



Appendix D

Community Impact Assessment

Visual Impact Assessment

Relocation Impact Study

June 2021



TECHNICAL MEMORANDUM: COMMUNITY IMPACT ASSESSMENT

Prepared for:



Prepared by:



April 2021

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1.0 INTRODUCTION

1.1 PURPOSE OF THE COMMUNITY IMPACT ASSESSMENT

The Community Impact Assessment (CIA) analyzes the effects of the Recommended Preferred Alternative 4A on the surrounding communities, neighborhoods and quality of life for residents. Factors such as land use, displacements, community cohesion, mobility and access, visual quality, noise and construction impacts are evaluated to assess the potential positive and negative impacts. The assessment of effects enables the South Carolina Department of Transportation (SCDOT) to address public concerns and minimize community impacts.

1.2 PROJECT DESCRIPTION

South Carolina Department of Transportation (SCDOT), Federal Highway Administration (FHWA), and Beaufort County propose improvements to the US 278 corridor between Bluffton and Hilton Head Island in Beaufort County, South Carolina. Figure 1 shows the project study area (PSA) extends from Moss Creek Drive to Wild Horse/Spanish Wells Road for approximately 4.11 miles. The project includes replacement of the eastbound Mackay Creek bridge and potential improvements to the three other bridges located within the PSA. The three additional bridges to be improved include the westbound Mackay Creek, the eastbound Skull Creek and the westbound Skull Creek bridge. Improved access to the Pinckney Island National Wildlife Refuge and the C.C. Haigh, Jr. Boat Landing is also proposed as part of this project.

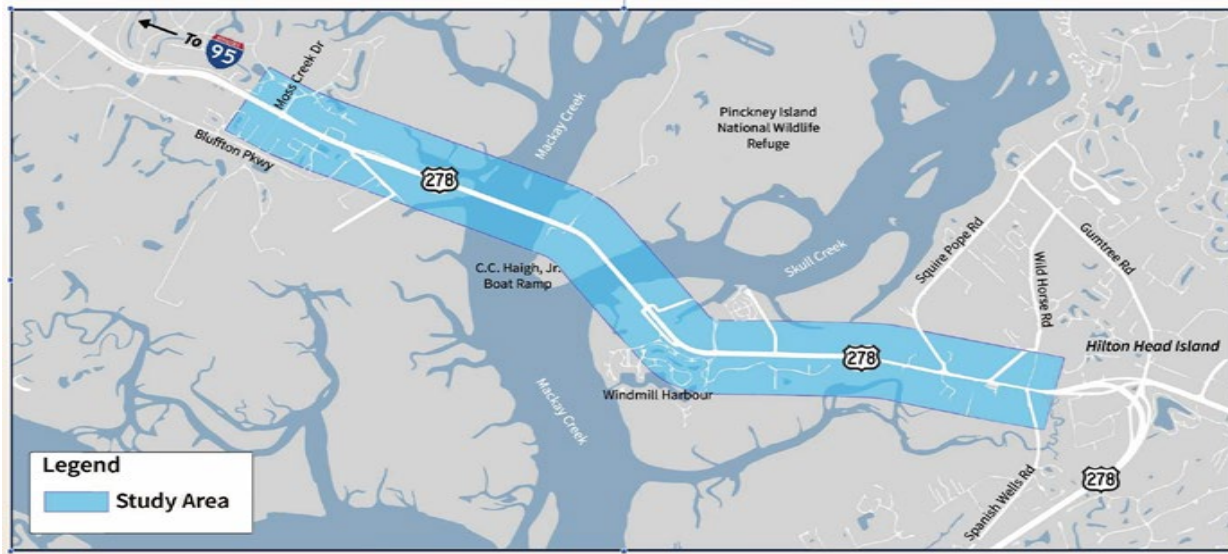


Figure 1: Project Study Area

US 278 currently extends for 1,074 miles from Hilton Head Island, South Carolina to Wickes, Arkansas and crosses through five states (South Carolina, Georgia, Alabama, Mississippi and Arkansas). The PSA is in the southeast portion of Beaufort County, South Carolina. It extends west to east from Moss Creek Drive to Wild Horse Road/Spanish Wells Road and crosses Mackay Creek and Skull Creek via bridge. The land uses within the immediate vicinity of the PSA include both commercial and residential properties. Numerous businesses, including restaurants, outlet malls, retail stores, gas stations, car dealerships, banks, and health services along with outdoor recreational and conservation-related facilities are adjacent to the US 278 Corridor.

The Mackay Creek bridges are located along US 278 and connect the Moss Creek area on the Bluffton side (mainland) to Pinckney Island National Wildlife Refuge (PINWR), refer to Figure 1-2. The bridge that carries US 278 eastbound lanes over Mackay Creek is 2,190 feet in length and was constructed in 1956. The bridge that carries US 278 westbound lanes over Mackay Creek is 2,231 feet in length and was constructed in 1983. The roadway width, curb to curb, on the eastbound and westbound bridges is 36.1 feet. The Skull Creek bridges are located along US 278 and connect Pinckney Island to Hilton Head Island. The bridges carrying US 278 eastbound and westbound over Skull Creek are 2,821.9 feet in length and were constructed in 1982. The roadway width, curb to curb, on the eastbound and westbound bridges is 36.1 feet. Mackay Creek and Skull Creek are primarily used by recreational vessels. Public boat ramps and private docks are located along both creeks.

Within the PSA, US 278 is primarily a four-lane divided highway. From Moss Creek Drive to Salt Marsh Drive, US 278 is a six-lane divided highway with a 35-foot grass median. US 278 from Salt Marsh Drive to 1,700 feet east of Jenkins Road consists of two 12-foot lanes in either direction and a 40-foot grass median. The width of the median shifts to a 14-ft paved two-way left turn lane through the Squire Pope Road intersection. East of Squire Pope Road, three lanes exist in either direction.

The purpose of this project is to address structural deficiencies at the existing eastbound Mackay Creek bridge and reduce congestion within the PSA. While the original purpose of this project was to replace the structurally deficient eastbound Mackay Creek Bridge, the project has grown to include improvements throughout the corridor between Moss Creek Drive and Wild Horse/Spanish Wells Road. The eastbound Mackay Creek bridge (traveling to Hilton Head Island), which crosses the Intracoastal Waterway, would be replaced as part of SCDOT's bridge replacement program. The other three bridges in the PSA - the westbound bridge over Mackay Creek and the eastbound and westbound bridges over Skull Creek - have also been identified for potential improvements. In addition, the access to Pinckney Island National Wildlife Refuge and the C.C. Haigh, Jr. Boat Landing have also been considered for possible improvements.

The Mackay Creek Bridge was built during the 1950s and is scheduled for replacement as part of SCDOT's bridge replacement program. However, based on discussions with local officials, the scope of the proposed bridge replacement project was expanded to include the US 278 Corridor from Moss Creek Drive to Wild Horse/Spanish Wells Road in order to address traffic congestion within the project limits. A traffic analysis was used to determine base year conditions and to analyze future needs. The need for this project is derived from the following factors:

- Growth in population and employment
- Decreased mobility and increased traffic congestion

2.0 METHODOLOGY FOR THE COMMUNITY IMPACT ASSESSMENT

2.1 CIA STUDY AREA

The study area for the Community Impact Assessment includes the proposed right of way limits, Figure 2. The CIA study area is divided into two components, the Town of Bluffton and the Town of Hilton Head Island for the existing conditions and impacts analyses.



Figure 2: CIA Study Area

2.2 DATA SOURCES

Data collection for the Community Impact Assessment includes aerial imagery, field visits (2019), Geographic Information Systems (GIS), public outreach, websites, demographic data from the US Census Bureau and existing studies. A list of sources used to provide an overview of community characteristics within Beaufort County and the towns of Bluffton and Hilton Head Island is provided in Appendix A.

3.0 EXISTING CONDITIONS

The CIA study area is located in Beaufort County and the towns of Bluffton and Hilton Head.

3.1 BEAUFORT COUNTY

Beaufort County is in the Lowcountry region of South Carolina, located on the Atlantic coast. Beaufort County is surrounded by the Atlantic Ocean, Jasper and Colleton counties (both in South Carolina), and Chatham County (in Georgia). It was established in 1769 when South Carolina was still a British Colony. The county covers approximately 923 square miles, consisting of 62 percent land and 38 percent water. Within the county are the municipalities of Beaufort, Bluffton, Hilton Head Island, Port Royal, Hardeeville and Yemassee. The county has two general areas, separated by the Broad River. Beaufort, Port Royal, and Yemassee are considered northern Beaufort County, whereas Bluffton and Hilton Head are southern Beaufort County. The US 278 project is located in the southern portion of Beaufort County.

3.1.1 Land Use

Historically, Beaufort County was rural in nature due to its geographic isolation and lack of infrastructure. This changed in the 1950s due to the military and new bridges. In 1955, the US Marine Corps Air Station was established in northern Beaufort County. This development brought thousands of military and civilian personnel and jobs to the region. Approximately 8,000 acres of the County support military facilities, including the Marine Corps Recruit Depot, Parris Island. Today, it's one of only two training camps in the country and close to 20,000 Marines graduate from the Marine Corps of Parris Island every year. By the early 1900's the economy was based mostly upon fishing, lumber in southern Beaufort County, construction of bridges across the Broad and Chechessee rivers and to Hilton Head Island opened the County to tourism and residential community developments. Commercial developments followed, specifically along the US 278 corridor. Current land uses for Beaufort County are preserved/parks, rural, residential, commercial, industrial and military.

3.1.2 Population and Demographics

The population in Beaufort County has steadily increased over the past 50 years (Table 1). The factors driving growth has been the quality of life and employment opportunities the County offers. From 2000 to 2010, the County's population increased by 28.5 percent. According to the US Census, the 2017 population was 179,316. The South Carolina Budget and Control Board's population projections determined that Beaufort County's population will increase to 241,100 by 2040. The greatest population growth has occurred in the southern portion of the County in Bluffton and Hilton Head Island.

Historically, the County's population was comprised of mostly white and African-American residents. Between 2000 and 2010, there was a notable growth of Hispanic residents, which continues today. Beaufort County has the second largest Hispanic community in South Carolina.

Table 1: Beaufort County Demographic Changes 1980 to 2017

Year	Total Population	Total White	Percentage White	Total African American	Percentage African American	Total Hispanic	Percentage Hispanic
1980	65,364	42,454	65%	21,504	33%	1,329	2%
1990	86,425	59,843	69%	24,582	28%	2,168	3%
2000	120,937	85,451	71%	29,005	24%	8,208	7%
2010	155,550	103,300	66%	30,677	20%	17,383	11%
2017	179,316	120,827	67%	32,543	18%	20,187	11%

Source: US Census, ACS 2017 5 Year Estimates

Another notable population trend is the increasing number of people over the age of 65 residing in Beaufort County (Table 2). These residents are retired or semi-retired. One reason for this trend is the County's popularity as a retirement destination.

Table 2: Beaufort County Age Group Changes 2000 to 2017

Category	2000	Percent of 2000 Total Population	2010	Percent of 2010 Total Population	2017	Percent of 2017 Total Population
Total Population	120,937	-	162,233	-	179,316	-
65 years of age and over	18,754	16%	33,032	20%	44,675	25%
45 to 64 years of age	26,702	22%	40,739	25%	43,078	24%
20 to 44 years of age	42,869	35%	49,427	31%	51,559	29%
10 to 19 years of age	16,469	14%	18,509	11%	19,542	11%
0 to 9 years of age	16,143	13%	20,526	13%	20,462	11%

Source: *The People and Economy of the Low Country*, December 2018

According to the US Census, the 2017 population in Beaufort County is 66 percent white and has a minority population around 44 percent. The median age is 44 years old. The average household size is 2.4 and owns two cars per household. Approximately 88 percent of the population speaks English and 12 percent speak another language. Of the 12 percent that speak another language, approximately two percent speak English either "not well" or "not at all" according to the American Community Survey 2017 5-year estimate.

