

ACKNOWLEDGMENTS

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Community Development

Capital Projects
Facilities Maintenance
Development Services
Engineering & Stormwater
Community Planning

Office of Cultural Affairs

Fire Rescue

Stakeholder Groups

Utility Companies

Planned Unit Developments (PUD)

Transportation Agencies (SCDOT)

Historic Neighborhoods

Commercial Centers & Small Businesses

Public Safety Agencies

Bicycle Advocates

Coligny Plaza Stakeholders

Neighborhood Representatives

Consultant Team

MKSK

- » Public engagement
- » Project delivery
- » Corridor planning / design
- » Land use planning

Toole Design

» Bike and Pedestrian pathway system planning

Kimley Horn

> Functional assessment of intersections

PROJECT BACKGROUND & PURPOSE

Given the beauty and qualities of Hilton Head Island's forests, beaches, and wetlands, it is no wonder these features spurred a planned community in the 1950s. The natural environment of the Lowcountry embraced is a foundational element of the community's identity. The roadway system, specifically William Hilton Parkway and the similarly scaled arterials of the Island, were envisioned as true "parkways." They are sensitively designed corridors interconnecting historic neighborhoods and planned developments that provide adequate space for multiple modes of travel (vehicles, bicycles, and pedestrians).

Through the ensuing years and in response to the significant growth of the Town, these corridors have felt the pressures of increased traffic demand, resulting in unintentional compromises to safety and loss of character in many locations. Green buffers between users have been reduced, the scale of intersections has increased, and the standards used for the roadway system have transitioned away from their original aesthetic intent. Town leadership has recognized the need for a holistic approach to corridor planning on the Island. This multi-modal design methodology incorporates Lowcountry character and charm with the changing transportation demands of residents and visitors to the Island.

The Purpose of this planning effort is to bring intentional focus to the conditions and ultimately improve key corridors within Hilton Head Island. This study employs the same rigor undertaken for the William Hilton Parkway corridor improvements. This study will target safety, pathways, pedestrian and bicycle accommodations, beautification/aesthetics,

natural environment, brand, construction standards, lighting, landscape consistency, signage, pavement markings, curbing, ramps, setbacks, and utility equipment.

This study aims to provide recommendations, regarding many of the items mentioned previously, in accordance with AASHTO standards and Complete Street principals. "Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities." (Smart Growth America)

In addition to these guidelines, the study aims to establish a consistent corridor character by leveraging the best qualities of each zone and finetuning the systems present throughout the Island. This document provides general guidance and design direction for the corridors' aesthetics, materials, placement, connectivity, cohesiveness, and function. It defines desired corridor character by zone, provides guidelines for typical intersections for the improvement of all, and establishes best-in-class practices for the corridor system. Ultimately, this document will guide and prioritize future design and engineering efforts by the Town of Hilton Head Island and its partners in the South Carolina Department of Transportation and Beaufort County who are responsible for permitting improvements within the specified corridors.



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- WHP 3: Beach City Road/Gardner Drive to Mathews Drive
- WHP 4: Mathews Drive

to Mathews Drive/Folly Field Road

- WHP 5: Mathews Drive/Folly Field Road to Shelter Cove Lane
- WHP 6: Shelter Cove Lane
 - to Queens Folly Road/King Neptune Drive
- WHP 7: Queens Folly Road/King Neptune Drive
 - to Shipyard Drive
- WHP 8: Wexford Drive/Shipyard Drive
 - to Sea Pines Circle & New Orleans Road

148 SOUTH ISLAND SEGMENTS

Palmetto Bay Road & Arrow Road

Sea Pines Circle

Pope Avenue

Coligny Circle

Forest Beach Drive

192 CROSS ISLAND PARKWAY

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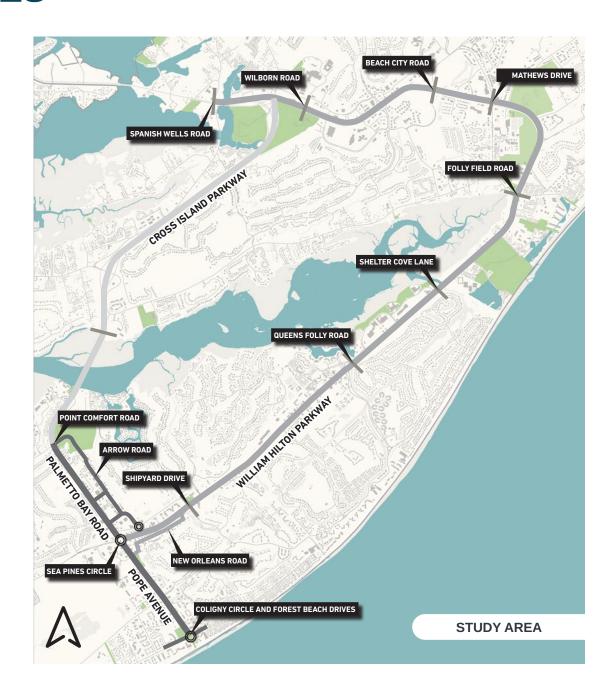
214 PROJECTS

216 ACTIONS

PROJECT BOUNDARIES

Located within the Town of Hilton Head Island, the project area includes several key corridors and roadways throughout the Island. While this study does take into account the surrounding context and character of all routes on the Island, it intends to focus on the following vital streets and segments:

- » William Hilton Parkway from Spanish Wells Road/Wild Horse Road to Sea Pines Circle
- » Pope Avenue from Sea Pines Circle to Coligny Circle
- » Palmetto Bay Road from Cross Island Parkway to Sea Pines Circle
- » Archer Road and Target Road between Arrow Road and Palmetto Bay Road
- » Arrow Road and New Orleans Road
- » South Forest Beach Drive to Deallyon Avenue and North Forest Beach Drive to Avocet Road
- » Cross Island Parkway



EXISTING PLAN GUIDANCE

These corridors have evolved in conjunction with past planning efforts of the Town. Their physical character and composition today are tied directly to those past efforts. In many previous studies, the primary focus was creating efficient vehicular infrastructure for a growing Island.

1980's -1990's:

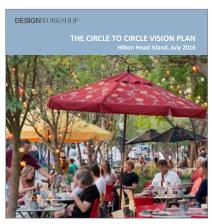
Focus on connectivity of Island to mainland - Bridges

1990's-2000's:

Focus on-Island mobility - Cross Island Parkway

Today:

Focus on improving multi-modal transportation and consistency of character

















PLAN FRAMEWORK

The first step in the process is an initial introduction and analysis of the various systems and roadway segments throughout the Island. This overview and analysis consists of a broad collection of quantitative and qualitative information to better understand current conditions, allowing the establishment of a reference point upon which corridor recommendations are built.

Systems

Systems represent the various features that contribute to a safe, accessible, efficient, and attractive corridor for all users regardless of transportation choice. When all these features are designed and integrated into the corridor's layout, the passages become thriving, welcoming places for all, reflecting the Island's distinct charm and aesthetic. Analysis and subsequent recommendations regarding those elements that contribute to a corridors character can be found within one of the following six categories:

LANDSCAPE & AESTHETICS
PATHWAYS
INTERSECTIONS
ROADWAYS
TRANSIT

WAYFINDING, SIGNAGE, BRANDING & ART

Segments

In addition to dividing parts of the corridors into various systems, the consultant team also classified all 14 miles of road within the study area into multiple segments. While systems help identify features required to build a high-quality street, segments help separate those corridors into categories based on traffic demands, roadway design/characteristics, and adjacent land uses. Roadway segments deepen the understanding of what requirements and recommendations are needed along the corridor based on current and future needs. Intersection and Pathway treatments along William Hilton Parkway (WHP) will require a different approach than those located along New Orleans Road. Therefore, it is essential to identify the following unique roadway segments throughout the project area.

WILLIAM HILTON PARKWAY SEGMENTS:

- » WHP 1: Spanish Wells Road/Wild Horse Road to Wilborn Road/Jarvis Park Road
- WHP 2: Wilborn Road/Jarvis Park Road to Beach City Road/Gardner Drive
- » WHP 3: Beach City Road/Gardner Drive to Mathews Drive
- » WHP 4: Mathews Drive to Mathews Drive/Folly Field Road
- WHP 5: Mathews Drive/Folly Field Road to Shelter Cove Lane
- » WHP 6: Shelter Cove Lane to Queens Folly Road/King Neptune Drive
- WHP 7: Queens Folly Road/King Neptune Drive to Wexford Drive/Shipyard Drive
- » WHP 8: Wexford Drive/Shipyard Drive to Sea Pines Circle & New Orleans Road

SOUTH ISLAND SEGMENTS:

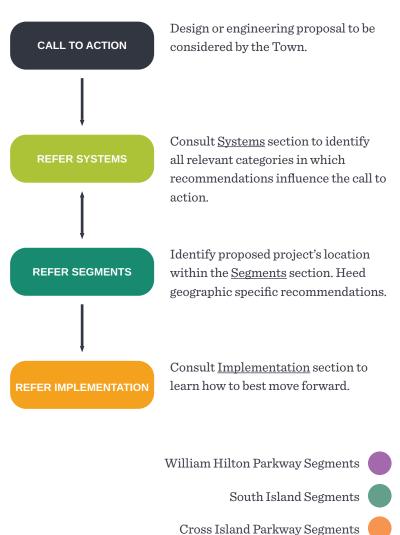
- » Palmetto Bay Road & Arrow Road
- Sea Pines Circle
- » Pope Avenue
- » Coligny Circle
- » Forest Beach Drives

CROSS ISLAND PARKWAY:

- » Cross Island Parkway
- .. Oloss island i allivay
- » Fraser Bridge & Approaches

How to Use This Document

The process diagram below provides the recommended order of usage of this plan to make design decisions within these corridors



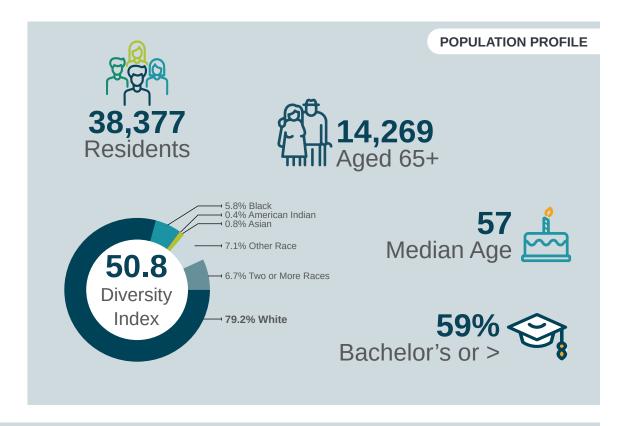


EXISTING CONDITIONS

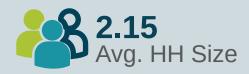
Island Demographics

Hilton Head Island is a tourist destination, with families visiting for extended stays at various times of the year.
Building corridors supporting the tourism industry and vibrant street activity during peak season is essential.
However, it is also necessary to understand the demographics and profiles of year-round Island residents and employees.
Building a network of streets that fill the needs of all Island inhabitants (tourists, residents) along with all roadway users (bike, pedestrian, vehicular) is a crucial element of this effort.





17,689 Households



\$530,533Median Value



854 Households
Have No Vehicle

Home Ownership
— 83.3% Own

HOUSEHOLD PROFILE



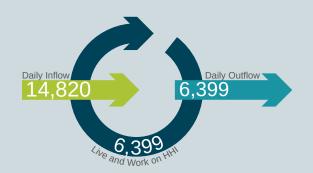
Source: Town of Hilton Head Island & ESRI Business Analyst 2016-2020 American Community Survey (ACS) Data

2,568 Businesses

WORKER & TRANSPORTATION PROFILE















Source: Town of Hilton Head Island & ESRI Business Analyst 2016-2020 American Community Survey (ACS) Data

KEY FINDINGS

POPULATION & HOUSEHOLDS

- » Permanent residents are older with almost 40% over the age of 65.
- » Very few families or children with an average household size of just above 2.
- » Residents are primarily white, well educated, with median incomes well above the state average.
- » Less than 1% of residents bike or walk to work.

TRANSPORTATION

403 Miles of Roads.

293 Miles (Private) - 73%

74 Miles (State) - 18%

23 Miles (County) - 6%

14 Miles (Town) - 3%

- » 140 Miles of Roads with a Speed Limit of > 25 mph.
- » 263 Miles of Roads with a Speed Limit of < 25 mph.</p>
- » William Hilton Parkway (WHP) a state-owned roadway, is the longest at 11 miles.
- » Arrow Road is the longest Town-owned road at 0.8 miles in length.
- » The average annual daily traffic (AADT) for WHP at the entrance to the Island is 57,400 vehicles, which equates to over 400,000 cars a week.
- » The Breeze Trolley, Hilton Head Island's free and seasonal transit service operates seven days a week from April to September.
- » The Breeze Trolley operates 20 stops with the ability to request a courtesy stop near specific destinations.
- » The Breeze Trolley is equipped with bike racks that accommodate two bikes at a time.

EXISTING CONDITIONS

Crashes & Safety

Traffic safety within the Island begins by examining current traffic and roadway conditions through various perspectives, including stakeholder engagement and collecting qualitative / quantitative data. Developing a strategic profile of what issues are impacting the corridors today and what elements need updating in the future is an essential step in the process.

One primary concern when evaluating mobility and transportation infrastructure is safety.

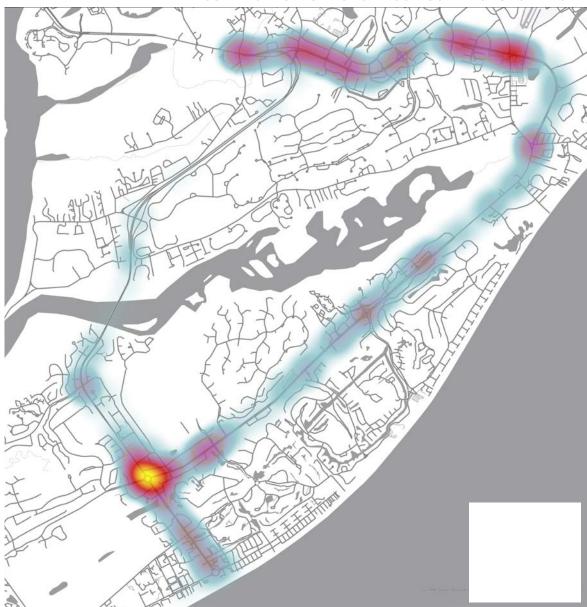
Analysis of crash data combined with stakeholder input reveals unsafe areas for all roadway users (vehicular, bike, pedestrian). Pinpointing these locations is a critical step in outlining the recommendations necessary to establish consistent corridor character throughout the Island. Design of roadways, pathways and intersections shall follow state and federal design standards and consider additional safety measures to mitigate and reduce the severity of accidents.

50% of reported vehicle crashes

involving bikes or pedestrians resulted in a

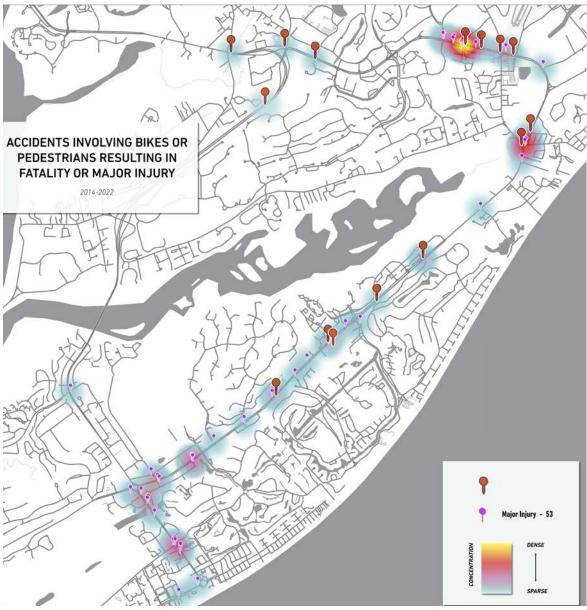
fatality or major injury according to Beaufort County Sheriff's Office

ALL VEHICULAR CRASHES ALONG MAJOR CORRIDORS 2014 - 2022



Source: Beaufort County Sheriff's Office

BIKE & PEDESTRIAN CRASHES RESULTING IN FATALITIES & MAJOR INJURY 2014 - 2022



Source: Beaufort County Sheriff's Office

KEY FINDINGS

ALL CRASHES

- » 4391 incidents over the past eight years within the study area.
- » Crash causes in the study area are an indication of congestion, unfamiliar drivers, driver distraction and unique roadway geometry.
- » Analysis of reports show that most resulted from an at-fault driver, pedestrian or bicyclist. These include driving while impaired, hit and run and failure to obey stop/yield signs.

BICYCLIST CRASHES

- » 106 reported bike crashes over eight years.
- » Crashes are concentrated at significant intersections where conflicts between vehicles are more likely.
- The intersection of William Hilton Parkway and Palmetto Parkway has the highest concentration of collisions involving bicycles.

PEDESTRIAN CRASHES

- » 31 collisions involving a pedestrian were reported over the 8-year analysis period.
- » The highest concentration of collisions involving pedestrians is on William Hilton Parkway, between Palmetto Parkway and Yacht Cove Drive.
- » This section has the highest observed vehicle speeds throughout the corridor.

CRASH SEVERITY

- » 14 of 31 pedestrian incidents reported resulted in a fatality.
- » 50% of crashes involving a bike or pedestrian resulted in a fatality or significant injury.
- The speed of the vehicle involved in the collision is a factor contributing to the resulting fatality.

STAKEHOLDER INPUT

The Project Team engaged with community stakeholders and the Town Advisory Team during several meetings held in May, June, and July 2022. The stakeholders and Advisory Team expressed comments and opinions about roadways, pathways, transit, landscape, general aesthetics, signage, wayfinding, & public art. Stakeholder and Advisory Team input addressed broad concerns such as safety or wayfinding and brought up specific circumstances such as missing pathway connections, drainage issues, and problem intersections. All comments inform the standards and recommendations outlined in this document.

Milestone Meeting Dates

FEB 7TH, 2022 ADVISORY TEAM #1

MAY 4-6TH, 2022 STAKEHOLDERS INTRO

MAY 23RD, 2022 ADVISORY TEAM #2

JULY 20TH, 2022 ADVISORY TEAM #3

OCT 19TH, 2022 SCDOT REVIEW

DEC 14TH, 2022 ADVISORY TEAM #4

JAN 26TH, 2023 ADVISORY TEAM #5

FEB 13TH, 2023 ADVISORY TEAM #6

MAR 7TH, 2023 TOWN COUNCIL WORKSHOP

Stakeholder Groups

PUD'S:

- » Hilton Head Plantation
- » Indigo Run
- » Palmetto Hall
- » Spanish Wells
- » Wexford
- » Port Royal
- » Palmetto Dunes
- » Long Cove Club
- » Shipyard
- » Sea Pines

NEIGHBORHOOD REPRESENTATIVES:

- » Folly Field
- » Shelter Cove
- » Leamington
- » Forest Beach
- » Bay Pines
- » Yacht Cove
- » Hilton Head Resort
- » The Oaks

HISTORIC NEIGHBORHOODS:

- » Chaplin
- » Marshland
- » NIBCAA
- » Gullah Geechee Task Force

TRANSIT AND PUBLIC SAFETY:

- » Palmetto Breeze
- » Bike Walk HHI
- » Bike Ambassadors
- » HHI Fire Rescue
- » Beaufort County Sheriff's Office

UTILITIES:

- » Hilton Head Island Public Service District
- » South Island Public Service District
- » Broad Creek Public Service District
- » Hargray Communications
- » Spectrum Communications
- » TOHHI Community Development

RETAIL CENTERS:

- » Sea Turtle Marketplace
- » Port Royal Plaza
- » Northridge Plaza
- » Shelter Cove Towne Centre
- » The Plaza at Shelter Cove
- » Fresh Market Shoppes
- » Village at Wexford
- » Circle Center
- » Main Street
- » Plantation Center
- » Dunnagans Alley Businesses
- » New Orleans Road Businesses
- » Bridge Center Shoppes
- » Coligny Plaza

Provide safe crossings that bring communities and businesses together **

Improve safety and wayfinding for cyclists on the pathway system

Beautiful planting throughout the corridors that is in keeping with Island character

Make the history
and culture of Hilton
Head Island more
visible to visitors

99

with Island character ***



KEY FINDINGS

Increase safety for all, including minimizing conflicts between user types.

