | |
| Primary care physicians | 1,556:1 | | 1,817:1 | | 2,303:1 | | 3,690:1 | |
| Dentists | 1,116:1 | | 4,199:1 | | 3,401:1 | | 2,663:1 | |
| Mental health providers | 890:01:00 | | 1,111:1 | | 1,458:1 | | 2,959:1 | |
| Preventable hospital stays | 45 | | 73 | | 73 | | 67 | |
| Social & Economic Factors | | 4 | | 34 | | 39 | | 33 |
| High school graduation | 75% | | 76% | | 72% | | 65% | |
| Some college | 62.60% | | 50.90% | | 41.60% | | 36.40% | |
| Unemployment | 6.80% | | 9.50% | | 10.30% | | 7.10% | |
| Children in poverty | 24% | | 39% | | 37% | | 40% | |
| Children in single-parent households | 32% | | 46% | | 45% | | 48% | |
| Violent crime | 544 | | 697 | | 771 | | 351 | |

Source: www.countyhealthrankings.org

2.3 Public Meeting Summary

2.3.1 Introduction

The project team held a public workshop during the existing conditions assessment phase of the Colleton County Bicycle and Pedestrian Master Plan to collect input from different resident stakeholders around the County. The meeting was held on September 2nd in the evening at the City of Walterboro Council Chambers and the meeting was a drop in format where participants arrived and participated in the exercises at their leisure. The team set up and manned several display boards with information, maps of existing bikeways, walkways and transit lines in Colleton; and ran exercises to help determine preferences

on infrastructure types. The team also hosted an exit survey to collect any additional information that might be helpful to the planning staff.

There were 28 participants who signed into the meeting, and a few more in attendance who didn't sign in.

2.3.2 Summary of Comments on the Existing Walking and Bicycling Network Maps

During the meeting, comments focused primarily on connectivity to community amenities and points of interest in and around Walterboro through sidewalk improvements and bicycle facilities. Participants also identified some key intersections in need of improvement. Within downtown Walterboro, corridors such as Hampton Street, Wichman Street, Forest Hills Rd, and Ivanhoe Rd were designated as primary focus areas for bicyclist



Several display boards around the room discuss existing conditions. Meeting attendees were free to drop in at their leisure, learn more, and provide comments.

and pedestrian improvements. Participants desired intersection improvements for bicyclists and pedestrians along Jefferies downtown as well. Better connectivity to and within the Forest Hills neighborhood was also heavily requested. Finally, some participants requested better lighting along the Great Swamp Sanctuary and corridors such as Hampton Street.

Leading out of town, participants desired to see connections to destinations such as Colleton Prep, Colleton County Middle and High Schools, and the ACE Basin Recreational Complex along Jefferies Highway and Tuskegee Airmen Dr. Local hotel operators desired connectivity from downtown and the Great Swamp Sanctuary to Hotels and restaurants at the intersection of Interstate 95 and Highway 63. Participants also identified connectivity along Hampton Street across Robertson Blvd, connecting to the H&D Super Market and neighborhoods east of town, as being a priority improvement.

Regionally, a trail along the abandoned rail alignment following Green Pond Highway to the ACE Basin was heavily requested. There are many trails that such a connection could tie into within the nature preserve. Connectivity to the Hendersonville community and to the East Coast Greenway alignment were also identified as priorities. Participants also marked connections to the towns of Williams, Lodge and Colleton State Park along the Edisto River as being important regional destinations for bicycling – these could potentially utilize former rail lines in the County.

It was noted that several long-distance touring cyclists pass through the region and better efforts could be made to attract these types of tourists. Informational maps and on-road infrastructure improvements are both measures that would help retain and attract additional long-distance bicyclists.



Comments left on walking/biking maps and exit surveys helped the team chronicle the public's thoughts.

2: EXISTING CONDITIONS

downtown such as Jefferies Road, Bell's Highway, Hampton Street, and Robertson Boulevard were also frequently mentioned.

Question 3: What roads are most in need of safety improvements for bicycling? Please be as specific as possible.

