





In the City of Charleston, mobility is not just a matter of moving cars from here to there. Charleston's unique geography of waterways and marshes separating the City's five land bodies limits the ability to fully connect various points of the City and region by roadway. In addition, Charleston's urban setting naturally results in increased congestion that cannot be completely mitigated through road construction.

Notwithstanding the geographical factors, demographic data paints a picture that shows a need for options. In the 2000 Census, over 15% of households in the City of Charleston were identified as not having a vehicle available for transportation. Thus, at a minimum, over 18,000 people in the City everyday will likely be walking, biking, riding public transportation, or car pooling.

In the City's 2009 Citizens' Survey over 90% of the respondents agreed that streets need to emphasize more connectivity and more low-speed, pedestrian-friendly character. Previously in the City's 1998 Citizens' Survey respondents said the most important single issue for managing growth and development in the City was improving the quality and character of streets, sidewalks, street lighting, and street trees.

Given these significant indicators of public support, the City needs to do more to offer alternatives to the traditional passenger vehicle. The City needs to avoid accepting the suburban-oriented system of wide, high-speed collectors and arterials. Charleston needs more bike lanes and sidewalks; needs more public transportation options, and needs to ensure that land use recommendations are support development patterns that encourage walking and transit.

For those who are using passenger cars, there need to be more choices available as well. Choices of vehicular routes is a critical need. If there is more than one way to get to a location, traffic on each of those routes is more equalized and no particular route shares an undue burden. That is the beauty of a connected grid, such the one established on the Peninsula of Charleston. While Charleston's geography prevents as great a network system as some cities can have, within the five land masses there are plenty of connections that can create better networks. Therefore, one of the most important areas the City of Charleston needs to focus on is providing more choices in mobility.

While much has been accomplished in the past 10 years, much remains to be done. This Mobility Element sets the tone for a City that seeks to become a role model for advances in the choices of mobility.

#### CHARLESTON ROADWAY IMPROVEMENTS, COMPLETED

Area	Project	Type/Description	Status
Cainhoy	Daniel Island Interchange at Mark Clark Expressway	New Interchange with Mark Clark	Completed
James Island	Folly Rd and Maybank Hwy	Intersection improvements	Completed
James Island	Folly Rd	Bridge replacment over James Island Creek	Completed
Peninsula	Ravenel Bridge	New Bridge connecting Charleston and Mt. Pleasant over the Cooper River	Completed
Peninsula	Heriot St. Bridge at the Magnolia Development	New Bridge connecting Upper Rutledge and I-26 with the Magnolia Development	Completed
West Ashley	West Ashley Circle, Southwest Quadrant	New Roadway	Completed
West Ashley	Henry Tecklenberg Blvd connection	From Magwood Rd to Savage Rd	Completed

Source: South Carolina Department of Transportation

### Mobility Goal:

Seek to offer as many choices for mobility in the City as possible, from modes to routes

### Existing Traffic Patterns

Currently, most development is designed to be entirely automobile dependent. Most

cities, including Charleston, have greatly increased their levels of VMT (vehicle miles traveled). A city must be realistic about how much vehicle traffic can be supported through increased roadway capacity and balance its effects on the community's quality of life.

To illustrate Charleston's roadway capacities, a chart of key traffic counts in Charleston between 1998 and 2009 is included on at the end of this chapter. There are a significant number of roadways that have seen decreases in vehicles over the past 10 years or so. Examples include Rutledge Ave. from King

## CHARLESTON ROADWAY IMPROVEMENTS, PLANNED/UNDER CONSTRUCTION

Area	Project	Type/Description	Status
West Ashley	Glenn McConnell Parkway Improvements	New lanes, stoplight improvements, sidewalk construction—Charlie Hall Blvd to Orleans Rd	Under Construction
WA, John, James Is	Mark Clark Expressway (I-526) Extension	Extension from Savannah Hwy to Folly Rd	Planned, 10+ yrs
Cainhoy	Clements Ferry Rd.	New Lanes, I-526 to Jack Primus Rd. Bike and Pedestrian facilities	Planned, 1-10yrs.
Cainhoy	Clements Ferry Rd.	Further improvements, bike and pedestrian facilities, Jack Primus Rd to Hwy 41	Planned, 1-10yrs.
Cainhoy	SC 41 Bridge	Bridge over Wando River	Planned, 1-10yrs.
James Island	Harborview Rd	New Lanes, bicycle and pedestrian facilities	Planned, 1-10yrs.
James Island	Intersection: Dills Bluff/Camp Rd.	Intersection improvements	Planned, 1-10yrs.
James Island	Intersection: Folly Rd/Camp Rd.	Intersection improvements	Planned, 1-10yrs.
James Island	Folly Rd bridge over Folly River	New Bridge, Construction begins in early 2011	Planned, 1-10yrs.
James Island	Folly Rd bridge over Folly Creek	New Bridge, Construction begins in early 2011	Planned, 1-10yrs.
Johns Island	Maybank Highway	Road, Bike and Pedestrian improvements from Bohicket Rd. to Stono River	Planned, 1-10yrs.
Peninsula	Port Access road connecting to I-26	New Roadways facility for new port in North Charleston	Planned, 1-10yrs.
Peninsula	Bee St. and Courtenay St.	Road improvements	Planned, 1-10yrs.
Peninsula	Septima Clark Parkway	Road improvements, streetscape, bike and pedestrian improvements	Planned, 1-10yrs.
Peninsula	East/West Connector Road	New Road between Meeting St. and East Bay St.	Planned, 1-10yrs.
Peninsula	Commuter Rail Study	Feasibility of passenger rail on existing freight rail	Planned, 1-10yrs.
West Ashley	Bees Ferry Rd.	New Lanes, Bike and Pedestrian facilities	Planned, 1-10yrs.
West Ashley	Ashley River Bridge	Bike and Pedestrian Retrofit	Planned, 1-10yrs.
West Ashley	Glenn McConnell Extension, from West Ashley Circle North to Dorchester Co.	New Roadway connecting to Grand Oaks and Long Savannah	Planned, 1-10yrs.
West Ashley	West Ashley Circle, remaining 3 quadrants	New Roadway	Planned, 1-10yrs.
West Ashley	Sam Rittenberg Blvd and Ashley River Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	Savannah Hwy and Folly Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	Sam Rittenberg Blvd and Old Towne Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	US 17 at Magnolia Rd/Avondale	Pedestrian Improvements, Streetscape	Planned, 1-10yrs.
West Ashley	Sanders Road Connection via Carolina Bay	New Roadway from Bees Ferry Rd to Savannah Hwy	Planned, 1-10yrs.
West Ashley	Carolina Bay connector to Glenn McConnell	Partially complete, remainder planned to connect to West Wildcat from Savannah Hwy	Planned, 1-10yrs.

Source: SCDOT BCD-COG and the City of Charleston

St. to Mt. Pleasant St., Orleans Rd. from Savannah Hwy. to Ashley River Rd., Ashley Ave. from Murray Blvd. to the Septima P. Clark Pkwy., and Ashley River Rd. from Sycamore Ave. to Savannah Hwy. These are streets that are prime for a retrofit or “road diet” to reduce the space given to passenger vehicles, and add or increase the space given to pedestrians, bicycles, and/or transit.

There are also streets with significant gains in vehicles traveling them. Examples include Clements Ferry Rd. from SC-41 to Jack Primus Rd.; Clements Ferry Rd. from Jack Primus Rd. to St. Thomas Island Dr., Mark Clark Exp. from Virginia Ave. to Clements Ferry Rd., Septima P. Clark Pkwy. from the James Island Connector to King St., and the Glenn McConnell Pkwy. from Bees Ferry Rd. to Magwood Dr. These are streets that if not already targeted for improvements, may need to be improved in the next 10-20 years. Perhaps most importantly though, these are the routes that public transportation should be targeting for increased service.

Charleston’s unique geography and the reality of increasing traffic are challenges. The City can best address these challenges by focusing on a balanced strategy maximizing transportation choices.

Charleston’s focus needs to be on providing viable choices, so daily trips can actually be spread among several transportation modes. Jobs centers and commercial services that are located in areas far away (located away from main radial corridors and/or the City center) ultimately exclude residents that have little or no access to vehicles to travel to those more remote locations.

### Existing Traffic Patterns Recommendations

1. **Seek to enhance the City’s network with road improvements. Coordinate road improvements with SCDOT, CHATS, and Charleston and Berkeley Counties.**
2. **Monitor streets with decreasing traffic load for potential “road diets” and conversion of vehicle space to pedestrian, bicycle, and/or transit space.**
3. **Monitor routes with increasing traffic load for enhanced transit routes and possibly physical improvements to handle traffic loads.**

### Streets

Streets are the best way to move about the City in a vehicle, by foot or on a bike. This requires a fully developed network of streets in each area of the City with attention to how new streets are designed and existing streets are improved.

Conflicts continue to occur between vehicles and pedestrians. There are still streets with higher volumes of traffic and intersections that are particularly dangerous. The City’s challenge is to adapt as conditions change always keeping in mind the public street must accommodate a variety of users.



John’s Island Scenic Byway with a tree canopy

Improvements to main roadway corridors must respect the unique environment of the area. For example, roadway improvements to Maybank Highway on Johns Island must protect the tree canopy of that scenic route. The City and Charleston County RoadWise are seeking to do that with the proposed “Pitchfork” concept.

Roadway improvements will need to always accommodate bicyclists and pedestrians. Bike

and pedestrian facilities will be an integral element of roadway design.

### Street Design

To help balance the scales for pedestrians and bicyclists, street design standards need major upgrading. Current codes mirror those found around the country which are based on suburban or rural, vehicle only design types. The problem with these codes is that they almost never take the principles of walkability into account and instead move vehicles at the highest possible speed through the community.

In the City's 2009 Citizens' Survey, over 90% of respondents supported designing or retrofitting streets to accommodate pedestrians, bicyclists, and transit users, as well as automobiles.