Update the pathway network to meet current standards, increase connectivity, accommodate new transportation modes, and provide user comfort.

Improve the function of intersections, notably Sea Pines Circle and along Pope Avenue, for all users.

Provide a consistent landscape aesthetic supporting the Island identity for landscape treatments, medians, tree lawns, and edge conditions.

Develop a consistent signage and wayfinding system, furthering the Island's identity and character.

Explore opportunities to reduce vehicular traffic demand.

Reduce the speed of vehicles to improve pedestrian safety and comfort.



OVERVIEW

'Systems' are those essential elements that contribute to a corridor's character and overall functionality. To better understand each system, this plan defines and establishes recommendations for its most basic components. Understanding each of these unique components helps guide us in determining the appropriate suggestions, standards, and features required to improve the consistency and quality of corridors on the Island. Implementing recommendations for each component is the foundation for improving each system. System improvements can then be layered together to create a comprehensive Island-wide plan that enhances the consistency and character of all corridors. Recommendations for specific systems and their components include the following categories: Landscape & Aesthetics; Pathways; Intersections; Roadways; Transit; and Wayfinding, Signage, Branding & Art.

- 18 LANDSCAPE & AESTHETICS
- **PATHWAYS**
- **INTERSECTIONS**
- **ROADWAYS**
- **TRANSIT**
- 102 WAYFINDING, SIGNAGE, **BRANDING & ART**

Importance & Role

When looking at aesthetics and landscape it is essential to consider the preservation of the Island's character and the significant role that aesthetics and landscape play in making Hilton Head Island a unique place. Consistent landscape themes and beautification strategies can enhance each corridor's character and attractiveness while supporting and solidifying the Island's Lowcountry identity. Functionally, landscape improvements are able to elicit positive impacts to roadway behaviors such as reducing excessive speeds and creating safer travelways for all users.

Existing Conditions Summary

GOOD:

- » The community values the environment, greenways, and natural places.
- » Robust, mature vegetation is a signature feature of Hilton Head Island and the Lowcountry.
- » Shelter Cove and Coligny Circle receive the most positive landscape feedback for public spaces along the corridors noting the contribution of the landscape to placemaking and character on the Island.

NOT SO GOOD:

- » Public landscape areas are inconsistent.
- » Overgrown plantings on private and public land impede views and pathways.
- » Maintenance requirements vary, with many areas requiring more frequent or intensive maintenance procedures.
- » Medians do not exist in some areas due to vehicular demands, access points, or limited space.
- » Above-grade utilities and signage often detract from natural features.
- » Development frontage is not consistently separated or buffered from adjacent roads and pathways.







CORRIDORS PLANNING | SYSTEMS

DRAFT

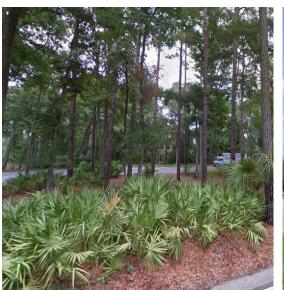
Landscape

RECOMMENDATIONS:

- » Establish the preferred planting aesthetic within the corridor study area as the "natural buffer", as outlined in the Town's Design Guide.
- » Maintain transparency and openness along pathways and roadways to increase user comfort and appeal. Revise the Town's Land Management Ordinance (LMO) section on Adjacent Street Buffers to include consideration of these maintained edges in review processes.
- » Prioritize low-maintenance native trees and understory shrubs with naturalized appearances, avoiding straight lines and trimmed hedges.
- » Minimize turf grass per the Town's Design Guide primarily use as an edge condition or intentionally placed open spaces.
- » Minimize pruning of shrubs to maintain a natural appearance via intentional plant selection.
- » Introduce "Pedestrian Buffers" as a preferred landscape typology.
- » Install plantings in Medians and along Pedestrian Buffer Zones to increase user separation while improving safety, comfort, and experience.
- » Utilize SCDOT's Context Sensitive Solutions process to design streets with lower minimum clear zone widths and reduced tree offsets. Consider a location's specific context when establishing Island appropriate solutions.



Median landscaping with native trees and understory shrubs



Examples of planted median landscape treatments



Medians

IMPORTANCE & ROLE

Hilton Head Island contains a variety of medians that separate roadways and reduce the prominence of vehicles. Medians are present in both the public and the private realm, providing landscape enhancement for major roadways, residential drives, and entries to commercial properties, all in the spirit of a vegetated Island experience.

RECOMMENDATIONS:

- » Extend planted medians by consolidating driveways and utilizing side streets to maintain necessary access.
- Maintain existing tree canopy where trees are healthy, safe, and contributing to island character. Remove trees that create hazards, are unhealthy, or are of an undesirable species. Utilize medians to increase canopy and shade over roadways and pathways.
 - » Replace shrubs that require extensive pruning in favor of low-maintenance natural landscaping.
- 2 Employ green infrastructure and swales in place of impervious drainage systems in medians.
- Replace extensive pine straw and mulch use with groundcovers and allow for 4' mown edges along roadways.
- » Utilize context-sensitive solutions and design streets with lower minimum clear zone widths and tree offsets. Coordination will be needed with SCDOT to balance aesthetics and safety.
- » Select and install vegetation to provide clearance and visibility.
- » Meander swales where feasible to reinforce a natural aesthetic within planting.





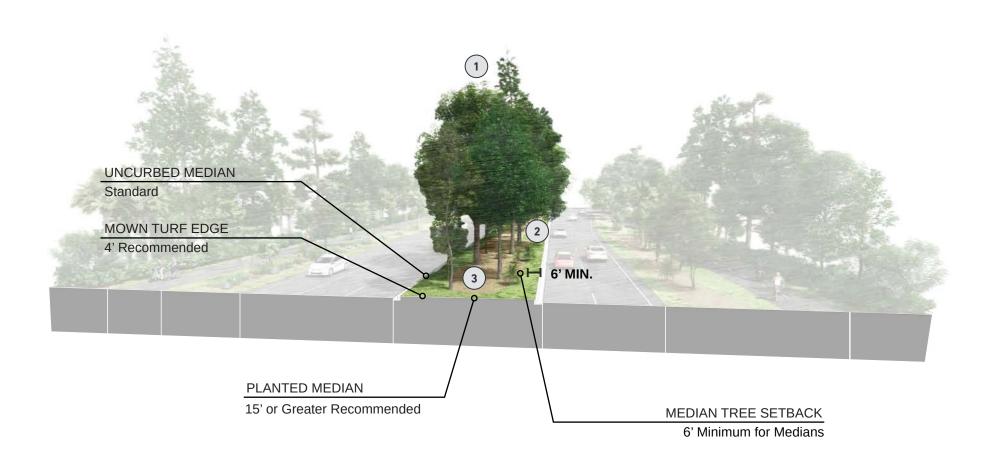
20

Preferred understory aesthetic



CORRIDORS PLANNING | SYSTEMS DRAFT

RECOMMENDED PLANTED MEDIAN LAYOUT



Additional detail and guidelines on the following pages.

Medians

Defined by width, the following types of medians represent those present throughout the Island's roadways. Categorized into three distinct landscapes, the medians, as reflected below, are designed based on roadway setbacks and available planting areas. Each unique to their specific context within the Island, these schemes all following standard guidelines, will vary upon implementation.

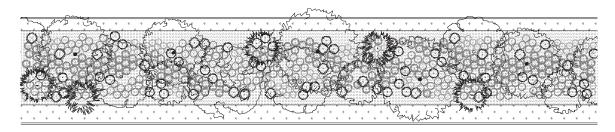
Landscape Category	Median Width	Landscape Application								
Standard (Medians & Unsignalized Intersections)										
Type A	15'+	Trees, Palms, Shrubs, Groundcovers, Turf								
Type B	5' - 15'	Palms, Shrubs, Groundcovers, Turf								
Type C	0' - 5'	Tabby Concrete								

TYPE A

NATURALIZED MEDIAN

15' + in width

Typical condition approaching signalized intersection



5' - 12'

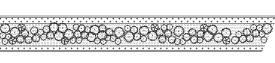
Trees, Palms, Shrubs, Groundcovers, and Turf

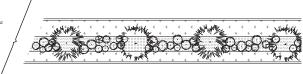
TYPE B

TRANSITIONAL MEDIAN

5' - 15' in width

Typical condition at tapered lane medians





Palms, Shrubs, Groundcovers, and Turf

TYPE C

NARROW MEDIAN

0' - 5' in width

Typical condition at median nosings





Tabby Concrete

CORRIDORS PLANNING | SYSTEMS

Pedestrian Buffers

Pedestrian Buffers, similar to Medians, are categorized by their width and adjacent site context. As shown below, the four distinct types of landscapes are all designed to optimize the available buffer zone, while striving to create a naturalized landscape.

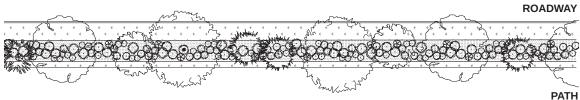
Landscape Category	Buffer Width	Landscape Application					
Pedestrian Buffers							
Type A	15'+	Trees, Palms, Shrubs, Groundcovers, Turf					
Type B	5'- 15'	Palms, Shrubs, Groundcovers, Turf					
Type C	2' - 5'	Turf					
Type D	0' - 2'	Tabby Concrete					

TYPE A

NATURALIZED BUFFER

15' + in width

Typical condition approaching signalized intersection



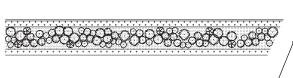
Trees, Palms, Shrubs, Groundcovers, and Turf

TYPE B

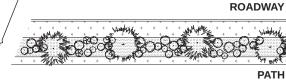
TRANSITIONAL BUFFER

5' - 15' in width

Typical condition at condensed intersections



Shrubs, Ground covers, and Turf



Palms, Shrubs, Groundcovers, and Turf

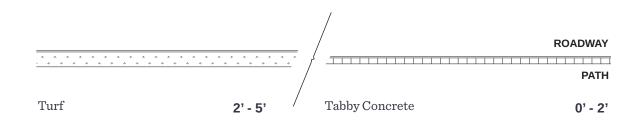
12' - 15'

TYPE C / D

NARROW BUFFER

0' - 2' / 2' - 5' in width

Typical condition approaching high traffic intersections

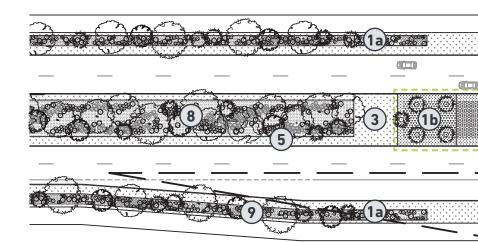


Median Planting

Standard Medians are designed to be lushly planted and blend into the surrounding native vegetation. These zones are characterized by mixtures of overstory trees, and a heavily planted ground plane of shrubs and groundcovers. Turf is utilized at edges as a transition from roadway to planted areas.

Coded Notes

- (1a) Groundcover Planting
- (1b) Groundcover Planting with Accent Shrubs.
- 2 Pedestrian Refuge
- (3) Lawn
- Potential Addition of Lawn in Pedestrian
 Queuing Zones at Low Volume Intersections
- 4 Median Drainage Swale
- 6' Tree Free Planting Zone Measured From Edge of Pavement
- Maintenance Access Clearing 25' wide (1) per median minimum or (1) every 1000'
- **7** Lawn Buffer 4'

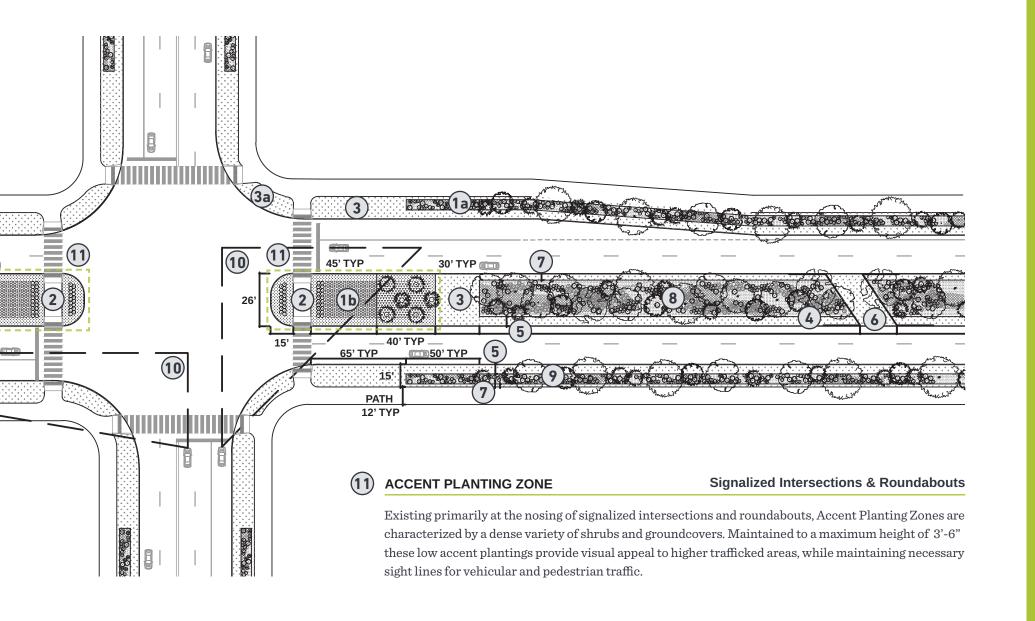


24

- 8 Median Plantings, various species.
- Pedestrian Buffer Plantings, various species.
- Signalized Intersection Sight Triangles Maintain Groundcover and Accent Plantings to a
 Maximum Height of 3'

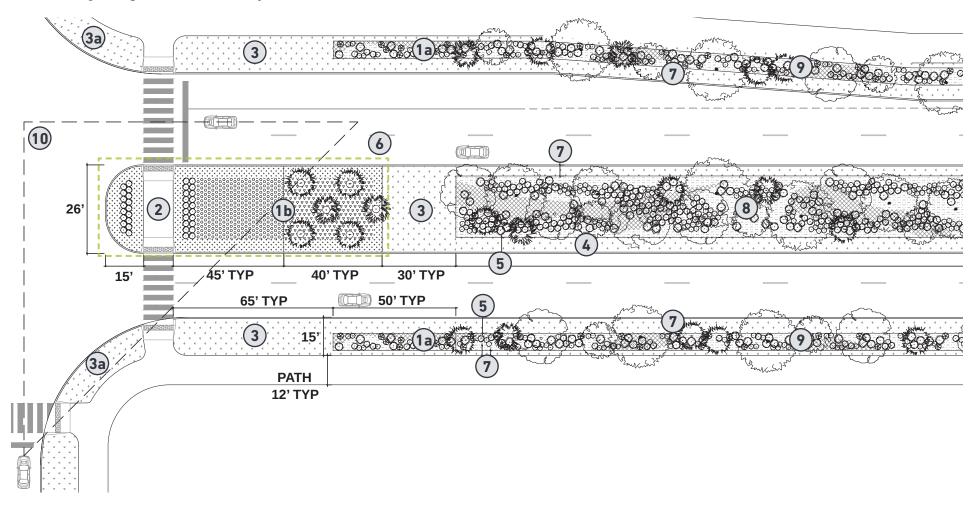
*Calculated per SCDOT Standards

CORRIDORS PLANNING | SYSTEMS DRAFT



Signalized Intersection Planting

Incorporating Accent plant material, Signalized Intersections are designed to be densely planted with a mixture of shrubs and groundcovers. Palms or ornamental trees are introduced into these zones when adjacent conditions and sight triangles ensure any plantings will not interfere with vehicle and pedestrian sight lines. Organized in a formal planting scheme, these zones will have a clear visual distinction from those of standard naturalized planting schemes that exist adjacent.



CORRIDORS PLANNING | SYSTEMS

Planting Design Considerations

The recommended planting strategy on the Island strives to develop a segment-to-segment consistency, minimizing "one-off designs" while allowing intersection areas to be highlighted with unique planting palettes that depart from the corridor standard. The standard planting strategy principally integrates the following factors:

- » Physical Spacing Consistency
- » Species Consistency
- » Maintenance Consistency
- » Native Aesthetic

Taking the signalized intersection planting diagram, page left, as a typical example, the items below outline plant compositions for medians and pedestrian buffer zones. Note that installation and specific site conditions will impact spacing and plant selection.

STANDARD

Medians & Unsignalized Intersections

Tree Composition

Approx. 20 Trees per 100 Linear Feet

20% Palms

40% Overstory

40% Understory

Randomly spaced in a staggered pattern between 10' - 15' on center.

Planting Composition

45% Shrubs +42"

35% Shrubs 24"-42"

20% Groundcovers

Space plant material 75% of mature size.

Planted in randomized clumps and large swaths to maintain edge conditions to the "natural buffer" aesthetic per the Town's Design Guide.

ACCENT

Signalized Intersections & Roundabouts

Tree Composition

Varies based on site context

Palms and Understory

Per location, utilize one species of either Palms or Understory to create individual intersection identities.

Planting Composition

20% Shrubs +42" (Present outside of sight triangles)

55% Shrubs 24"-42"

25% Groundcovers

Space plant material 75% of mature size.

Planted in a dense, formal nature, along linear boundaries. All planting must adhere to sight line boundaries and adjacent conditions.

Coded Notes



Groundcover Planting



Groundcover Planting with Accent Shrubs.



Pedestrian Refuge



Lawn



Potential Addition of Lawn in Pedestrian Queuing Zones at Low Volume Intersections



Median Drainage Swale



6' Tree Free Planting Zone - Measured From Edge of Pavement



Signalized Intersection Accent Planting Zone



Lawn Buffer - 4'



Median Plantings, various species.



Pedestrian Buffer Plantings, various species.



Signalized Intersection Sight Triangles -Maintain Groundcover and Accent Plantings to a Maximum Height of 3'-6"

*Calculated per SCDOT Standards

Tapered Median Planting

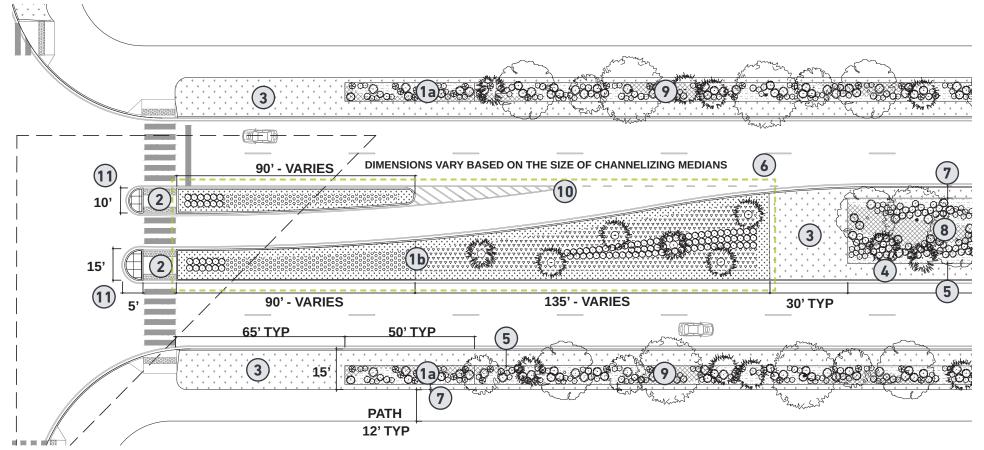
The endings of landscape medians serve as an opportunity to incorporate attractive plant material while reducing the footprint of the mown turf zone which typically occupies this space. Tapered Median Plantings occur at major intersections and typically accommodate separate left-turn lanes and crosswalks. These plantings take into consideration intersection sight distances as set by ARMS Manual.