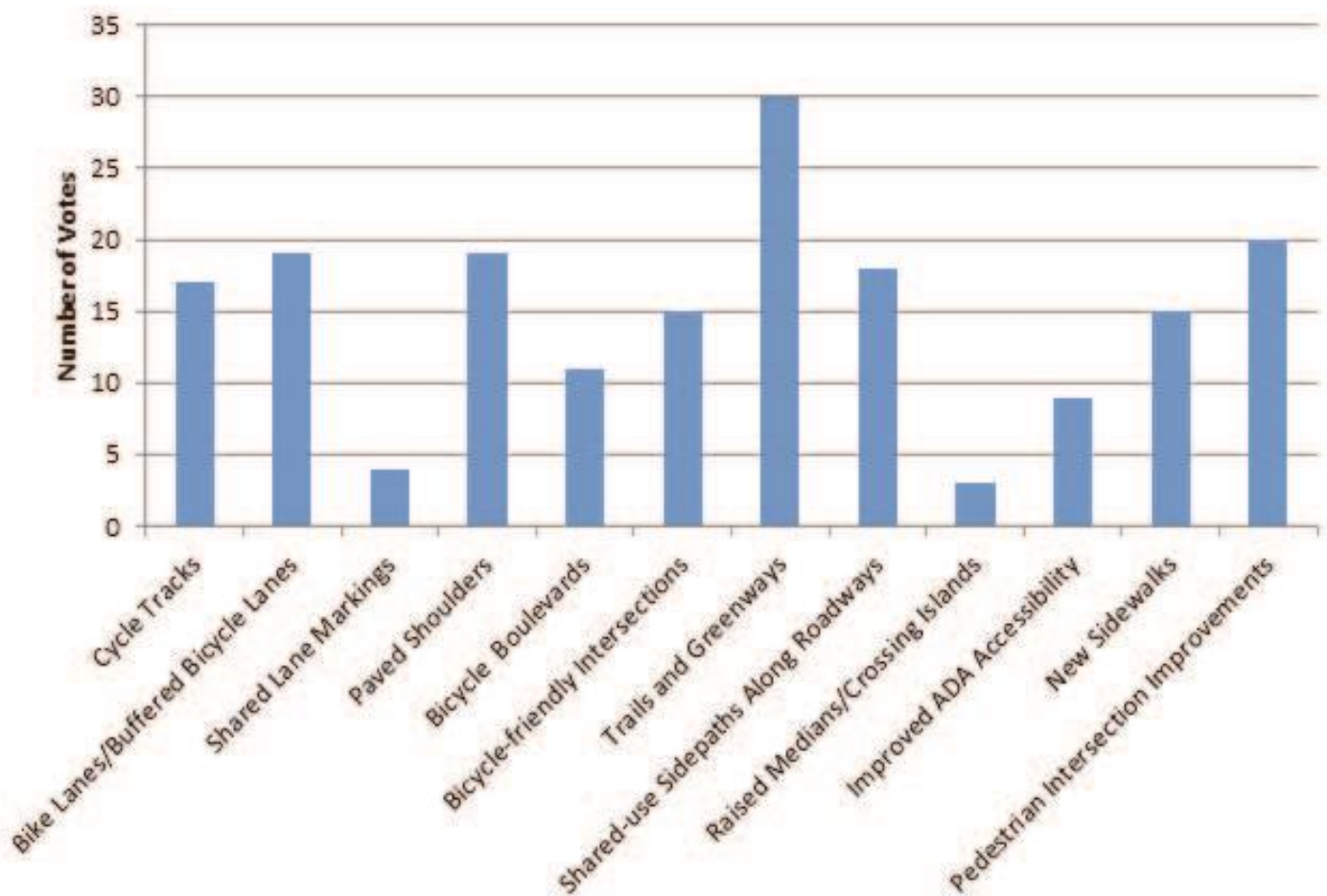
Typically similar streets were mentioned as in the Question 2. Connectivity to key destinations such as grocery stores, restaurants, schools, recreational areas and retail was an important consideration.

Question 4: Please share any additional comments.

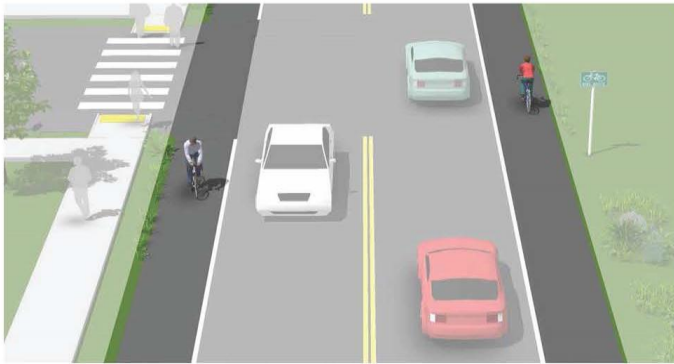
Two of the most frequent comments were the need for better maintenance of bikeways, sidewalks and roadways as a whole, and the need for better lighting around the community.

Participant surveys showed support for better connectivity throughout Colleton County. Schools, for instance, were almost unanimously cited as necessary destinations to link with bicycle- and pedestrian-friendly routes.

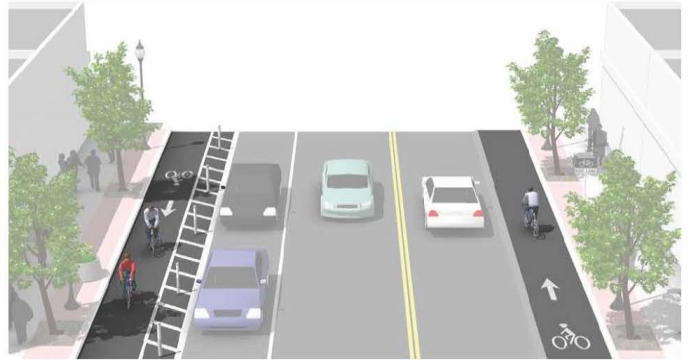
Figure 2-11: Preferred Infrastructure Types By Public Meeting Participants