#### TOP TEN FACTORS TO MAKE A "WALKABLE" PLACE

1. small block size
2. buildings fronting street
3. mixed land use
4. lower traffic speeds
5. on-street parking
6. interconnected streets
7. narrow streets
8. sidewalks
9. traffic volumes
10. street trees

Source: Hall Planning and Engineering

A walkable street is not just a street that includes sidewalks. Walkability is based on a range of factors involved in urban design (see "Top Ten Factors to Make a Walkable Place"). New streets should be designed based upon an approved hierarchy accommodating pedestrians and vehicles, such as is found in the draft Street Standards.

In addition, existing streets should be improved to provide convenient and safe sidewalk connections. Whenever streets are resurfaced in the City, lane widths should be analyzed with the goal of moving away from rural or suburban design standards. Where widths permit, bike lanes should be added on resurfaced streets via restriping with narrower lanes for vehicles. Street trees should be added wherever possible; on-street parking added when appropriate and where widths will accommodate it; and the placement of future buildings should generally be at the back of the sidewalk.

### Street Recommendations

1. **Design new streets and improve existing streets to accommodate walking, bicycling, and vehicle travel.**
2. **Adopt the new draft Street Standards as the City's policy for future street design and retrofit.**

3. **Monitor all resurfacing of streets in the City for the possible inclusion of bike lanes where road widths allow. Work with SCDOT to accommodate non-standard lane widths where possible so that bike lanes can be included.**
4. **Target transportation investments to enhance the existing transportation network. Coordinate these improvements with SCDOT, CHATS, and Charleston and Berkeley Counties.**
5. **Prioritize improvements to existing thoroughfares and bottlenecks at major intersections and bridge locations.**

### Network Expansion

As previously described, Charleston's geography presents unique transportation challenges. The web of waterways defines individual land bodies that can be connected at a limited number of locations. The result is a well-developed system of radial roadways emanating from downtown Charleston and a limited number of circumferential roadways connecting across land bodies. Charleston's geography places limits on the ability to fully develop a circumferential system of streets. The City must focus on radial corridors and on providing alternative ways of movement.

A connected network and/or lower speed streets can move traffic just as well, or even better in most circumstances. The network also has the advantage of being much more walkable and neighborhood friendly.

**Peninsula:** On Charleston's Peninsula an outstanding network of streets exists. Improvements can be achieved with the conversion of one-way streets back into two way streets, where street widths and traffic volumes permit. Neighborhood livability increases greatly from such conversions. One-way street conversions have been very successful with Wentworth and Beafain Streets and lower Ashley and Rutledge Avenues over the last ten years. The City hopes to continue with the conversions of Spring and Cannon Streets and to study the future conversion of upper Ashley and Rutledge Avenues.

**West Ashley:** In West Ashley, increasing connectivity between the major arterials is critical. Several connections have been completed over the last ten years, such as the Magwood Road/Henry Tecklenberg Boulevard/West Ashley Town Center Drive connection between the Glenn McConnell Parkway and Savannah Highway, and the Bolton Landing Raod connection between Savannah Highway

and Bees Ferry Road. Several more are planned such as the Carolina Bay Drive connection between Savannah Highway and West Wildcat Boulevard, and future connections between Ashley River Road and the Glenn McConnell Parkway, as specified in the City's *Master Road Plan* (The *Master Road Plan* is a part of the comprehensive plan, see the Overall Plan Maps).

**James Island:** On James Island, most of the road system is built out, but connectivity is key, such as the connection of George Griffith Boulevard, created in the last 15 years between Riverland Drive and Folly Road.

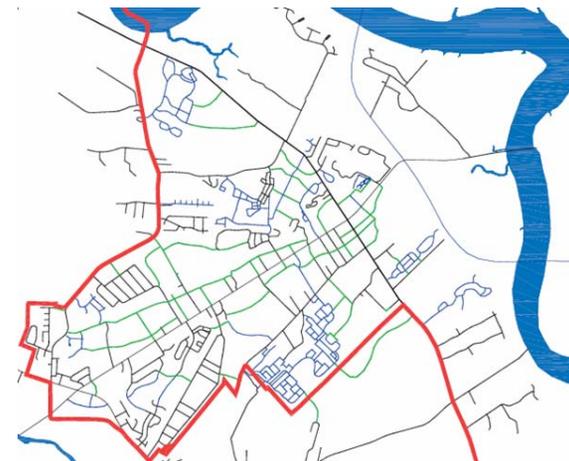
**Johns Island:** On Johns Island, a network of streets within the designated urban/suburban area is recommended in the *Johns Island Community Plan*. This is a critical element to assure that Maybank Highway does not become overburdened and prevent developing a series of isolated neighborhoods.

**Cainhoy Peninsula:** On the Cainhoy Peninsula there is only one main public street, Clements Ferry Road. Due to its narrow geography, this is the only main route in and out of the area. North of Jack Primus Road, there exists the pos-

sibility of creating a network of streets, similar to what is recommended for Johns Island.

## Network Expansion Recommendations

1. Assure that new neighborhood, commercial, and mixed-use developments are fully connected on all sides.
2. Seek to create as many network connections as possible between key suburban arterials. Add any needed connections to the City's *Master Road Plan*.
3. Implement connections designated in the City's *Master Road Plan*. Coordinate with SCDOT, CHATS, and Charleston and Berkeley Counties for inclusion on any needed priority lists.



Johns Island Network from the Johns Island Community Plan adopted by City Council

Development Zones and Street Network Design Standards

<p><b>Natural Areas</b></p> <p>Lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.</p> <p><b>General Character</b> natural landscape with some agricultural use</p> <p><b>Building Characteristics</b> none available</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Rural Areas</b></p> <p>Rural land use areas consist of land in an open or cultivated state or sparsely settled. These areas may include woodland, agri-cultural lands, grasslands and wetland areas.</p> <p><b>General Character</b> primarily agricultural with woodlands, wetlands &amp; scattered bldgs.</p> <p><b>Building Characteristics</b> variable setbacks, porches, fences, natural plantings, 1-2 story</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Sub-Urban Areas</b></p> <p>Sub-Urban are predominately low density residential areas that may be adjacent to higher density or mixed use areas.</p> <p><b>General Character</b> lawns, landscaped yards, single-family detached</p> <p><b>Building Characteristics</b> variable setbacks, porches, fences, natural plantings, 1-2½ story</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Urban General Areas</b></p> <p>Urban General land use areas consists of mixed use but primarily resident urban fabric. Urban General may have a wide range of bldg types including single-family, sideyard &amp; townhouses.</p> <p><b>General Character</b> mix of houses, townhouses, small apartment bldgs, scatter commercial, pedestrians</p> <p><b>Building Characteristics</b> shallow to medium front &amp; side yard setbacks, porches, fences, 2-3 story with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> squares and greens</p>	<p><b>Urban Center</b></p> <p>Urban Center land use areas include predominately higher density mixed use building types that accommodate retail, offices, rowhouses and apartments.</p> <p><b>General Character</b> shops mixed with townhouses, larger apartment bldgs, offices, workplace, commercial, pedestrian</p> <p><b>Building Characteristics</b> shallow setbacks or none, bldgs oriented to street, stoops, shop fronts, galleries, porches, fences, 2+ story bldgs with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> parks, plazas, and squares</p>	<p><b>Urban Core</b></p> <p>Urban Core land use areas consist of the highest density and height with the greatest variety of uses and civic buildings of regional importance.</p> <p><b>General Character</b> medium to high density mixed use bldgs, civic, cultural, attached bldgs, highest pedestrian activity</p> <p><b>Building Characteristics</b> shallow setbacks or none, bldgs oriented to street, stoops, shop fronts, galleries, porches, fences, 3+ story bldgs with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> parks, plazas, and squares</p>

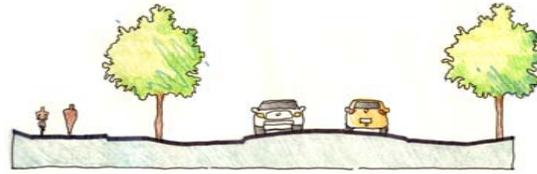
Source: Duany Plater-Zyberk & Co.; Smart Code Version 9.2 and the City of Charleston

## Roadway Definitions

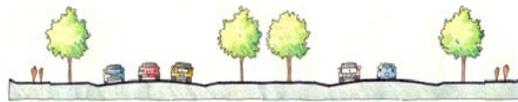
As shown on the attached maps, below are the definitions of the different types of roadways the City has (or plans to have) in the Charleston. The location of the types of roadways, or the changes in a roadway's type at several points along its route are the result of existing or planned land uses and urban/suburban character along the route.

**Freeways:** Roadways that are limited access and have posted and design speeds of 45 mph and higher. They are typically multi-lane. There typically are very limited pedestrian provisions for a freeway. Examples include I-26 and the Mark Clark Expressway.

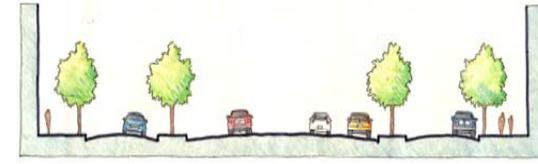
**Highways:** Roadways that have posted and design speeds of higher than 35 mph and are typically surrounded by auto-oriented development that generally is accessible from the roadway. Sidewalks should be separated from the edge of the road on Highways. Examples include Sam Rittenberg Boulevard and Folly Road.



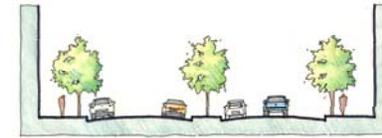
**Scenic Byways:** Roadways that have scenic qualities from surrounding land forms or vegetation, or from historic structures along their routes. Typically they are no more than two lane roadways, and that limited scale is part of their scenic value and is designated for preservation. Development along these roadways is very limited with strict design controls. Sidewalks should consist of meandering paths along these roadways. Examples include outer portions of Ashley River Road and Riverland Drive.