Coded Notes

Tapered and Roundabouts

- **1a** Groundcover Planting
- (1b) Groundcover Planting with Accent Shrubs.
- 2 Pedestrian Refuge
- 3 Lawn
- (4) Median Drainage Swale
- 6' Tree Free Planting Zone Measured From Edge of Pavement

28

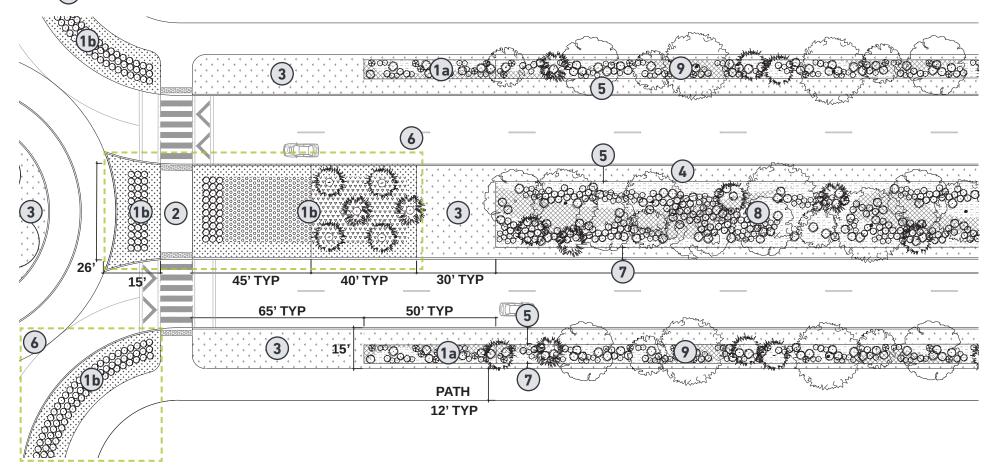


CORRIDORS PLANNING | SYSTEMS DRAFT

- (6) Signalized Intersection Accent Planting Zone
- (7) Lawn Buffer 4'
- 8 Median Plantings, various species.
- **9** Pedestrian Buffer Plantings, various species.
- (10) Channelizing Median
- (11) Paved Median Nosing. Type C, Less Than 5'

Circles and Roundabout Planting

Similar to Signalized Intersections, Circles and Roundabout Plantings are designed to incorporate Accent planting material. Still maintained to ensure clear vehicle and pedestrian sight lines, these zones are designed in a formal scheme that creates a clear distinction from the surrounding plantings.



Medians and Intersections Plant List

The following plant compositions and list are provided as a guide for establishing best practices when implementing landscape throughout the Islands medians, intersections, and roundabouts. Categorized below, the Standard and Accent Planting compositions pertain to the ideal percentage of landscape material to be introduced in their respective zones.

Landscape Category	Median Width	Landscape Application
Type A	15'+	Trees, Palms, Shrubs, Groundcovers, Turf
Type B	5' - 15'	Palms, Groundcovers, Turf
Type C	0' - 5'	Tabby Concrete

^{*}References median materials for both Standard and Accent Zones.

MDEEC		A	// D	T /	D						
TREES		Type A	Type B	Type F	A Type B						
American Holly	Ilex opaca	*	*			*	30'-60'	Sun/P. Sun/Shade	*	*	Evergreen
Bald Cypress	Taxodium distichum	*		*		*	50'-75'	Sun/Part Sun	*	*	Evergreen, prefers moist soils
Overcup Oak	Quercus lyrata	*				*	45'-70'	Sun/Part Sun	*		
Sabal Palm	Sabal palmetto	*	*			*	25'	Sun	*	*	Evergreen
Southern Red Oak	Quercus falcata	*				*	60'-80'	Sun/Part Sun	*		
Southern Live Oak	Quercus virginiana	*		*		*	40'-80'	Sun	ж-	*	Nearly Evergreen, loses foliage in spring
Southern Magnolia	Magnolia grandiflora	*		*		*	60'-80'	Sun/Part Sun	*	*	Evergreen, keeps most foliage year-round
Windmill Palm	Trachycarpus fortunei			*	*		20'-50'	Sun/Part sun	*	*	Evergreen
Dahoon Holly	Ilex cassine			*	*	*	20'-30'	Sun/Part Sun	*	*	Evergreen
Sweetbay Magnolia	Magnolia virginiana	*	*	*	*	*	20'	Sun/Part Sun		*	Evergreen, moist soils
Southern Wax Myrtle	Morella cerifera	*	*			*	15'	Sun/Part Sun	*	*	Evergreen
Yaupon Holly	Ilex vomitoria			*	*	*	15'	Sun/P. Sun/Shade	*	*	Evergreen
Crepe Myrtle	Lagestroemia indica	*	*				12'-15'	Sun	*		
Eastern Redbud	Cercis canadensis			*	*		12'-25'	Sun/Part Sun	*	*	Short lived
Saucer Magnolia	Magnolia sourlangiana			*	*		20'	Sun	*	*	Evergreen

CORRIDORS PLANNING | SYSTEMS DRAFT 30

Common Name	Scientific Name	Standard Landscape		Accent Landscape		Native	Avg. Height	Optimum Sun Exposure	Drought Tolerant	Salt Tolerant	Notes
SHRUBS		Type A	Туре В	Type A	Туре В						
Coontie Palm	Zamia pumila	*	*	*	*		3'	Sun/Part Sun	*	*	Evergreen
Distylium	Distylium var.			*	*		4'-6'	Sun/Part Sun	*		Evergreen
Dwarf Oleander	Nerium oleander			*	*		3'-4'	Sun	*		Evergreen
Dwarf Palmetto Palm	Sabal minor	*	*			*	5'-10'	Sun/P. Sun/Shade	*	*	Evergreen
Needle Palm	Rhapidophyllum hystrix			*	*	*	3'-6'	Sun/Part Sun	*		Evergreen,
Tree Philodendron	Philodendron selloum			*	*		6'-12'	Sun/P. Sun/Shade			Evergreen
Saw Palmettos	Serenoa repens	*	*	*	*	*	3'-8'	Sun/Part Sun	*	*	Evergreen
Japanese Camellia	Camellia japonica			*	*		7'-12'	Part Sun			Evergreen
Small Anise Tree	Illicium parviflorum	*	*	*	*		10'-15'	Part Sun/Shade			Evergreen
GROUNDCOVERS & GRAS	SSES	Type A	Туре В	Type A	Туре В						
Flax Lily	Dianella tasmanica			*	*		18"	Part Sun	*		Evergreen
Dwarf Fackahatchee Grass	Tripsacum floridanum	*	*				2'-3'	Sun/Part Sun	*	*	Evergreen
Creeping Lilyturf	Liriope spicata	*	*	*	*		12"-18"	Part Sun/Shade	*	*	Evergreen
Pink Muhly Grass	Muhlenbergia capillaris			*	*		18"-36"	Sun	*	*	
Sand Cordgrass	Spartina bakeri	*	*			*	3'-4'	Sun	*	*	Evergreen
Switchgrass	Panicum virgatum			*	*	*	3'-4'	Sun/Part Sun	*		
Asiatic Jasmine	Trachelospermum asiaticum			*	*		12"-24"	Sun/Part Sun	*	*	Evergreen
TURF											
Bermuda	Cynodon dactylon			*	*		3"-6"	Sun	*	*	Evergreen
Zoysia	Zoysia japonica 'Meyer'	*	*				3"-6"	Sun	*	*	Evergreen

^{*} The above recommended plant list can be expanded upon and or altered as needed. Changes are subject to Town approval.





Pedestrian Buffers

RECOMMENDATIONS:

- » Maintain existing tree canopy and utilize pedestrian buffers to increase canopy and shade over roadways and pathways.
- » Replace shrubs that require extensive pruning in favor of low-maintenance natural landscaping.
- » Utilize context-sensitive solutions to design streets with lower minimum clear zone widths and tree offsets. Coordination with SCDOT will be needed to balance aesthetics and safety.
- » Maintain all understory vegetation to a maximum height of 3'-6" to provide vertical clearance and sign visibility.
- » Add underdrains per SCDOT standards to maximize functionality of drainage features.
- » Swale and grading conditions vary. Refer to Drainage Sections on page 36 for ideal conditions.
- » Place rain gardens along pathways where site conditions provide sufficient width, natural slope, and aesthetic benefits.



Preferred pedestrian buffer aesthetic should be similar to Planted Medians



CORRIDORS PLANNING | SYSTEMS DRAFT 3

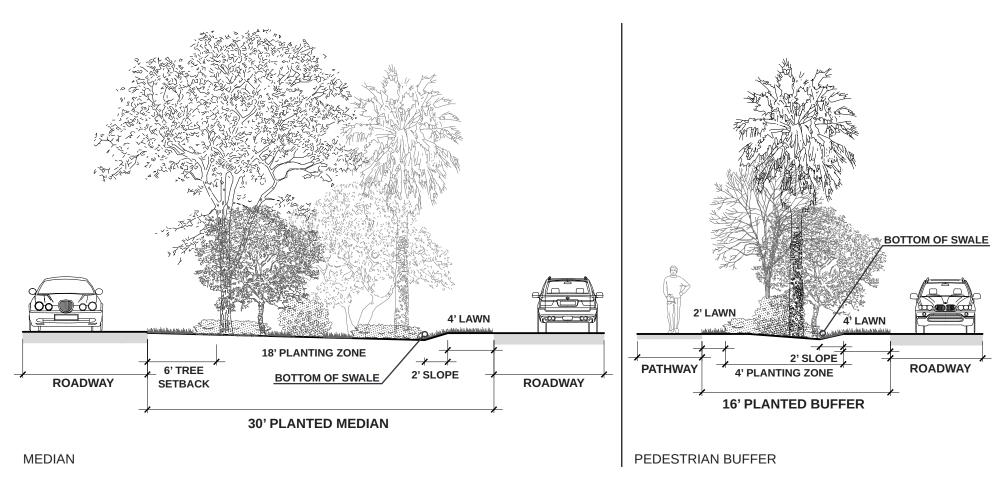
RECOMMENDED PEDESTRIAN BUFFER LAYOUT



Additional detail and guidelines on the following pages.

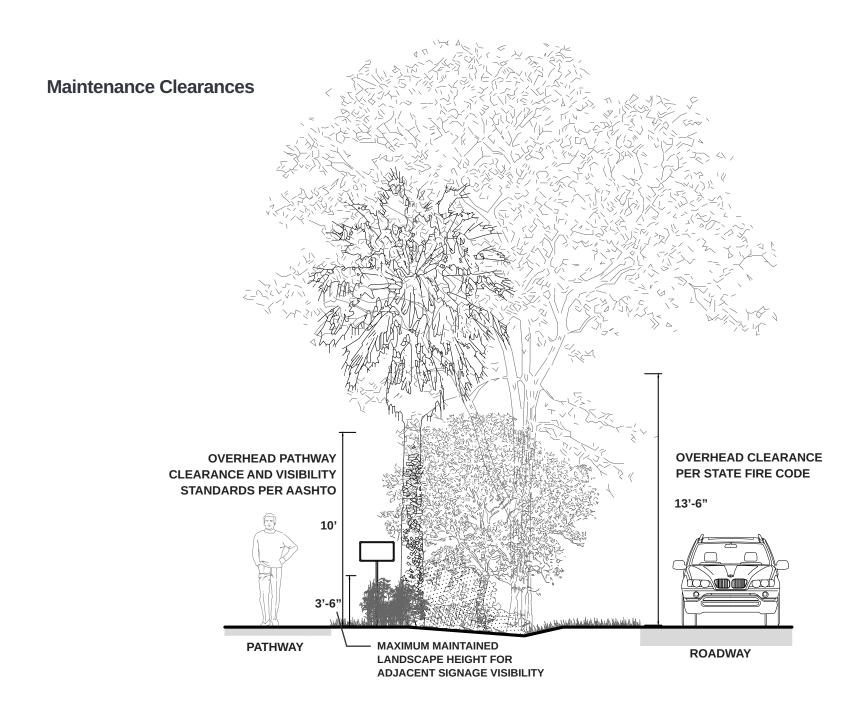
Drainage Swale

Median and Pedestrian Buffer drainage swales exist as low-points, defined by a transition between mown lawn and planting. Unless raised (bermed), these swales are designed to accommodate, slow, and conduct significant amounts of stormwater during precipitation events. These channels are intended to meander within the buffer zones, adapting to grade changes within their perspective boundaries.



CORRIDORS PLANNING | SYSTEMS DRAFT

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LANDSCAPE & AESTHETICS

Maintenance

RECOMMENDATIONS:

- Preserve specimen trees only limb up when diseased or pose significant health or property hazard—address tree health issues with a certified Arborist.
- Maintain proper sight lines at all roadways, drives, and pathway crossings. Refer SCDOT.
- » Replace overgrown shrubs that require excessive pruning with smaller native understory shrubs or ground cover.
- » Provide sufficient landscape planting to avoid mulching beyond the initial establishment period.
- » Utilize pine straw for temporary installations and areas away from pavement.
- » Utilize hardwood mulch in Accent Landscape areas, difficult to access areas, or where adjacent to pavement.
- » Prioritize native understory shrubs with ground cover providing a balance of deciduous and evergreen plant material.
- Maintain edge conditions to the "natural buffer" aesthetic per the Town's Design Guide.

- Revise the Town's Land Management Ordinance (LMO) section on Adjacent Street Buffers as outlined below to address maintenance along pathways, maintain transparency, and increase user comfort and appeal.
- » Establish a new "maintained area" between the required Adjacent Street Buffer and pathways or roadside to create clear views and enhanced aesthetics. Depth of maintenance area can vary based upon pathway layouts and the desire to screen adjacent land uses.
- » Require understory plantings within the "maintained area" to have a mature height of less than 42".
- Develop a pathways master plan to indicate the location of future pathway improvements. This master plan should be referenced in the approval process for new developments to provide adequate buffer zones upon implementation of pathway improvements.
- Where pathways are located on private land allow the maintained area to be part of the Adjacent Street Buffer.
- » Add specified maintenance requirements for "maintained areas" to ensure the long term success of aesthetics and clear zones.





3 4

Example of undesirable edge condition and existing natural buffer

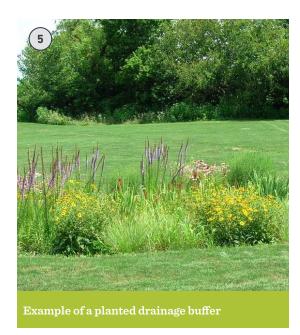
3 4

Example of undesirable edge condition and existing natural buffer

Drainage

RECOMMENDATIONS:

- (5) Employ planted swales at medians and pedestrian buffers along roadways.
 - » Swales should exhibit natural Island character with a meandering alignment.
 - » Prioritize green infrastructure over impervious drainage systems, such as concrete swales.
 - » Update the Design Guide to include "Pedestrian Buffer" as a primary landscape type on the Island.



Irrigation

RECOMMENDATIONS:

- » Install irrigation systems in Accent Landscape areas or locations identified as difficult to maintain.
- » Utilize irrigation of landscape beds to improve the establishment of plantings and to reduce extreme stress on vegetation.
 - * Note: Irrigation is recommended in limited locations due to implementation costs and sensitivity to water usage.

LANDSCAPE & AESTHETICS

Materials & Furnishings Importance & Role

Site furnishings and materials play an integral role in the development of Island corridor brand and identity. This section's recommendations are derived of the Island's strong natural features. Earth tones and forms from the region's beaches, woodlands, and lagoons inspire simple yet modern designs. While subdued, the components functionality and playfulness will attract users and create an identifiable constant within the corridors. Recommendations for the items below establish a clean, consistent, and identifiable corridor vernacular serving as the building block for future projects:

- » Benches / Picnic Tables
- » Bollards & Path Lighting
- » Refuse Collectors
- » Bike Parking
- » Fencing
- » Shelters

For brand consistency, these components should be implemented at regular locations along the corridors including at transit stops and comfort stations. The Town of Hilton Head shall approve additional furnishings at future parks or high traffic nodes on a case by case basis but should adhere to the general color, form and style recommendations within this section.

Existing Conditions Summary

GOOD:

- » Newer developments adjacent to the Corridors, (Lowcountry Celebration Park, Shelter Cove Towne Centre, Coligny Circle) have implemented consistent palettes of furnishings and materials.
- » A small quantity of site furnishings exist within the corridors. This allows for easy removal and replacement if new recommendations are implemented.

NOT SO GOOD:

- » Lack of a corridor brand and vernacular.
- » Dated and inconsistently located site furnishings include seating, bollards, refuse collection, and bike parking.
- » Inconsistent fence types along corridor pathways and roads.
- » Lack of public amenities along pathways and at transit stops.



Existing refuse condition at Coligny Beach Park



Existing bike parking along Pope Avenue



Variety of fencing conditions along corridor pathways

Materials & Furnishings

RECOMMENDATIONS:

- » Utilize wood with a natural finish to minimize maintenance on retaining walls, fences, and railings. Review need for stain or sealant with manufacturer on a case by case basis.
- » Standardize all materials used to provide consistency across the Island for maintenance needs and aesthetics.
- Establish a new Town standard for bicycle racks, litter receptacles, and benches on public grounds.
- » Implement the new Town standards at all Trolley Stops and Comfort Stations.
- 2 Consider Town-provided bicycle racks, litter receptacles, and benches in front of businesses in high-traffic areas to enhance the user experience.
- Consider potential art & Town brand opportunities where bike racks or other standard furnishings can be customized.
 - » Consider concrete or tabby concrete where corridor pathways enter public parks or other feature spaces.
 - » Utilize an asphalt edger along pathways to increase longevity of pathway and decrease maintenance needs.









Customized furnishing options



High-traffic area near Coligny Circle which could be enhanced with town-provided furnishings

Materials & Furnishings Basis of Design

TRANSIT/COMFORT STATION BENCH

- » Monoline Flat Bench ML-FLAT-48 (or approved equal)
- » Manufacturer: Site Pieces
- » Dimensions: 72" wide, 24" deep
- » Finish: Thermally Modified Ash / Graphite Black Powder Coated Aluminum Frame
- » Other: Picnic table available in same style family. Surface mountable



- » Monoline Duo Bike Rack ML-DUO-18 (or approved equal)
- » Manufacturer: Site Pieces
- » Dimensions: 18" wide, 36" ht.
- » Finish: Graphite Black Powder Coated Aluminum Frame
- » Other: Two-bike capacity Surface mountable

BIKE REPAIR

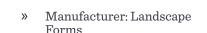
- » Bike Repair Station (or approved equal)
- » Manufacturer: Dero
- » Finish: Jet Black Powder Coated Steel
- » Other: Include Air Kit Prime with pump capabilities. Surface mountable

TRANSIT/COMFORT STATION REFUSE

- » Monoline Litter Bin ML-LGLITTER-DL (or approved equal)
- » Manufacturer: Site Pieces
- » Dimensions: 27" wide, 14" deep, 42" ht.
- Finish: Graphite Black Powder Coated Aluminum Frame
- » Other: "Landfill" & "Recycling" lettering in white. Surface mountable



Monoline Dual Stream Litter Bin



Road.

arms

ADDITIONAL FURNISHINGS

Additional furnishing options are to be considered along corridor parks

and respite nodes. These selection

transit/comfort furnishings The

bench below is an example of a

should maintain a consistency with

additional furnishing implemented

at a respite node along Palmetto Bay

Austin Bench Backless with

- » Dimensions: 72" wide, 22" deep
- Finish: Thermally Modified Ash / Black Powder Coated Extruded Aluminum Frame
- Other: Surface mountable



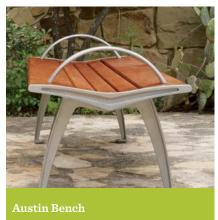
Monoline Flat Bench





Monoline Duo Bike Rack and Dero Repair Station





Materials & Furnishings Basis of Design

FENCING

- » 2 rail wooden fence with square wooden posts, post top cut at 45 degree angle away from rails
- » Dimensions: 36" ht, 4x4 posts spaced 8' O.C. 2x6 horizontal rails spaced at 6" vertically
- » Bottom rail 15" from grade
- » Finish: Western Red Cedar posts and rails with stainless fasteners. Natural finish or painted Charleston Green

FENCING

- Fences at bridges, boardwalks or other fall hazards must adhere to AASHTO guidelines and the following recommendations:
 - 4 rail wooden fence with square wooden posts, post top cut at 45 degree angle away from rails
 - Dimensions: 48" ht, 4x4
 posts spaced 8' O.C. 2x6
 horizontal rails spaced at 6"
 vertically
 - Bottom rail 4" from grade
 - Finish: Western Red Cedar posts and rails with stainless fasteners. Natural finish or painted Charleston Green



Proposed 4 rail fence at fall conditions

STREET SIGNS

- » Maintain current street sign aesthetic Island-wide.
- » Design recommendations to be coordinated with future Signage and Wayfinding Master plan

TRAFFIC MAST ARMS

- » Finish: Repaint traffic masts black.
- » Mounted Street Signs: Use reflective black sign with reflective white lettering. Reflectivity to align with Federal MUTCD Section 2A.07
- » Design recommendations to be coordinated with future Signage and Wayfinding Master plan



Maintain street sign aesthetic



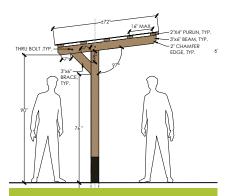




Repaint all traffic masts and street signs black

INFORMATION KIOSK

- » Provide integrated, structure mounted, signage/information kiosks at all comfort stations and transit stops.
- » Stand alone information kiosks shall be installed at key decision points in the pathway system; these locations are to be identified in the Pathways Master plan process
- » Content displayed in kiosks to be coordinated with signage and wayfinding implementation.
- » Design recommendations to be coordinated with future Signage and Wayfinding Master plan.