Paved Shoulders



Cycle Tracks



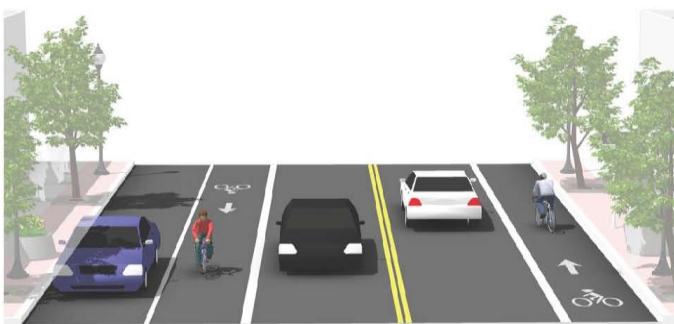
Bicycle Boulevards



Shared Use Path



Bike Lanes



Buffered Bike Lanes



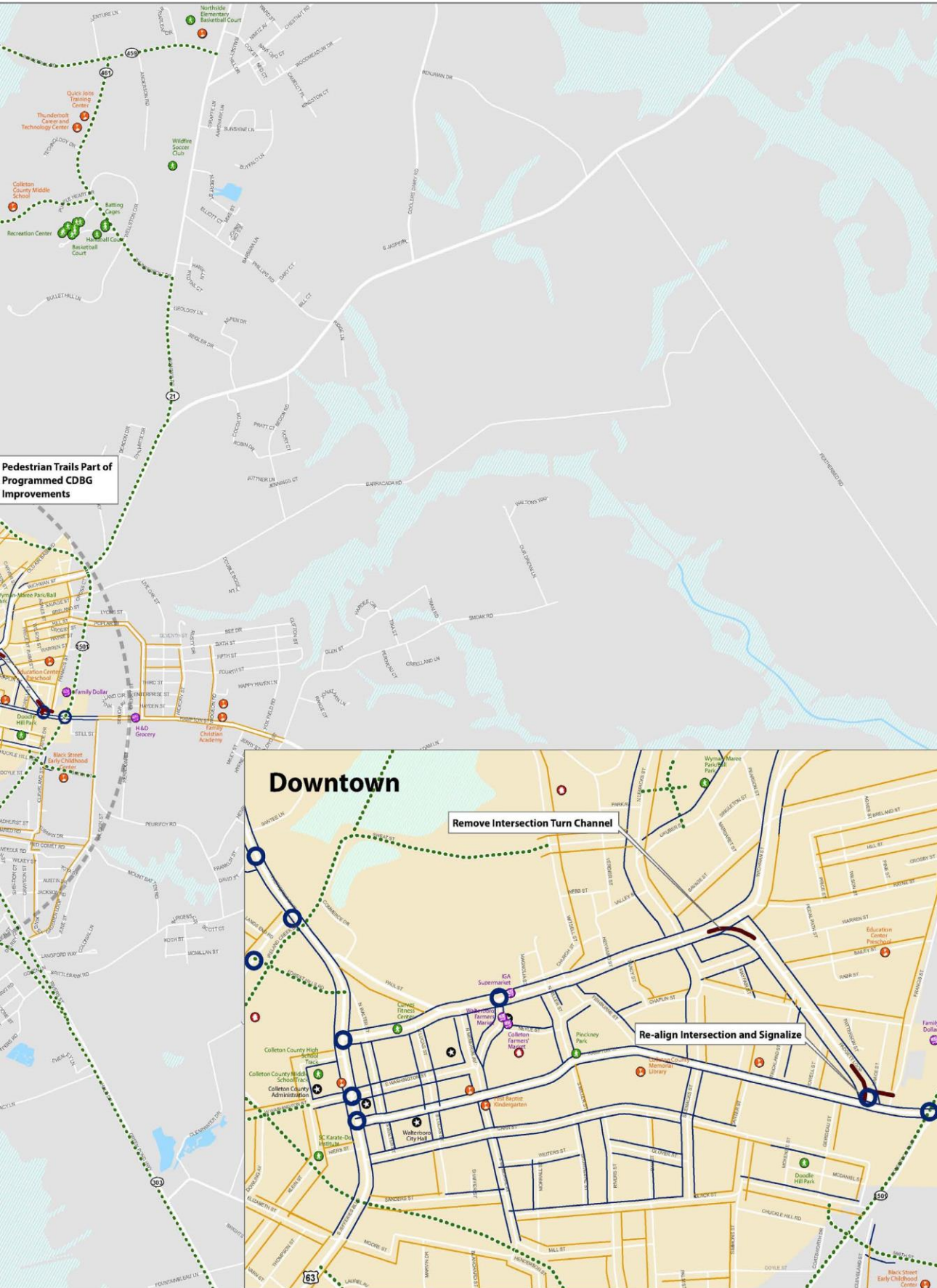
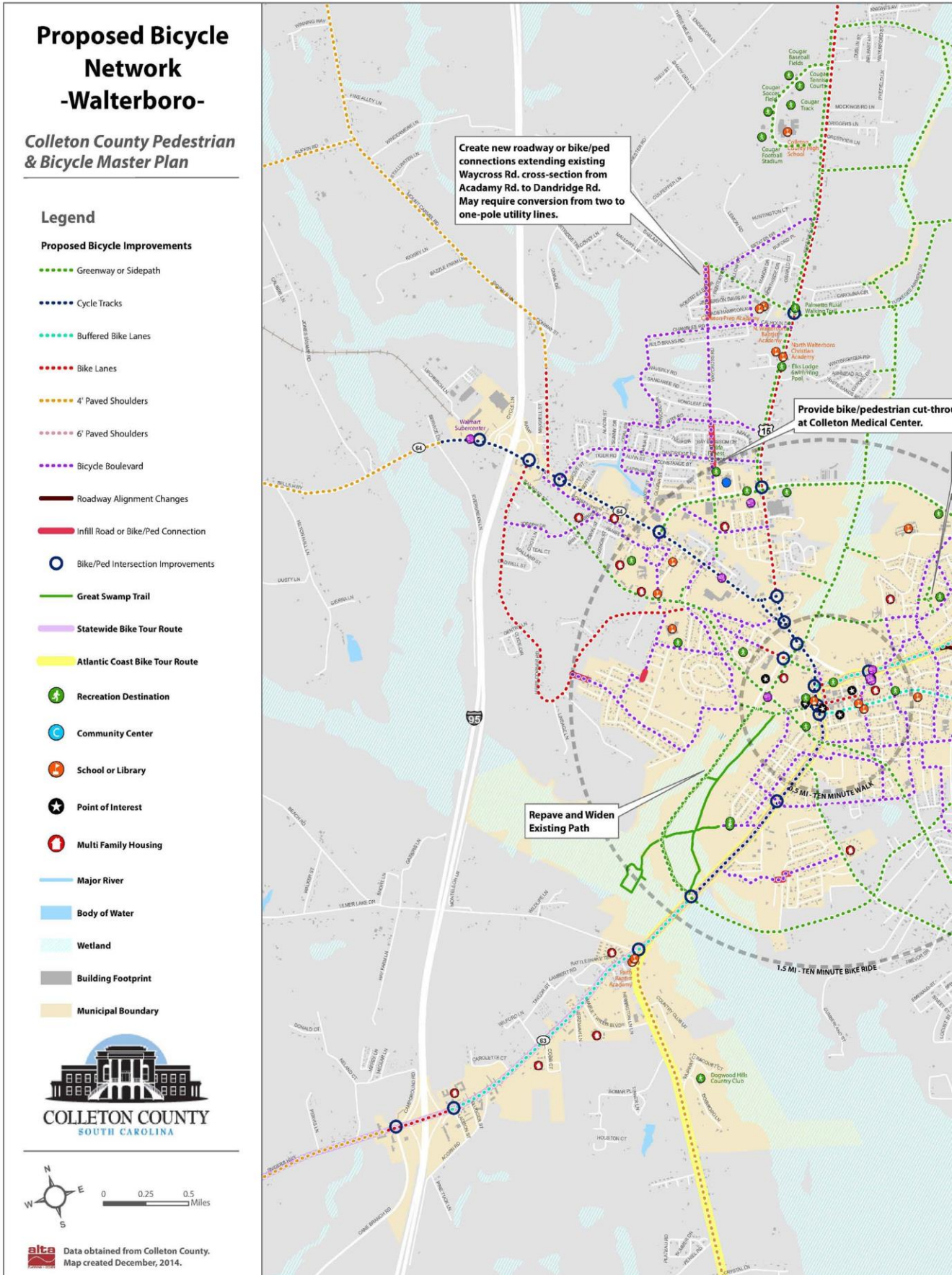