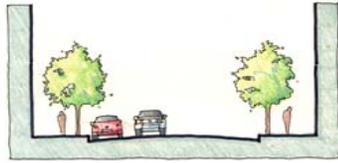
**Parkways:** A more rural scaled roadway, with vehicular and design speeds of 35 mph and up, typically with a wide median and extensive landscaping/vegetation on either side and within the median. Development along these roadways is heavily buffered and typically not directly accessible from the roadway. Sidewalks should consist of meandering paths along these roadways. Examples include portions of Lockwood Boulevard and the Glenn McConnell Parkway.



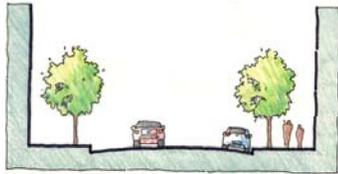
**Boulevards:** A very walkable roadway of high vehicular capacity and moderate speed (35 mph or less), traversing an urbanized area. Typical sections include slip roads buffering sidewalks and buildings. Mixed use buildings typically line both sides of these roadways. Currently, no roadways in Charleston meet this classification or are planned to, but this is one of the recommended street types in the City's new Street Standards, and may eventually be practical in some segment of the City.



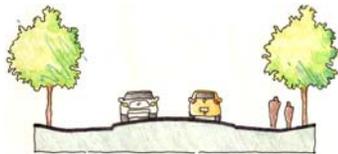
**Avenues:** Roadway of high vehicular capacity and low to moderate speed (25 - 35 mph), acting as a short distance connector between urban centers, and usually equipped with a landscaped median. A variety of building types line these roadways and buildings are typically close to the street. Sidewalks are buffered by on-street parking. Examples include planned portions of St. Andrews Boulevard and Savannah Highway.



**Commercial Streets:** A local urban roadway of low speed (25 mph or less) and capacity that serves a more mixed-use or commercial area, with extensive on-street parking. Buildings are typically located at the back of the sidewalk. Examples include King Street, Meeting Street, and Seven Farms Drive.



**Streets:** A local urban roadway of low speed (25 mph or less) and capacity. Sidewalks are on both sides of these roadways. The bulk of the roadways in the City of Charleston will be classified in this manner.



**Roads:** A local rural and suburban roadway of low to moderate vehicular speed (25 - 35 mph) and capacity. Many streets in the City will meet this definition, but some specific examples include Wappoo Road, and Camp Road.

### Bicycle and Pedestrian Mobility

No range of mobility choices is complete until the City provides a full range of safe and convenient routes for bicyclists and pedestrians. The City has seen a surge in bicycling and walking throughout Charleston.

#### BICYCLE COUNTS

	King/Calhoun	Ravenel Bridge/ East Bay St	Saint Philip St
2006	465	130	--
2009	1,005	235	--
2010	--	--	1,361

Some Charlestonians that bike or walk do so for recreation/exercise and other as a means of commuting to work or errands, and commute by foot or bike. This City Plan Update recommends improvements in bicycle and pedestrian facilities that will help both of these types of users.

New streets should always include provisions for bicyclists and pedestrians and existing roadways should be retrofitted as funds permit. Utility corridors and rail corridors should be targeted for new off-street connections. These corridors are particularly useful for connecting parks, schools, libraries and other places children are trying to get to and from safely.

### Bicycle and Pedestrian Facility Definitions

**Multi-Use or Shared Use Path:** Pathway or trail physically separated from motorized vehicular traffic for the shared use of bicyclists, pedestrians and other non-motorized travelers.

**Bicycle Lane:** A portion of a roadway designated by striping, signage and markings for the preferential or exclusive use of bicyclists.

**Bicycle Route:** A segment of a system of bike-ways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without specific bicycle route numbers.

**Sharrow:** Pavement marking used on roadways to indicate the travel lane is shared by bicycles and motor vehicles.

**Greenway:** Linear park, alternative transportation route, or open space conservation area that provides passive recreational opportunities, multi-use paths, and/or the conservation of open spaces or natural areas.

## CITY OF CHARLESTON BICYCLE & PEDESTRIAN IMPROVEMENT PROJECTS 2000 -2020

Projects Completed 2000 - 2010	Status	Department
Heriot/Magnolia Bridge Path	Completed	Developer
James Island Creek Bridge Bike Lanes and Sidewalk	Completed	SCDOT
West Ashley Bikeway - Extension	Completed	Capital Projects
East Bay Bicycle/Pedestrian Path	Completed	Capital Projects
Ashley River Road Bicycle/Pedestrian Path	Completed	Capital Projects
West Ashley Greenway Phase III - Extension	Completed	Capital Projects
Battery Gaillard Path	Completed	Developer
Ravenel Bridge Bike/Ped Lane Parking Lot	Completed	Capital Projects
Ravenel Bridge Bike/Ped Lane	Completed	SCDOT
Mary Ader Blvd Path	Completed	Capital Projects
Maybank Highway Pedestrian Tunnel	Completed	Capital Projects
George Griffith Blvd Bike/Ped Path	Completed	Developer
Projects Planned/Under Construction 2000 - 2020	Status	Department
Fort Johnson Rd Sidewalk	Design/Engineering Stage	Charleston County
Harbor View Rd Path	Design/Engineering Stage	Charleston County
Bees Ferry Rd Path	Design/Engineering Stage	Charleston County
Saint Andrews Blvd Bike Lanes	Design/Engineering Stage	City/County
Septima Clark Expressway Bike/Ped Improvements	Design/Engineering Stage	Public Service
Folly Rd Bike Facilities	Planning Stage	City/County
Peninsula I-26 Corridor Path	Planning Stage	City/SCDOT
Maybank Hwy Bike Lanes/ Path	Planning Stage	City/County
Riverland Dr Bike/Ped Path	Planning Stage	City/County
Ashley River Bridge Bike/Ped Retrofit	Planning Stage	City/County
Morrison Dr Bike Lanes	Planning Stage	City/County/SCDOT
West Ashley Greenway Phase IV	Planning Stage	Capital Projects
Carolina Bay Multi-use Path	Under Construction	Developer
Governor's Park Trails	Under Construction	Capital Projects

### Bicycle & Pedestrian Mobility Recommendations

1. Create and implement Street Standards and City policy that requires every street that is built to be a "complete street", including facilities for all mobility types and with urban design elements that help to facilitate alternative modes of travel, such as street trees and on-street parking.
2. Implement the routes and improvements shown on the attached pedestrian and bike plan maps using a set of new Street Standards.
3. Further enhance and update the proposed and planned network shown on the accompanying maps as funds permit.
4. Work with the City's Bike and Pedestrian Committee and community to en-

courage and facilitate multiple modes in every way possible.

5. Ensure that the City's pedestrian amenities accommodate all users, regardless of disability.
6. Implement the recommendations of *West Ashley Greenway Master Plan* and continue efforts to improve facilities along its route.
7. Construct the bicycle/pedestrian lane for the Ashley River Bridge.
8. Establish an agreement with local utilities for use of utility corridors as walking and bicycling paths.
9. Seek funding to support the aforementioned recommendations and improvements.
10. The City should work to make sure that every residence in the City is within a half-mile (10 minute walk) of a dedicated bike and/or bike/ped facility.
11. The City should analyze streets that are currently serving the greatest traffic volumes to assure that those streets are safe for pedestrians and bicyclists as well, and if not, target these streets for high priority pedestrian and bicycle improvements.

### Public Transportation

The Charleston Area Rapid Transit Authority (CARTA) has been responsible for public transportation in Charleston since 1998. CARTA has made improvements to its provi-

sion of services, including a region-wide bus system. In 2004, Charleston County approved a referendum for a half-cent sales tax and approximately 18% was allocated for public transportation, via CARTA. This gives CARTA an assured funding source for the near future and allows further expansion of service.

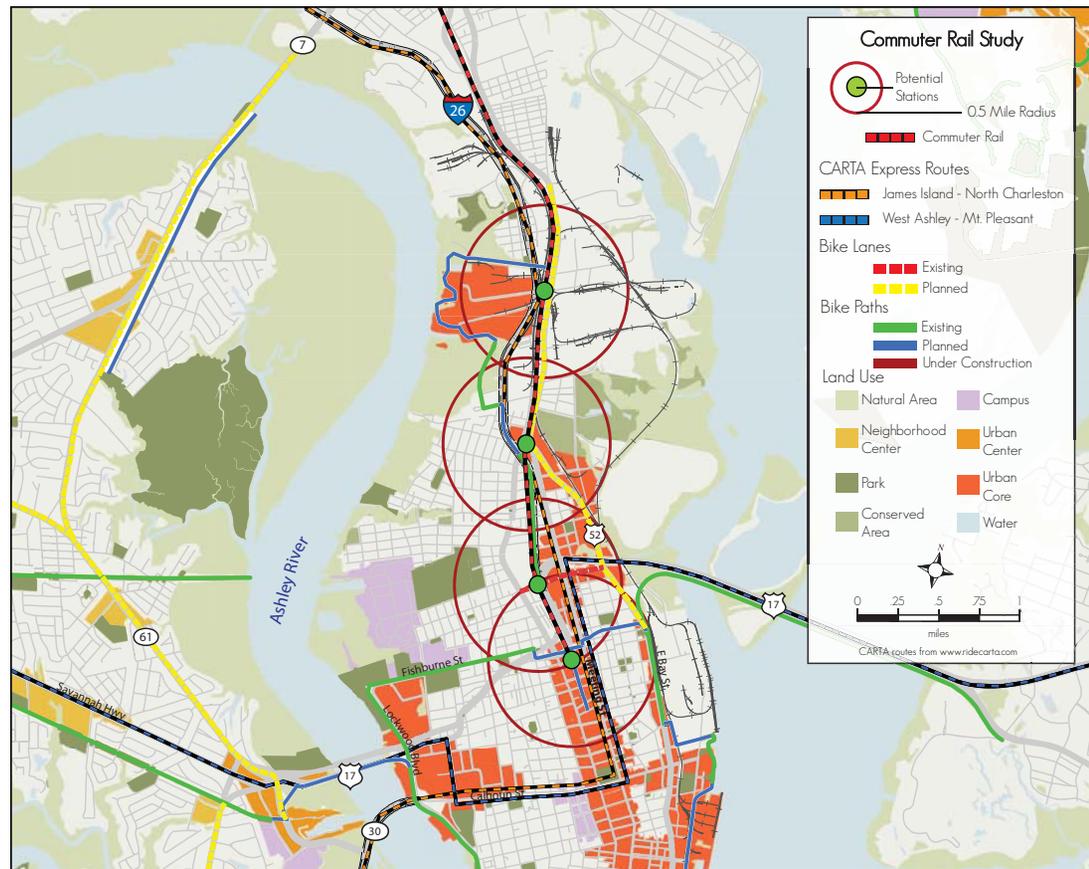
For public transportation to be successful and to give as many citizens and visitors as possible this choice for moving around, it is dependent on certain levels of density along its routes. The City must guide the demand for