Existing "Information Kiosk" provided by Town

Lighting & Power

LIGHTING RECOMMENDATIONS:

- » Provide overhead street lighting satisfying SCDOT minimum illumination requirements at existing and proposed locations below.
 - · Mid-block crossings.
 - Signalized intersections.
 - · Roundabouts.
 - · Lighting Corridors.
- » Establish standard fixture types, typical locations, and applications for the Island, including street lighting, bollard lighting, and accent lighting.
- » Provide lighting before lit crosswalks to avoid silhouetting pedestrians directly under a single light source.
- » Utilize the lowest practical level of light to minimize disruption to vehicular users. Light temperature to be 3700k or less per Design Guide.
- » Minimize glare for user comfort and support of healthy ecosystems.

LIGHTING RECOMMENDATIONS:

- » Implement the use of dark sky / turtle-safe lighting to minimize light pollution including:
 - Minimize upward directed light.
 - Place fixtures as low as possible.
 - · Utilize cutoff fixtures.
 - Minimize blue light emissions.
 - Be no brighter than necessary.
- Provide low-level landscape lighting in landscape zones as advised in planting recommendations.
- » Provide lighting at all Trolley Stops and Comfort Stations.
- » Comply all street lighting installed in SCDOT right-of-ways with AASHTO Roadway Lighting Design Guidelines and gain approval under an encroachment permit.

POWER RECOMMENDATIONS:

- » Include power outlets to support holiday lighting within accent landscapes.
- » Screen transformers supplying public or private power from both pedestrian and vehicular ways. Transformers shall be located behind the maintained area recommended for inclusion in the LMO.

Lighting & Power

OVERHEAD STREET LIGHT

- » Round Tapered Pole 98 504 Roadway Luminaire 99 446 (or approved equals)
- » Manufacturer: BEGA
- » Color Temperature: LED 3000k
- » Dimensions: 17' ht
- » Spacing: Recommended 35' O.C. or to meet SCDOT minimum illumination requirements
- » Finish: Light Mineral Wood Finish, Die-cast and extruded aluminum head; Matte Black, textured powder coat finish



Area/Roadway luminaire



BOLLARD LIGHT

- » System Bollard Tube 84 464 System Bollard Head 99 852 (or approved equals)
- » Manufacturer: BEGA
- » Dimensions: 26" ht
- » Finish: Light Mineral Wood Finish, Matte, textured powder coat with minimum 3 mil thickness
- » Color Temperature: LED 3000k



BEGA system bollard head



ACCENT UPLIGHT

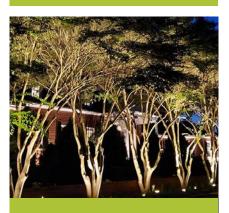
- » Variable Output LED 5536SK-LMA30k (or approved equal)
- » Manufacturer: Hinkley
- » Dimensions: 5.75" x 3.25"
- » Finish: Aluminum, Satin Black
- » Color Temperature: LED 3000k

ACCENT MOONLIGHT

- » Compact Floodlight 77 705 Tree mounting accessory 70 889 (or approved equals)
- » Manufacturer: BEGA
- » Dimensions: 6.25" x 8.5"
- » Finish: Black polyester powder coat.
- » Color Temperature: LED 3000k



Hinkley Uplight



Tree accent uplighting example



Bega Compact Floodlight



Down lighting at Coligny Circle

Materials & Furnishings Basis of Design

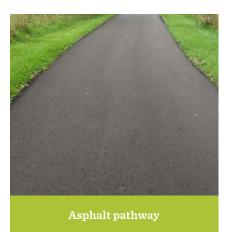
PAVEMENT

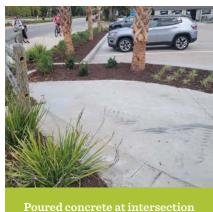
Asphalt: Pathways to be constructed of asphalt. Utilize Permaloc AsphaltEdge along edges (or approved equal).

Concrete: All corners at signalized intersections and roundabouts to be concrete. Trolley stop and comfort station pads to be concrete.

Tabby Concrete: Tabby concrete to be considered where corridor pathways enter public parks or other feature spaces.

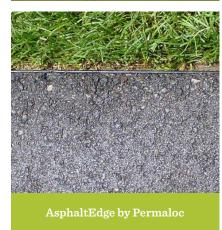
Detectable Warning Strips: Utilize EJ Duralast Detectable Warning Plates (or approved equal) in natural cast iron.





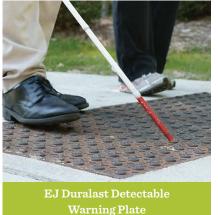












Aesthetics & Visual Clutter

RECOMMENDATIONS:

- » Minimize transformers and traffic control boxes within public view. Avoid above-grade utility devices in turf areas that are maintained by mowing. Provide a naturalized landscape buffer around above-grade utility devices and establish a standard offset from roadways and pathways that still provides room for equipment maintenance.
- » Encourage conformance of private site identification signs to the Town's Design Guide and Land Management Ordinance and locate these behind the pathway by 10' or more.
- » Consider relocation of signs of all types including private monument signs when in close proximity to the pathway.
- » Evaluate existing private signage locations against proposed pathway improvements and work with property owners to relocate signage away from pathways even when the pathway is within an easement. Avoid placement of signage between the pathway and roadway.
- » Relocate mailboxes when present along the edges of pathways or roadways to eliminate mail delivery conflicts and provide a more comfortable experience. Consider locating these in cluster box units.

LANDSCAPE AND AESTHETICS

Focus initial landscape improvement efforts on safety concerns such as removing plant material from vision triangles, lighting high-traffic pedestrian areas, and maintaining existing landscapes.

Include Landscape & Aesthetics considerations as new development projects are evaluated.

Incorporate new landscape and buffer standards in the Land Management Ordinance, Design Guide, and Town policies.

Utilize a comprehensive maintenance plan of all Town-maintained land within the study area to identify maintenance and improvement projects related to Landscape & Aesthetics. Include weekly, quarterly, and annual maintenance activities.

Revise roadway maintenance programs and agreements with SCDOT and Beaufort County to accommodate recommendations and improvements within this document.

Importance & Role

Pathways are a key component of the Island's transportation infrastructure providing multi-modal links to essential destinations and neighborhoods throughout the Island, while contributing to the broader goal of creating Complete Streets, Islandwide. Expanding pathway users and increasing bicycle ridership requires a pathway system that is safe and accessible for all regardless of age or ability.

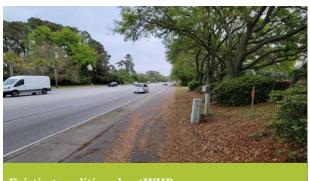
The Island currently has over 70 miles of existing Town-owned pathways; however, some neighborhoods may need direct access to these facilities. In many instances, these routes may feel uncomfortable or unsafe for a typical cyclist or pathway user. The chief deterrent to riding a bicycle is the stress of using a corridor with high traffic speeds and limited physical protection from cars or traffic. Pathway recommendations for Hilton Head Island should focus on building a network that makes all users feel safe and comfortable enough to choose walking or biking to reach their destination.



Existing Conditions Summary

GOOD:

- Pathways are a signature feature of Hilton Head Island and are highly valued by residents and tourists.
- Trip Advisor ranks Hilton Head Island Bike Trails as the third most popular attraction on the Island.
- » The existing pathway network is extensive and interconnected.
- » Rental bikes are affordable and widely accessible. Over 30 rental shops provide nearly 15,000 bikes for rent.
- » By and large, pathway surface materials are in good condition and well-maintained.
- » Resources such as the Bicycle Ambassador Program, pathway signage, and the Town website all provide helpful information and basics on trail etiquette.
- » Town's E-Bike Ordinance provides clear direction on acceptable use of motorized bikes on the pathway system.



Existing condition along WHP

NOT SO GOOD:

- » Pathway routes are not intuitive or apparent due to missing connections and inconvenient access.
- » There is no adherence to best practices for pathway widths, horizontal curves, and queuing areas.
- » Pine straw, soil migration, drainage structures, and erosion issues can reduce the effective width of pathway surfaces, compromising safety for pathway users.
- » Minimal separation is provided in some areas between pathways and vehicles, as well as increased safety hazards from turning vehicles at driveways.
- » Pathway signage is overly repetitive which reduces the effectiveness of signage, and can be confused as vehicular regulatory signage by some vehicle operators.
- » Plantings, utilities, and signage often interrupt sight triangles at intersections and driveways.



Design Considerations

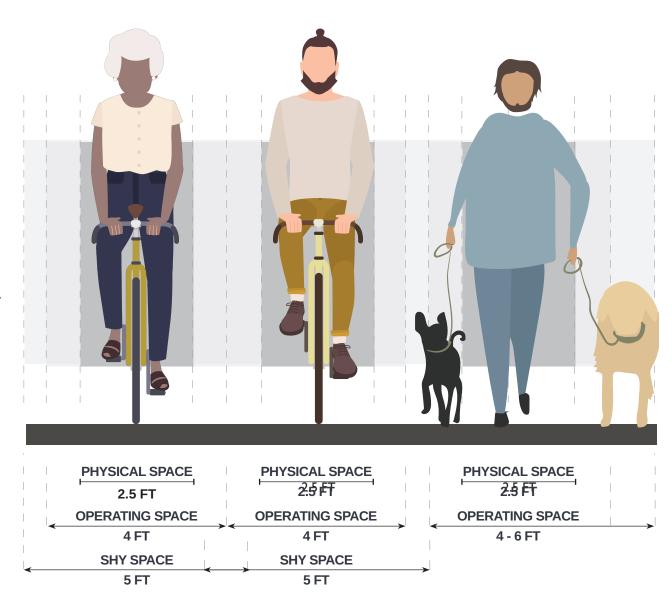
USER SPACING:

Pathway size and spacing should be large enough for safety and social interaction. Design considerations should consider user types and required space necessary, including the following:

- » Physical Space: the actual amount of space taken up by a user
- » Operating Space: minimum space necessary for a user to perform their activity (i.e. walking, biking, etc.)
- » Shy Space: extra space provided for people to maintain a more comfortable distance from other people or objects on the pathway; shy space can overlap between users

SAFETY:

The design of pathways must go beyond establishing the bare minimum of space needed for various user groups. In fact, according to the South Carolina Bicycle and Safety Action Plan, some roadway segments on William Hilton Parkway are among the most dangerous in the state. On the ground, existing pathways can feel and operate much differently than a line on the map suggests. Each pathway throughout the Island will offer different experiences such as; pathway locations, crossings, traffic speeds, and pavement conditions. These variables contribute to routes being a safe or unsafe experience. Establishing a baseline level of infrastructure requirements and intersection recommendations will create a welcoming and safe network.



Physical, Operating, & Shy Space for various pathway users

Visual and Physical Analysis

Through various site visits, the planning team compiled the following photos and annotations of some conditions and challenges facing users face throughout the Hilton Head Island pathway system. These photos only represent a snapshot and visual overview of conditions that can impact a user's comfort or safety. These images provide additional background and context of significant and straightforward issues that this planning process and the Town of Hilton Island can address through better pathway design.

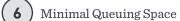
- 1 Narrow Widths
- 2 Small Wayfinding Content
- 3 No Resting Areas
- 4 Cars Stopped in Crosswalk







5 Long Crossing





(8) Large Turning Radius

9 Detectable Warnings only at Roadway crossings.

10) Inconsistent Signage

Physical evaluation of existing pathways

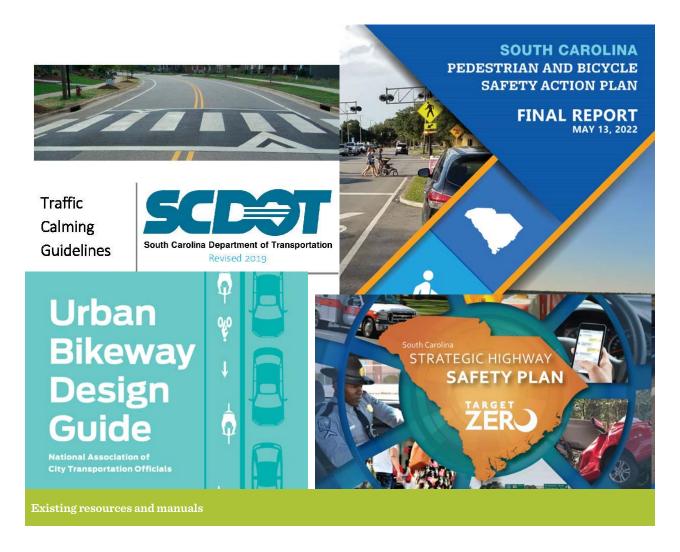
Best Practices

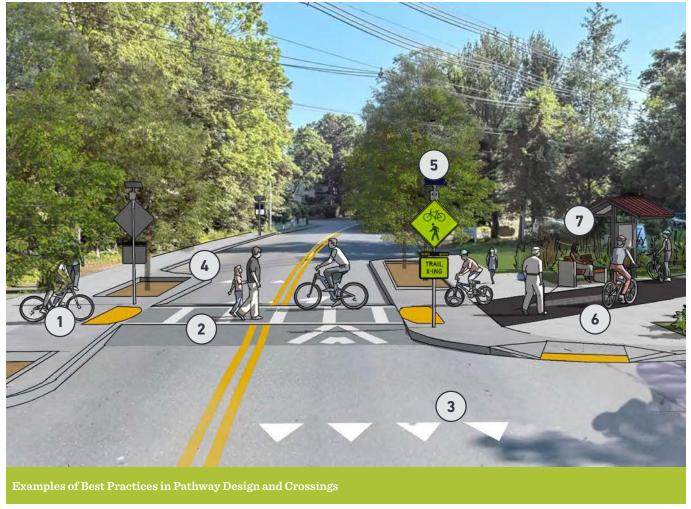
EXISTING EXAMPLES:

Design of safe and comfortable pathways must consider resources that exist throughout the Island, the State of South Carolina, and the United States. Example resources include the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bike Facilities, and the South Carolina Department of Transportation (SCDOT) Roadway Design Manual.

Viewing and utilizing these established best-inclass resources is the first step in determining what infrastructure recommendations and improvements are appropriate. These examples are a reference point for planners and leaders implementing any future transportation project. These references establish uniform standards for each corridor and for fulfilling the community's vision of creating a safe and consistent pathway system throughout the Island. Current design guidelines and best practice examples provide resources on the layout and design of:

- » Pathways
- » Intersections
- » Crossings
- » Markings
- » Signals
- » Signage





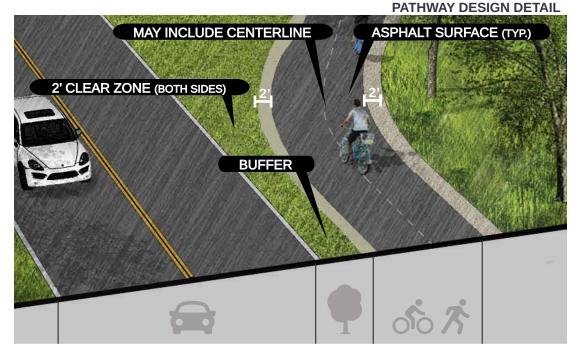
- (1) Recessed crossing
- 2 Raised Crosswalk
- (3) Motorist Yield Markings
- (4) Curb Extensions
- (5) Consistent Signage
- 6 Mixing Zones
- (7) Rest Areas with Wayfinding & Signage

Design

RECOMMENDATIONS:

- » Emphasize safety as the primary design consideration for all pathways and users.
- » Widen all pathways to 12' standard width. Implement 16' pathways where pedestrian and cycle use is not satisfied by the standard width. Implement 10' (min) pathways in spatially constrained areas.
- » Implement 5'-0" minimum width walks for pedestrian only circulation.
- » Provide physical separation between pathways and roadways for increased safety and comfort.
- » Shift pathways as needed to increase visibility and safety.
- » Add plantings or other landscape improvements to the Pedestrian Buffer Zone between pathways and roadways.
- » Prioritize the needs of bike and pedestrian users over the needs of vehicular travel when allocating space within the right-of-way.
- » Consider pop-up or temporary installations to study the effectiveness of new routes and concepts.
- » Coordinate with existing businesses or developments to increase bicycle parking either on private property or within the right-of-way in areas where bike parking is under served. Pope Avenue is the most prominent example of this need.

- » Design safe curve radii with a 15' minimum interior radius. Should site conditions require smaller radii, include user warning signage and pavement markings.
- » Provide seating opportunities every half mile along pathways. Consider seating as an opportunity for the creation of spaces rather than strictly path-side amenities.



WIDTH - 15' WIDTH - 12' (5' MIN.) (10' MIN.)

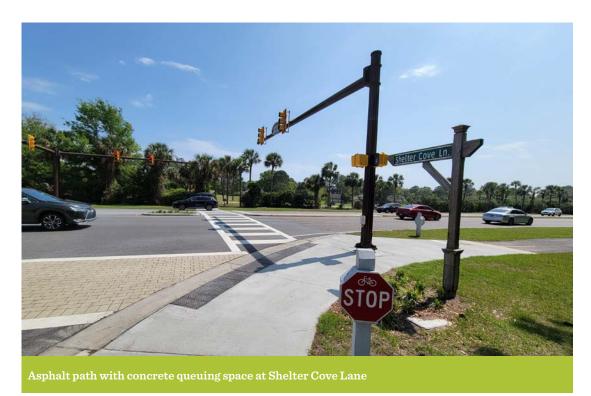
PROTOTYPICAL PATHWAY LOCATION



Materials

RECOMMENDATIONS:

- Employ asphalt as the primary material with concrete accents used at queuing areas, critical destinations, and where adjacent to roadway curbing as a visual cue for a change in user behavior.
- Provide enhanced edges on asphalt pathways to minimize degradation over time. Utilize Permaloc AsphaltEdge (or approved equal) on edges.
- Install and maintain planting areas and mulched areas adjacent to pathways below hardscape grade to prevent migration of material onto pathways.
- Provide tabby concrete to signify arrival at special Town-owned destinations such as parks.
- Install curbing in narrow areas or raise the pathway elevation to avoid landscape and mulch washout onto the travel surface.
- Paint centerline striping, arrows, regulatory signs, and symbols within the first 50' of roadway crossings or pathway heads as a minimum.
- Utilize pathway striping, arrows, regulatory signs, and symbols at high-volume areas or locations with line-of-sight issues.
- Regulatory signage should be used at key crossings and pathway access points to deter golf carts from utilizing Island pathways.