Figure 3-6 - Walterboro Bicycle Network Recommendations



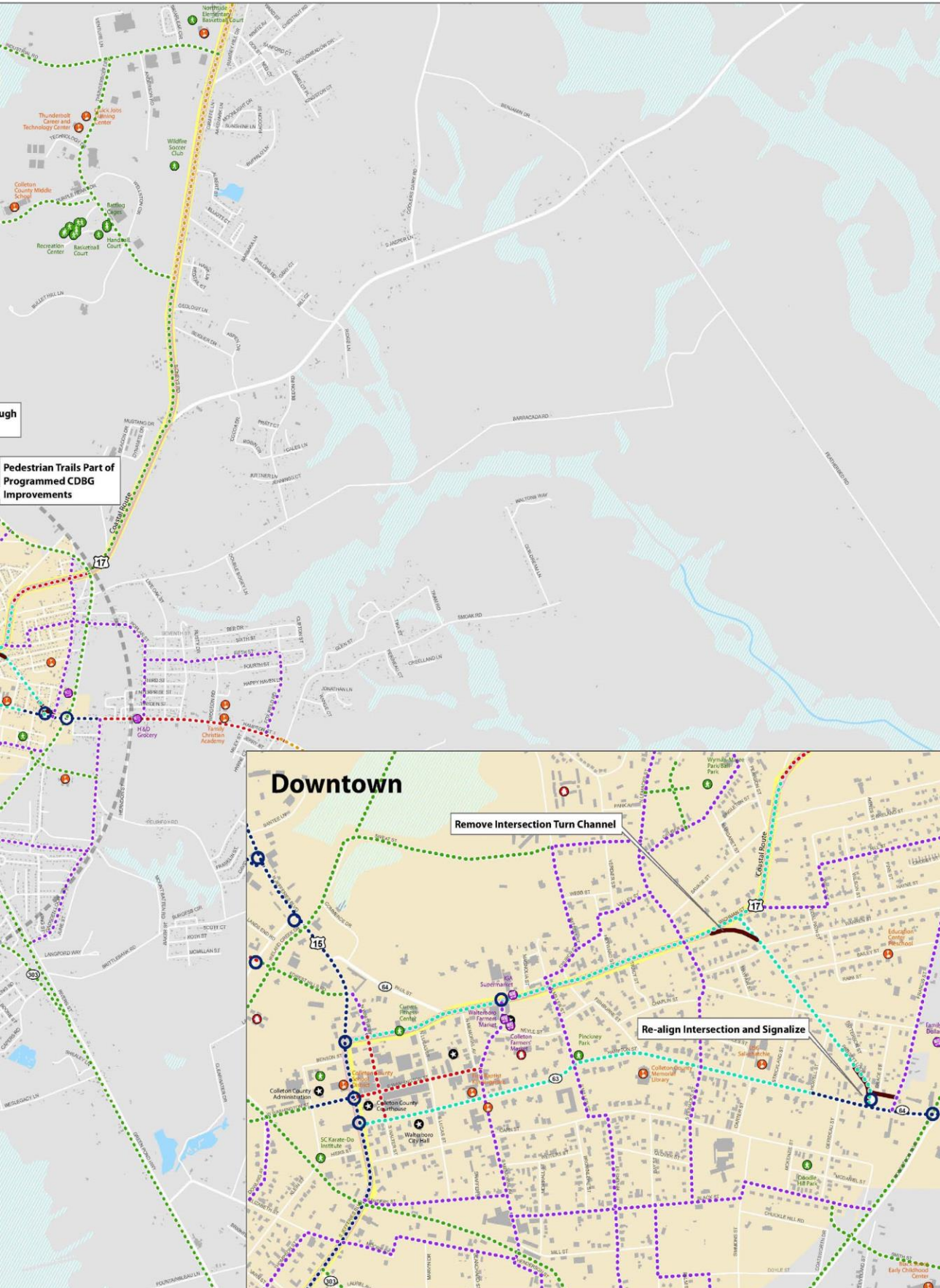


Table 4-1: Cost Estimates and Assumptions

| Facility Type | Low-end cost estimate | High-end cost estimate | Assumptions |
|---------------------------------------|-----------------------|------------------------|--|
| Sidewalks w/o curb construction | \$ 60 per linear foot | \$ 70 per linear foot | No ROW purchase required |
| Sidewalks w/ curb construction | \$200 per linear foot | \$350 per linear foot | No ROW purchase required; includes the installation of storm sewers. |
| Bicycle Boulevards and Bicycle Routes | \$15,000 per mile | \$45,000 per mile | Includes signage and pavement markings only |
| Bike Lanes | \$35,000 per mile | \$75,000 per mile | Pavement restriping costs only |
| Buffered Bike Lanes | \$65,000 per mile | \$130,000 per mile | Pavement restriping costs only |
| Cycle Tracks | \$85,000 per mile | \$160,000 per mile | Pavement restriping costs only |
| Greenway or Sidepath | \$400,000 per mile | \$600,000 per mile | 10' asphalt path and no ROW purchase required. |

Tables 4-2: Walterboro Pedestrian Project Summary Tables

| Phases | Sum of Miles | Low-end cost estimate | | High-end cost estimate | |
|-------------|--------------|--|---|--|---|
| | | Sum of cost estimate w/o curb construction | Sum w/o curb construction + 10% contingency | Sum of cost estimate w/o curb construction | Sum w/o curb construction + 10% contingency |
| Phase 1 | 11.88 | \$3,763,000 | \$4,139,000 | \$4,390,000 | \$4,829,000 |
| Phase 2 | 8.66 | \$2,742,000 | \$3,016,000 | \$3,199,000 | \$3,519,000 |
| Phase 3 | 9.89 | \$3,135,000 | \$3,448,000 | \$3,657,000 | \$4,023,000 |
| Phase 4 | 10.67 | \$3,441,000 | \$3,785,000 | \$4,014,000 | \$4,416,000 |
| Phase 5 | 10.16 | \$3,217,000 | \$3,539,000 | \$3,753,000 | \$4,129,000 |
| Phase 6 | 7.51 | \$2,379,000 | \$2,617,000 | \$2,776,000 | \$3,053,000 |