3.1.3 Housing

In Beaufort County, there were 96,401 residential housing units in 2017 and the median housing value was \$283,800. The homeownership rate was 70 percent and the rental rate was 30 percent in 2017. The median gross monthly rent was approximately \$1,105 a month. Table 3 summarizes the housing market in Beaufort County.

Table 3: Beaufort County Housing Market

Home Value	Percent of Housing Units
Below \$50,000	7%
\$50,000 to \$100,000	6%
\$100,000 to \$200,000	20%
\$200,000 to \$300,000	21%
\$300,000 to \$400,000	14%
\$400,000 to \$500,000	9%
\$500,000 to \$750,000	13%
Above \$750,000	14%

Source: <https://www.towncharts.com/South-Carolina/Housing/Beaufort-County-SC-Housing-data.html>

According to the *Beaufort County, South Carolina Housing Needs Assessment*, May 2018, there is a shortage of affordable housing in the County. Specifically, there is a limited number of rental units available to lower income households. There is also an imbalance between the available housing for sale and the homes most households can afford. During late 2017 and early 2018, there were 2,809 homes for sale but the majority (70.4 percent) were priced above \$300,000, 10.2 percent were priced below \$200,000 and 10.1% were priced between \$200,000 and \$299,999. Approximately 80 percent of these available houses were priced at \$200,000 and higher, but only 50 percent of all households (renters and owners) in the market can afford these properties.

3.1.4 Community Services and Facilities

Community services in Beaufort County include police departments, fire rescue departments and emergency management services (EMS) (Table 4). The Town of Hilton Head does not have its own Police Department. The Beaufort County Sheriff's Office provides law enforcement services to the island under contract with the Town of Hilton Head.

Table 4: Beaufort County Community Services

Police	Fire Rescue	EMS Units
Beaufort County Sheriff's Office	Beaufort Fire Dept Station 1	Beaufort EMS Units 1, 2, 7, 10, 21,22, 23, 24
Beaufort Police Department	Bluffton Township Fire Station 35	Bluffton EMS Units 6, 9, 28
Bluffton Police Department	Burton Hill Fire Station	Callawassie EMS Unit 27
Hardeeville Police Department	City of Beaufort/Town of Port Royal Fire Department	Dale EMS Unit 3
Port Royal Police Department	Hardeeville Fire Department	Daufuskie EMS Unit 4
Yemassee Police Department	Hilton Head Island Fire Rescue	Fripp Island EMS Unit 25
	Yemassee Fire Department	Okatie EMS Unit 11
		St. Helena EMS Unit 5
		Sheldon EMS Unit 26
		Sun City EMS Unit 8

Community facilities within the County include the following:

- Four hospitals -Beaufort Memorial Hospital, Coastal Carolina Hospital, Hilton Head Hospital, and the Naval Hospital.
- Beaufort County Library with branches in Bluffton, Beaufort, Hilton Head, Lobecko, and Helena.
- Three colleges - Park University, Technical College of the Lowcountry, and University of South Carolina Beaufort with campuses in Bluffton and Hilton Head.
- Over 45 private and public schools.
- Over 40 parks and recreational facilities

3.1.5 Access and Mobility

Beaufort County transportation modes include airports, roads, transit and bicycle and pedestrian paths. There are two airports in Beaufort County, Beaufort County Airport and Hilton Head Island Airport. Primary highways serving Beaufort County are state routes 170, 280 and 802 and US Highways 17, 21 and 278. The nearest interstate is I-95 located to the north of the County. US 278 is the primary road through the County, it extends from I-95 in the north to Hilton Head Island to the south.

Transit service is provided by the Lowcountry Regional Transportation Authority, Palmetto Breeze, which provides regional and local fixed-route bus service, seasonal routes, and on-demand service to Beaufort County Disability and Special Needs (DSN) centers. Palmetto Breeze also operates a trolley service on Hilton Head Island. In addition, private operators provide shuttles and other limited services in the Town of Hilton Head Island:

- Sea Pines Trolley System: Free for guests and residents of Sea Pines community
- Palmetto Dunes Shuttle: Free for guests/residents of Palmetto Dunes
- Forest Beach (Red) Shuttle: Free to public
- Airport Shuttles/Taxis: On-demand pay services

3.1.6 Employment and Income

The South Carolina Department of Employment and Workforce estimated that in 2019 Beaufort County has an employment rate of 50 percent, unemployment rate of three percent, and 42 percent not in the labor force. In December 2019, there were 75,678 employed, 1,622 unemployed, and 2,142 job openings in Beaufort County. The Department of Defense is one of the largest employers in northern Beaufort County, employing approximately 15,000. Other major employers in the County are:

- Atlantic Personnel Inc.
- Beaufort County School District
- Beaufort Memorial Hospital
- Sea Pines Resort
- County of Beaufort
- Cypress Club Inc.

The majority of Beaufort employment is in the services, retail and healthcare industries (Table 5). Wages in these industries tend to be low, with the exception of management positions and are reflective of the aging population and tourism industry on Hilton Head Island and other communities.

Table 5: Beaufort County Employment

Industry	2019 Employment	2019 Average Annual Wage	Projected 2026 Employment
Accommodation and Food Services	14,326	\$23,192	17,457
Retail Trade	10,907	\$27,924	15,576
Healthcare and Social Assistance	9,242	\$49,504	14,814

Source: *Beaufort County Profile*, S.C. Department of Employment & Workforce, Business Intelligence Department January 23, 2020.

According to *The People and the Economy of the Lowcountry: a Demographic Overview*, Beaufort County is the wealthiest County in South Carolina, but the wealth is not evenly distributed. There is disparity among racial groups and geographic regions of the County. The median income for African-Americans and Hispanic households is lower than the white households (Table 6). Higher household incomes are located in the southern part of the County, specifically on Hilton Head Island.

Table 6: Beaufort County Family Income by Race/Ethnicity

Population	2019 Median Family Income	Percent of Population in Poverty
Overall	\$72,128	11.9%
White	\$81,770	8%
African-American	\$40,672	27%
Hispanic	\$45,444	22%

Sources: <https://www.towncharts.com/South-Carolina/Economy/Beaufort-County-SC-Economy-data.html>
<http://worldpopulationreview.com/us-counties/sc/beaufort-county-population/>

3.2 BLUFFTON

The Town of Bluffton was settled in 1728 and incorporated in 1852. The town was initially a summer retreat for local plantation owners who established residences on a bluff overlooking the May River. Commercial businesses were located along Calhoun Street and shellfishing and oyster harvesting industries were situated along the shorelines of Calhoun and Wharf streets. This area was the original town consisting of one square mile and is currently known as the Old Town historic district.

Beginning in 1987, the Town of Bluffton grew from one square mile in size to a 53.6 square mile community through land annexation of large and small parcels. The total area of Bluffton within the CIA study area is approximately 80 acres.

3.2.1 Land Use

Current land uses in the Town of Bluffton include residential, mixed use, commercial, light industrial, civic/institutional, parks and preservation. Existing land uses are shown on Figure 3. Within the CIA study area, land uses include residential, commercial, vacant/undeveloped, park/natural space and existing roadway rights of way.

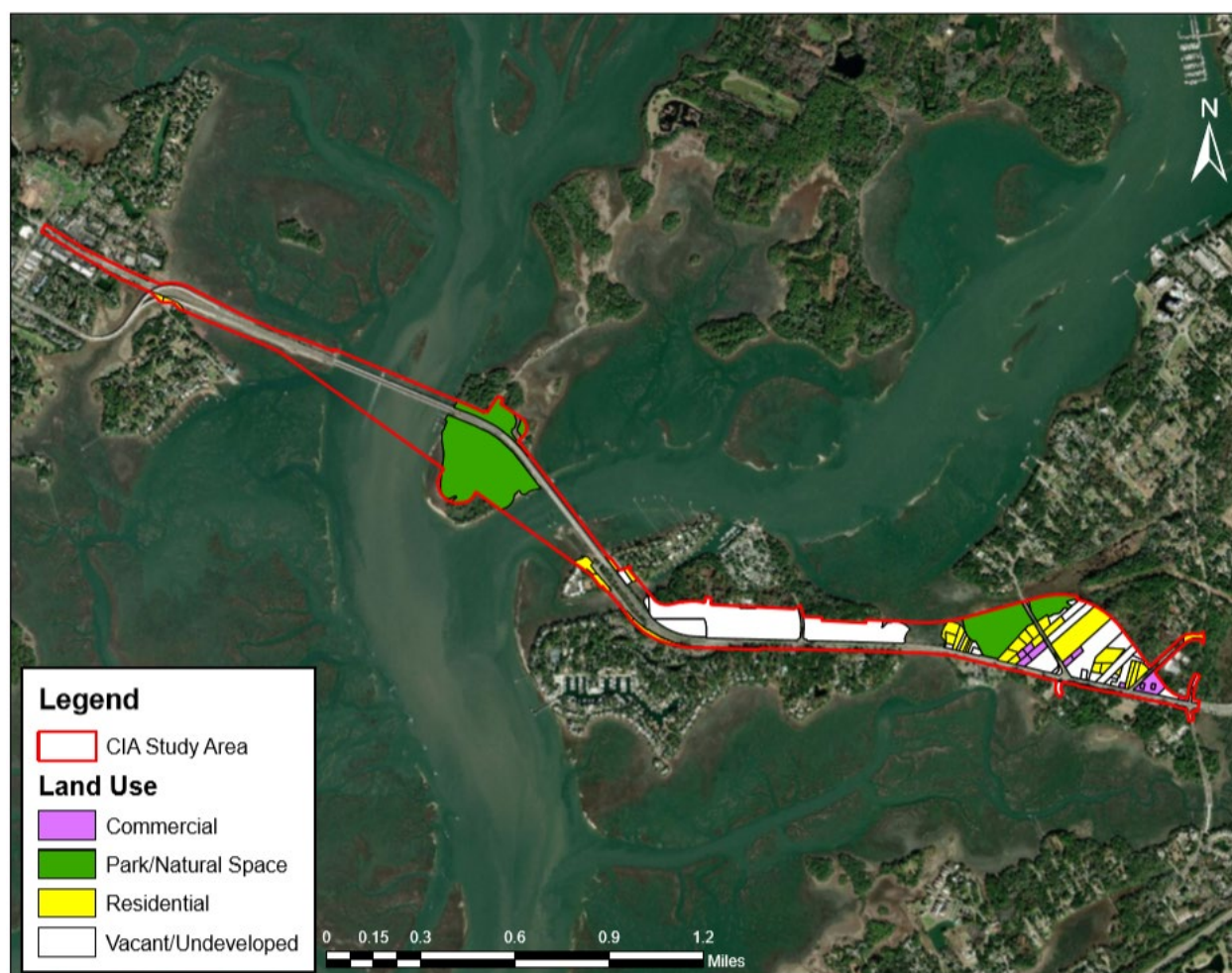


Figure 3: Land Use

Prior to the 1990s, southern Beaufort County and Bluffton were mostly rural. In 1993, development accelerated in Bluffton with the approval of Sun City a 6,385-unit retirement community on 6,000 acres. Several other planned residential communities followed Sun City. The majority of residential development in Bluffton is single family, ranging from large lots to townhome developments. Approximately 90 percent of Bluffton is currently zoned as planned unit development (PUD). Ninety-two percent of Bluffton is covered by a Development Agreement, though it is only about a third of the way built-out. This means that the town must plan to continue to facilitate steady growth for the foreseeable future.