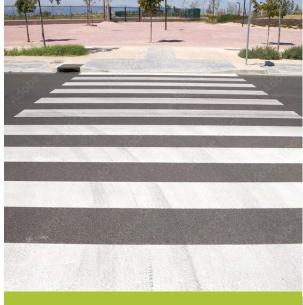


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Markings

RECOMMENDATIONS:

- Implement high-visibility crosswalk markings at all crossing locations. Utilize 24" wide pavement stripes in the direction of vehicular traffic flow without any transverse edge lines. Coordination of this style of crossing will be needed with SCDOT.
- Use hazard markings with the appropriate signage and placed at least 50 feet before the hazard.
 - Utilize painted centerlines to address: highvolume areas, intersection approaches, limited sight areas, horizontal curves, and upcoming bollards or obstructions.
 - Paint edge lines that denote path discrepancies such as separation of pedestrians from bicyclists, an abrupt change to pathway conditions, and approaching width constraints, such as tunnels, bridges, or adjacent structures.
- Consider the following recommendations for all future on-street bike lanes outside of Fraser Bridge:
 - Utilize green pavement markings (solid) at on-street bike lanes for first 30'-0."
 - Continuous white edge lines.
 - Painted bike symbols.



High-visibility crosswalk treatment





Green pathway markings for on-street bike lanes



Communication

RECOMMENDATIONS:

- » Expand the Bicycle Ambassador Program, including their ability to promote pathway etiquette and notify law enforcement of major infractions (no golf carts).
- » Use existing engagement opportunities to educate users on the basics of pathway etiquette and bike safety, including kiosks, websites, and rental locations.
- » Increase the availability of pathway maps and use kiosks to provide pathway loops, distances, and destination guidance to unfamiliar users. Disperse maps throughout the corridors considering key decision points and high volume areas.
- » Use wayfinding signage to orient users to routes and destinations, increasing confidence of pathway users.
- » Use wayfinding signs to identify all street and pathway names at intersections and pathway access points.
- » Provide simplicity and consistency in wayfinding signage placement and style.
- » Leverage both printed and digital media for communication to accommodate a variety of users, such as providing QR codes on printed material.
- » Develop a recurring replacement schedule for installed print material to ensure accurate content.
- » Provide a trial of a digital map to test and collect feedback for use in high volume locations as Coligny Circle. Include dimming or touch activation features given the typical low light levels at night.





Signals

RECOMMENDATIONS:

- » Install Rectangular Rapid Flashing Beacons (RRFB) at the following locales:
 - All mid-block crossings.
 - · All roundabout crossings.
- » Install Pedestrian Hybrid Beacons on a case by case basis. Give special consideration when:
 - Heavily trafficked pathways crossing (3) or more lanes of continuous traffic, mid-block.

Rectangular Rapid Flashing Beacon

Rectangular Rapid Flashing Beacons (RRFB) pair user-activated flashing beacons with pathway crossing signs placed on both sides of the crossing. They are best applied to high-volume and mid-block crossings with low-to-moderate vehicle speeds. RRFBs are typically solar-powered and can be activated by push-button or passive detection.

In-grade Pedestrian Lighting

Possible alternative to the RRFB, trial being conducted in Greer, SC. In-grade luminaries warn on-coming vehicles that pedestrian walk is in use. Not recommended at the moment as RRFBs provide superior daytime visibility.

Pedestrian Hybrid Beacons

Best applied to high-volume, multi-lane, mid-block crossings with high vehicle speeds, Pedestrian Hybrid Beacons (such as HAWK) are activated by a button, providing a sequence of overhead yield and stop signals to help control cars at a crossing. None currently proposed in new locations.



RRFB placed at roundabout crossing



Existing Pedestrian Hybrid Beacon (HAWK) at South Forest Beach Drive and Coligny Circle



In-grade Pedestrian Lighting



Pedestrian Hybrid Beacon is user activated

Crossings

RECOMMENDATIONS:

Shift pedestrian crossings to signalized or stopped conditions when possible. Minimize the use of midblock crossings for user safety and consider alternative options. Remove all mid-block crossings on divided multi-lane roads with speeds greater than 35 MPH.

Existing mid-block crossing locations

William Hilton Parkway at Palmetto Parkway
William Hilton Parkway at Northridge Drive
William Hilton Parkway at Burkes Beach Road
William Hilton Parkway at Chamber of Commerce Drive
William Hilton Parkway at Yacht Cove Drive
William Hilton Parkway at Regency Parkway
William Hilton Parkway at Fresh Market Shoppes
Arrow Road near Hilton Head Motorcoach Resort
Palmetto Bay Road at Audubon Newhall Preserve
North Forest Beach Drive at Coligny Circle Shopping Center
South Forest Beach Drive at Coligny Circle

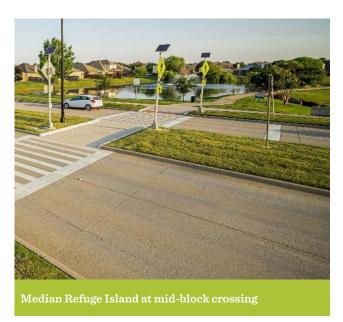
Where a mid-block crossing is needed, the following approaches should be considered and utilized.

Design

- » Use curb extensions where parallel parking exists to extend the physically protected pathway into the street at a crossing, reducing crossing distances.
- » Use raised crosswalks to increase safety and slow traffic at roundabouts and mid-block crossings only.
- » Reduce pedestrian exposure by adding median refuge islands for protection. Islands to be wide enough to accommodate multiple users of different modes and work in conjunction with other crossing enhancements.
- » Use regulatory signage at crossings and other key access points to keep golf carts off Island pathways.

Markings

» Mark and sign the crossing appropriately, with a crosswalk width matching the width of the pathway. Width may be expanded on a case by case basis where pedestrian and cycle use is not satisfied by the standard width.



MUTCD W11-15 Sign with downward arrow

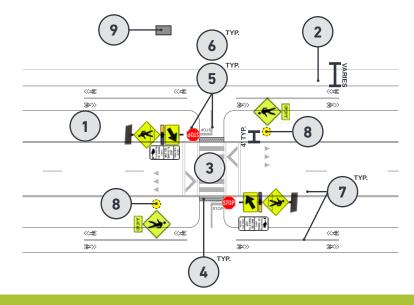
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Pathway Treatment at Mid-Block Crossings

Crossing and Regulatory Signage

Crossing and regulatory signage provides additional information about crossings and yield requirements for roadway and pathway users.

- » Place crossing and regulatory signs in compliance with MUTCD standards. Supplement with additional markings and warning signs as needed.
- » Utilize crossing and regulatory signage in areas where sight distance is restricted or potential hazards are otherwise unexpected.
- » Standardize the placement of crossing and regulatory signage, and minimize use to only that which is necessary to help reduce visual clutter.
- » Expand signage to include clear communication that golf carts are not allowed on pathways.
- » Place signs on both sides of the street, or in the center median at crossings of multi-lane roadways, or where there are frequent conflicts.
- » Locate Rectangular Rapid Flashing Beacons (RRFB) on the right side of pedestrian flow, typical.
- » Mount pathway stop signs and MUTCD R10-25 warning signs to Rectangular Rapid Flashing Beacons (RRFB).



Sample mid-block crossing including marking and signage placement

- 1 Pedestrian Buffer Zone
- 2 Maintained Area (varies)
 - Area between the required Adjacent Street Buffer and pathways or roadside.
- (3) Raised Crosswalk & High Visibility Markings
- (4) Detectable warning strip
- (5) Pathway regulatory markings and signage
 - Mount signage to existing or proposed poles whenever possible.

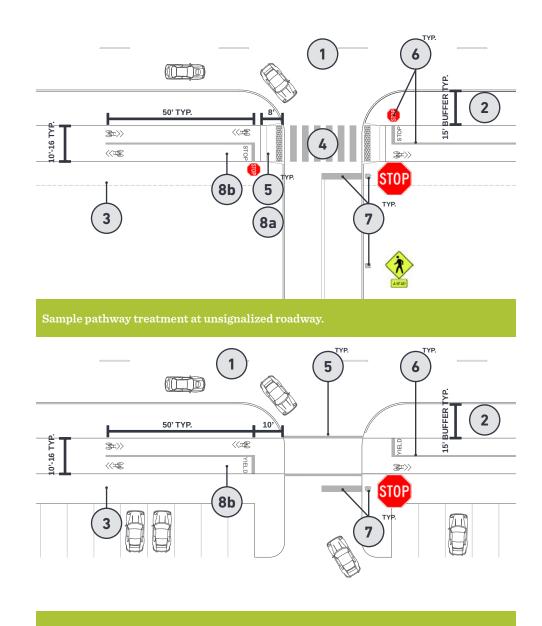
- 6 Pedestrian crossing push buttons
 - Push button locations shall adhere to FHWA/ SCDOT guidelines. Mounted.
 Roadway regulatory markings and signage
 - Mount signage to existing or proposed poles whenever possible.
- (8) Overhead lighting
 - Lighting is to be located in the Pedestrian Buffer Zone.
- (9) Electrical transformer
 - Transformers shall be located behind the maintained area recommended for inclusion in the LMO.

Pathway Treatment at Unsignalized Roads and Access Drives

- (1) Intersecting Roadway
- (2) Pedestrian Buffer Zone
- 3 Maintained Area (varies)
 - Area between the required Adjacent Street Buffer and pathways or roadside.
- 4 High visibility crosswalk markings
- **5** 8" wide crosswalk markings
- 6 Detectable warning strip
- 7 Pathway regulatory markings and signage
- Roadway regulatory markings and signage
 - Mount signage to existing or proposed poles whenever possible.
- (9a) Concrete pad (9b) Asphalt pathway

High Volume Roads or Drives

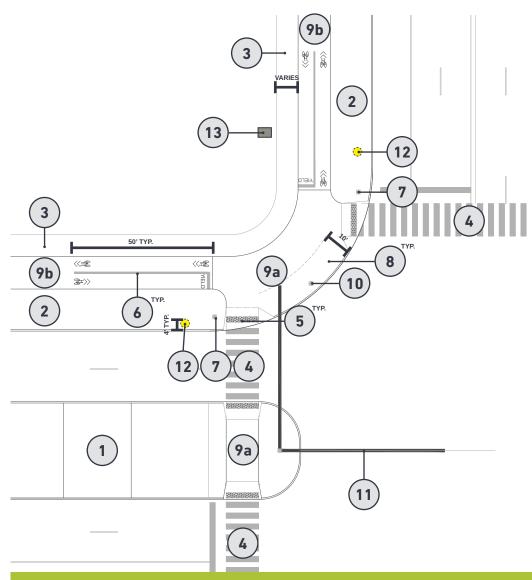
Place pathway crossings at the same offset from the roadway. Where site conditions require pulling the pathway away from the roadway, (greater than 12') may be desirable with high volume or high turning crossings. Consider on a case by case basis.



Sample pathway treatment at access drive

Pathway Treatment at Signalized Intersections

- (1) Planted median
- (2) Pedestrian Buffer Zone
- 3 Maintained Area (varies)
 - Area between the required Adjacent Street Buffer and pathways or roadside.
- (4) High visibility crosswalk markings
- **5** Detectable warning strip
- 6 Pathway regulatory markings
- 7 Pedestrian crossing push buttons
 - Push button locations shall adhere to FHWA/ SCDOT guidelines. Free standing.
- 8 Additional pedestrian queuing space
 - In low traffic pedestrian and bike areas, space should be replaced with lawn
- (9a) Concrete pad (9b) Asphalt pathway
- 10) Wayfinding / Street signage
- 11 Intersection mast arm and signal
 - New mast arms are recommended to be located in Planted Median whenever possible.
- (12) Overhead lighting
 - Lighting to be located in Pedestrian Buffer Zone.
- (13) Electrical transformer
 - Transformers shall be located behind the maintained area recommended for inclusion in the LMO



Sample pathway treatment at signalized intersection

Pathway Treatment at Roundabouts

(1) Planted median

2 Pedestrian Buffer Zone

3 Maintained Area

 Area between the required Adjacent Street Buffer and pathways or roadside.

(4) Raised crosswalk & high visibility markings

(5) Detectable warning strip

6 Pathway regulatory markings and signage

 Mount signage to existing or proposed poles whenever possible.

7 Pedestrian crossing push buttons
Push button locations shall adhere to FHWA/
SCDOT guidelines. Mounted.

8 Roadway regulatory markings and signage

Mount signage to existing or proposed poles whenever possible.

(9a) Concrete pad (9b) Asphalt pathway

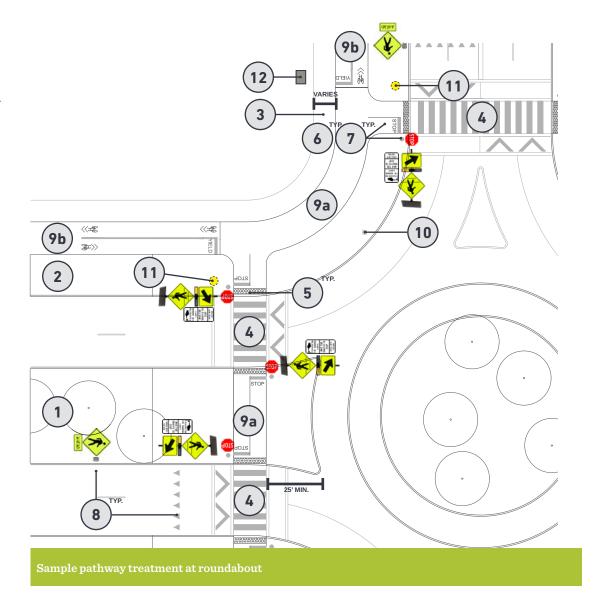
10) Wayfinding / Street signage

Overhead lighting

• Lighting to be located in Pedestrian Buffer Zone.

12) Electrical transformer

 \bullet Transformers shall be located behind the maintained area recommended for inclusion in the LMO



Routes

RECOMMENDATIONS:

- » Provide two-way pathways along both sides of all corridors with minimal interruptions from vehicular travel.
- » Expand existing or create new access easements to provide adequate space for all pathways.
- » Explore the acquisition of additional public rights-of-way to provide space necessary for safe and comfortable pathways on both sides of streets.
- » Prioritize implementation along corridors connecting existing paths to other destinations such as parks, beaches, retail centers, and neighborhoods.
- Explore opportunities to improve functionality or enhance pathways at high-traffic destinations such as bike rental facilities, parks, and retail centers.

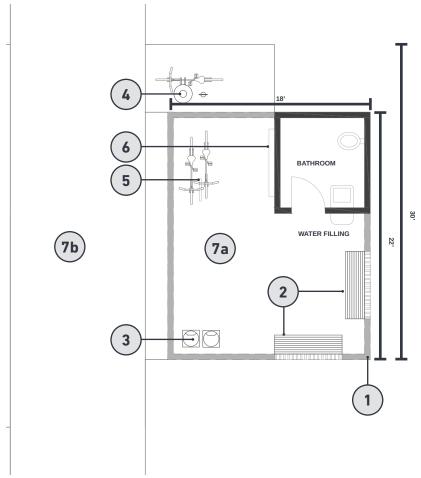


Note: Refer to the Segments portion of this document for more detailed information.

Amenities & Comfort Stations

RECOMMENDATIONS:

- » Take advantage of natural areas and parks by diverting the pathway away from the road into these environments.
- » Provide integrated, structure mounted signage indicating public restroom locations and additional comfort stations. Mounting to structure will eliminate need for standalone kiosks.
- » Incorporate consistent site furnishing standards throughout such as benches, litter receptacles, and bike repair stations at critical points along primary pathways.
- » Provide sufficient bike parking based on user demand at pathway destinations such as parks, commercial centers, beaches, transit stops, and other locations as appropriate.



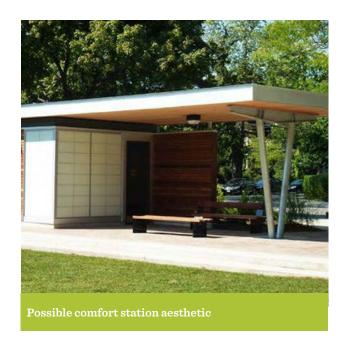
- 18'x22' Pathway comfort station on thickened concrete pad; (1) unisex plumbed bathroom; hardwire with motion activated lighting
- (2) benches, refer to site furnishings
- Refuse containers, refer to site furnishings

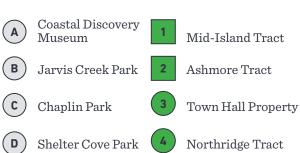
- (1) bike repair kiosk, refer site furnishings
- (1) bike rack, refer site furnishings
- 6 Mounted Wayfinding / Branding Kiosk

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7a Concrete Pad 7b Asphalt Pathway

Typical comfort stop layout and spatial requirements











Policies & Programs

RECOMMENDATIONS:

- » Evaluate local and state codes to identify gaps in policies or programs that may make roadways safer for cyclists and pedestrians.
- Advocate for improved laws at the statewide level. If necessary, work to adopt laws at the local level to increase pedestrian and cyclist safety within the Town of Hilton Head Island. Potential programs and policies to be considered are:

Helmet Laws: South Carolina does not have laws requiring bicycle helmet usage, however it is encouraged on the Island.

Safe Passing Laws: South Carolina does not have a law specifically requiring motorists to pass cyclists at a safe distance. In partnership with local and bike advocacy groups, the Town has the opportunity to promote the passage of a statewide law that specifies when a motor vehicle overtakes and passes a bicycle, 3 feet or greater is considered a safe passing distance.

Distracted Driving Laws: South Carolina does not restrict mobile phone use in a vehicle. Adoption of a 'Hands Free' law at the State or local level will make driving while handling any electronic wireless device a primary offense for adult drivers and increase fines for drivers who habitually use devices while driving. In cases where a driver using a device causes serious injury or death, the penalties mirror those of drunken driving.

Golf Cart Laws: Continue to enforce Sec. 12-1-511 of the Town of Hilton Head Islands Municipal Code that strictly prohibits the use of golf carts on public owned pathway or lane. Explore opportunities to increase fines for those who are repeat offenders and to expand the authority to more Staff to provide citations.



WE'RE BUILDING A
BICYCLE FRIENDLY
AMERICA FOR
EVERYONE

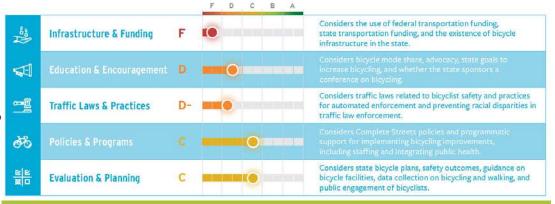
STATE ADVOCACY GROUP:
PALMETTO CYCLING
COALITION

1% PERCENT OF STATE IN BEC SILVER

SOUTH CAROLINA

#43 NATIONA RANK (OF 50)

#11 REGIONAL RANK
SOUTHERN
(0F12)



League of American Bicyclist State Report Card for South Carolina

Implement new design standards for pathways, including 12' as the specified width throughout the Island. Apply new standards to ongoing capital improvement projects primarily focusing on high-volume areas or existing safety concerns.

Prioritize pathways and their buffers equally to vehicular ways in design and space allocations.

Focus on intersection upgrades for pathway crossings, including signage and marking changes.

Review traffic signal operations to ensure adequate crossing times for all pathway users.

Through negotiations with private property owners, designate shared parking agreements and consolidate driveways to reduce conflict points between users.

Deploy consistent wayfinding and signage on pathways.

Provide the necessary pathway and buffer widths by acquiring easements to increase connectivity and comfort.

Develop a land or easement acquisition strategy on an individual property basis for increased pathway width and offset from the roadway.

Identify a single point of contact and authority in the Town to oversee pathway safety, improvements, conditions, communications, and public outreach.

Expand the Bicycle Ambassador Program. Craft a set of pathway rules of etiquette for that corps of volunteers to use in their engagement of the user public.

Engage both County and Town public safety administrations to determine limitations to enforcement of safe & legal usage of the pathway system, including

INTERSECTIONS

Importance & Role

Intersections represent the areas where conflicts are the greatest between user groups within the corridors. As such, the uniformity and intuitiveness of the essential elements can benefit overall Island character, wayfinding, and most importantly, safety. The standardizations illustrated here are to be applied to all new projects regardless of roadway ownership.

Existing Conditions Summary

GOOD:

- » Safety is of utmost importance for all user groups.
- » Many intersections function well for all users, including the availability of safe pedestrian crossings.
- » Recent investment in a Pedestrian Hybrid Beacon on South Forest Beach Drive is an effective crossing treatment.