| Grand Total | 58.76 | \$18,677,000 | \$20,545,000 | \$21,790,000 | \$23,969,000 |

| Phases | Sum of Miles | Low-end cost estimate | | High-end cost estimate | |
|-------------|--------------|--|---|--|---|
| | | Sum of cost estimate w/curb construction | Sum of w/ curb construction + 10% contingency | Sum of cost estimate w/curb construction | Sum of w/ curb construction + 10% contingency |
| Phase 1 | 11.88 | \$12,543,000 | \$13,797,000 | \$21,950,000 | \$24,145,000 |
| Phase 2 | 8.66 | \$9,141,000 | \$10,055,000 | \$15,997,000 | \$17,596,000 |
| Phase 3 | 9.89 | \$10,449,000 | \$11,494,000 | \$18,285,000 | \$20,114,000 |
| Phase 4 | 10.67 | \$11,470,000 | \$12,617,000 | \$20,072,000 | \$22,080,000 |
| Phase 5 | 10.16 | \$10,724,000 | \$11,796,000 | \$18,767,000 | \$20,643,000 |
| Phase 6 | 7.51 | \$7,931,000 | \$8,724,000 | \$13,878,000 | \$15,266,000 |
| Grand Total | 58.76 | \$62,257,000 | \$68,482,000 | \$108,949,000 | \$119,844,000 |

Tables 4-4 Summary Tables of Colleton County Recommended Pedestrian Facilities

| Facility Type | Sum of Miles | Low-end cost estimate | | High-end cost estimate | |
|---------------|--------------|--|---|--|---|
| | | Sum of cost estimate w/o curb construction | Sum w/o curb construction + 10% contingency | Sum of cost estimate w/o curb construction | Sum w/o curb construction + 10% contingency |
| Sidewalk | 3.17 | \$1,006,000 | \$1,106,000 | \$3,352,000 | \$3,687,000 |

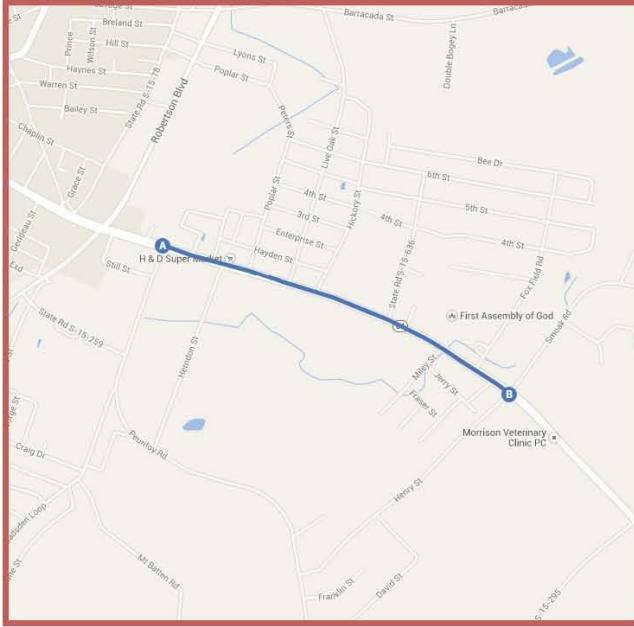
| Facility Type | Sum of Miles | Low-end cost estimate | | High-end cost estimate | |
|---------------|--------------|--|---|--|---|
| | | Sum of cost estimate w/curb construction | Sum of w/ curb construction + 10% contingency | Sum of cost estimate w/curb construction | Sum of w/ curb construction + 10% contingency |
| Sidewalk | 3.17 | \$1,173,000 | \$1,291,000 | \$5,866,000 | \$6,453,000 |