Commercial uses are concentrated along US 278 within and beyond the CIA study area, Bluffton Parkway and May River Road. The commercial developments are large retailers such as Tanger Outlet Malls, WalMart, Sam's Club, Lowes and Home Depot, and auto dealerships. In addition, there is commercial development along Buckwalter Parkway within PUDs (Figure 4).



Figure 4: Bluffton Commercial Land Uses

Public and institutional uses are generally scattered throughout Bluffton, but there are also several concentrated areas including the cluster at Buckwalter Parkway, along and adjacent to H.E. McCracken Circle. Within this area are Bluffton High School, H.E. McCracken Middle School, Bluffton Elementary School, Bluffton Early Learning Center, Bluffton Boys and Girls Club, Buckwalter Recreation Center, and the Lowcountry Community Church. Another concentration of public uses is located along the south end of Burnt Church Road. This area includes Michael C. Riley Elementary, Michael C. Riley Early Childhood Center, Bluffton Town Hall, the Bluffton Pool, and the Bluffton Township Fire Station #30 and Maintenance Center.

3.2.2 Population and Demographics

According to the most recent US Census estimates, Bluffton is one of the fastest growing municipalities in South Carolina (Table 7). It is the 22nd largest city in South Carolina with a population of 23,097 in 2018. Seasonal tourists and visitors increase this population to 40,000 or more.

Table 7: Bluffton Population

Year	Total Population	Total White	Total African-America	Total Hispanic
2000	1,275	806	414	NA
2010	12,530	8,950	2,025	2,355
2017	21,085	13,692	1,731	2,881

Source: US Census

NA=Not Available

The majority of the population is white (80 percent) and 20 percent are minorities (Table 7). African Americans (7.8 percent) and Hispanics (15.5 percent) comprise the largest minority groups. Approximately 80 percent of Bluffton residents speak only English, while 20 percent speak other languages. The non-English language spoken by the largest group is Spanish, which is spoken by 15 percent of the population.

The median age is 37 and approximately 16 percent of the population is over 65 years of age. Between 2017 and 2022, the greatest population growth by age group is projected to occur among people under the age of 25 and over the age of 75 within the Town of Bluffton (Table 8).

Table 8: Bluffton Population by Age

Year	<25	25-34	35-44	45-54	55-64	65-74	75+
2010	4,857	2,416	2,212	1,542	1,200	594	228
2017	6,701	2,854	3,149	2,453	1,831	1,352	549
2022	7,920	3,492	3,533	2,602	2,029	1,472	771
Change	1,219	638	384	149	198	120	222
2017-2022	18.2%	22.4%	12.2%	6.1%	10.8%	8.9%	40.4%

Source: 2018 Housing Needs Assessment

3.2.3 Housing and Neighborhoods

Housing in Bluffton consists of single-family homes (75 percent), townhomes (16 percent), apartments (7.8 percent) and mobile homes (1.2 percent). Approximately 79 percent of residents own their homes and 21 percent of the residents rent. The median 2020 home value in Bluffton is \$290,764 and it is predicted they will rise 2.2 percent within 2020. The median price of homes currently listed in Bluffton is \$353,990 while the median price of homes that sold is \$272,000. The median rent price in Bluffton is \$1,695.

According to the 2018 *Housing Needs Assessment*, there are no vacant Tax Credit rental units or government subsidized rental units. Additionally, there are typically fewer than 20 available homes priced under \$200,000. Therefore, there is minimal available housing stock that is affordable to households earning less than \$60,000 annually.

There are 34 neighborhoods within the Town of Bluffton, but only five are located within the CIA study area (Figure 5):

- Moss Creek: This is a private residential golf community located on the north side of US 278 and cover over 1,000 acres. It has 1,044 homes, two golf courses, tennis courts, club house, fitness center, marina, recreational area, fitness center, community pools, nature preserves, and equestrian center.
- The Gatherings: This neighborhood is located near the bridge to Hilton Head Island. It has 103 homes and townhouses, a community pool, playground, tennis courts and basketball court.
- The Lakes at Edgewater: This is an apartment community located near the located near the bridge to Hilton Head Island. It has 300 apartment units, a fitness center, picnic area, playground, dog park and pool.
- Buckingham Landing: This neighborhood is a small island connected to the mainland by a roadway. It is a residential community with a convenience store/gas station and a public boat launch.
- Hog Island: This boating community is located on Hilton Head Island but is actually a part of the town of Bluffton. It houses several homes off the intercoastal waterway.



Figure 5: Bluffton Neighborhoods

3.2.4 Community Services and Facilities

Community services and facilities are shown on Figure 6.

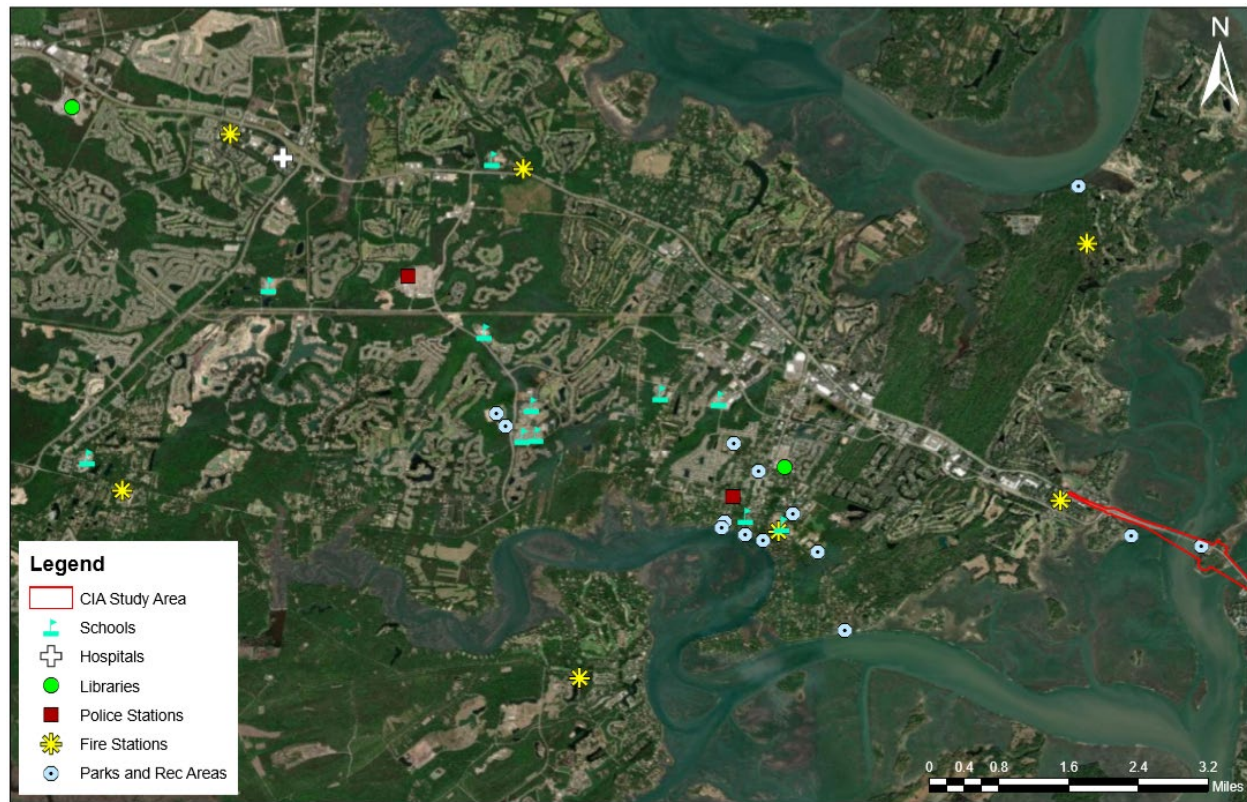


Figure 6: Bluffton Community Services and Facilities

Bluffton has two Police Stations and six Fire Stations. There are three EMS stations (Stations 6, 8 and 9) located within the same facilities as the Bluffton Fire District. Three hospitals serve the Bluffton area: Beaufort Memorial Hospital, Coastal Carolina Medical Center, Hilton Head Regional Medical Center, and US Naval Hospital Beaufort. None of these services and facilities is located within the CIA study area.

The Town of Bluffton has nine public schools: five elementary schools, two middle schools and two high schools (Table 9). There are also three private schools in Bluffton including St. Gregory the Great Catholic School, Cross School, and May River Montessori School. There is one university located in the area: University of South Carolina Beaufort-Bluffton Campus. There are no schools within the CIA study area.

Table 9: Bluffton Schools

Elementary Schools	Middle Schools	High Schools
<ul style="list-style-type: none"> Bluffton Elementary School Michael C. Riley Elementary School Pritchard Elementary School Red Cedar Elementary School River Ridge Academy 	<ul style="list-style-type: none"> Bluffton Middle School H.E. McCracken Middle School 	<ul style="list-style-type: none"> Bluffton High School May River High School

Other community services include the Bluffton branch of the Beaufort County Library and 17 recreational facilities, none of which are located within the CIA study area:

- Berkley Hall Preserve
- Bluffton Pool
- Bluffton Recreation Center
- Buckingham Boat Landing
- Buckwalter Community Park
- Buckwalter Recreation Center
- Calhoun Street Public Boat Dock
- Camp St. Mary's
- Field of Dreams Park
- M.C. Riley Complex
- Oscar Frazier Community Park
- Oyster Factory Park and Boat Dock
- Pinckney Colony Preserve
- Pinckney Island Boat Landing
- Pinckney Island National Wildlife Refuge
- Pritchard Packet Park
- Village Square Boat Dock

3.2.5 Access and Mobility

The primary roads in Bluffton are US 278, Bluffton Parkway, SC 170, and SC 46. These routes connect to other municipalities. SC 170 is the primary route northeast from Bluffton to Beaufort, and southwest to U.S. 17 for travel to Savannah. SC 46/May River Road defines the southern edge of Beaufort County and also connects west to Hardeeville and I-95. Bluffton Parkway, Buckwalter Parkway, and Bluffton Road serve as arterials within Bluffton, providing connections between US 278, SC 170, and SC 46. Bluffton Parkway runs primarily east to west, while Buckwalter Parkway and Bluffton Road run primarily north to south. Buckwalter Parkway, Burnt Church, Simmonsville, Buck Island and Bruin Roads provide access and traffic circulation between neighborhoods and commercial areas. (Palmetto Breeze Transit Development Plan)

Transit service in Bluffton is provided by the Lowcountry Regional Transportation Authority, Palmetto Breeze, which provides regional and local fixed-route bus service, seasonal routes, and on-demand service to Beaufort County Disability and Special Needs (DSN) centers.

Sidewalks and multi-use paths are located along various route in Bluffton. In the Old Town, an existing pathway in the Old Town is the Tabby Roads pathway connecting M.C. Riley Elementary School to the Tabby Roads development. Generally, sidewalks serve the Old Town instead of separated multi-use pathways for pedestrian and bicycle travel. Outside of the Old Town, pathways are located along Buckwalter Parkway, McCracken Circle, as well as the Bluffton Parkway. Figure 7 shows the existing and proposed pathways within the Town of Bluffton.