higher density housing toward locations near transit corridors and stops. Transit stops are important opportunities and should be a part of every civic center, neighborhood center, or gathering place throughout the City.

Public transportation has traditionally been successfully used for the trip to and from

work. The commute is the most important vehicle trip to capture with the public transportation system. Therefore, connecting homes and jobs by public transportation is critical. Jobs along principal corridors on the Peninsula and in West Ashley should have convenient access to public transportation. Existing employment centers such as the Peninsula's

CARTA System-wide Route Map



Central Business District and the MUSC-Roper area, as well as the area around Citadel Mall in West Ashley are well located for public transportation. Building the employment base in these locations will give more citizens access to jobs by transit.

Charleston is a small city in a relatively small metropolitan area. The future potential for fixed-guideway transit service such as commuter rail, light-rail, busway transit is uncertain. A Commuter Rail Study is currently underway. Preliminary feasibility studies suggest that the potential for this service exists for the following reasons:

**Geography:** The City has already built all of our connections to the peninsula for vehicles. There is limited ability to expand roadway capacity.

**A Strong Center:** Downtown Charleston is a dense urban setting with almost 40,000 residents and tens of thousands of jobs.

**Visitors:** In addition to the commute trip, transit has also traditionally worked well for entertainment trips. The large number of visitors to Charleston presents a sizable customer base for transit.

**Growth:** Charleston is a growing city. If the city and region's growth is directed appropriately it can be transit supportive. If growth is not directed in this manner, then the customer base will not justify the investment in fixed guideway transit.

### Public Transit Recommendations

1. Work closely with CARTA to identify optimal transit routes and locations for current and future transit stops.
2. Promote walkable neighborhoods and developments, with appropriate densities to support key transit corridors.
3. Continue to protect the railroad right-of-way running the length of the peninsula and connecting downtown with North Charleston and Summerville for future use as a future transit corridor.
4. Study potential transit stops along the rail corridor connecting downtown with North Charleston and Summerville and coordinate land use recommendations in these areas to encourage compact, mixed-use development around these locations.

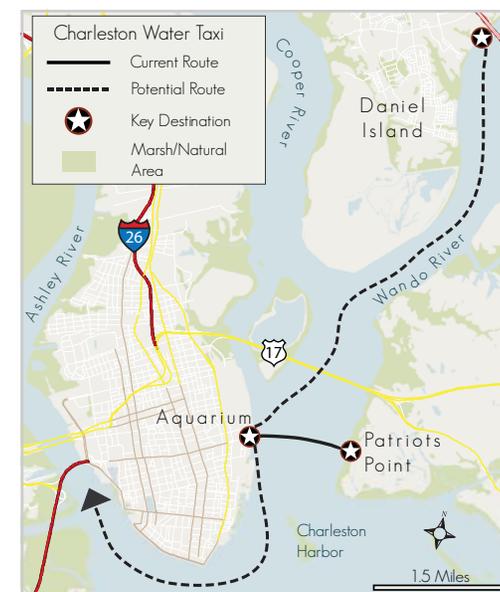
### Water Transportation

Given the limited number of roadway connections to the peninsula, Charleston's geography makes water taxi and ferry services

a unique mobility choice. Existing water taxi service available between the Peninsula and Mount Pleasant should be enhanced with better and more convenient dock locations downtown. Connections between the Peninsula and Daniel Island and James Island are viable in the short and long term and should be explored to a greater extent.

### Water Transportation Recommendations

1. Continue efforts to enhance service between the Peninsula and Mount Pleasant, with enhanced and better located dock locations downtown.



LOCATIONS WITH DECREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Coming St.	Septima Clark Pkwy. to Race St.	432	2,500	1,800	-28.0%
Beaufain St.	Halsey Blvd to Moultrie St.	407	5,300	3,900	-26.4%
Folly Rd.	Battery Island Rd. to S. Grimball Rd.	237	16,000	11,800	-26.3%
Rutledge Ave.	King St. to Mt. Pleasant St.	424	2,500	1,850	-26.0%
Fleming Rd.	Maybank Hwy. to Cnetral Park Rd.	607	2,800	2,100	-25.0%
Orleans Rd.	Savannah Hwy. to Ashley River Rd.	393	12,100	9,100	-24.8%
Ashley Ave.	Murray Blvd. to Septima Clark Pkwy.	429	7,300	5,500	-24.7%
Folly Rd.	Sol Legare Rd. to Battery Island Rd.	235	15,700	11,900	-24.2%
Race St.	King St. to Rutledge Ave.	619	2,400	1,900	-20.8%
Savannah Highway	Wesley Rd. to St. Andrews Blvd.	121	24,800	19,800	-20.2%
President St.	Fishburne St. to Doughty St.	428	7,500	6,000	-20.0%
Wappoo Rd.	Sam Rittenburg Blvd. to Savannah Highway	395	12,900	10,400	-19.4%
St Andrews Blvd.	Sycamore Ave. to Savannah Hwy.	213	51,600	42,000	-18.6%
Folly Rd.	S Grimball Rd. to Fort Johnson Rd.	239	17,700	14,500	-18.1%
Mt. Pleasant St.	US 78 to US 52	718	12,800	10,600	-17.2%
Cleveland St.	Ashley Ave. to King St.	537	900	750	-16.7%
Barre St.	Broad St. to Doughty St.	601	6,100	5,100	-16.4%
Ashley River Rd.	Old Towne Rd. to Sycamore Ave.	211	53,300	45,000	-15.6%
Dupont Rd.	Savannah Hwy. to Sam Rittenburg Blvd.	391	5,000	4,300	-14.0%
St Philip St.	Sheppard St. to Line St.	434	1,450	1,250	-13.8%
Dupont Rd.	Piper Dr. to Savannah Hwy.	389	5,200	4,500	-13.5%
Playground Rd.	Savannah Highway to Ashley River Rd.	401	6,000	5,200	-13.3%
Huger St.	King St. to Morrison Dr.	422	2,300	2,000	-13.0%
Coming St.	Logan St. to Septima Clark Pkwy.	431	7,700	6,700	-13.0%
Sam Rittenberg	Savannah Highway to Ashley River Rd.	181	29,200	25,600	-12.3%
Morrison Dr.	Cooper River Bridge to King St./Mt. Pleasant St.	171	13,000	11,400	-12.3%
Ashley Ave.	Septima Clark Pkwy. to Moultrie St.	430	3,400	3,000	-11.8%
SC 171	Ashley River Rd. to Sam Rittenburg Blvd.	249	26,800	23,800	-11.2%
Line St.	Rose Ln. to Meeting St.	633	2,800	2,500	-10.7%
Rutledge Ave.	Calhoun St. to Murray Blvd.	426	3,300	3,000	-9.1%
Rutledge Ave.	Septima Clark Pkwy. to Calhoun St.	425	8,900	8,100	-9.0%
Brownswood Rd.	Maybank Hwy. to Main Rd.	508	1,200	1,100	-8.3%
Spring St.	Meeting St. to Westcott St.	419	8,800	8,100	-8.0%
E. Battery St.	Broad St. to S. Battery St.	405	5,100	4,700	-7.8%
Camp Rd.	Fort Johnson Rd. to Dills Bluff Rd.	372	5,200	4,800	-7.7%
Calhoun St.	Barre St. to Coming St.	414	24,500	22,700	-7.3%
Calhoun St.	Coming St. to East Bay St.	415	21,300	20,300	-4.7%
Mt Pleasant St.	I-26 to King St.	717	11,700	11,200	-4.3%

## LOCATIONS WITH *DECREASED* TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Ashley Hall Rd.	Raoul Wallenburg Blvd. to Sam Rittenburg Blvd.	484	9,500	9,100	-4.2%
Charlotte St.	East Bay to Washington St.	705	1,200	1,150	-4.2%
Savannah Highway	Savage Rd. to Playground Rd.	117	39,100	37,500	-4.1%
Hagood Ave.	Septima Clark Pkwy. to Huger St.	560	5,200	5,000	-3.8%
Ashley River Rd.	Savage Rd. to SC 7	207	37,000	35,700	-3.5%
Ashley River Rd.	Sam Rittenburg Blvd. to Old Towne Rd.	209	34,600	33,400	-3.5%
East Bay St.	E Battery/Broad Sr. to Savannah Highway	169	19,900	19,300	-3.0%
Harbor View Rd.	Fort Johnson Rd. to North Shore Dr.	383	14,000	13,700	-2.1%
Orange Grove Rd.	Ashley Hall Rd. to Sam Rittenburg Blvd.	487	10,600	10,400	-1.9%
Broad St.	Lockwood Dr. to East Bay St.	403	11,300	11,100	-1.8%
Savannah Hwy.	Playground Rd. to Old Towne Rd.	119	39,600	39,000	-1.5%
River Rd.	Maybank Highway to Plow Ground Rd.	357	5,800	5,800	0.0%
Romney St.	Morrison Dr. to King St.	549	4,000	4,000	0.0%
St. Philip St.	Line St. to Beaufain St.	433	4,300	4,300	0.0%
Wentworth St.	Halsey Blvd. to East Bay St.	413	6,100	6,100	0.0%