Table 4-5 Summary Tables of Colleton County Recommended Bicycle Facilities

| Facility Type | Sum of Miles | Sum of low-end cost estimates | Sum of low-end cost estimates + 10% contingency |
|---------------------|--------------|-------------------------------|---|
| 4' Paved Shoulders | 155.15 | \$24,823,000 | \$27,306,000 |
| 6' Paved Shoulders | 4.19 | \$943,000 | \$1,037,000 |
| Bike Lanes | 2.01 | \$703,000 | \$773,000 |
| Bike Route | 21.69 | \$325,000 | \$358,000 |
| Buffered Bike Lanes | 4.55 | \$296,000 | \$325,000 |
| Green-way/Sidepath | 90.41 | \$36,164,000 | \$39,781,000 |
| Grand Total | 277.99 | \$63,255,000 | \$69,580,000 |

| Facility Type | Sum of Miles | Sum of high-end cost estimates | Sum of high-end cost estimates + 10% contingency |
|---------------------|--------------|--------------------------------|--|
| 4' Paved Shoulders | 155.15 | \$93,088,000 | \$102,396,000 |
| 6' Paved Shoulders | 4.19 | \$2,934,000 | \$3,227,000 |
| Bike Lanes | 2.01 | \$151,000 | \$166,000 |
| Bike Route | 21.69 | \$976,000 | \$1,074,000 |
| Buffered Bike Lanes | 4.55 | \$592,000 | \$651,000 |
| Green-way/Sidepath | 90.41 | \$54,247,000 | \$59,671,000 |
| Grand Total | 277.99 | \$151,986,000 | \$167,185,000 |

4.) Sidewalk Improvements - Hampton St



Extents - Peurifoy Ln to Smoak Rd - .95 mi

Proposed Facility Type - Sidewalk

Key Safety Issues - No pedestrian facilities

Number of Pedestrian Crashes - None reported

Number of Bicycle Crashes - None reported

Planning-level Cost Estimate:

\$5,357,500 (sidewalk w/ curb)

Jurisdictional Responsibility:

SCDOT, Colleton County, Walterboro

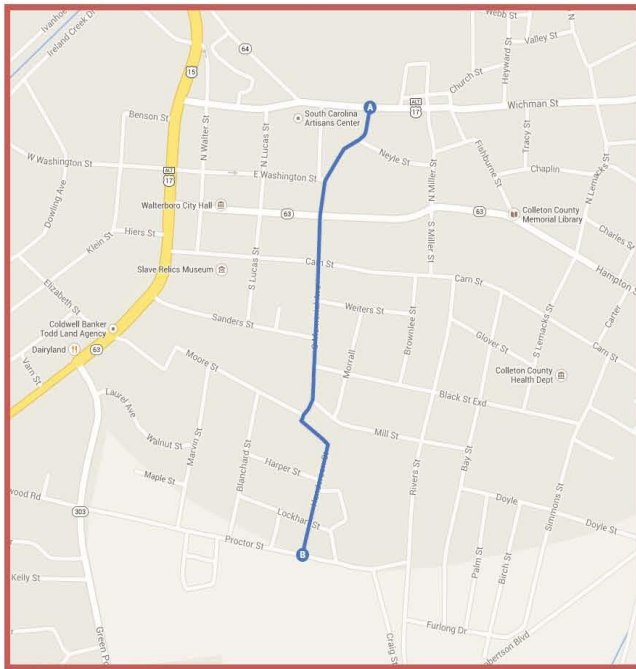
Required Actions:

Identify funding, detailed design, construction

Notes: Bike lanes also proposed on this corridor. Provides access for residents of neighborhoods west of Walterboro and access to food sources.



7.) Bike Boulevard - Henderson/Memorial/Washington



Extents - Proctor St to Wichman St - .64 mi

Proposed Facility Type - Bike Boulevards

Key Safety Issues - Need bicycle connectivity to downtown from proposed greenway

Number of Pedestrian Crashes - none reported

Number of Bicycle Crashes - none reported

Planning-level Cost Estimate:

\$38,400

Jurisdictional Responsibility:

SCDOT, Colleton County, Walterboro

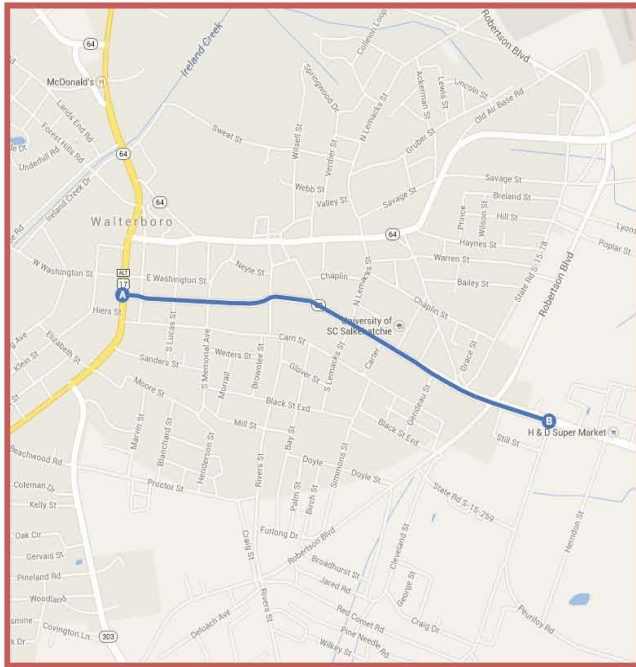
Required Actions:

Identify funding, detailed design, construction

Notes: Will connect healthy food opportunities and the proposed greenway to downtown.