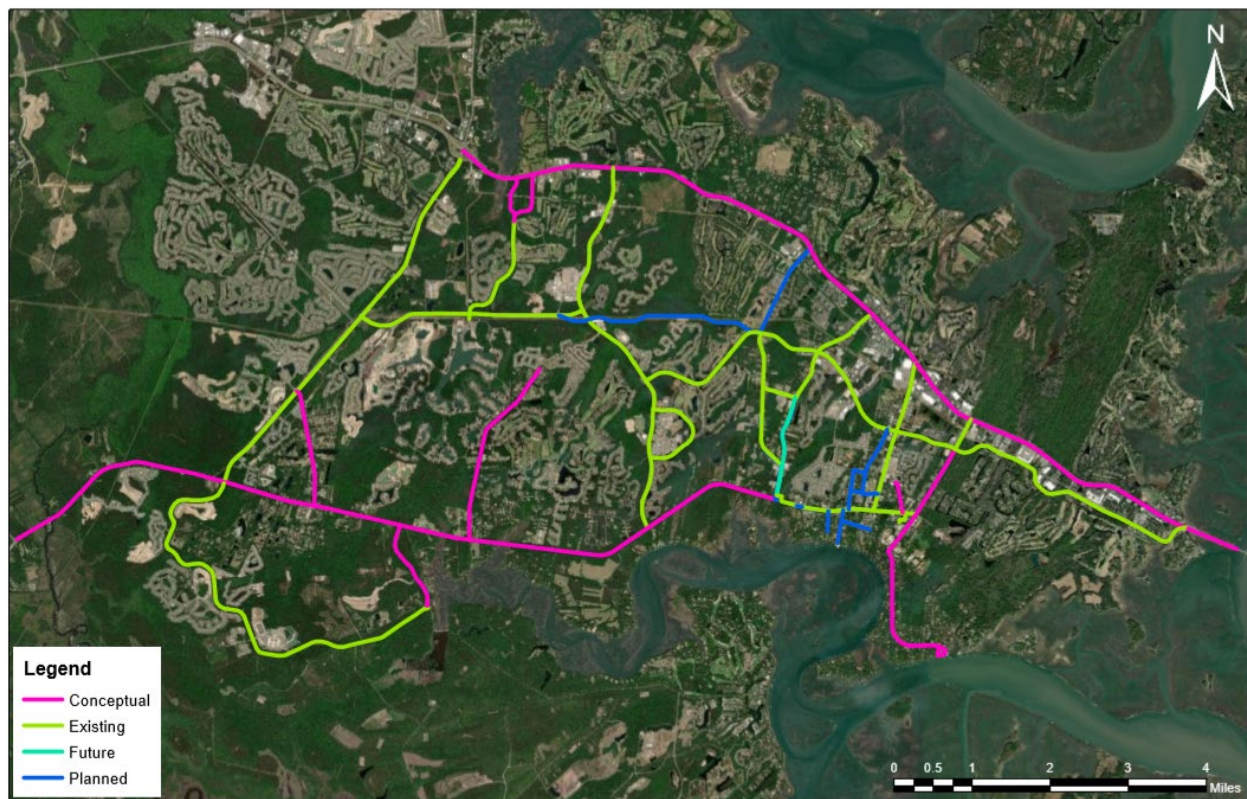


Figure 7: Bluffton Pathways

3.2.6 Employment and Income

The labor force in Bluffton is comprised of 8,365 employees, which is 67 percent participation of the population. Bluffton has an unemployment rate of 3.1 percent.

The top four employers in the Town of Bluffton for 2019 are:

- Beaufort County School District (Bluffton only) - 1,030 employees
- Inn at Palmetto Bluff& Palmetto Bluff Clubs – 750 employees
- Kroger- 464 employees
- EviCore National/Care Core National, LLC -400 employees

Other predominate businesses include retail, professional services, medical, personal services (beauty and spa services, pet services, event planners and suppliers, photographers, etc.), and restaurants. Within the CIA study area, the large retailers along US 278 such as Tanger Outlet Malls, WalMart, Sam's Club, Lowes and Home Depot, and auto dealerships provide employment for residents.

According to US Census 2018 ACS Survey the median household income is \$74,695 and per capita income is \$37,204. The poverty rate in Bluffton is 2.7 percent.

3.3 HILTON HEAD ISLAND

Prior to the 1950's, Hilton Head was isolated, lacked electricity and was only accessible by boat. Islanders supported themselves by farming, fishing and commercial oystering. In the 1950s, electricity was brought to the island and in 1956 the first bridge connecting Hilton Head to the mainland was constructed. These events opened the island to development and tourism. Today, Hilton Head Island is a nationally and internationally known premier resort and retirement community. Over 2 million tourists visit Hilton Head annually.

Hilton Head Island is 29,000 acres in size and is the second largest barrier island on the east coast of the United States. The Town of Hilton Head Island is comprised of 21,862 acres, the equivalent of 34.2 square miles. Hilton Head island was incorporated as a town in 1983. The municipal limits include all of Hilton Head Island, Buck Island, and a portion of Jenkins Island. The total area of Hilton Head Island within the CIA study area is approximately 275 acres.

3.3.1 Land Use

The Town of Hilton Head Island is almost entirely developed. Current land uses include residential, commercial, industrial, civic/institutional, parks and preservation. The majority of land is occupied by golf courses, residential communities and resort communities. Within the CIA study area, land uses include residential, commercial, vacant/undeveloped, park/natural space and existing roadway rights of way.

Approximately 70 percent of Hilton Head Island is developed with private residential and resort developments, which include planned unit developments, resort style neighborhoods, and historic native island neighborhoods. There is more tourism development on the south end and more permanent residential development on the north end of the island.

Commercial uses on the Town of Hilton Head Island, including the islands major shopping centers, are almost entirely located along the U.S. 278/278 Business loop. The exception is Pope Avenue, which is also primarily commercial and retail between Business 278 and the Coligny Beach Circle at Forest Beach Drive. The traffic circle at Coligny Beach includes a concentration of hotels, retail and tourist amenities and the most popular beach on the island.

Public and institutional uses are primarily located on the north end of the island, including the public school district, Hilton Head Island Airport, Hilton Head Island Branch Library, and the Main Street Village area. Seven fire stations and numerous religious institutions are located throughout the island. The substation for the Beaufort County Sheriff's Office is located mid-island at 70 Shelter Cove Lane.

3.3.2 Population and Demographics

According to the most recent US Census estimates, Hilton Head is the 10th largest municipality in South Carolina. The 2018 population was 39,639. Seasonal tourists and visitors increase this population to 150,000 or more. Over the last decade the population growth rate has been 32 percent (Table 10). The Town of Hilton Head Island is projected to experience the greatest population growth between 2017 and 2022, adding 3,520 people, an increase of 9.3 percent.

Table 10: Hilton Head Population

Year	Total Population	Total White	Total African-America	Total Hispanic
2000	33,862	30,751	2,766	3,896
2010	37,210	27,951	2,355	5,861
2017	40,047	31,474	2,768	4,702

Source: US Census

The majority of the population is white (88 percent) and 14.8 percent are minorities (Table 10). African Americans (7 percent) and Hispanics (15.5 percent) comprise the largest minority groups. Approximately 87 percent of Hilton Head residents speak only English, while 13 percent speak other languages. The non-English language spoken by the largest group is Spanish, which is spoken by 10 percent of the population.

The median age is 57 and approximately 32 percent of the population is over 65 years of age (Table 11). Between 2017 and 2022, the greatest population growth by age group is projected to occur among over the age of 75 within the Town of Hilton Head. This age group represents almost one-half of all households on the island.

Table 11: Hilton Head Population by Age

Year	<25	25-34	35-44	45-54	55-64	65-74	75+
2010	7,383	3,295	3,396	4,061	5,442	5,378	4,470
2017	7,785	3,549	3,315	4,095	6,040	7,397	5,616
2022	8,015	3,962	3,491	3,879	6,224	8,590	7,156
Change	230	413	176	-216	184	1,193	1,540
2017-2022	(3.0%)	(11.6%)	(5.3%)	(-5.3%)	(3.0%)	(16.1%)	(27.4%)

Source: 2018 Housing Needs Assessment

3.3.3 Housing and Neighborhoods

Approximately 70 percent of Hilton Head Island is developed with private residential and resort developments, which include planned unit developments, resort style neighborhoods, and historic native island neighborhoods. Approximately 78 percent of residents own their homes and 22 percent of the residents rent. The median 2020 home value in Hilton Head is \$444,546 and it is predicted they will rise 4.9 percent within 2020. The median price of homes currently listed in Hilton Head is \$489,900 while the median price of homes that sold is \$399,600. The median rent price on the island is \$2,150.

According to the 2018 *Housing Needs Assessment*, there are no vacant Tax Credit rental units or government subsidized rental units. Additionally, there are typically fewer than 60 available homes priced under \$200,000. Therefore, there is minimal available housing stock that is affordable to households earning less than \$60,000 annually.

There are 11 gated communities commonly referred to as "plantations" on Hilton Head Island. Some of them are private communities for year-round residents, while others have resorts, golf courses, businesses and places to visit that are open to visitors. There also neighborhoods, which lack security gates including the Forest Beach areas, Folly Field, Singleton Beach, and the historic native island neighborhoods. There is one neighborhood located within the CIA study area the Stoney Community, which is bisected by US 278 (Figure 8). It contains a mix of commercial and residential developments. It also includes parks, schools, Boys and Girls Club, marinas and restaurants.