SOURCE: South Carolina Department of Transportation

## LOCATIONS WITH *INCREASED* TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Calhoun St.	East Bay St. to Concord St.	416	1,600	6,100	281.3%
Washington St.	Laurens St. to Society St.	709	1,850	5,300	186.5%
Washington St.	Laurens St. to Charlotte St.	707	2,200	6,200	181.8%
Beaufain St.	Pitt St. to King St.	408	1,400	3,700	164.3%
King St.	Line St. to Morrison Dr./Mt. Pleasant St.	145	7,700	19,800	157.1%
Murraywood Rd.	Brownswood Rd. to River Rd.	669	1,000	2,500	150.0%
Clements Ferry Rd.	SC 41 to Jack Primus Rd.	269	6,700	15,300	128.4%
Brownswood Rd.	Main Rd. to River Rd.	509	1,000	2,200	120.0%
Berryhill Rd.	Bohicket Rd. to Walter Dr.	351	1,000	2,000	100.0%
Woodland Shores Rd.	Maybank Highway to Riverland Rd.	604	1,400	2,500	78.6%
Clements Ferry Rd.	Jack Primus to St. Thomas Island Dr.	270	11,400	20,300	78.1%
Riverland Dr.	Central Park Rd. to Camp Rd.	369	5,900	9,800	66.1%
Mark Clark Expressway	Virginia Ave. to Clements Ferry Rd.	2,517	37,800	59,000	56.1%
Calhoun St.	SC 30 to Barre St.	640	22,500	34,800	54.7%
Septima P. Clark Pkwy.	James Island Connector to King St.	125	40,000	61,500	53.8%
Mark Clark Expressway	Clements Ferry Rd. to Seven Farms Dr.	2,518	31,600	48,200	52.5%
Columbus St.	East Bay St. to King St.	623	3,600	5,400	50.0%
Linguard St.	Church St. to East Bay St.	557	600	900	50.0%
Ashley River Rd. Connector	Merritt Rd. to James Island Connector	210	12,500	18,400	47.2%

## LOCATIONS WITH INCREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Glenn McConnell Pkwy.	Bees Ferry Rd. to Magwood Dr.	684	19,400	28,100	44.8%
Savannah Hwy.	McLeod Rd. to Dobbins Rd.	113	25,300	36,500	44.3%
Mark Clark Expressway	Sam Rittenburg Blvd. to Paul Cantrell Blvd.	2,501	25,200	36,300	44.0%
River Rd.	Main Rd. to Maybank Highway	355	3,700	5,300	43.2%
Fishburne St.	President St. SW	595	6,000	8,400	40.0%
I-26	Mt. Pleasant St. to Romney St.	2,209	52,400	73,000	39.3%
Riverland Dr.	Maybank Hwy. to Central Park Rd.	367	6,200	8,600	38.7%
Ashley River Rd. Connector	Savannah Hwy. to Merritt Rd.	212	13,000	17,600	35.4%
Fishburne St.	Coming St. to Rutledge Ave.	594	1,050	1,400	33.3%
Magwood Dr.	Ashley River Rd. to Paul Cantrell Blvd.	686	10,500	14,000	33.3%
Logan St.	Tradd St. to Beaufain St.	580	950	1,250	31.6%
Folly Rd.	Central Park Rd. to McHenry Ave	244	22,400	29,400	31.3%
Cannon St.	Westcott St. to King St.	417	7,200	9,300	29.2%
Fishburne St.	0.56 mi S of Savannah Hwy.	275	7,700	9,700	26.0%
Grimball Rd.	Riverland Rd. to Folly Rd.	584	3,600	4,500	25.0%
Jackson St.	Morrison Dr. to US 52	677	1,000	1,250	25.0%
James Island Connector	Harbor View Dr. to Savannah Highway	412	39,400	49,200	24.9%
Huger St.	President St. to King St.	421	5,000	6,200	24.0%
America St.	Stuart St. to Cooper River Bridge	579	2,100	2,600	23.8%
Savannah Hwy.	Dobbins Rd. to Savage Rd.	115	31,200	38,500	23.4%
Maybank Hwy.	Main Rd./Bohicket Rd. to River Rd.	267	11,500	13,900	20.9%
Market St.	King St. to Meeting St.	599	5,300	6,400	20.8%
Mark Clark Expressway	Paul Cantrell Blvd. to Leeds Ave.	2,505	59,300	71,200	20.1%
Fort Johnson Rd.	Folly Rd. to Camp Rd.	385	5,700	6,800	19.3%
Savannah Hwy.	Davidson Rd. to McLeod Rd.	111	26,600	31,200	17.3%
Bee St.	Lockwood Dr. to Westcott St.	585	7,000	8,200	17.1%
Cooper River Bridge	King St. to W Coleman Blvd.	127	64,500	75,500	17.1%
Maybank Hwy.	River Rd. to Woodland Shores Rd./Wappoo Dr.	269	18,600	21,600	16.1%
Market St.	Beaufain St. to King St.	581	4,600	5,300	15.2%
Central Park Rd.	Folly Road to Riverland Dr.	379	5,300	6,100	15.1%
Folly Rd./Wesley Dr.	Maybank Hwy to Ashley River Rd.	247	35,100	40,100	14.2%
I-26	Heriot St. to Mt. Pleasant St.	2,207	62,500	71,200	13.9%
Harbor View Rd.	North Shore Dr. to Theresa Dr.	384	20,400	23,100	13.2%
Maybank Hwy.	Woodland Shores Rd./Wappoo Dr. to Folly Rd.	271	22,700	25,700	13.2%
Hasell St.	King St. to Meeting St.	597	3,100	3,500	12.9%
Battery St.	Murray Blvd. to Tradd St.	547	2,400	2,700	12.5%
George St.	East Bay St. to St. Phillip St.	435	4,000	4,500	12.5%
Doughty St.	President St. to Courtenay Dr.	587	4,900	5,500	12.2%
Folly Rd.	Camp Rd. to Central Park Rd.	243	40,000	44,700	11.8%

## LOCATIONS WITH INCREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Bees Ferry Rd.	Glenn McConnell Pkwy. to Savannah Hwy.	479	14,700	16,300	10.9%
King St.	I-26 to Septima Clark Expwy.	179	8,500	9,300	9.4%
Ashley River Rd.	Dorchester Co. to Parsonage Rd.	203	12,500	13,600	8.8%
I-26	Romney St. to Septima P. Clark Pkwy.	2,210	57,200	62,200	8.7%
Lockwood Dr.	Calhoun St. to Halsey Blvd.	639	22,900	24,900	8.7%
Hasell St. *	Meeting St. to East Baty St.	598	2,400	2,600	8.3%
Murray Blvd.	S. Battery St. to Ashley Ave.	406	2,900	3,100	6.9%
Main Rd.	Chisholm Rd. to Maybank Hwy.	347	13,200	14,100	6.8%
Meeting St.	Line St. to Battery St.	439	19,800	21,100	6.6%
Harbor View Rd.	Theresa Rd. to Folly Rd.	386	12,000	12,700	5.8%
Ashley River Rd.	Parsonage Rd. to Savage Rd.	205	21,700	22,900	5.5%
Paul Cantrell Blvd.	Magwood Dr. to Ashley River Rd.	685	31,000	32,600	5.2%
Magnolia St.	Ashley River Rd. to Savannah Highway	409	3,900	4,100	5.1%
Folly Rd.	McHenry Ave. to Maybank Highway	245	28,500	29,800	4.6%
Savannah Highway	Ashley River Rd. to James Island Connector	123	57,000	59,200	3.9%
King St.	Line St. to Murray Blvd.	437	11,200	11,600	3.6%
Folly Rd.	Fort Johnson Rd. to Camp Rd.	241	22,500	22,900	1.8%
US 78	Septima Clark to Line St.	180	12,500	12,700	1.6%
I-26	Spruill Ave. to Heriot St.	2,205	70,800	71,200	0.6%
Folly Rd.	Camp Rd. to Central Park Rd.	243	40,000	44,700	11.8%
Bees Ferry Rd.	Glenn McConnell Pkwy. to Savannah Hwy.	479	14,700	16,300	10.9%
King St.	I-26 to Septima Clark Expwy.	179	8,500	9,300	9.4%
Ashley River Rd.	Dorchester Co. to Parsonage Rd.	203	12,500	13,600	8.8%
I-26	Romney St. to Septima P. Clark Pkwy.	2,210	57,200	62,200	8.7%
Lockwood Dr.	Calhoun St. to Halsey Blvd.	639	22,900	24,900	8.7%
Hasell St. *	Meeting St. to East Baty St.	598	2,400	2,600	8.3%
Murray Blvd.	S. Battery St. to Ashley Ave.	406	2,900	3,100	6.9%
Main Rd.	Chisholm Rd. to Maybank Hwy.	347	13,200	14,100	6.8%
Meeting St.	Line St. to Battery St.	439	19,800	21,100	6.6%
Harbor View Rd.	Theresa Rd. to Folly Rd.	386	12,000	12,700	5.8%
Ashley River Rd.	Parsonage Rd. to Savage Rd.	205	21,700	22,900	5.5%
Paul Cantrell Blvd.	Magwood Dr. to Ashley River Rd.	685	31,000	32,600	5.2%
Magnolia St.	Ashley River Rd. to Savannah Highway	409	3,900	4,100	5.1%
Folly Rd.	McHenry Ave. to Maybank Highway	245	28,500	29,800	4.6%
Savannah Highway	Ashley River Rd. to James Island Connector	123	57,000	59,200	3.9%
King St.	Line St. to Murray Blvd.	437	11,200	11,600	3.6%
Folly Rd.	Fort Johnson Rd. to Camp Rd.	241	22,500	22,900	1.8%
King St.	Septima Clark to Line St.	180	12,500	12,700	1.6%
I-26	Spruill Ave. to Heriot St.	2,205	70,800	71,200	0.6%