9.) Buffered Bike Lanes and Cycle Tracks - Hampton St



Extents - Jefferies Blvd to Peurifoy Rd - 1.39 mi

Proposed Facility Type - Buffered Bike Lanes and Cycle tracks

Key Safety Issues - wide roadway with no bicycle facilities

Number of Pedestrian Crashes - none reported

Number of Bicycle Crashes - none reported

Planning-level Cost Estimate:

\$212,500

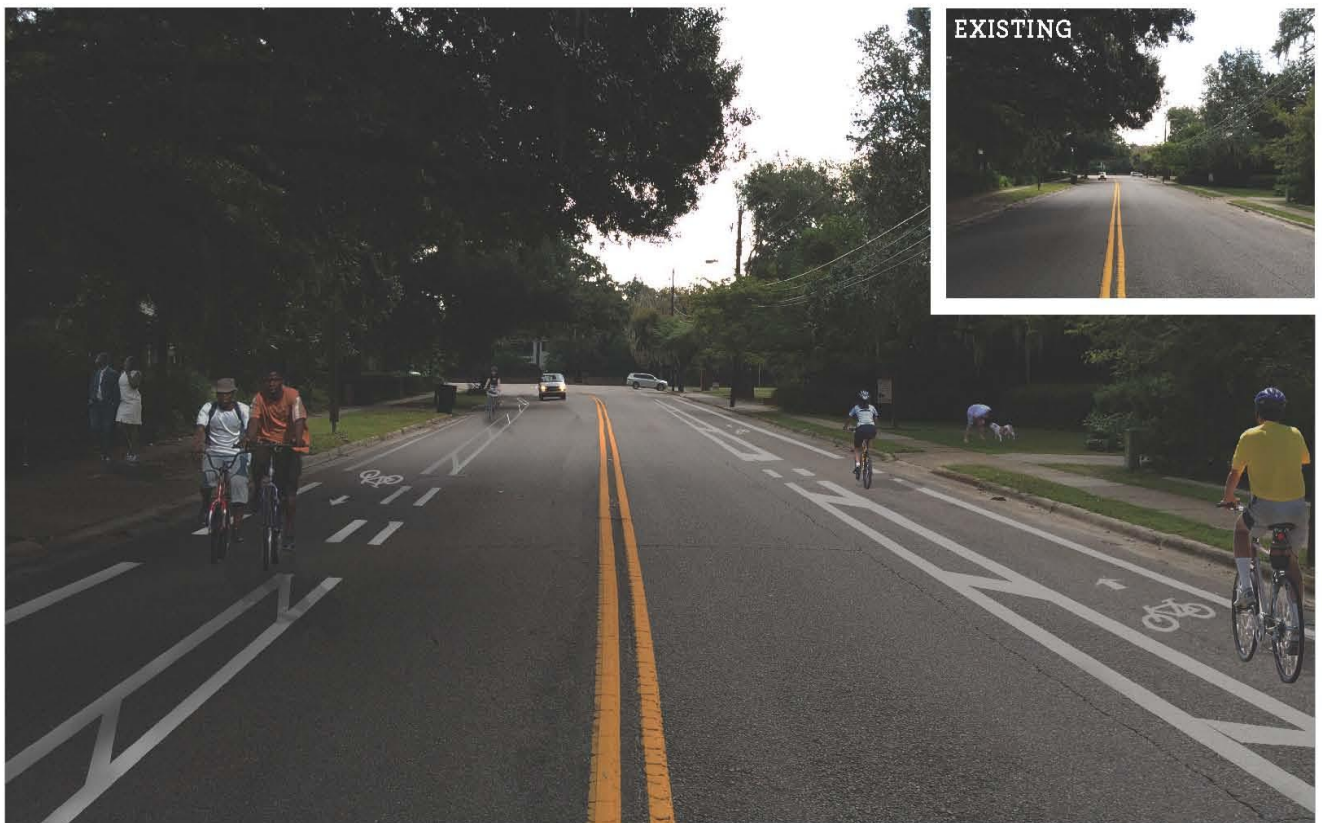
Jurisdictional Responsibility:

SCDOT, Colleton County, Walterboro

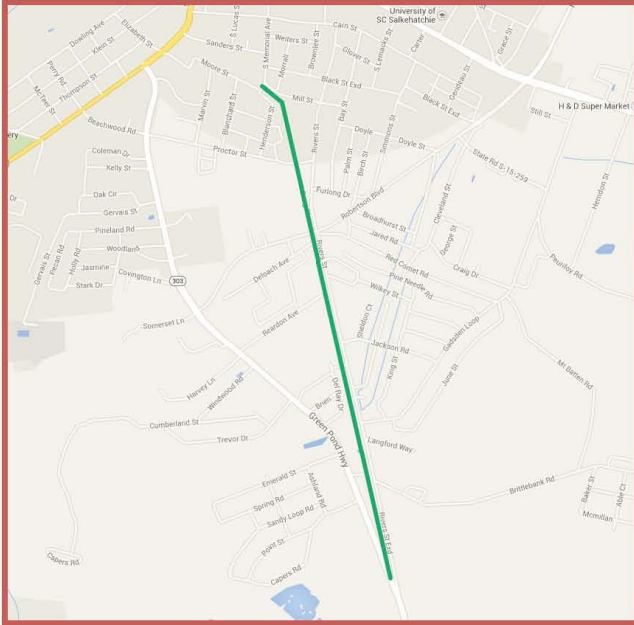
Required Actions:

Identify funding, detailed design, construction

Notes: Provides needed connection to healthy food.