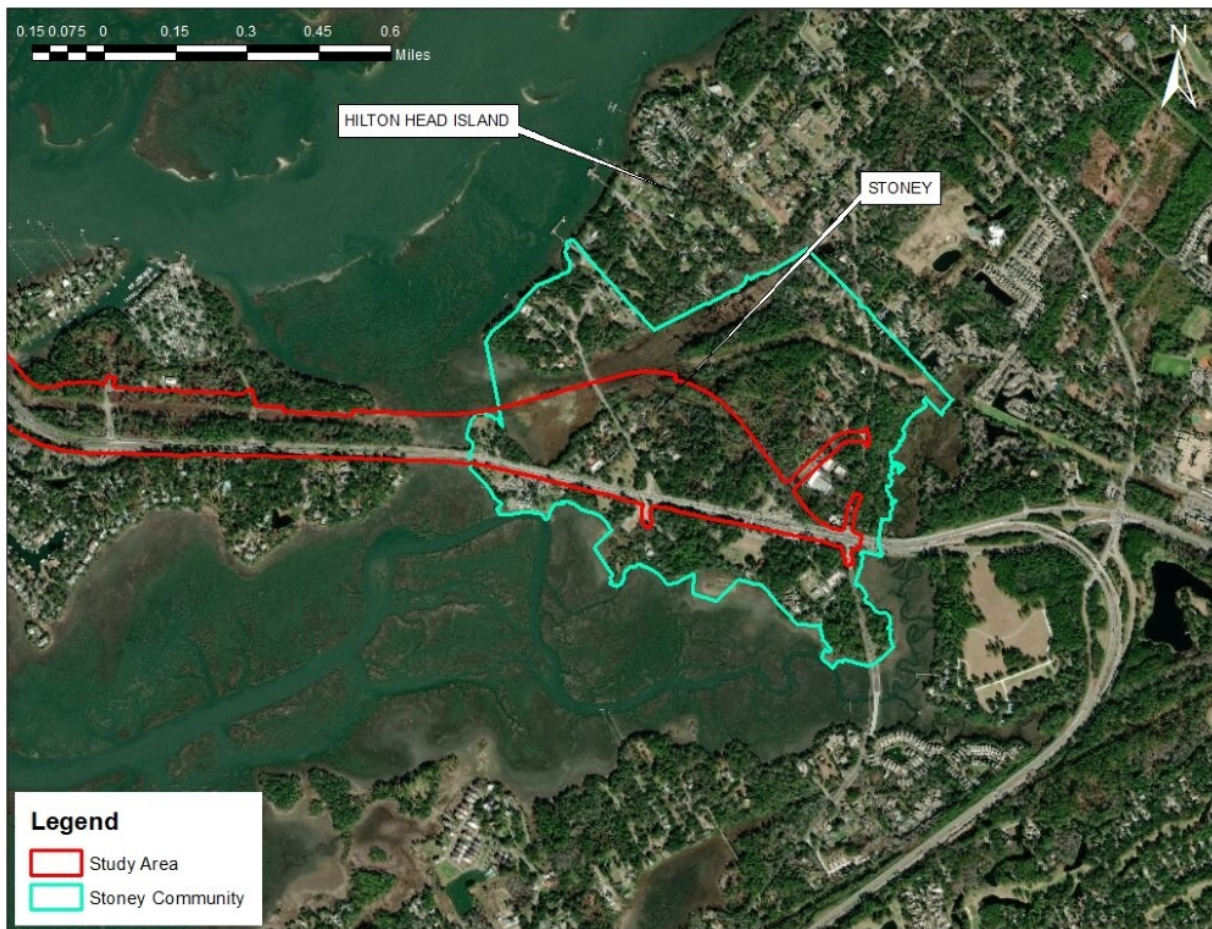


Figure 8: Stoney Community

3.3.4 Community Services and Facilities

Community services and facilities are shown on Figure 9. None of them are located within the CIA study area.

Police services for the Town of Hilton Head are provided by the Beaufort County Sheriff's Office under an agreement with the town. Fire, Rescue, Emergency Medical and Emergency Management services are provided by the Hilton Head Island Fire and Rescue Department (HHIFR). HHIFR operates seven staffed fire stations, an emergency communications center, an emergency operations center, a headquarters and maintenance facility and a new training facility. There is one major hospital located on the island Hilton Head Hospital located at 25 Hospital Center Boulevard.



Figure 9: Hilton Head Island Community Services and Facilities

The island has five schools with only one high school and one middle school: Hilton Head Island High School, Hilton Head Island Middle School, Hilton Head Island School for the Creative Arts, Hilton Head Island Baccalaureate Academy, and Hilton Head Island Early Childhood Center. There are also private education institutions that serve elementary and secondary students on Hilton Head Island including Hilton Head Christian Academy, St. Francis Catholic School, Hilton Head Preparatory School, Heritage Academy and Sea Pines Montessori Academy. Technical College of Low Country is the only college located on the island.

There are two libraries on the island. The Beaufort County operates a regional library on the north end of Hilton Head Island. The other is the Heritage Library, a non-profit library offering research assistance on ancestry in addition to classes and tours focused on Hilton Head Island's history.

There are seven beach parks, eight community parks, one dock, two boat ramps, and seven recreational parks on Hilton Head Island, each offering their own unique amenities.

- Alder Lane Beach Access
- Burkes Beach Access
- Coligny Beach Park
- Driessen Beach Park
- Fish Haul Park
- Folly Field Beach Park
- Islanders Beach Park
- Mitchelville Beach Park
- Barker Field
- Compass Rose Park
- Cordillo Tennis Courts
- Crossings Park & Bristol Sports Arena
- Green Shell Park
- Hilton Head Park (Old Schoolhouse Park)
- Jarvis Creek Park
- Marshland Road Boat Landing
- Old House Creek Dock
- Shelter Cove Community Park

- Broad Creek Boat Ramp
- Chaplin Community Park
- Xeriscape Garden

3.3.5 Access and Mobility

The primary road on Hilton Head Island is US 278 which is the only roadway on and off the island. US 278 and Business 278 form a loop encircling the center of the island. According to the town's Geographic Information System, the total length of roadway miles on the island is approximately 398. The town owns and maintains approximately 11.8 miles of roadways, Beaufort County owns 22 miles of roadway and NCDOT owns approximately 73 miles of roadway. Private roads total 291 miles on the island.

Transit service in Bluffton is provided by the Lowcountry Regional Transportation Authority, Palmetto Breeze, which provides regional and local fixed-route bus service, seasonal routes, and on-demand service to Beaufort County Disability and Special Needs (DSN) centers.

Hilton Head Island Airport is located on the north end of the island and is owned by Beaufort County. This four-gate airport serves both private and commercial plans.

There are over 60 miles of public multi-use pathways on Hilton Head (Figure 10). In addition, there is an estimated 60 miles of pathways and shared roadways within the private residential developments. Together both the public and private pathway networks comprise a comprehensive system of multi-use pathways throughout the island. Hilton Head's primary goals for the multi-use pathway network are to guide the development and maintenance of a pathway transportation system that provides access and mobility throughout Hilton Head Island.



Figure 10: Hilton Head Public Multi-Use Pathways

3.3.6 Employment and Income

The labor force in Hilton Head is comprised of 49 percent of the population. Approximately, 49 percent of the population does not work, which reflects the island's retirement communities. Hilton Head has an unemployment rate of 3 percent.

Employment on Hilton Head is oriented to the service industry, specifically golf courses, restaurants, hotels and resorts. On the island, much of the employment is concentrated along the north section of the U.S. 278/Business 278 loop. This includes Hilton Head Hospital, Hilton Head schools, and several large shopping centers.

According to Hilton Head Island's 2017 Comprehensive Annual Financial Report, the top four employers in the town are:

- Serg Group Restaurants – 869 employees
- Sea Pines Resort – 672 employees
- Hilton Head Medical Center – 558 employees
- Beaufort County School District – 518 employees

The median household income for residents of Hilton Head Island is \$72,569. Although this is above average it still leaves 10.9% of citizens in poverty.

According to US Census 2018 ACS Survey the median household income is \$73,972 and per capita income is \$51,773. The poverty rate in Hilton Head is 11.12 percent.

3.4 SPECIAL POPULATIONS

3.4.1 Disabled Individuals

The definition of disability varies, according to the Americans with Disabilities Act of 1990, a person with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activity. This includes people who have a record of such an impairment, even if they do not currently have a disability. The US Census compiles disability data from three surveys, the American Community Survey (ACS), the Survey of Income and Program Participation (SIPP), and the Current Population Survey (CPS). Information gathered from these surveys focus on six disability types: hearing, vision, cognitive, ambulatory, self-care, and independent living.

The CIA study area is located in four census tracts as shown in Figure 11. There are disabled individuals residing in all four Census Tracts. Table 12 also shows estimates of disabled persons at the national, state, and county level. Beaufort County's disabled population percentage is below state and national averages.

There are several state and county programs in Beaufort County providing services and support for disabled persons. There is one facility in the CIA study area, Memory Matters located at 117 William Hilton Parkway in Hilton Head. Memory Matters is a non-profit agency, which focuses on brain health and provides memory care services.

3.4.2 Elderly Individuals

According to the US Census and the 2018 Housing Needs Assessment, the number of individuals over the age of 65 residing in Beaufort County is increasing. One reason for this trend is the County's popularity as a retirement destination. Beaufort County census data shows that residents over 65 years of age is approximately 25 percent. Approximately 16 percent of the population in Bluffton and 32 percent of the population in Hilton Head are over 65 years of age. Between 2017 and 2022, the greatest population

growth by age group is projected to occur among people over the age of 75 within Bluffton and Hilton Head (Tables 8 and 11).

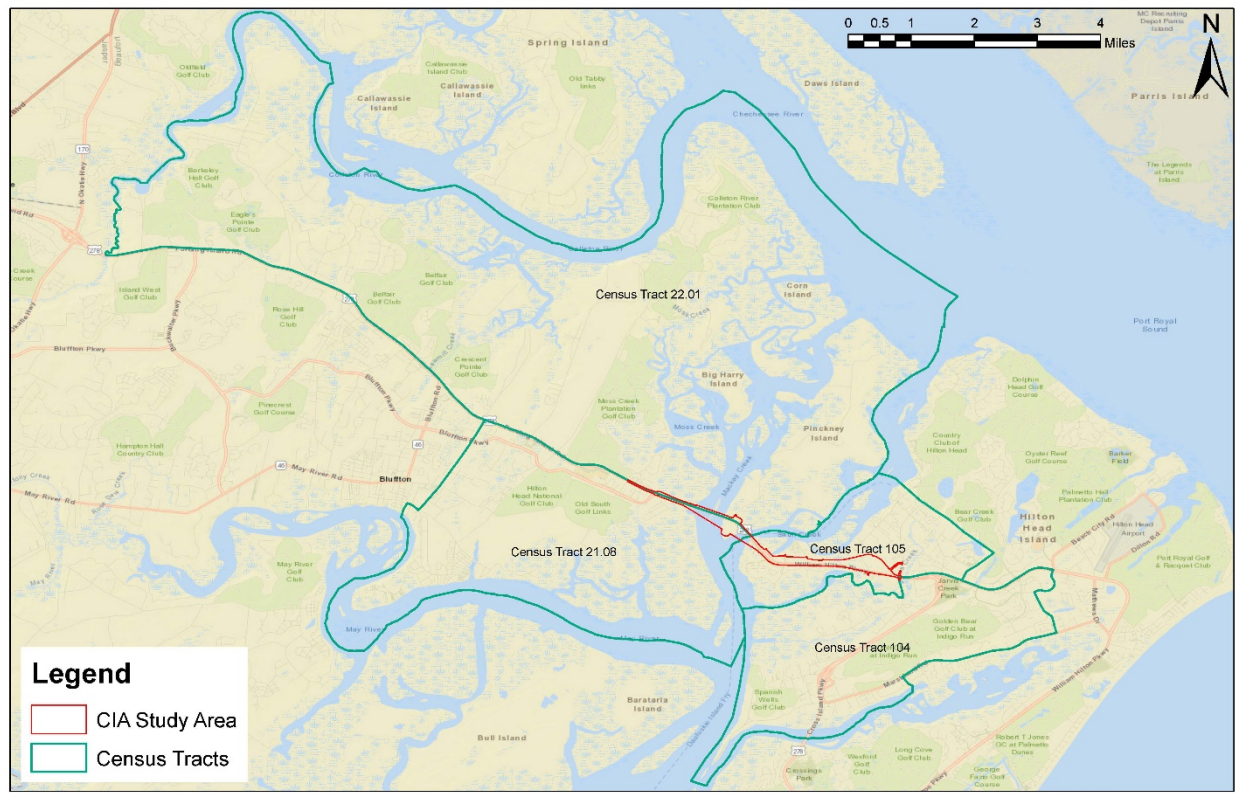


Figure 11: Census Tracts

Table 12: Special Populations

Community/ Census Tract	Total Population	Disabled Population	Elderly Population (Over 65 Years of Age)	Limited English Proficiency* Population
CT 21.08	4682	483	548	19
CT 105	4029	345	647	227
CT 22.01	7383	592	3026	96
CT 104	5068	398	1234	70
Beaufort County	179,316	21,980	44,675	4,010
South Carolina	4,893,444	706,323	795,256	65,124
United States	321,004,407	39,792,082	47,732,389	13,417,454

*Persons 5 years or older

Source: ACS 2013-2017 5-year estimate data.