Source: South Carolina Department of Transportation



# Traffic Counts Charleston, SC

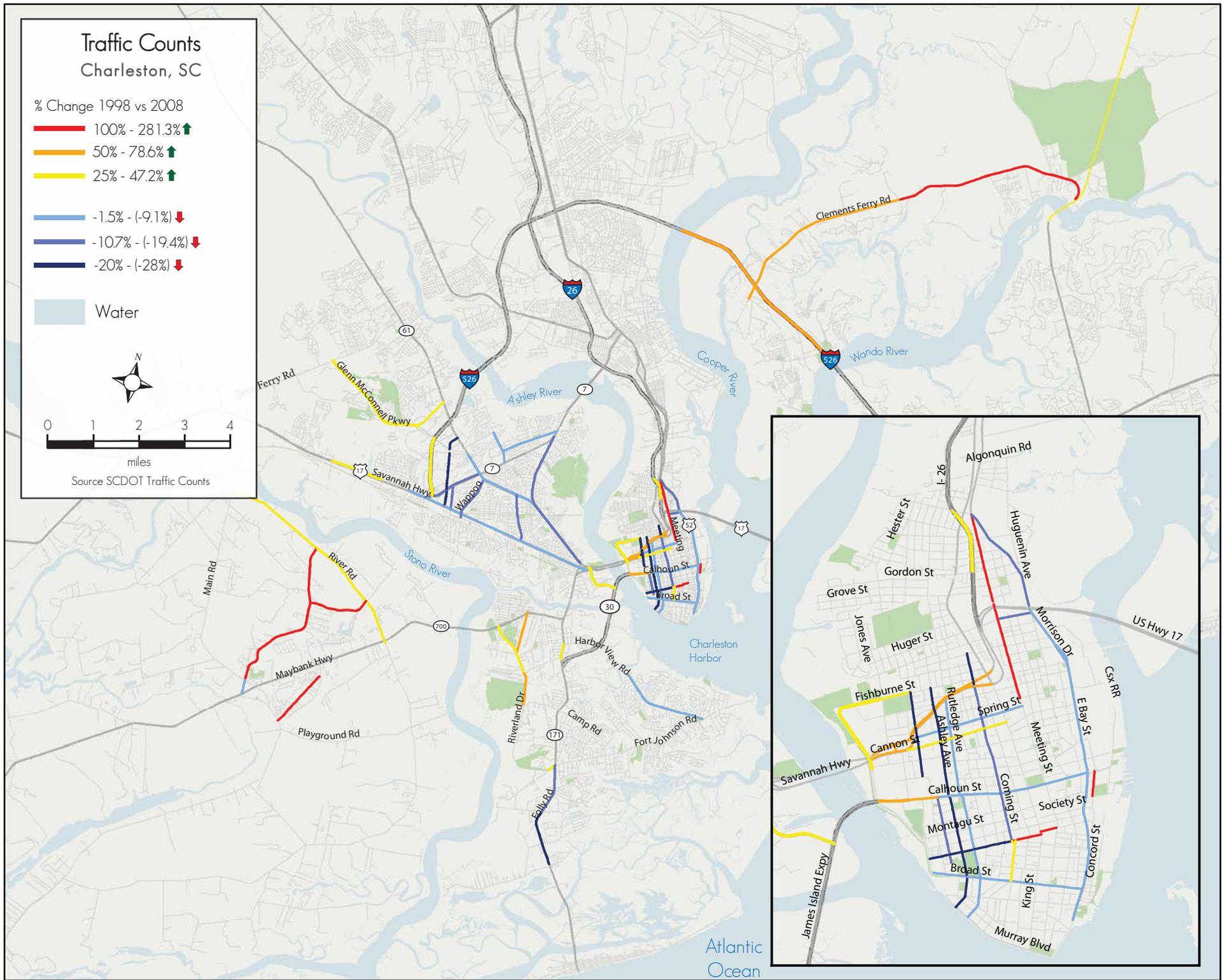
% Change 1998 vs 2008

- █ 100% - 281.3% ↑
- █ 50% - 78.6% ↑
- █ 25% - 47.2% ↑
- █ -1.5% - (-9.1%) ↓
- █ -10.7% - (-19.4%) ↓
- █ -20% - (-28%) ↓

█ Water



Source SCDOT Traffic Counts



Atlantic  
Ocean

# Bicycle/Pedestrian System

## Peninsula

### Bike/Pedestrian Paths

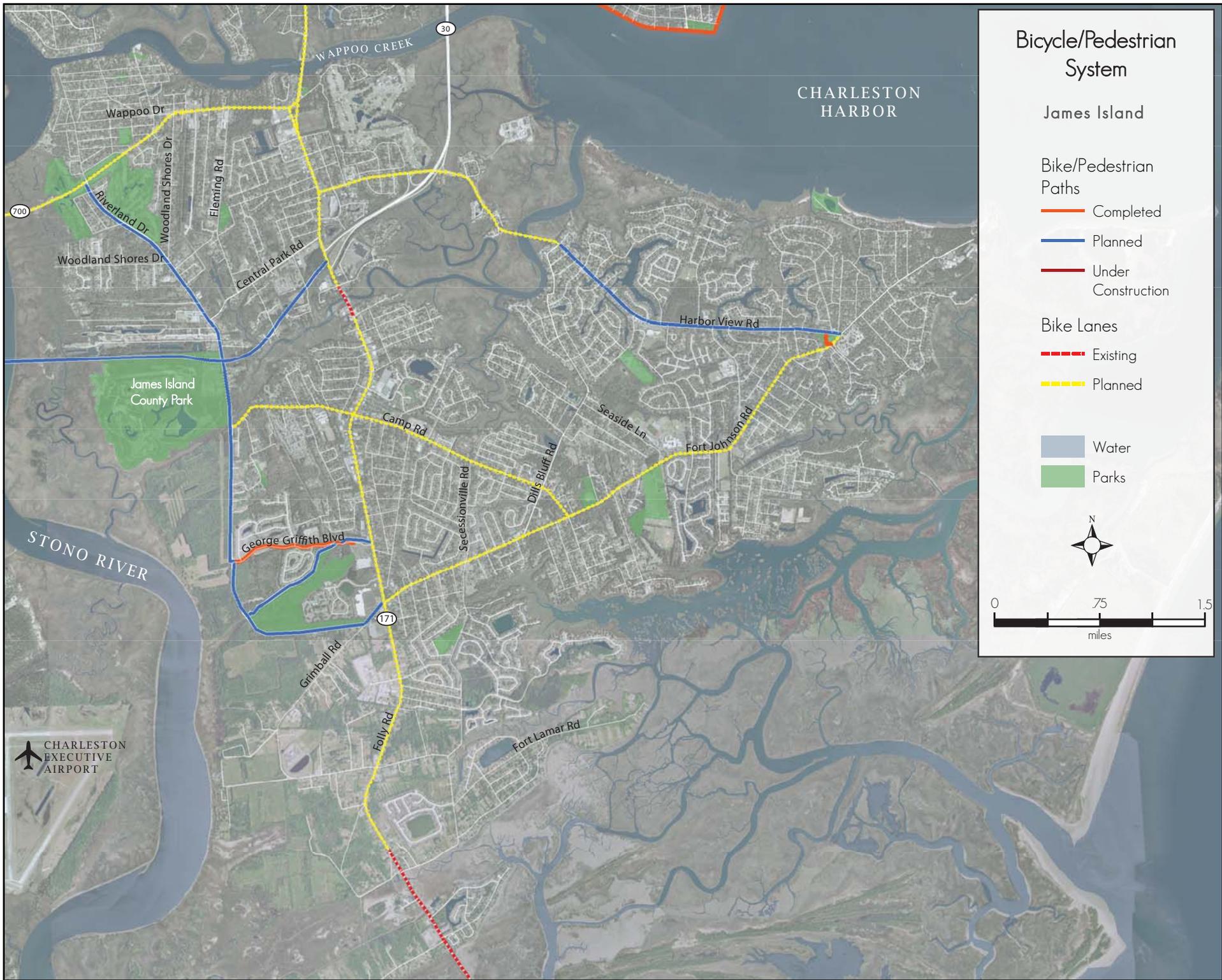
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- Planned
- Under Construction