6.) Greenway Trail Improvement - Green Pond Hwy



Extents - Memorial Ave to Green Pond Hwy - 1.75 mi

Proposed Facility Type - Greenway Trail

Key Safety Issues - No bicycle or pedestrian facilities

Number of Pedestrian Crashes - None reported

Number of Bicycle Crashes - None reported

Planning-level Cost Estimate:

\$1,123,000

Jurisdiction Responsibility:

SCDOT, Colleton County, Walterboro

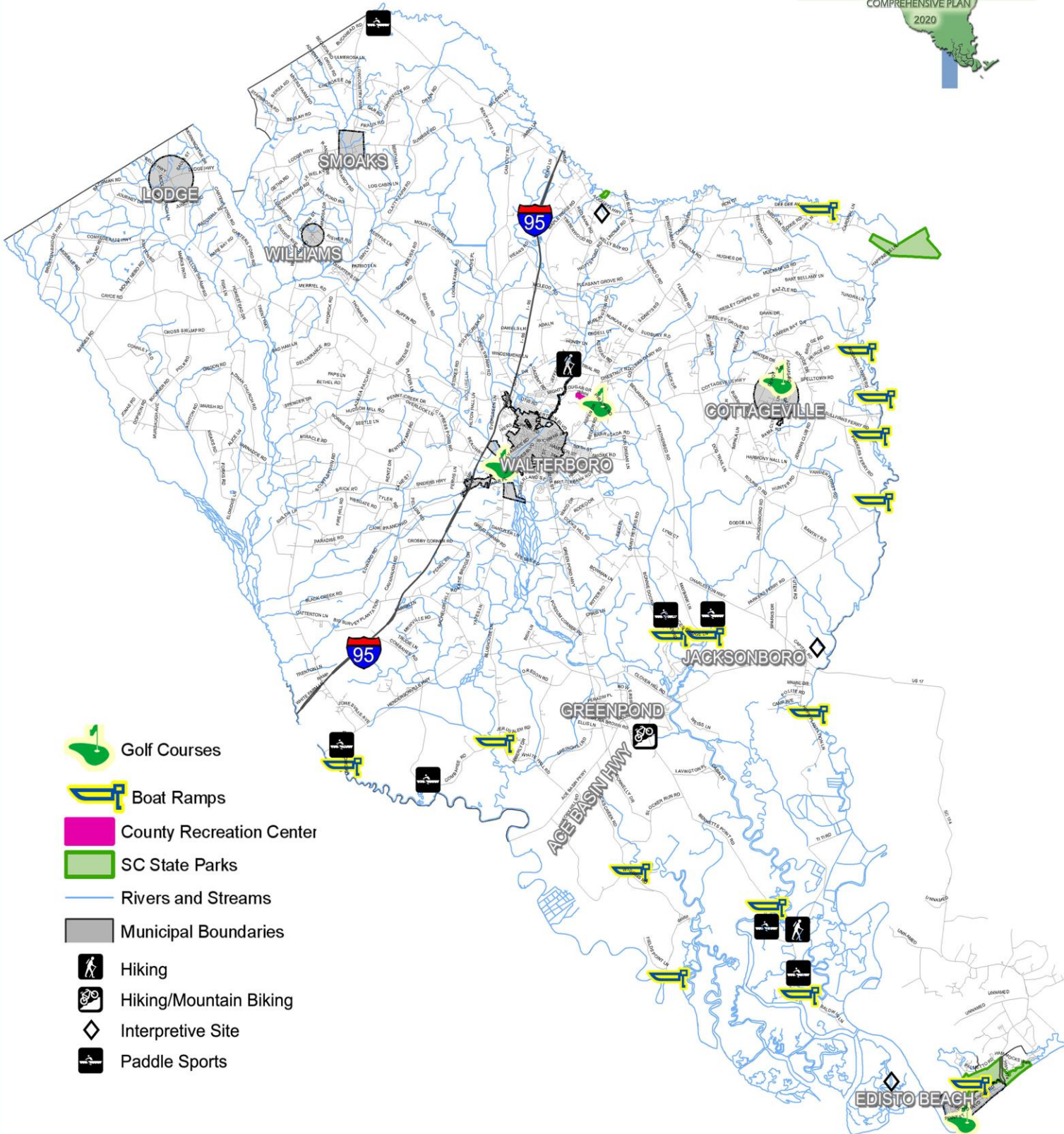
Required Actions:











Identify funding, detailed design, construction

Notes: Implementation should be relatively easy and inexpensive since ROW is currently owned by Colleton County.



Parks and Recreation Map



-  Golf Courses
-  Boat Ramps
-  County Recreation Center
-  SC State Parks
-  Rivers and Streams
-  Municipal Boundaries
-  Hiking
-  Hiking/Mountain Biking
-  Interpretive Site
-  Paddle Sports


Not to Scale



1.800.650.3925 - www.benchmarkplanning.com



Proposed ACE Trail – Trail Head

County Owned - 3 Ac Tract at SC 303 for
Parking



ACE TRAIL HEAD – Southside
Parking Area with Possible Area for
Shed Structure



ACE TRAIL NORTH BOUND
Leaving Trail Head along old Rail Line



ACE TRAIL – 1000 feet NORTH
Elevated Base with Existing Tree Line



ACE TRAIL – ½ Mile Mark
Trail Route Overgrown with debris -
Canopy Intrusion – Slight Elevation



ACE TRAIL – 1 mile Mark

Trail Route Elevated but with water pooling and debris – significant clearing and grubbing required. Base may need stabilization.

Project Funding Strategies

Public

- US DOT
- US EPA
- National Parks Service
- Centers for Disease Control
- SC DOT
- SC PRT
- C-FUND
- County Government
- Municipal Government

Private

- Charitable Foundations
- Corporate Giving
- Citizen Donations
- Fundraising Efforts