Table 12 presents the elderly population in the CIA study area by census tract. Neighborhoods with elderly residents include Moss Creek, The Lakes at Edgewater, The Gatherings, Buckingham Landing, Mariners Cove, Windmill Harbor and Stoney.

There are several assisted living centers and organizations that support the elderly located in Bluffton and Hilton Head Island. These organizations include the South Carolina Department of Aging, Aging & Disability Resource Center of the Lowcountry, GetCareSC, Hilton Head Island Senior Center, Lifelong Learning of Hilton Head Island, and Alzheimer's Family Services of Greater Beaufort. There is one elderly care facility in the CIA study area, Memory Matters, which provides memory care and adult day care services.

3.4.3 Limited English Proficiency Populations

Executive Order 13166 "Improving Access to Services for Persons with Limited English Proficiency" requires all recipients of federal funds to provide meaningful access to persons who are LEP. The US Department of Justice defines LEP individuals as those "who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English" (67 FR 41459).

The Department of Justice's "Safe Harbor" LEP threshold is met when either 1,000 adults or five percent of the CIA study area population speak English "less than very well" as documented by Census Bureau survey results. Four census blocks were evaluated to determine the LEP population in the CIA study area. As shown in Table 12, none exceed 10 percent of the total census tract populations. The non-English language spoken by the largest group is Spanish, which is spoken by over 10 percent of the population in Bluffton and Hilton Head Island. Public Involvement outreach has provided Spanish-versions of project newsletters, surveys and public meeting materials.

4.0 IMPACTS

The potential positive and negative impacts of the Recommended Preferred Alternative 4A on the surrounding communities, neighborhoods and quality of life for residents are discussed in the following sections. The assessment of effects enables SCDOT to address public concerns and minimize community impacts. The following factors were evaluated:

- Land Use: The acreage of land use categories converted to highway right of way
- Property Acquisition/Displacements: The numbers and types of individual parcels that would be acquired by SCDOT for construction
- Community Cohesion: The impact of the Recommended Preferred Alternative 4A on the community structure, such as by a physical division of the neighborhood and affects to the use of community services and facilities and social interaction
- Community Facilities and Services: Displacements of community facilities and services as resulting from the construction
- Mobility and Access: The impact on the ability of residents and tourists to move freely about the CIA study area to access residences, commercial properties, services, recreational areas and to carry out daily activities
- Special Populations: The impact on disabled, elderly and limited English proficiency populations
- Visual/Aesthetics: The impact on the viewsheds within the CIA study area
- Economics: The impact on existing businesses, induced development, providing access to new areas for development, and potential for bringing new employment opportunities to the area
- Noise: Noise impacts would occur if noise levels rise above the Federal Highway Administration's noise abatement criteria levels resulting from the construction.

4.1 DESIGN ELEMENTS

The following design elements are components of the Recommended Preferred Alternative 4A.

- In Bluffton, between the intersections of Moss Creek Drive and Salt Marsh Drive, no roadway widening will be required since the existing typical section consists of three eastbound lanes and three westbound lanes. A 10-foot wide paved multiuse path and a 5-foot wide sidewalk will be constructed along US 278
- A multiuse path will be located along US 278 from Moss Creek Drive in Bluffton to Old Wild Horse Road/Spanish Wells Road in Hilton Head
- The eastbound bridge over Mackay Creek will be replaced
- Access to the Pinckney Island National Wildlife Refuge will be right-in/right-out via a modified interchange

4.2 RELOCATIONS

As a result of right-of-way minimization and design refinements, the Recommended Preferred Alternative 4A reduced the potential relocations to zero residential relocations and two commercial relocations. Both commercial relocations are within the Stoney community. Based on the relocation report completed by

SCDOT, there are available locations for these businesses to relocate within the Stoney community. Loopnet.com was used to search for replacement properties for sale or lease in Bluffton and Hilton Head. Table 13 presents the available commercial properties.

Table 13: Commercial Properties for Sale or Lease in in Bluffton and Hilton Head

Type of Property	Number of Properties for Sale	Number of Properties for Lease
Office	4	12
Retail	2	15
Industrial	3	1
Land	2	1

Source: Loopnet.com accessed on June 4, 2020

The acquisition of property for right-of-way would be in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646, as amended by 100-17; 49 CFR 24.205 (AF)). This Act was enacted by congress in 1971 to assist residents, organizations, and businesses displaced by public agencies in relocating without suffering a disproportionate loss. The SCDOT will provide relocation advisory and financial assistance to homeowners, renters and business owners displaced as a direct result of the project.

4.3 COMMUNITY COHESION

The Recommended Preferred Alternative 4A would not create a new physical barrier to any neighborhoods or communities within the CIA study area. The alternative follows the existing US 278 corridor and provide improved access throughout the project study area. In Bluffton, between the intersections of Moss Creek Drive and Salt Marsh Drive, no roadway widening will be required, US 278 would remain the same. A 10-foot paved multiuse path and a 5-foot sidewalk would be constructed along US 278 in Bluffton. The multiuse path would extend along US 278 from Moss Creek Drive to Blue Heron Point Road and continue to Old Wild Horse Road/Spanish Wells Road. From the east end of Jenkins Island causeway to the end of the project at Old Wild Horse Road/Spanish Wells Road, US 278 will be widened to the north of the existing centerline to minimize relocation impacts. The Recommended Preferred Alternative 4A would not disrupt neighborhoods in Bluffton or Hilton Head by causing isolation or altering or hindering access to community services and facilities. In addition, it would improve community cohesion throughout the US 278 corridor by:

- Providing more sidewalks, multiuse paths, and cross-walks.
- Improving access to commercial, residential and recreational properties.

4.4 COMMUNITY FACILITIES AND SERVICES

No Schools, libraries, religious institutions, hospitals, police, EMS or fire departments would be directly impacted by the Recommended Preferred Alternative 4A. Access to community facilities and services would improve as a result of this alternative. Additionally, emergency response times would improve throughout the project study area as traffic congestion is reduced, lanes added and intersections improved along US 278.

The Recommended Preferred Alternative 4A would impact the Pinckney Island National Wildlife Refuge and C.C. Haigh Jr. Boat Landing with the construction of a new right-in/right-out interchange. A new

interchange that allows vehicles to pass underneath the existing bridges to access either side of the island and provides full access to US 278 and relocates the C.C. Haigh Jr. Boat Landing.

4.5 MOBILITY AND ACCESS

The Recommended Preferred Alternative 4A would improve mobility and access for pedestrians, bicyclists and motorists throughout the US 278 corridor. Currently, there are no sidewalks or multiuse paths in Bluffton along US 278. The Recommended Preferred Alternative 4A would provide a 10-foot wide multiuse path and a 5-foot wide sidewalk along US 278 between Moss Creek Drive and Salt Marsh Drive. The multi-use pathway would continue along US 278 across the bridges to Blue Heron Point Road on Hog Island.

The Recommended Preferred Alternative 4A widens the existing US 278 corridor to six-through (travel) lanes from Salt Marsh Drive to Mackay Creek bridges. All alternatives include a new six-lane bridge south of the existing Mackay Creek bridge. These improvements would improve mobility through the US 278 corridor.

The Recommended Preferred Alternative 4A would provide a right-in/right-out via a modified interchange to access the Pinckney Island National Wildlife Refuge. The interchange would replace the at-grade intersection and allow vehicles to pass underneath the existing bridges to access either side of the island and provide full access to US 278. The multiuse pathway continues along US 278 to Blue Heron Point Road on Hog Island. The interchange and multiuse pathway would improve access to the Pinckney Island National Wildlife Refuge and the CC Haigh Jr. Boat Landing.

The Recommended Preferred Alternative 4A would provide a new access to properties on Hog Island located to the north of existing US 278.

4.6 STONEY COMMUNITY

The Stoney community on Hilton Head Island is the only EJ population within the CIA study area. This community contains a mix of commercial and residential developments. It also includes parks, schools, Boys and Girls Club, marinas, restaurants, and the Humane Society. Stoney is bisected by US 278, which is the only route on and off the island. The strength of the community has kept the Stoney neighborhood intact despite the major division caused by US 278. This is their family land, as it provides ties to their culture, and plays an important role in their lives. The residents want to remain on their land and utilize it themselves as opposed to selling to other people to develop.

The Recommended Preferred Alternative 4A follows existing US 278 through the Stoney Community. US 278 would be widened to the north of the existing centerline to minimize potential relocations. A multiuse path would extend along US 278 from Blue Heron Point Road to Wild Horse Road/Spanish Wells Road. The Recommended Preferred Alternative 4A would benefit the Stoney community by improving connectivity with the construction of a multiuse path and additional crosswalks. Access to commercial, residential and recreational properties would be improved by intersection improvements and the addition of turn lanes.

Based on the noise analysis completed, in 2045 the Recommended Preferred Alternative 4A will have noise impacts at 11 residential receivers within the project study area, ten of these residential properties are in the Stoney community, Figure 12. According to the *Preliminary Engineering Noise Report*, June 2020,

the properties would have noise levels that approach or exceed FHWA's noise abatement criteria for residential land use. The noise analysis also indicated that eight of these ten residential properties would have noise impacts in 2045 even if the proposed project was not constructed.

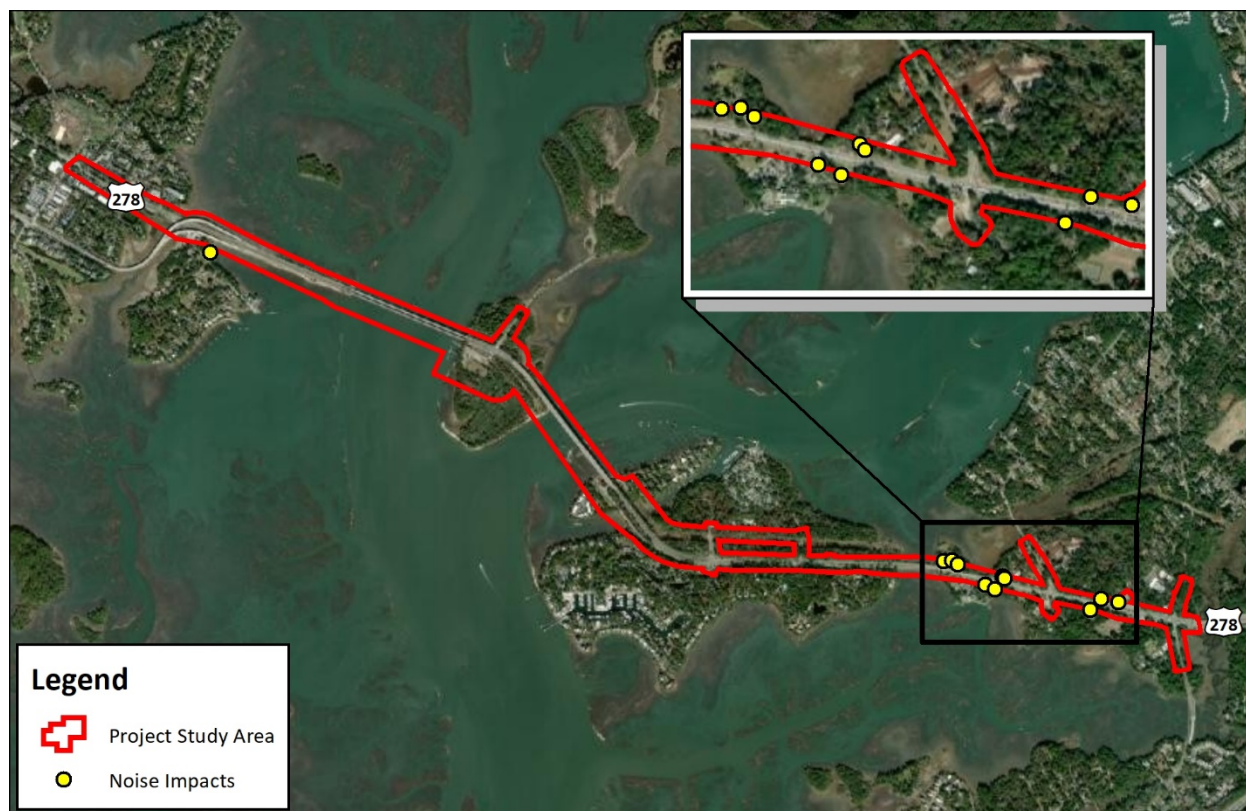


Figure 12: Noise Impacts

4.7 SPECIAL POPULATIONS

The Recommended Preferred Alternative 4A would not affect local, state or county programs that provide services and support for disabled, elderly or limited English proficiency populations. The one facility in the CIA study area, Memory Matters located at 117 William Hilton Parkway in Hilton Head would not be displaced by any of the alternatives.