NOT SO GOOD:

- » Pedestrians and cyclists are often intimidated when crossing multiple travel lanes, acting as a barrier to pathway passage.
- » Tourists often need to become more familiar with the surroundings and need directional signage at critical locations.
- » Areas of refuge are small or do not exist in some locations.
- » Pavement markings are inconsistent.
- » Crossings are not illuminated, making the corner at night less safe and less comfortable.
- Areas can be disconnected due to the lack of easily accessible crossings.
- » Traffic backups at intersections are a cause of rear-end crashes.
- » Non-stop conditions at slip lanes create conflict points with pedestrian pathway crossings.







Design Considerations

TYPOLOGIES:

According to the National Association of City
Transportation Officials (NACTO) Urban Street
Design Guide, intersections need to function as
safely and efficiently as possible for streets to meet
the needs and demands of all users. High-quality
road and intersection design uses the appropriate
design treatment and allocation of space to make
the corridor more vibrant, efficient, and safer.
This section will analyze various intersection
styles and provide recommendations. These will
include all necessary infrastructure for improving
pedestrian and bicycle safety in the design of multiple
intersections across the Island. Sample intersection
amenities and improvements for different
intersection typologies include:

- » Design Geometry
- » Roadway Crossings
- » Intersection Signalization
- » Intersection & Pathway Lighting

ADAPTIVE TRAFFIC SIGNAL MANAGEMENT:

The intersection recommendations in this section should be evaluated in conjunction with the new Adaptive Traffic Signal Management system (ASTM) which will be implemented along William Hilton Parkway. This project will implement adaptive signal control technology which adjusts the timing of red, yellow, and green lights to better accommodate changing traffic patterns and ease traffic congestion. Recommendations and future implementation should be revised as the ATSM is rolled out and it's effectiveness related to motorists / pedestrian operations and safety is evaluated.

END TO END ANALYSIS AND 278 GATEWAY PROJECT:

Concurrent studies are underway that may impact the efficiency and safety of many of the roadway coordinators in this study area. Two notable studies include the End to End Traffic Analysis examining traffic movements from Bluffton to Sea Pines Circle and the William Hilton Parkway Gateway Study examining the proposed bridge improvements. While the impacts of these studies are not yet known, design modifications must be considered as improvements are planned and implemented.





INTERSECTIONS

Visual and Physical Analysis

This section outlines essential improvements that can be made to increase the efficiency and safety of intersections throughout the Island. Intersections are an integral part of the roadway system; intersection collisions are the second largest contributor to crashes in South Carolina. Approximately 4 South Carolina residents are killed in intersection collisions each week. Reducing potential conflicts between vehicles, bicycles, and pedestrians is crucial when evaluating any intersection recommendation. Analyzing and categorizing all existing intersection typologies before outlining any likely intersection recommendations is essential to understand what features are working and where improvements and interventions are appropriate. This will allow the Island to develop and implement more contextsensitive solutions (CSS) as outlined in the 2021 SCDOT Roadway Design Manual.

REDUCED CONFLICT INTERSECTIONS:

RCI's, or reduced conflict intersections, are designed to create additional capacity for motor vehicles. Current analysis indicates that 30% additional capacity can be gained by installing an RCI over a traditional signalized intersection. R-Cuts, Thru-Cuts, and J-Turns all appear on the Island today and were examined as options for corridor improvements. While beneficial for the efficient movement of vehicles, these intersection types are not recommended due to their short falls associated with pedestrian safety. Combined with Systems recommendations such as closing medians and extending planted medians, signalized intersections and roundabouts provide safer pedestrian crossing conditions, making them the preferred suggestion at most improved or new intersections.

Gateway Intersections

EXISTING DESIGN CHARACTERISTICS:

- » 2-3 thru lanes on William Hilton Parkway
- » Left & right turn lanes
- » Wide median provided

» Pedestrian refuge located on medians

RELATED INTERSECTIONS:

» Gum Tree Road

CONSIDERATIONS:

- » Heavy traffic volume creates long wait times
- » Limited and uncomfortable pedestrian crossings
- » Traffic volume is near max for these intersections
- » Slip lanes create a less safe crossing condition for pedestrians
- » Lacks sense of arrival entering the Island
- » Requires a high quantity of lanes to accommodate needed turning movements



Unbalanced Intersections

EXISTING DESIGN CHARACTERISTICS:

- » 2 thru lanes on dominant corridor
- » Left & right turn lanes

RELATED INTERSECTIONS:

» Spanish Wells Road / Wild Horse Road

- » Queens Way
- » Point Comfort Road
- » Mathews Drive (South) / Folly Field Road
- » Gardner Drive
- » Pembroke Drive / Museum Street
- » Wilborn Road / Jarvis Park Road

CONSIDERATIONS:

- » Expected lane arrangements
- » Limited and uncomfortable pedestrian crossings
- » Slip lanes create a less safe crossing condition for pedestrians and require vehicles to merge on William Hilton Parkway at a higher rate of speed
- » Requires a high quantity of lanes to accommodate needed turning movements



Existing conditions at Palmetto Bay & Point Comfort Roads

PUD Intersections

EXISTING DESIGN CHARACTERISTICS:

- » Continuous right turn
- » Possible double left turn
- » Wide medians
- » Pathway setback

RELATED INTERSECTIONS:

- » Indigo Run Drive / Whooping Crane Way
- » Queens Folly Road / King Neptune Drive
- » Coggins Point Road

CONSIDERATIONS:

- » Unique lane arrangements can be unexpected
- » Complicated pedestrian crossings on minor roads
- Slip lanes create a less safe crossing condition for pedestrians and require vehicles to merge on William Hilton Parkway at a higher rate of speed
- » Excludes pedestrian crossings on William Hilton Parkway



Sample PUD intersection off of William Hilton Parkway

INTERSECTIONS

Urban Intersections

EXISTING DESIGN CHARACTERISTICS:

- » Left turn lane
- » 4 way crossing
- » Median
- » Pedestrian / cyclist oriented

RELATED INTERSECTIONS:

- » Arrow Road / New Orleans Road
- » New Orleans Road / Office Park Road / Pope Avenue
- » Mathews Drive (North)
- » Cordillo Parkway / Pope Avenue

CONSIDERATIONS:

- » Often limited right-of-way limits landscape and buffering opportunities
- » Increased pedestrian demand for crossings
- » Slip lanes create a less safe crossing condition for pedestrians and require vehicles to merge on William Hilton Parkway at a higher rate of speed

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Commercial Intersections

EXISTING DESIGN CHARACTERISTICS:

- » Single thru lane
- » Left & right turn lanes
- » Median
- » Auto-oriented

RELATED INTERSECTIONS:

- » Villages at Wexford
- » Target Road / Palmetto Bay Road

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- » Yacht Cove Drive
- » Beachwood Drive
- » Fresh Market
- » Singleton Beach Road

CONSIDERATIONS:

- » Often limited right-of-way limits landscape and buffering opportunities
- » Increased pedestrian demand for crossings
- Slip lanes create a less safe crossing condition for pedestrians and require vehicles to merge on William Hilton Parkway at a higher rate of speed



Median Crossover

EXISTING DESIGN CHARACTERISTICS:

- Either 3 way or 4 way intersection
- Mid-block crossings or none
- Wide medians

Shelter Cove Lane

- Palmetto Parkway
- Central Avenue

A variety of sizes exist today

Sea Pines and Coligny Circle are signature Island landscapes

Circles & Roundabouts

RELATED INTERSECTIONS:

- Arrow Road / Dunnagans Alley (Roundabout)
- Coligny Circle / Sea Pines Circle

RELATED INTERSECTIONS:

CONSIDERATIONS:

- Create safe left turn movements off of the primary roadway
- Only applicable where pedestrians are not intended to cross the primary roadway

CONSIDERATIONS:

EXISTING DESIGN

CHARACTERISTICS:

- Functionality can be improved upon
- Pedestrian crossings are limited
- Roundabouts may be appropriate in other locations on the Island





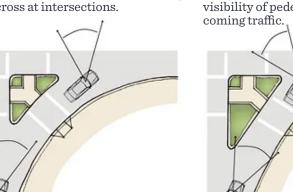
INTERSECTIONS

Geometry

RECOMMENDATIONS:

- » Utilize intersection types already present on the Island to maximize consistency.
- » Eliminate slip lanes to provide safer pathway crossings, consistency for drivers and pathway users.
 - Slip lanes prioritize vehicular moments and efficiency but diminish the safety of pedestrians at crosswalks.
 - Slip lanes increase rear-end and sideswipe collisions due short merge lengths, unexpected merging, and heavy congestion.
 - Due to high volumes of collisions and safety concerns, SCDOT is removing slip lanes along US-278 outside of Hilton Head Island.
 - Where slip lanes cannot be removed due to traffic volume constraints, reduce turning radius to slow vehicular speed at intersections.
- » Reduce turning radii to the minimum allowed and practical by SCDOT to slow traffic and increase pedestrian waiting environments. Refer to Section 9.3.2.2 in the 2021 SCDOT Roadway Design Manual for more information.
- » Evaluate and maintain sight triangles to ensure a clear vision for all user groups. Adhere to sight triangles on all public and private work. Refer to Section 4.4 in the 2021 SCDOT Roadway Design Manual for more information.
- » Manage vehicular turning geometry through careful roadway design to decrease conflicts with spaces identified for pedestrians and bikes.

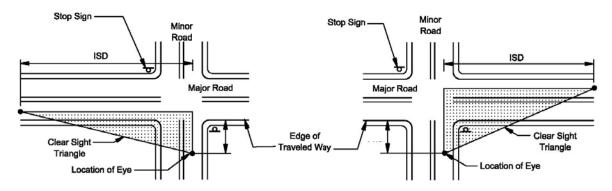
Larger turning radii at slip lanes result in faster turning speeds and less visibility of pedestrians waiting to cross at intersections.



Smaller turning radii at slip lanes result in slower vehicular turns as well as improved visibility of pedestrians and onRemoving the slip lane results in shorter crossings for pedestrians, safer conditions at the intersection, and space for landscaping or other usable amenities



Slip lanes create multiple pedestrian conflict points and typically result in large turning radii. Removing slip lanes from intersections will create safer pedestrian crossings.



Source: SCDOT Roadway Design Manual 2021

 $Sample \ clear \ sight \ triangles \ for \ viewing \ approaching \ traffic \ from \ the \ left \ and \ the \ right$

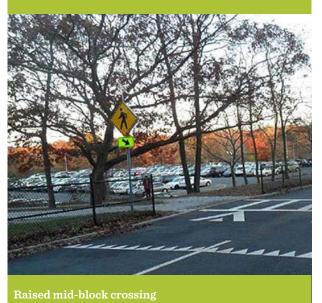
Crossings

RECOMMENDATIONS:

- » Paint crosswalks with high visibility markings, as identified in the Pathways section.
- » Provide sufficient areas for queuing on both sides of the street and areas for pedestrian and bike refuge at medians as identified in the Pathways section.
- » Eliminate right turn slip lanes to provide a stop condition for pedestrians crossing roadways and use smaller curb radius to expand the pedestrian waiting area.
- » Provide safe, designated crossings where they are most desirable for users, including ensuring that ADA accessibility is achieved in all locations.
- » Limit the placement of signs, poles, or other fixed obstructions at intersections to maintain clear access for strollers or wheelchair users.
- » Use curb extensions to extend the physically protected pathway or sidewalk into the street at an intersection, reducing crossing distances.
- » Provide raised crosswalks that comply with SCDOT traffic calming standards at roundabouts and mid-block crossings where curbed to slow traffic and allow users to cross at grade with the pathway.



Curb extensions at crosswall



Accessibility

RECOMMENDATIONS:

- » Utilize a Rectangular Rapid Flashing Beacon or Pedestrian Hybrid Beacon for mid-block and roundabout crossings.
- » Install push buttons for crosswalk activation to meet ADA requirements and to provide consistency in button and signage orientation.
- » Install detectable warning tiles perpendicular to the pathway travel direction at intersections. Detectable warning tiles shall not be applied at driveways.
- » Use pedestrian countdown signals, leading crossing intervals, and sufficient queuing areas at intersections.
- » Confirm all intersection approaches are clear of obstructions from objects such as poles and signage to create a clear path for all users.

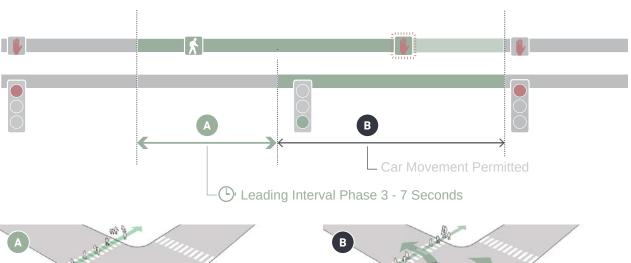


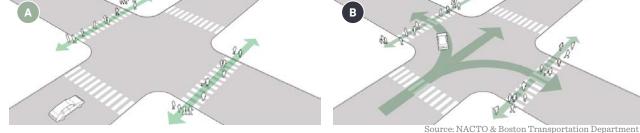
INTERSECTIONS

Signalization

RECOMMENDATIONS:

- » Adjust turn lane lengths and signal timing in conjunction with the Adaptive Traffic Signal Management program and SCDOT requirements to minimize backups and pulsing at intersections and circles.
- » Conduct necessary traffic studies to determine whether additional signals are warranted where distances are significant between intersections. Refer to SCDOT Signal Design Guidelines for more information.
- » Add leading crossing intervals to give bikes and pedestrians a fully protected head start during the signal phase. This establishes pedestrian visibility for turning vehicles, requiring drivers to yield to pedestrians and cyclists within the crosswalk.
- » Adjust traffic signal phases to reduce pathway and vehicular conflicts by including a Leading Crossing Interval phase and eliminating left and right turning moments as appropriate.
- Explore the use of pedestrian-only signal phases to efficiently move non-vehicular traffic at highvolume intersections that prohibit right-on-red. Sometimes described as a 'scramble,' these intersections halt all car traffic so pedestrians can cross the intersection in all directions at same time.





Signal phasing for leading crossing intervals



Signalized Intersections

RECOMMENDATIONS:

- Standardize intersection typology to improve consistency and safety for all users.
- Ensure pedestrian and bicycle crossings are ADA compliant while promoting visibility and safety.
- Minimize the travel distance of pedestrians in crosswalks while providing logical crossing design for comprehension by drivers such as avoiding angled crossings or crossings that change direction.
- Provide queuing area at corners for pathways users commensurate to the needs of the pedestrians and cyclists.
- Locate light poles away in close proximity to crosswalks and away from turning movements of large vehicles.
- Consider mast arms in medians as a preferred location where site conditions allow.
- Place street signs and mast arm signs such that all street names are visible on all sides of an intersection. For example the Palmetto Bay Road intersection of Arrow Road / Point Comfort Road.



Dunnagans Alley Urban Single Lane roundabout



WHP and Gum Tree Road signalized intersection

Circles & Roundabouts

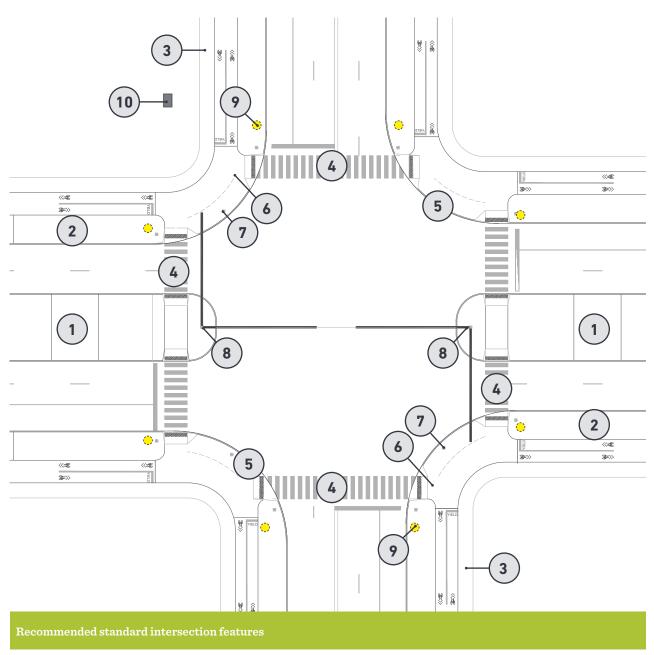
RECOMMENDATIONS:

- Maintain the historical identity of existing larger Circles (Sea Pines, Coligny) while modifying the shape or function of these to better suit traffic demands and contextual needs.
- Implement roundabouts where roadway geometry creates unsafe intersections, minimization of traffic signal pulses is desired, and slow traffic without a forced stop condition.
- Ensure pedestrian and bicycle crossings are installed to promote visibility and safety including raised crosswalks.
- Size roundabouts to provide the smallest roundabout meeting the design speed, lane count, traffic volume, and site specific needs of the proposed location. Roundabouts can be divided into the following types based on size and function:
 - Mini Roundabout 40' to 80' ICD can include concrete center Island for trucks and emergency vehicles
 - Urban Compact 80' to 100' ICD
 - Urban Single Lane 100' to 130' ICD
 - Urban Double Lane 150' to 180' ICD

INTERSECTIONS

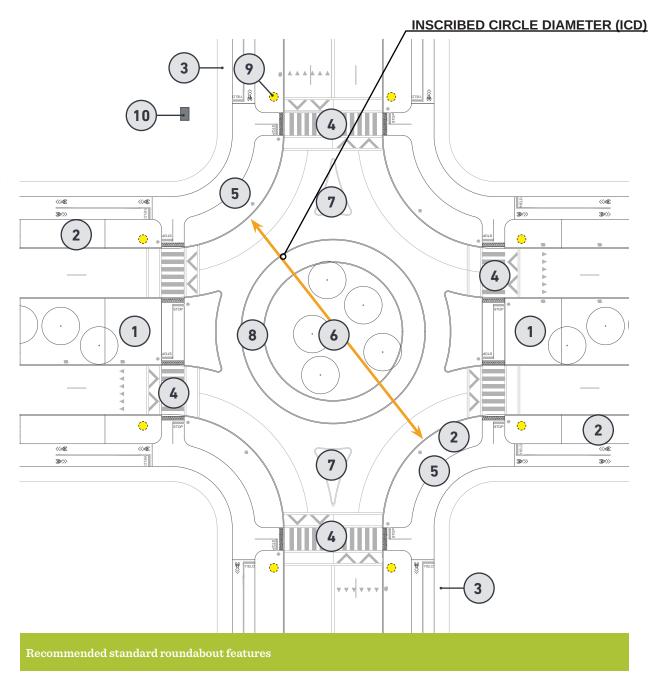
Signalized Intersection Treatment

- (1) Planted median and pedestrian refuge area
- (2) Pedestrian Buffer Zone
- Maintained area (varies)
 - Area between the required Adjacent Street Buffer and pathways or roadside
- 4 High visibility crosswalk markings
- (5) Reduced curb radii
- (6) Additional pedestrian queuing space
 - In low-traffic pedestrian and bike areas, space should be replaced with lawn
- (7) Wayfinding/street signage
- 8 Intersection mast arm and signal
 - New mast arms are recommended to be located in Planted Median whenever possible
- 9 Overhead lighting
 - Lighting to be located in Pedestrian Buffer Zone
- (10) Electrical transformer
 - Transformers shall be located behind the maintained area recommended for inclusion in the LMO



Roundabout Treatment

- (1) Planted median and pedestrian refuge area
- (2) Pedestrian Buffer Zone
- Maintained area (varies)
 - Area between the required Adjacent Street Buffer and pathways or roadside
- 4 Raised crosswalk & high visibility markings
- 5 Additional pedestrian queuing space
 - \bullet $\,$ $\,$ In low-traffic pedestrian and bike areas, space should be replaced with lawn
- (6) Central Island
- (7) Splitter Island
- 8 Truck Apron
- 9 Overhead lighting
 - Lighting to be located in Pedestrian Buffer Zone
- (10) Electrical transformer
 - Transformers shall be located behind the maintained area recommended for inclusion in the LMO



INTERSECTIONS

Intersection Adjustments

This map displays major existing intersections as well as proposed or modified intersections. These modifications include improvements in:

- · Traffic Congestion
- System Functionality
- · Safety At Pedestrian Crossings
- · Facilitated Access Management
- · Median Extensions

These recommended proposals or modification listed below are expanded upon in detail in the Segments portion of this plan.