### Bike Lanes

- Existing
- Planned

- Water
- Parks





# Bicycle/Pedestrian System

## James Island

### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks



**CHARLESTON EXECUTIVE AIRPORT**

# Bicycle/Pedestrian System

## Outer West Ashley

### Bike/Pedestrian Paths

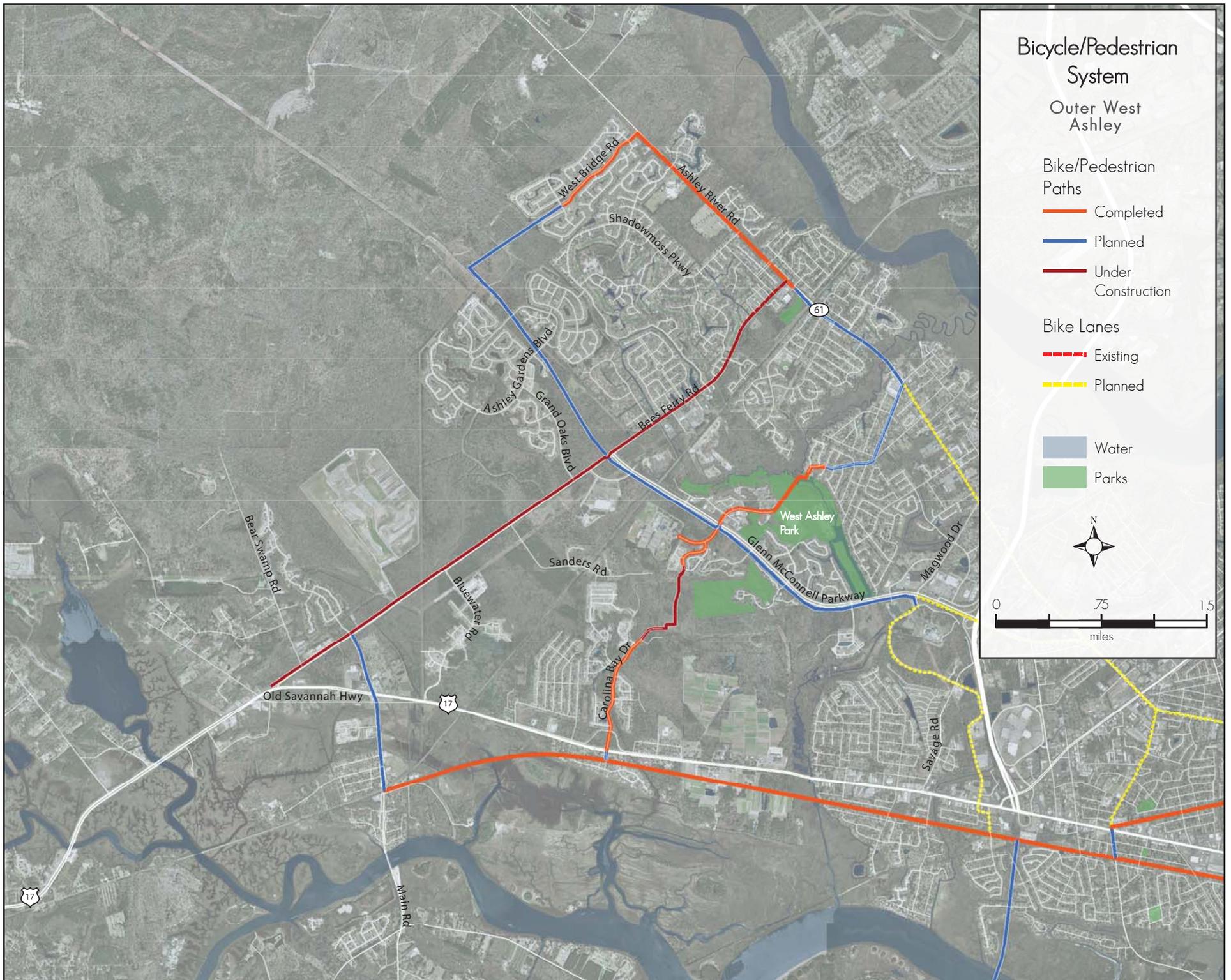
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- Planned
- Under Construction

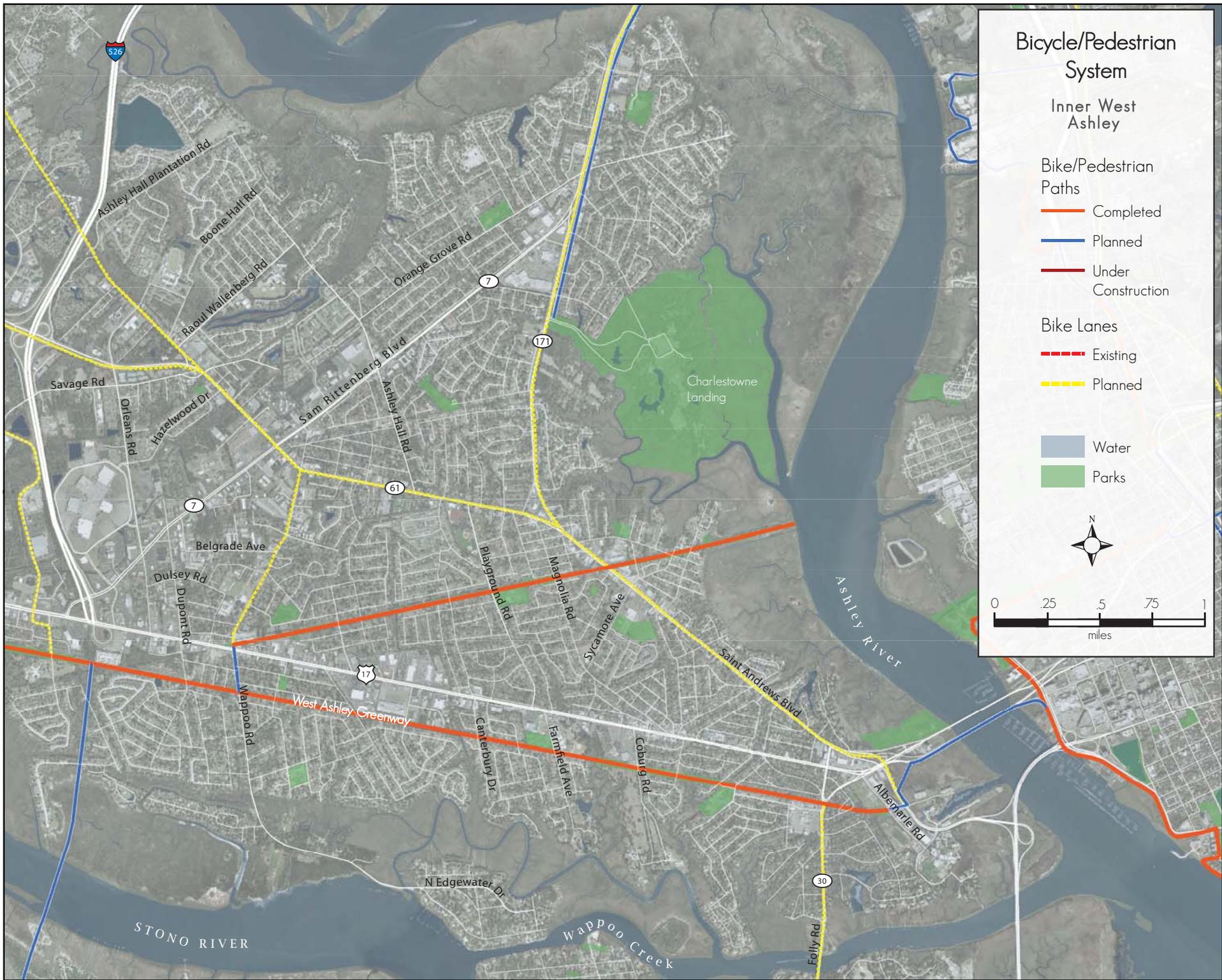
### Bike Lanes

- Existing
- Planned

Water

Parks





# Bicycle/Pedestrian System

## Inner West Ashley

### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks



# Bicycle/Pedestrian System

Lower Cainhoy/  
Daniel Island

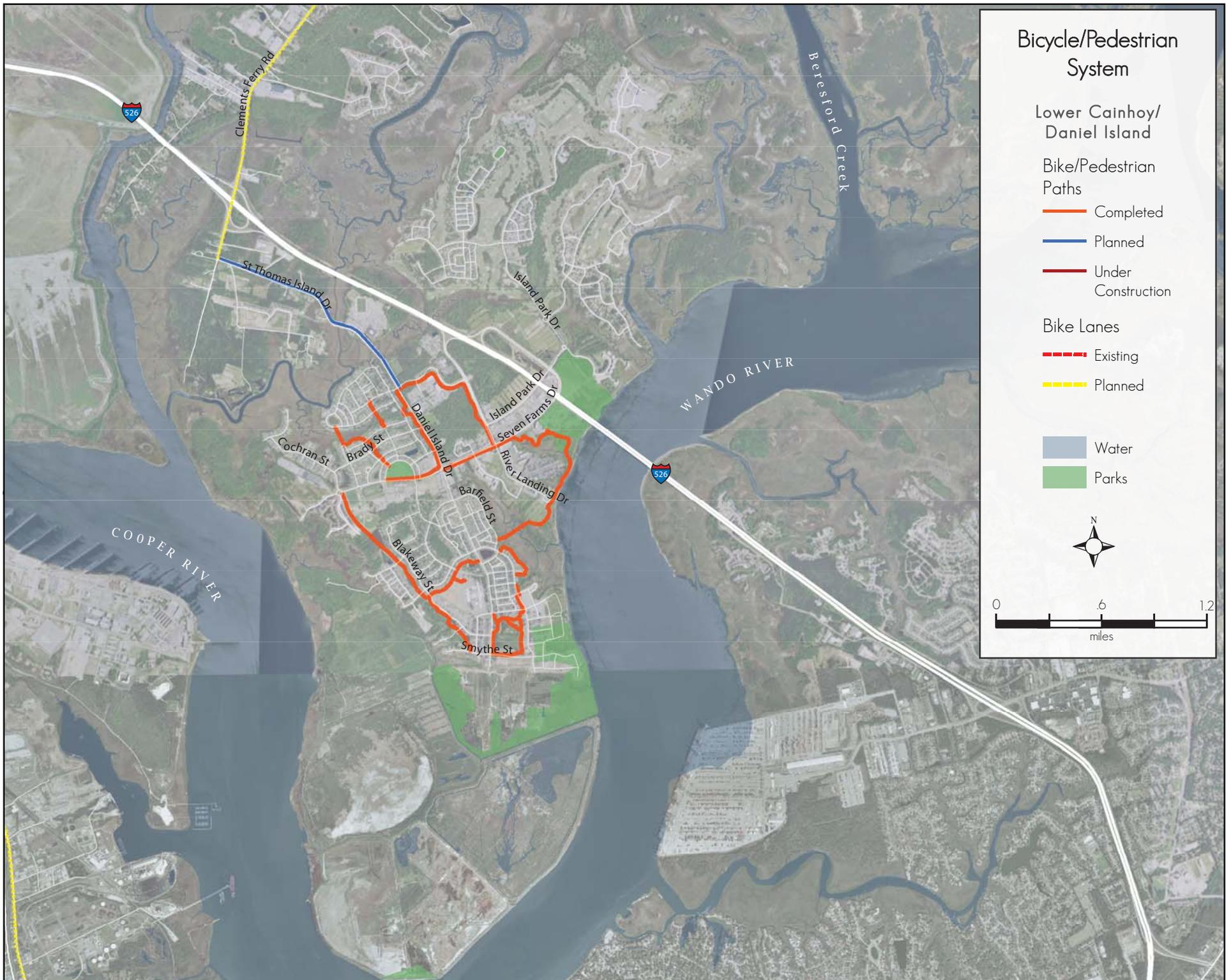
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Paths