4.8 VISUAL/AESTHETICS

To determine the appropriate level of effort to assess the potential impacts on visual quality, FHWA's Visual Impact Assessment (VIA) Scoping Questionnaire was completed in accordance with the 2015 Guidelines for the Visual Impact Assessment of Highway Projects. Each question of the FHWA VIA Scoping Questionnaire was considered and the response that was most applicable to the proposed project was selected, Appendix B.

Based on the FHWA VIA Scoping Questionnaire it was determined that the potential for the project to cause adverse or beneficial impacts to visual resources, viewers, or visual quality is negligible because the Recommended Preferred Alternative 4A would not affect the visual quality of the US 278 Corridor. The eastbound bridge over Mackay Creek would be replaced with a new bridge and will be consistent with the viewshed of the existing US 278 corridor over Mackay Creek. The Recommended Preferred Alternative 4A

would provide a new modified interchange to the Pinckney Wildlife Refuge, which would replace the existing at-grade intersection. The interchange would be elevated over the island introducing a visual intrusion to the viewshed of the area.

The Recommended Preferred Alternative 4A would follow the existing US 278 corridor across Hog and Jenkins islands. These alternatives would not introduce any new visual intrusions to change the viewshed of the area. From the east end of Jenkins Island causeway to the end of the project at Wild Horse Road/Spanish Wells Road and would not introduce new visual intrusions to the viewshed of the Stoney Community along the US 278 Corridor.

4.9 ECONOMICS

The Recommended Preferred Alternative 4A would improve mobility, access and reduce congestion within the US 278 corridor, which could enhance economic opportunities for existing businesses and encourage new businesses to locate along US 278.

The Recommended Preferred Alternative 4A would displace two commercial properties. The loss in property revenue would occur when land is converted to transportation right of way. This would result in decreased revenues from lost property taxes. Also, property values could decrease for homes and businesses adjacent to the Recommended Preferred Alternative 4A Alternative.

4.10 NOISE

Based on the noise analysis completed, in 2045 the Recommended Preferred Alternative 4A will have noise impacts at 11 residential receivers within the project study area, Figure 12. According to the *Preliminary Engineering Noise Report*, June 2020, the properties would have noise levels that approach or exceed FHWA's noise abatement criteria for residential land use.

A noise mitigation analysis which included a barrier assessment, was conducted in accordance with SCDOT's Noise Abatement Policy. The analysis determined that none of the noise mitigation methods met the Noise Abatement Policy's feasible and reasonable criteria. Property values could decrease for homes and businesses adjacent to the US 278 and intersection improvements due to proximity and noise impacts. These potential impacts would occur throughout the project study.

A noise mitigation analysis which included a barrier assessment, was conducted in accordance with SCDOT's Noise Abatement Policy. The analysis determined that none of the noise mitigation methods met the Noise Abatement Policy's feasible and reasonable criteria.

5.0 COMMUNITY ENHANCEMENTS

Potential community enhancements were initially developed based on recommendations presented in the Background and Recommendations Report for the Gullah Geechee Cultural Preservation Project (draft 2019) prepared by the Walker Collaborative. This document provides recommendations for strategies to better preserve Gullah cultural on Hilton Head Island. In September 2019, the Hilton Head Island Town Council approved 13 of the recommendations, which address land preservation, economic opportunities and Town regulations. The project team met with the Stoney community, Gullah stakeholders, and the Town of Hilton Head on multiple occasions to discuss the project and potential community enhancement opportunities (Table 14).

Table 14: Community Meetings

Meeting Date	Location	Summary
March 10, 2020	Hilton Head Island Library	A series of four, one-hour meetings were held with the four Stoney families that may experience right-of-way acquisition.
August 20, 2020	Hilton Head Island Rowing & Sailing Center	This meeting started the dialogue about community enhancement.
September 29, 2020	Hilton Head Island Rowing & Sailing Center	This meeting focused on specific, potential community enhancement ideas including a Stoney community history video, family monuments, improvements to the Jenkins Island Cemetery, an access road for properties between the causeway and Squire Pope Road, and an access/driveway to the Stewart family properties.
October 27, 2020	Hilton Head Island Rowing & Sailing Center	The project team met with the Stewart family individually to discuss the proposed driveway to their property to address safety concerns.
December 8, 2020	Central Oak Grove Church	This meeting explored the previously discussed community enhancement ideas: signage, an open-air pavilion, theme-based street and multi-use path lighting, a community history video/story map, improvements to the Jenkins Island Cemetery and the access road for the Stewart family parcels.
January 26, 2021	Hilton Head Island Rowing & Sailing Center	As requested at the December 8, 2020 meeting, the project team discussed the additional renderings that were developed to better understand the community enhancements ideas.
February 8-9, 2021	Various	Individual property owner meetings to discuss the proposed project.

Initial discussions included the potential enhancement options derived from the background research and requested input from the Stoney community. Potential community enhancements developed through coordination with the Stoney community and based on the detailed cultural report prepared by New South Associates entitled FIRST STEP ON HOME SOIL: A PRELIMINARY TRADITIONAL CULTURAL PROPERTY EVALUATION OF THE STONEY COMMUNITY it is recommended that the Stoney community be identified as a TCP. Although it is anticipated that the US 278 Corridor Improvement project would not have an adverse impact on the Stoney community, the report recommended the project team “consider Stoney’s historic significance and help promote measures that lead to the preservation and understanding of Native Islander landownership on the Island and the unique circumstances that are reflected in those patterns...honor Stoney’s role as a gateway to the island in project planning in a creative manner. Finally, while tangible remains of Stoney’s history associated with commerce and education are no longer extant, the memories of them are and should be captured and interpreted for those who enter the gateway and want to learn about Hilton Head’s Gullah culture and its communities.” Although the project would not have an adverse impact, it is the goal of the project to provide community enhancement options to preserve and highlight the history of the Stoney community. Potential enhancement options to further establish or reestablish the Stoney community as a “gateway” and a “place” include:

- Signage to demarcate the Stoney community to include a more “gateway” entrance/exit to the community based on the boundary established in the TCP Report, refer to Figure 28
- Open-air pavilion on town-owned property near the US 278 and Squire Pope Road intersection to highlight history of the Stoney community and other Gullah neighborhoods on the island, refer to Figure 13
- Create a theme based street and multiuse path lighting, refer to Figure 13
 - Install flags/signage to the lighting poles along US 278 to indicate they are within the Stoney community
 - Landscaping along US 278 within the Stoney community
 - Seating along multi-use path
- Develop an online interactive map of the History of Stoney community to share important historical information about the Stoney community, Gullah Communities, and Hilton Head Island.



These are representations that were developed for discussion purposes only and may not be the ultimate design.

Figure 13: Community Enhancement Renderings

APPENDIX A LIST OF REFERENCES

Websites

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MEMORANDUM

Date: April 22, 2021

Subject: Visual Impact Assessment Memorandum for US 278 Corridor Project

To determine the appropriate level of effort to assess the potential impacts on visual quality, FHWA's Visual Impact Assessment (VIA) Scoping Questionnaire was completed in accordance with the 2015 Guidelines for the Visual Impact Assessment of Highway Projects. Each question of the FHWA VIA Scoping Questionnaire was considered and the response that was most applicable to the proposed project was selected.

Based on the FHWA VIA Scoping Questionnaire it was determined that the potential for the project to cause adverse or beneficial impacts to visual resources, viewers, or visual quality is negligible because the Recommended Preferred Alternative 4A would not affect the visual quality of the US 278 Corridor. The eastbound bridge over Mackay Creek would be replaced with a new bridge and will be consistent with the viewshed of the existing US 278 corridor over Mackay Creek. The Recommended Preferred Alternative 4A would provide a new modified interchange to the Pinckney Wildlife Refuge, which would replace the existing at-grade intersection. The interchange would be elevated over the island introducing a visual intrusion to the viewshed of the area.

The Recommended Preferred Alternative 4A would follow the existing US 278 corridor across Hog and Jenkins islands. These alternatives would not introduce any new visual intrusions to change the viewshed of the area. From the east end of Jenkins Island causeway to the end of the project at Wild Horse Road/Spanish Wells Road and would not introduce new visual intrusions to the viewshed of the Stoney Community along the US 278 Corridor.

Although the project would not have an adverse impact, it is the goal of the project to provide community enhancement options to preserve and highlight the history of the Stoney community. Potential enhancement options to further establish or reestablish the Stoney community as a "gateway" and a "place" include:

- Signage to demarcate the Stoney community to include a more "gateway" entrance/exit to the community based on the boundary established in the TCP Report, refer to Figure 28
- Open-air pavilion on town-owned property near the US 278 and Squire Pope Road intersection to highlight history of the Stoney community and other Gullah neighborhoods on the island, refer to Figure 13
- Create a theme based street and multiuse path lighting, refer to Figure 13
 - Install flags/signage to the lighting poles along US 278 to indicate they are within the Stoney community
 - Landscaping along US 278 within the Stoney community
 - Seating along multi-use path
- Develop an online interactive map of the History of Stoney community to share important historical information about the Stoney community, Gullah Communities, and Hilton Head Island.

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These are representations that were developed for discussion purposes only and may not be the ultimate design.

FHWA VIA Scoping Questionnaire

The following ten questions can be used to determine the appropriate level of effort for assessing the impacts on visual quality that may result from a proposed highway project. The first set of five questions is concerned with environmental compatibility impacts on the visual resources of the affected environment. The second set of five questions deals with the sensitivity of the affected population of viewers to those impacts.

Consider each of the ten questions on the questionnaire and select the response that most closely applies to the project in question. Each response has a corresponding point value. After the questionnaire is completed the total score will represent the type of VIA document suitable for the project.

It is important that this scoring system be used as a preliminary guide only. Although these questions provide some guidelines for determining if a VIA is necessary, it should not, by itself, be considered definitive. If there is any hint that visual issues may be a factor in assessing impacts, it is recommended that a VIA be conducted. Although the total score will direct the user toward a particular level of VIA documentation, circumstances may necessitate selecting a different level of analysis and documentation based on previous experience, local concerns, or professional judgment. This checklist is meant to assist the writer of the VIA to understand the degree and breadth of the possible visual issues. The goal is to develop an analysis and document strategy that is appropriately thorough, efficient, and defensible.

Visual Impact Assessment Scoping Questionnaire

Project Name: **US 278 Corridor Improvements** Site Visit Date: Day, 00/00/0000

Location: **Beaufort County, South Carolina** Time: 0:00 a.m. / p.m.