- (A) WHP and Central Avenue
- B WHP and Palmetto Parkway
- WHP and Northridge
- **D** WHP and Union Cemetery Road
- **E** WHP and Burkes Beach Road
- WHP and Yacht Cove
- **G** WHP at Fresh Market
- (H) WHP and Arrow Road
- Palmetto Bay Road and Arrow Road / Point Comfort Road

- Palmetto Bay Road and Archer Road
- Ralmetto Bay Road and Target Road
- Arrow Road and Archer Road
- M Arrow Road and Target Road
- N Pope Avenue / New Orleans Road / Office Park Road
- Pope Avenue and Cordillo Parkway
- P Pope Avenue and Lagoon Road
- Sea Pines Circle
- R Coligny Circle



Note: Refer to the Segments portion of this document for more detailed information.

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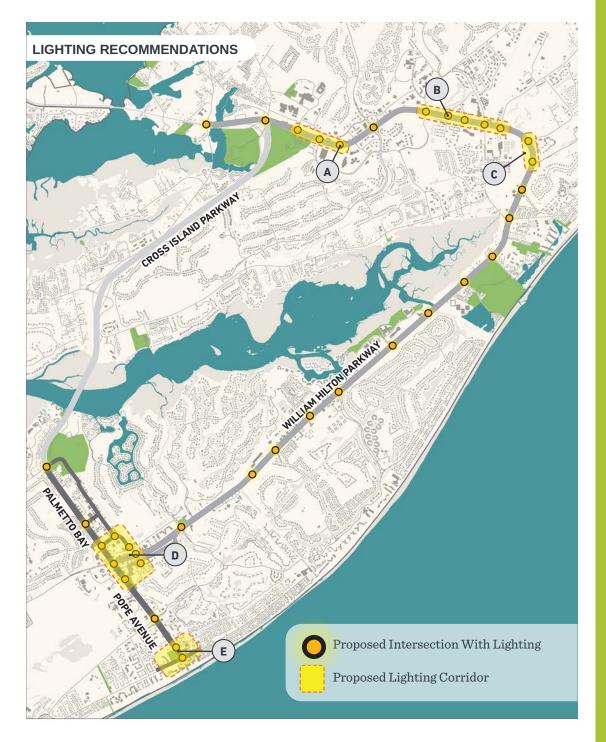
Overhead Lighting

Per lighting recommendations in the Landscape and Aesthetics section, overhead street lighting is to be provided at the following locations:

- Mid-block crossings
- Signalized intersections
- · Roundabouts

In some instances, short distances between lighting locations, heavy pathway use, and adjacency to parks or other civic spaces suggest a continuation of overhead lighting. This strategy aims to provide a consistent light quality for that area. This map identifies all lit intersections, roundabouts, and crossings as well as proposed lighting corridors. Within these corridors, additional overhead street lighting is to be provided in between the standard lighting locations.

- WHP from Wilborn Road / Jarvis Park Road to Central Avenue
- B WHP from Beach City Road / Gardner Drive to Dillon Road / Plaza Drive
- C WHP from Union Cemetery Road to Coggins Point Road
- Sea Pines Circle
 - -WHP from Arrow Road to Sea Pines Circle
 - -Palmetto Bay Road from Target Road to Sea Pines Circle -Pope Avenue from New Orleans Road / Office Park Road to Sea Pines Circle
- E Coligny Circle
 - -Pope Avenue from Lagoon Road to Coligny Circle
 - -North Forest Beach Drive from Avocet Road to Coligny Circle
 - -South Forest Beach Drive from Deallyon Avenue to Coligny Circle



WILLIAM HILTON PARKWAY

Slip lanes create multiple pedestrian conflict points and typically result in large turning radii. Removing slip lanes from intersections will create safer pedestrian crossings, minimizing high speed conflict points with vehicles.



J turn and R-cut intersections make safe pedestrian crossings more difficult to achieve. When mid-block crossings are present as shown, pedestrians must transverse slip lanes and left hand turn lanes, creating multiple conflict points.

INTERSECTIONS

Initiate Capital Improvement Projects (CIP) to enhance safety and accessibility with a focus on pedestrian crossings, lighting, signals, push buttons, pavement markings, and detectable warnings.

Review queuing and areas of refuge to ensure sufficient space is provided for all users.

Standardize intersections to align with the basic typologies included on the Island, in this guide, and described in the SCDOT Design Manual.

Remove certain intersection typologies and components in order to improve motorists and pedestrian safety.

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ROADWAYS

Existing Conditions

The study area for this effort includes over 30 miles of roadway corridor, including SCDOT controlled William Hilton Parkway, among others, and roadways maintained by both Beaufort County and the Town of Hilton Head Island. The entirety of the Island, which contains 17,000 households and employs many workers who live on the mainland, is served by one bridge, which exacerbates peak congestion.

It is essential to look at these roadways simultaneously to create an easily understandable, efficient, and safe system for vehicles, pedestrians, and cyclists. Establishing consistent design concepts and infrastructure recommendations regardless of roadway ownership will streamline the implementation process and strengthen connections throughout the Island. Successful implementation will include coordination with SCDOT and Beaufort County as these owners of the rights-of-way issue encroachment permits. Uniformity of roadway designs and dimensions establishes an overall Island character that is further enhanced through adherence to AASHTO standards, Complete Streets principals and additional features and amenities such as art, wayfinding, and signage.



Existing Conditions Summary

GOOD:

- » Though busy at peak times, existing roadways can handle current traffic volumes.
- » Pavements and facilities are adequately maintained.
- » Pope Avenue's recent improvements are appreciated, with slower vehicle speeds and enhanced aesthetics.
- » Shelter Cove Lane contains a well preserved roadway median section that sets a goal for mature tree canopy on the Island.

NOT SO GOOD:

- » Applied highway design standards and posted speed along William Hilton Parkway provide expansive space for excessive speeds.
- » Limited right-of-way at Chaplin Community Park impacts roadway safety, quality, and amenities.
- » Traffic volume and closely spaced intersections often cause congestion, accidents, and conflicts with vehicles, pedestrians, and cyclists.
- » The physical size and volume of roadways limits potential landscape improvements.
- » In periods of heavy rain some areas retain water.
- » Lack of speed enforcement allows cars to travel at a high rate of speed.



Existing condition



Existing condition



ROADWAYS

Design Considerations

TYPOLOGIES:

The Town of Hilton Head Island is responsible for only 14 miles, or 3%, of the Island's total roadway network. However, the street network is still one of the primary land uses on the Island, stretching for more than 400 miles. Changing transportation needs have driven increased demand for pathways, sidewalks, bike lanes, and transit, yet vehicular travel remains the primary mobility choice and driver of economic activity on the Island.

With such few streets under local ownership, the community must partner with regional and state agencies to ensure each roadway is using the appropriate typology and designed to the standards necessary to make every corridor more vibrant, efficient, and safe. This section will analyze existing roadways to ensure that the design of public streets across the Island have the features and space allocations necessary to create a cohesive and complete system. Sample roadway typologies across the Island include:

William Hilton Parkway

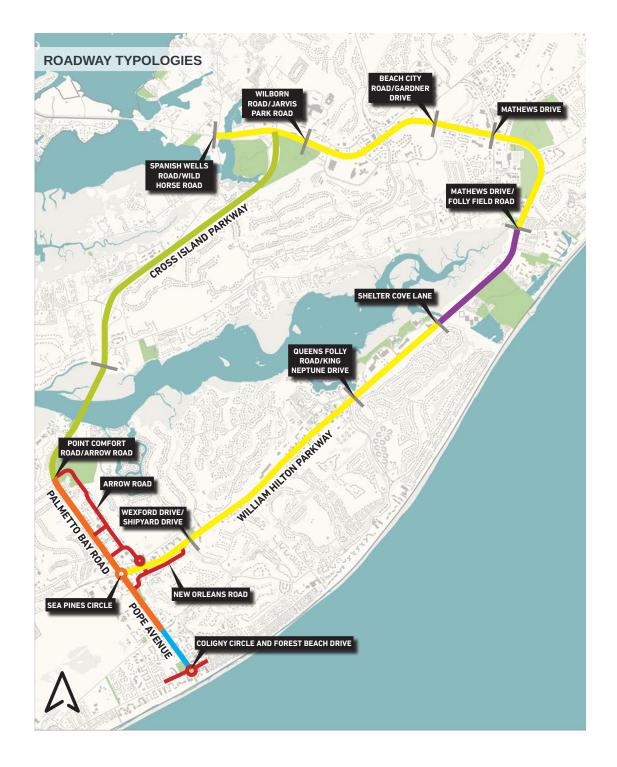
Chaplin Corridor

Cross Island Parkway

Palmetto Bay Road & Pope Avenue to Cordillo Parkway

Pope Avenue from Cordillo Parkway to Coligny Circle

Local



Visual and Physical Analysis

Each roadway typology provides unique challenges to standardization given existing conditions, right-of-way width, landscape treatments, users, and aesthetic character. We discuss these components in more detail in the Segments section of this document, but it is vital to examine these as a whole as we review the roadways in the study area. In comparing these roadways, we have identified six main typologies that can be applied to understand existing conditions better.

William Hilton Parkway

EXISTING DESIGN CHARACTERISTICS:

- » 2 travel lanes each direction
- » Designated left and right turn lanes
- » Landscaped edges and median
- » Minimum ROW +/- 140 feet
- » Pathway in ROW or easement
- » Landscape buffers can be robust & opaque

Cross Island Parkway

EXISTING DESIGN CHARACTERISTICS:

- » 2 travel lanes each direction
- » Access via interchange
- » Mainly lawn edges and median
- » Minimum ROW +/- 225 feet
- » Pathway is limited
- » Highway feel and function

Pope Avenue from Cordillo Parkway To Coligny Circle

EXISTING DESIGN CHARACTERISTICS:

- » 2 travel lanes each direction
- » Left and right turn lanes
- » ROW +/- 100 feet
- » Pathway in ROW or easement
- » Landscaped median
- » Majority curbed roadway
- » Congested / urban condition

Palmetto Bay Road & Pope Avenue To Cordillo Parkway

EXISTING DESIGN CHARACTERISTICS:

- » 2 travel lanes each direction
- » Left and right turn lanes
- > ROW +/- 90-120 feet
- » Pathway in ROW or easement
- » Landscaped median or center turn lane

Chaplin Corridor

EXISTING DESIGN CHARACTERISTICS:

- » 2 travel lanes each direction
- » Center turn lane / no median
- » Right turn lane at some intersections
- » ROW +/- 75-95 feet
- » Curbing with concrete sidewalk
- » Pathway in easement in some locations

Local Roadways

EXISTING DESIGN CHARACTERISTICS:

- » Number of lanes vary
- » Left turn lanes
- » ROW +/- 50-70 feet
- » Pathway in ROW or easement
- » No median

ROADWAYS

Travel Ways

RECOMMENDATIONS:

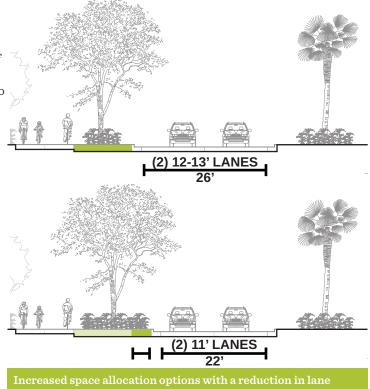
- » Narrow travel lanes slow traffic and increase room for pathways and buffers. Reduce lane widths to 11' for all local roads and streets.
- » Install plantings in medians and along the roadside in Pedestrian Buffer Zones to increase user separation and improve safety and comfort.
- » Utilize context-sensitive solutions to design streets with lower minimum planting clear zone widths and tree offsets than current SCDOT values.
- » Reduce turning radii to the minimum needed for turning moment and practicality by SCDOT to slow traffic and increase pedestrian waiting environments. Navigating tighter turns requires slower speeds, reduces pavement, and increases queuing areas for pedestrians and cyclists. See Section 9.3.2.2 in the 2021 SCDOT Roadway Design Manual for more information.
- » Lower the effective/operating travel speed of vehicles on the Island to increase safety for drivers, cyclists, and pedestrians. Collaborate with SCDOT to lower Posted Speed limit to 40 miles per hour across all corridors (excluding Cross Island Parkway, Pope Avenue and Forest Beach Drives).
 - -Effective/Operating Speed: The speeds at which vehicles are observed operating during free flow conditions
 - -Posted Speed: The maximum lawful vehicle speed for a particular location as displayed on a regulatory sign.



Source: Virgina Safe Routes to Schools, Virgina DOT

Impacts of car speed in crashes with pedestrians

- Implementing a system of a combination of elements can aide in lowering the effective speed of drivers on the Islands roadways. To support slower effective vehicular speeds, the following is recommended:
 - Roundabouts force drivers to vield and take slower turns
 - Selective use of raised crossings act as speed breakers and force drivers to slow
 - Landscape proximity to travelway gives driver feeling of smaller space to operate vehicle, slowing driver
 - Narrowing of traffic lanes gives driver feeling of smaller space to operate vehicle, slowing drive



Increased space allocation options with a reduction in lan widths

CORRIDORS PLANNING

PROTOTYPICAL ROADWAY TRAVEL LANES

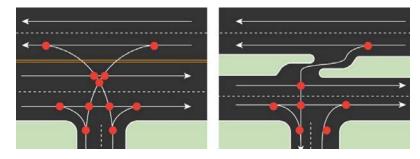


Travel Ways

RECOMMENDATIONS:

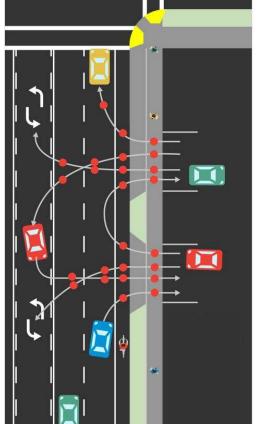
- Consolidate driveways where applicable and provide access from side roads or shared driveways. Key areas include Chaplin Park, Northridge, Sea Turtle Marketplace, Palmetto Bay Road, Pope Avenue, and other areas with frequent or redundant curb cuts.
- Extend medians in conjunction with the use of roundabouts to provide vehicular access for existing developed parcels.
- Eliminate slip lanes to provide safer pathway crossings and consistency for drivers and pathway users.

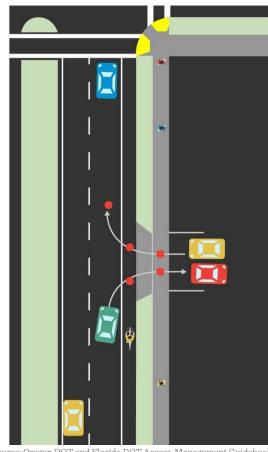
BEFORE AFTER



BEFORE

AFTER





Source: Oregon DOT and Florida DOT Access Management Guidebook

Combining driveways can significantly reduce the number of conflict points

Curbing & Drainage

RECOMMENDATIONS:

- » Improve drainage and maintenance throughout each corridor by conducting annual inspections.
- » Pipe existing ditches where limited right-of-way impacts pedestrian and vehicular ways.
- » Continue to make drainage a priority in new developments or in capital improvement projects.
- » Provide curbs at noses or other locations with a median of 10' width or less.

Traffic Enforcement

RECOMMENDATIONS:

Implementing a lower speed limit may require an adjustment to enforcement before travel speeds are reduced, since the posted speed does not equal actual travel speeds. To support lower vehicular speeds, the following is recommended:

- » Develop an educational program to inform residents and tourists about traffic changes and their benefits.
- » Increase enforcement through additional Beaufort County Sheriff's Office personnel to help modify behavior and establish reduced speeds.
- » Consider the creation of a new Town Police Force to reduce traffic issues and help the Island adapt to any network or speed changes.

ROADWAYS

Establish new design standards with SCDOT to reduce speeds, lane widths, and curb radii while increasing adjacent landscape treatments.

Advance negotiations with private property owners for access easements or property acquisition that may be necessary for the safe functioning of corridors through all modes of travel.

Advance negotiations with private property owners to consolidate or eliminate curb cuts and increase median lengths to increase safe travel movements.

Analyze setback demand in all incremental capital roadway projects for additional corridor width, as well as radius demands for large right turning vehicles based on current and planned land uses served within the corridor.

Request increased law enforcement from Beaufort County to help with new traffic patterns and speed enforcement.

Importance & Role

Palmetto Breeze Transit services the Lowcountry, including public transportation on Hilton Head Island. Central to mobility within the Town, the Palmetto Breeze Trolley and seasonal Sand Shark Shuttle services provide a highly efficient and sustainable alternative to car travel for employees, residents, and tourists. The Palmetto Breeze Commuter Service provides transportation to important employment centers for off-Island employees. These types of transit options increase freedom of movement and accessibility and minimize traffic congestion by reducing vehicles on the roadway. Additionally, transit helps tourists orient the unfamiliar, allowing them to reach popular destinations quickly and easily.

Existing Conditions Summary

GOOD:

- » The Breeze Trolley and seasonal USCB Sand Shark Shuttle are free.
- » The Commuter Service extends as far as the town of Allendale and Colleton County, easing access for workers and expanding the pool of employees for local businesses.
- » Palmetto Breeze Transit partners with local businesses to support ridership.
- » The current system is flexible and easily adaptable to changes in ridership.
- » Provides needed service with limited staffing and resources.

NOT SO GOOD:

- » The Trolley and Sand Shark Shuttle service is only available from April to September.
- » Palmetto Breeze funding is limited and sourced annually from multiple jurisdictions and grants.
- » The Sand Shark Shuttle is only accessible from the South Island.
- » A multi-modal hub does not exist.
- » Not all neighborhoods along the corridors have access to stop locations.
- The Hilton Head Island Airport is not a current stop on any route.
- » Existing stops may lack basic amenities like shelters, benches, and litter receptacles.
- Current signage is pedestrian-oriented with small text and is not highly visible for easy stop identification.







CORRIDORS PLANNING | 94

Design Considerations

RIDER EXPERIENCE:

Maintaining and investing in the Palmetto Breeze system to grow ridership and increase access to destinations is crucial to providing a multi-modal network that serves diverse neighborhoods and riders. Network improvements including increased frequency and proposed amenities that overlap with pathway system improvements to close first-mile / last-mile gaps. These gaps represent the distance from destination to a transit stop that often serves as a barrier to successful transit. Additionally combining improvements also encourages different travel modes and reduces the need to drive a car for daily trips, a critical prospect for a community with an aging population.

In addition to increasing mobility, effective transit also unlocks corridor and land-use needs. Reduced car travel due to walking, biking, and transit means less room is required for parking and travel lanes. This leaves more room available for public space and landscaping throughout the Island. This section will analyze existing transit features to ensure that the system delivers consistent best-in-class service throughout the Island. Design considerations for a robust, user friendly, and readily identifiable transit system include:

- » Transit System Planning
- » Transit Stations & Stops
- » Stop Amenities & Comfort
- » Ridership Growth



PRIVATE MOTOR VEHICLES 600—1,600/HR



MIXED TRAFFIC WITH FREQUENT BUSES 1,000—2,800/HR



TWO-WAY PROTECTED BIKEWAY 7,500/HR

Source: NACTO Transit Street Design Guide

Peak capacity of a single roadway lane by various travel modes







Real-time tracking including arrival times helps improve trip planning and rider experience

EXISTING EXAMPLES:

Transit stops include accessible and identifiable corridor infrastructure with an aesthetic complimenting the surrounding Lowcountry character and architecture. Stops are to be inviting and outfitted with appropriate seating, amenities, plantings, and wayfinding / branding. Yet, stops should be flexible and able to adjust their position and location based on land use and ridership shifts. Trolley stops should consider adjacent services such as retail centers, residential clusters, and shared amenities with other Town-owned property where restrooms, bike repair stations, or pathway access can be provided. Overall, stops should be designed with the following notions in mind:

- » Accessibility
- » Safety
- » Comfort
- » Island Branding & Identity
- » Flexibility





Public Parking & Transit Plan

RECOMMENDATIONS:

- Develop a Comprehensive Parking Plan for the Island, which includes the Airport expansion project.
- on the north Island to minimize tourist traffic on Island roadways. Potential locations should consider peak season demand and utilize existing parking infrastructure where possible.
- Provide multi-modal hub(s) where multiple routes overlap to ease transfer between routes and to enhance system visibility for locals and tourists.
- » Develop a long-term funding agreement with other jurisdictions providing Palmetto Breeze Transit financial stability.
- » Work with Palmetto Breeze Transit to consistently provide enhanced stops and amenities.
- Develop real-time parking availability and information to help ease and redirect traffic.
- Promote beach parking at the north end of the Island to alleviate South Island traffic.
- » Continue to accommodate bikes on buses and Trolleys to make it easy for multi-modal transit. Coordinate overlap between bike rental facilities and Trolley stops.