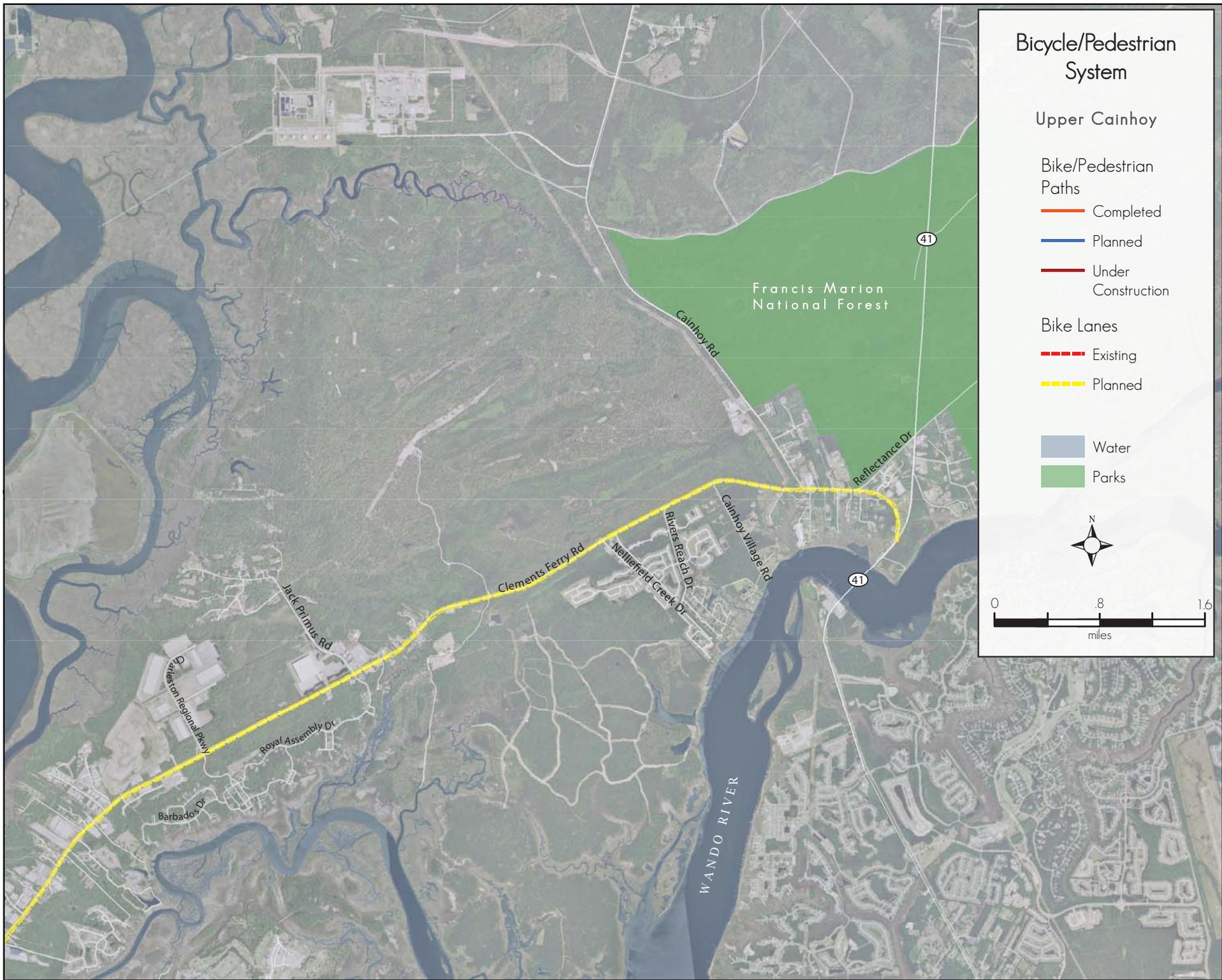
- Completed
- Planned
- Under Construction

Bike Lanes

- Existing
- Planned

- Water
- Parks





# Bicycle/Pedestrian System

## Upper Cainhoy

### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- Existing
- Planned

- Water
- Parks



Francis Marion National Forest

Cainhoy Rd

Reflectance Dr

Cainho Village Rd

Rivers Reach Dr

Nelliefield Creek Dr

Clemens Ferry Rd

Jack Pinus Rd

Wesleyan Regional Pkwy

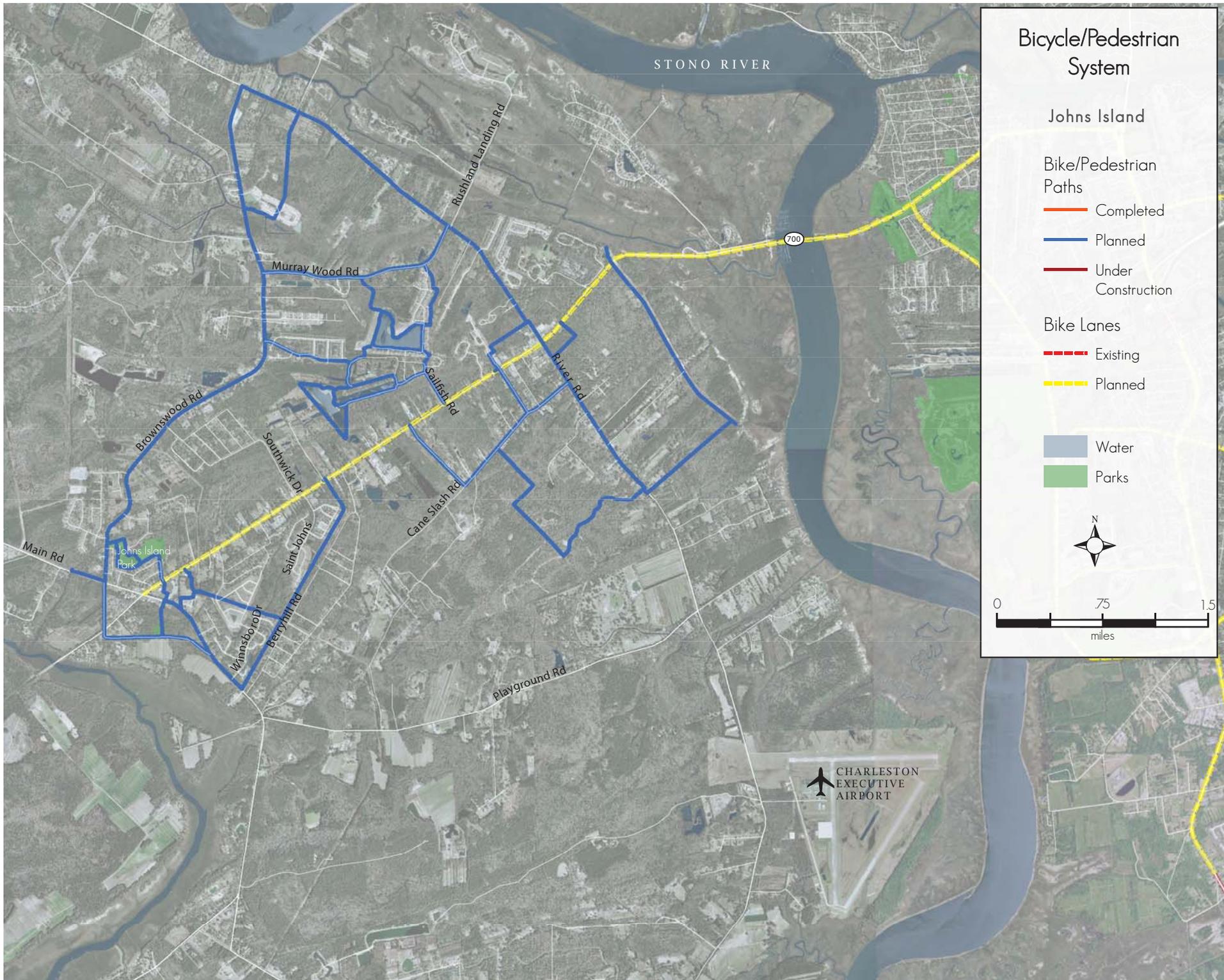
Royal Assembly Dr

Barbados Dr

WANDO RIVER

41

41



# Bicycle/Pedestrian System

## Johns Island

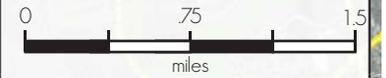
### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks



STONO RIVER

700

Johns Island Park

CHARLESTON EXECUTIVE AIRPORT

Rushland Landing Rd

Murray Wood Rd

Brownwood Rd

Sailfish Rd

River Rd

Southwick Dr

Cane Slash Rd

Main Rd

Wynnsboro Dr

Berryhill Rd

Saint Johns

Playground Rd