- A Jarvis Creek Park & HHI Schools
- B Publix Grocery & Walmart
- C HHI Airport
- Mid-Island Tract & Ashmore Tract
- Port Royal Plaza, Northridge Plaza & Sea Turtle Plaza
- Chaplin Park & Burkes Beach
- G Neighborhood Stop
- H Town Hall & Neighborhood Stop
- Compass Rose Park

- Audubon Newhall Preserve
- Daufuskie Island Ferry
- A Shelter Cove Transit Hub
- B Coligny Beach Transit Hub
- A Possible Park & Rides
 - · Coastal Discovery
 Museum
 - Jarvis Creek Park
 - Hilton Head Island Schools



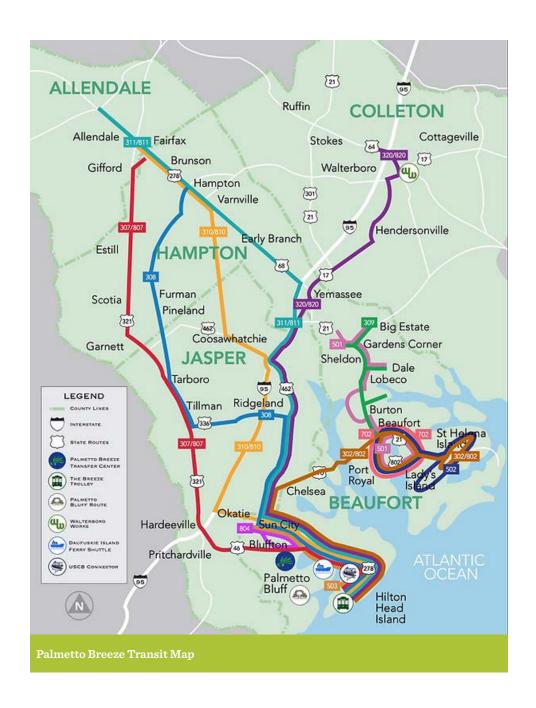
Commuter Transit

OVERVIEW AND RECOMMENDATIONS:

Palmetto Breeze Transit lines provide safe, regional and multi-modal transit for the Island and its surrounding communities. The Commuter lines are an essential mobility option, especially for the local workforce.

Regional workforce commuters are the main users of this transit system with most stops serving employment centers. Stops are often unconventional, located in developments and commercial sites, lacking visibility and signage. Workforce commuters often face long travel commutes and may need to transfer to another form of transit on the island to complete the first-mile/last-mile portion of their trip. Severe congestion between the Island and surrounding communities limits day trips for tourists or residents, particularly during peak season. Infrequent service can extend the workday hours for commuters that rely on public transit as work schedules do not line up with bus schedules. Considerations to improve commuter transit include:

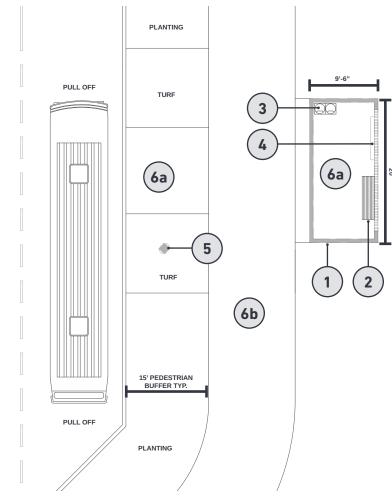
- » Build upon overlaps between commuter and trolley stops to improve first-mile/last-mile gaps
- » Increase signage and visibility of transit stops
- » Review and adjust schedules to accommodate employee schedules to minimize travel times



Transit Stops & Amenities

RECOMMENDATIONS:

- » Standardize the design of Trolley stops.
- » Provide shelters at all stops. Shelters increase the visibility of the system while providing comfort for patrons.
- » Connect transit stops with pathways to allow for ease of access and to share amenities between the two travel modes.
- » Provide integrated, structure mounted signage indicating public restroom locations and additional comfort stations. Mounting to structure will reduce the need for standalone kiosks.
- » Communicate to patrons where public restrooms are located to minimize the demand on private businesses.
- » Increase the visibility of Trolley stops and signage.
- » Incorporate Trolley signage as a part of the overall signage system on the Island.



- Overhead shelter, on thickened concrete pad with motion activated lighting
- **2** Bench, refer site furnishings
- Refuse containers, refer site furnishings

- 4 Mounted Wayfinding/Branding Kiosk
- 5 Freestanding Wayfinding/Branding Sign
- 6a Concrete Pad 6b Asphalt Pathway

Typical Transit Stop Layout and Spatial Requirements

Ridership Expansion

RECOMMENDATIONS:

- » Coordinate stops with affordable housing developments.
- » Expand morning hours for Trolley and Shuttle service to provide consistent service opportunity for users.
- » Expand service to year-round, given tourism season expansion and potential for year-round local resident and employee ridership.
- » Incorporate the Airport and other key destinations to the Trolley route. This provides a vital connection and establishes the Trolley as a convenient, reliable service allowing users to avoid car rentals or ride shares.
- » Consider additional stops to local neighborhoods, bike rentals, parks, and retail locations, including shared Trolley stops with private transit such as Sea Pine Trolley.
- » Provide more points of overlap between different transit services (commuter and trolley) to reduce commute times and increase transportation options for Island workforce and residents.

TRANSIT

Develop a Comprehensive Parking and Transit Plan with increased operational hours and improved stop access.

Develop a long-term funding agreement in partnership with other jurisdictions providing financial stability to the Palmetto Breeze Transit System.

Invest in amenities at all stops.

Implement a Town and County investment strategy for an expanded and more robust transit system to satisfy workforce needs and diminish auto traffic.

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WAYFINDING, SIGNAGE, BRANDING & ART

Importance & Role

Hilton Head Island is a diverse community experiencing growth and change. A unified and comprehensive approach to how brand, identity, wayfinding, art, and culture are communicated will support the needs of all those who make up the Hilton Head Island community and create positive experiences and perceptions. The Island community is both permanent and transient. With many vacationers and first-time visitors, any successful wayfinding, signage, and brand communication strategy must address first-time users' needs while providing a voice to long-term residents.

USER TYPES:

- » Permanent residents
- » Part-time residents
- » Visitors

USER NEEDS:

- » Readily available information
- » Reliable information and directions
- » Consistent locations & messaging
- » Clear and concise communication
- » Island-wide wayfinding strategy
- » Universally designed signage for all users
 - · ADA Compliant
 - · Appropriately placed and legible
 - · Respects local character and culture





Existing Conditions Summary

GOOD:

- The Island has a strong sense of identity.
- The existing sign system is robust and Town controlled signage is consistent.
- The signs are well-maintained and in mostly good condition.
- The Town has a Public Art Master Plan and many art installations.

NOT SO GOOD:

- Signage and wayfinding vary between SCDOT and Town signage.
- Unfamiliar visitors often need clarification on directions and destinations.
- Too many signs are confusing and diminish the importance and usefulness of all signage.
- Pathways within easements may have monument signage immediately adjacent, leading to sight-line obstructions.
- Many existing signs do not meet the current standards in the Design Guide, and some maps are outdated.
- The current signage standard is not visible and often recedes into the background.
- Information design and information hierarchy across sign types is inconsistent.













WAYFINDING, SIGNAGE, BRANDING & ART

Basis of Design & Process

Addressing the wayfinding needs requires a multiple stage research and collaborative process to arrive at the best possible design solutions. To avoid a disconnection and redundancy, the design of a new wayfinding system must consider wayfinding challenges across the entire Island expanding beyond the corridors within this study area. Designing a comprehensive wayfinding strategy for the Island will involve the following steps described below and illustrated in the accompanying chart. The relationship between brand, signage, culture, and art are inherently intertwined, requiring an Island-wide assessment as outlined below.

PHASE 1 - RESEARCH:

Phase 1 will focus on tasks that will establish a basis of design to guide future work and will:

- » Identify key brand drivers
- » Craft a design narrative for the Island
- » Identify existing & future wayfinding challenges
- » Establish a hierarchy of destinations & information
- » Identify user groups & their needs
- » Identify typical user journey

PHASE 2 - DESIGN:

Phase 2 will develop a tool kit of design solutions guided by the work completed in the previous basis of design phase.

- » Develop an Island style guide
- » Develop a Comprehensive Island Wayfinding Master plan and Strategy
- » Design a Wayfinding Signage System

Existing Conditions Summary

PHASE 1 - RESEARCH

GOALS

- Understand the Challenges
- Establish design parameters & Basis of Design

BRAND RESEARCH

Brand Visioning

- Establish Brand Drivers
- Create Brand Narrative

WAYFINDING RESEARCH

Wayfinding Review

- Identify User Groups
- Identify User Journies
- Identify Wayfinding Challenges
- Identify Information Hierarchy
- Identify Destination Hierarchy
- Audit Existing Signage & Review

PHASE 2 - DESIGN

GOALS

- Develop a Wayfinding Plan
- Design a Signage Kit of Parts

BRAND SUPPORT

Brand Guides

- Develop Island Brand Guidelines
- Develop Island Style Guide

WAYFINDING ASSESTS

Wayfinding Design

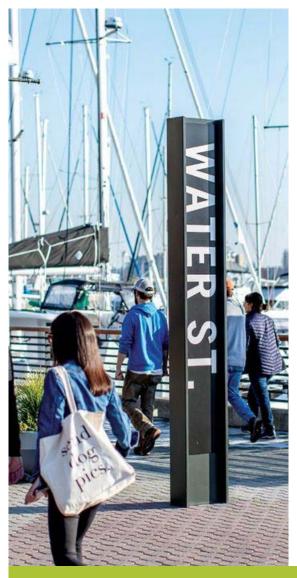
- Create Wayfinding Master Plan
- Create Wayfinding Strategy
- Design Signage System
- Identify Signage Locations
- Create Implementation Plan

Overall Branding & Design

RECOMMENDATIONS:

Accurate, reliable, and easy-to-understand signage programs are essential for any community, especially those that experience heavy tourism. Wayfinding components such as signs, markers, kiosks, and maps help users and visitors identify routes that better connect them to community assets. A robust wayfinding system has a distinct brand and style that provides easy-to-follow and legible directions and can give visitors a unique experience on Hilton Head Island.

- » Provide a clear Town aesthetic beginning at the Gum Tree Road intersection onto the Island.
- » Reduce the number of signs along pathways through consolidation and elimination.
- » Review sign locations to ensure none are within sight lines or 2' clear spaces along pathways.
- » Integrate new technologies into the wayfinding system for pedestrians and cyclists in the form of QR codes, websites, or mobile applications.
- » Incorporate low-level lighting at prominent Town identification signs such as gateways and destinations.
- » Develop a Comprehensive Sign Standard including updates to existing signage to help establish a contemporary design aesthetic.
- » Consider identification of Districts in the signage system.







Cohesive signage aesthetic across various sign types and locations

WAYFINDING, SIGNAGE, BRANDING & ART

Style Guide

INTRODUCTION:

Brand is not simply expressed in the application of a logo. Successful community identities rely on integrating branded elements with public amenities and civic design into a consistent and cohesive brand style. Expressing the Island's brand through less obvious but consistent applications helps to reinforce the brand and strengthens recognition.

An Island-wide brand style will allow users to easily differentiate Island wayfinding signage from signage for private retail or development specific communications. This will visually connect wayfinding information with a recognizable Island-wide design aesthetic.

Providing a visible, clear, concise, and consistently applied Island-wide wayfinding signage system, designed to be consistent with an Island-wide design style, is key to ensuring users can easily recognize Island information, connect with Island services, and find their way successfully.

The developed brand style must be clean, clear, purposeful, confident, assured, identifiable, unique, and welcoming to align with a refreshed Island brand.













RECOMMENDATIONS:

- » Create a brand style guide
- » Develop a contemporary style
- » Present the Island's brand as coordinated, cohesive and consistent
- » Consider integrating the brand into:
- · Landscape design
 - · Street furniture
 - · Signage system
 - · Lighting



CORRIDORS PLANNING

Brand

INTRODUCTION:

The Town of Hilton Head Island is a highly desirable destination for visitors and guests and a unique and special place to live. The Island's current brand identity does not reflect the Island's uniqueness. The Island needs a contemporary and fresh brand approach to better express it's character, uniqueness, and community pride to visitors and residents alike.

GOOD:

The Island possesses:

- » Strong community identity
- » Unique Island character
- » Vibrant & dynamic local community
- » Natural beauty
- » Cultural and historical wealth

NOT SO GOOD

Currently, the Island's brand is expressed through:

- » Generic-looking brand assets
- » Bland palette of materials and colors
- » Inconsistent street furnishings
- » Inconsistent application of branded elements
- » Low brand recognition

RECOMMENDATIONS:

- » Revisit the Island's brand & identity
- » Reposition the Town as a vibrant destination
- » Create a refreshed brand that is unique, bold, and instantly recognizable
- » Establish an identifiable color palette that reflects the vibrancy and dynamism of the community

» Develop an updated set of Brand Guidelines to address:

- · Logo & identity
- · Color palette
- · Material palette
- · Signage system
- · Information hierarchy
- · Fonts and typefaces
- · Legibility
- Language & communication

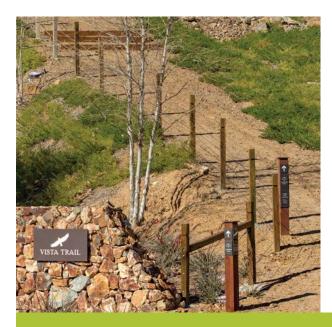


WAYFINDING, SIGNAGE, BRANDING & ART

Pedestrian Wayfinding

RECOMMENDATIONS:

- » Minimize pathway signage to AASHTO and MUCTCD guidance to focus attention on remaining signs for maximum impact.
- » Design pedestrian signage at a pedestrian scale and place in locations oriented toward pedestrians.
- » Avoid placing pedestrian signage in locations that may confuse vehicle users.
- » Place pedestrian and pathway signage (regulatory or wayfinding) for users traveling with the flow of traffic to the right of the pathway. Do not place in the roadway buffer zone to avoid unnecessary sign conflicts or confusion with vehicle users.
- » Place sparingly pedestrian and pathway signage (regulatory or wayfinding) for users traveling against the flow of traffic within the buffer area if the sign is only one-sided and faces away from any oncoming traffic flow.
- » Implement pedestrian wayfinding signage directing users to:
 - Districts
 - Beaches
 - Parks
 - Transit
 - Parking
 - Bike paths
 - Restrooms
 - Respite
 - Cultural destinations





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Pedestrian scale signage and mile markers along a pathway



Pedestrian Wayfinding

RECOMMENDATIONS:

- Provide information kiosks with maps identifying destinations, transit stops, bike safety, and pathway etiquette.
- Include heads up maps and wayfinding directions.
- Provide distance to destinations, including estimated walking and biking times.
- Place mile markers and reference point locations along pathways.
- Incorporate access to additional information via phone or app through the use of QR codes.
- Include interpretive signage elements providing cultural, historical, or educational information regarding the Island's unique sense of place.
- Design a new all inclusive, Island-wide signage system.
- Create an overarching and Island-wide wayfinding strategy.
- Design a signage system that is visible and instantly recognizable.
- Utilize clear, concise, and consistent directions.
- Develop a clear and simple wayfinding strategy incorporating all Island destinations.



Historical and informational signage along pathway





WAYFINDING, SIGNAGE, BRANDING & ART

Vehicular Wayfinding

RECOMMENDATIONS:

- » Follow SCDOT and MUCTD standards for Regulatory signage.
- » Develop new street signage to follow designated Town brand.
- » Provide a Gateway at the Entry Portal at Gum Tree Road.
- » Implement wayfinding signage directing users to:
 - Districts
 - Beaches
 - Parks
 - Transit
 - Parking







Mobility Signage

RECOMMENDATIONS:

- Regulate signage for all types of transit options and conform to a minimum design standard
 describing standard heights, materials, and locations to assist with sign recognition, usability, and managing visual noise. This would apply to:
 - Trolleys / Buses
 - Bicycle
 - Micro-mobility services
 - Ride-share services
- » Integrate signage related to Trolley / Bus services with the Town's signage standards to reinforces the connection with Town services.
- » Provide real-time information at stops for Trolley / Bus services and arrival times at stops coordinated with the Catch the Breeze App.
- » Provide real-time information on parking availability at high-volume locations.
- » Coordinate private residential and public Trolley stops, where shared.









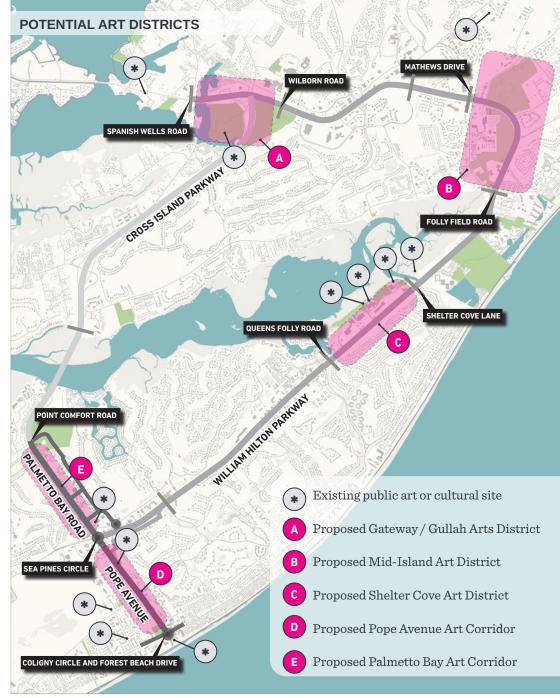
Additional mobility needs and signage should be integrated into overall Island aesthetic

History, Culture & Art

RECOMMENDATIONS:

- » Encourage more cultural and historical signage at high-traffic location such as parks and Trolley stops rather than along roadways and pathways.
- » Consider site conditions when determining placement of installations such as utilizing dark materials in the sun rather than in a wooded area to increase visibility of the piece.
- » Consider landscape or site enhancements when selecting public art locations to maximize accessibility, context and visual impact of the piece.
- » Enhance prominent public and cult spaces and with art.
- » Explore the creation of an arts district(s) around existing galleries and walkable areas.
- » Leverage dedicated arts and cultural districts and community arts events to build and enhance Town brand.
- » Expand art installations and experiences within the existing Public Art Master Plan framework.





Site Signage

RECOMMENDATIONS:

- » Encourage conformance of private site identification signs to the Town's Design Guide and Land Management Ordinance and locate these behind the pathway by 10' or more.
- » Consider relocation of signs of all types including private monument signs when in close proximity to the pathway. Additionally, private site parking signage should not be visible from roadways or pathways.
- » Develop a branded identification sign system for public sites that allow for the uniqueness of a place through either fonts, colors, or material yet providing sufficient consistency to be clearly identifiable as part of the brand.
- » Include transit signage and real-time information on Trolleys and parking availability in the branded sign system.



SIGNAGE, BRANDING & ART

Develop an inventory of all existing signs noting condition, age, and content.

Prepare a Signage Master Plan for the Island to include:

- » Wayfinding strategy
- » Brand messaging & hierarchy
- » Signage guidelines
- » Signage design & signage standards

Expand Staff review for public and private signage to ensure future right-of-way improvement ideals, consistent messaging, and the proposed Signage Master Plan are implemented.

Celebrate and educate all on the Island's history and culture with enhanced interpretative signage.

Develop an Arts and Cultural District Implementation Plan to review site opportunities and to develop priority action areas.