Special Conditions/Notes: Conducted By:

Environmental Compatibility

1. *Will the project result in a noticeable change in the physical characteristics of the existing environment?*

(Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.)

- ☐ High level of permanent change (3) ☒ Moderate level of permanent change (2)
☐ Low level of permanent or temporary change (1) ☐ No Noticeable Change (0)

2. *Will the project complement or contrast with the visual character desired by the community?*

(Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.)

- ☐ Low Compatibility (3) ☐ Moderate Compatibility (2)
☒ High compatibility (1)

3. *What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed?*

(Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.)

- ☐ High concern (3) ☐ Moderate concern (2)
☒ Low concern (1) ☐ Negligible Project Features (0)

4. *Is it anticipated that to mitigate visual impacts, it may be necessary to develop extensive or novel mitigation strategies to avoid, minimize, or compensate for adverse impacts or will using conventional mitigation strategies, such as landscape or architectural treatment adequately mitigate adverse visual impacts?*

- ☐ Extensive Non-Conventional Mitigation Likely (3) ☐ Some non-conventional Mitigation Likely (2)
☒ Only Conventional Mitigation Likely (1) ☐ No Mitigation Likely (0)

5. *Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character?*

(Identify any projects [both state and local] in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.)

☐ Cumulative Impacts likely: 0-5 years (3) ☐ Cumulative Impacts likely: 6-10 years (2)

☒ Cumulative Impacts unlikely (1)

Viewer Sensitivity

1. *What is the potential that the project proposal may be controversial within the community, or opposed by any organized group?*

(This can be researched initially by talking with the state DOT and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.)

☐ High Potential (3) ☐ Moderate Potential (2)

☒ Low Potential (1) ☐ No Potential (0)

2. *How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?*

(Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other DOT staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.)

☐ High Sensitivity (3) ☒ Moderate Sensitivity (2)

☐ Low Sensitivity (1)

3. *To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards?*

☐ Low Compatibility (3) ☐ Moderate Compatibility (2)

☒ High compatibility (1)

4. *Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)?*

(Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitter, may be determined by talking with the project environmental planner and project engineer. Note: coordinate with the state DOT representative responsible for obtaining the permit prior to communicating directly with any permitting agency. Permits that may benefit from additional analysis include permits that may result in visible built features, such as infiltration basins or devices under a storm water permit or a retaining wall for wetland avoidance or permits for work in sensitive areas such as coastal development permits or on Federal lands, such as impacts to Wild and Scenic Rivers.)

☒ Yes (3) ☐ Maybe (2)

☐ No (1)

5. *Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts?*

(Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.)

☐ Yes (3) ☐ Maybe (2)

☒ No (1)

Determining the Level of Visual Impact Assessment

Total the scores of the answers to all ten questions on the Visual Impact Assessment Scoping Questionnaire. Use the total score from the questionnaire as an indicator of the appropriate level of VIA to perform for the project. Confirm that the level suggested by the checklist is consistent with the project teams' professional judgments. If there remains doubt about whether a VIA needs to be completed, it may be prudent to conduct an Abbreviated VIA. If there remains doubt about the level of the VIA, begin with the simpler VIA process. If visual impacts emerge as a more substantial concern than anticipated, the level of VIA documentation can always be increased.

The level of the VIA can initially be based on the following ranges of total scores:

☐ **Score 25-30**

An *Expanded VIA* is probably necessary. It is recommended that it should be proceeded by a formal visual scoping study prior to beginning the VIA to alert the project team to potential highly adverse impacts and to develop new project alternatives to avoid those impacts. These technical studies will likely receive state-wide, even national, public review. Extensive use of visual simulations and a comprehensive public involvement program would be typical.

☐ **Score 20-24**

A *Standard VIA* is recommended. This technical study will likely receive extensive local, perhaps state-wide, public review. It would typically include several visual simulations. It would also include a thorough examination of public

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planning and policy documents supplemented with a direct public engagement processes to determine visual preferences.

☐ **Score 15-19**

An *Abbreviated VIA* would briefly describe project features, impacts and mitigation requirements. Visual simulations would be optional. An *Abbreviated VIA* would receive little direct public interest beyond a summary of its findings in the project's environmental documents. Visual preferences would be based on observation and review of planning and policy documents by local jurisdictions.

☒ **Score 10-14**

A *VIA Memorandum* addressing minor visual issues that indicates the nature of the limited impacts and any necessary mitigation strategies that should be implemented would likely be sufficient along with an explanation of why no formal analysis is required.

☐ **Score 6-9**

No noticeable physical changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file to document that there is no effect. A *VIA Memorandum* may be used to document that there is no effect and to explain the approach used for the determination.

RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

In accordance with FHWA Technical Advisory T6640.8A the South Carolina Department of Transportation has investigated the potential relocation impacts of the US 278 Refined Alt. 4A project in Hilton Head, Beaufort County, SC. The purpose of this report is to detail the anticipated relocation, any possible problems and proposed solutions for the probable displacees.

Description of the Project

The Federal Highway Administration (FHWA), in cooperation with the South Carolina Department of Transportation (SCDOT), is preparing an Environmental Assessment (EA) for the US 278 Corridor Improvements Project. The proposed project would make improvements to the US 278 corridor between Bluffton and Hilton Head Islands in Beaufort County, South Carolina. The purpose of this project is to address structural deficiencies at the existing eastbound Mackay Creek Bridge and reduce congestion within the project study area (PSA). While the original purpose of this project was to replace the structurally deficient eastbound Mackay Creek Bridge, the project has grown to include improvements throughout the corridor between Moss Creek Drive and Wild Horse/Spanish Wells Road. The PSA extends from Moss Creek Drive to Wild Horse/Spanish Wells Road for approximately 4.11 miles. The project includes replacement of the eastbound Mackay Creek Bridge and replacement of the three other bridges located within the PSA. The three additional bridges to be replaced include the westbound Mackay Creek, the eastbound Skull Creek, and the westbound Skull Creek Bridge. Improved access to the Pinckney Island National Wildlife Refuge (PINWR) and the C.C. Haigh, Jr. boat ramp is also proposed as part of this project.

Identification of Relocations

Property impacts were provided by 3 Oaks Engineering and use of the County Tax Map & GIS data along with field inspection of the project area were the primary sources of identification of properties affected by the proposed project. No property owner contact was made in connection with this study.

The Impact Study was conducted by the SCDOT Right of Way Relocation Manager. This study indicates only two businesses will be impacted by this project.

Census data for Beaufort County, SC

According to census.gov, the estimated population of Beaufort County, SC as of 2019 was 192,122 with an average household income of \$63,110 with 21% living in poverty.

The County's population is 182,658 comprised of 75.3% White alone, 18.1% African American alone, and 11.2% Hispanic or Latino. The percentage of owner occupied housing is 71.6% with the median value of owner occupied housing units being \$288,900.

The total employment for Beaufort County, SC for 2018 was 56,489 with 5,154 employer establishments. The employment rate is 49.2%.

RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

Displacement of Residential Households

This project indicates no displacements to residential households at this time.

Displacement of Businesses, Non-profits & Farms

Based upon review of the data provided by 3 Oaks Engineering and the field inspection there is potential for displacement of two (2) businesses.



Business # 1
Psychic Reading Office



Business # 2
Upholstery & Fabric Store

RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

The first business is located at 113 William Hilton Parkway (US 278), in Hilton Head. The property is identified by the County as R511 007 000 0061 0000. Based upon the County's website it appears the property may not have clear title. The building is a 1 story wood frame on slab,



exterior walls/windows are wood, roof is asphalt shingle, building condition is average, open parking, gravel on east side & asphalt pad on west side with a wooden carport attached to rear. The property consists of 0.97 acres of land and a 1,995 sf building which was updated in 1983. The property is currently zoned as "Res. Imp. SF" and

assessed at a total value of \$679,000.00. The business is operated as Psychic Reading location. An exact number of employees cannot be established at this time. An estimated number would be less than 3 employees. Additionally, it is unknown at this time if this site is part of a chain of additional locations. Without an interview of the displacee, it is unknown if the property is owner or tenant occupied.



RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

The second business being impacted is located at 149 William Hilton Parkway, Hilton Head and identified as parcel R511 007 000 0041 0000 by the County. The property consists of 0.17 acre and a 1,048 sf building constructed in 1954. The building is a 1 story stucco/wood on



slab, exterior walls/windows are stucco/wood, roof is asphalt shingle. The building condition is average with open parking. The property is currently zoned as “Commercial Imp. Trade Other” and assessed at a total value of \$91,700. The business is operated as an Upholstery & Fabric shop. An estimated number of employees would be less than 5, but cannot be confirmed at this time. It is assumed that this location is not part of a

chain. Without an interview of the displacee, it is unknown if the property is owner or tenant occupied.



RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

Displaced businesses are eligible for relocation advisory services, moving costs, search expense (maximum of \$2,500.00), and re-establishment (maximum of \$50,000.00) or a one-time payment in-lieu of these based upon the business's tax returns (between \$1,000.00 and \$40,000.00). All relocation activities are to be performed under Title 49 of the Code of Federal Regulations, Part 24, Subparts C and D and in compliance with the SCDOT Relocation Assistance Manual.

There is no way to guarantee that properties can be found to replicate the displaced properties exactly. The displacement sites currently enjoy visibility from US 278 in locations where there are multiple other businesses ranging from florists to business offices to medical centers. The chart below indicates the availability of possible replacement retail rental properties in the area from an online search of Loopnet.com.

Location	Size of Unit	Rental Rate	Approx. Distance from Project
Sea Turtle Marketplace 430 William Hilton Parkway	1,400 sf (2 units)	\$23.00/sf/yr	3 miles
22 New Orleans Road	1,550 sf	\$18.50/sf/yr	7 miles
1000 William Hilton Parkway	1,400 sf	\$25.00/sf/yr	7 miles
840 William Hilton Parkway	1,200 sf	\$12.00/sf/yr	7 miles
Main Street Village 301 Main Street	1,411 sf	\$22.00/sf/yr	3 miles
Main Street Village 301 Main Street	1,162 sf	\$22.00/sf/yr	3 miles
Island Crossing Shopping Center 11 Palmetto Bay Road	1,465 sf	Negotiable	6 miles
Northridge Plaza 6 Northridge Drive	1,000 sf	Negotiable	3 miles

*Data search 07/16/2020

The chart below indicates the availability of possible replacement retail properties in the area currently on the market for sale from an online search of Loopnet.com

Location	Size of Unit	Sales Price	Approx. Distance from Project
1 Plaza Drive	2,500 sf 0.50 acre	\$450,000.00	3 miles
31 New Orleans Road	2,884 sf .058 acre	\$465,000.00	7 miles

*Data search 07/22/2020

RELOCATION IMPACT STUDY

US 278 Refined Alt 4A, Hilton Head, SC

Conclusion

It is estimated that the relocation phase of this project will take approximately twelve (12) months to complete. There are no known financial or incentive programs or other opportunities known to be available by SCDOT or other agencies at this time.

All acquisition and relocation activities are to be conducted in accordance with the Uniform Relocation Assistance and Real Property Policies Act of 1970, as amended and all relocation resources will be made available to the displacee without discrimination.

Frances Bickley Digitally signed by Frances Bickley
Date: 2020.07.24 15:21:10 -04'00'

Frances Bickley
Relocation Manager

Hugh Hadsock Digitally signed by Hugh Hadsock
Date: 2020.07.28 12:02:06 -04'00'

Hugh S. Hadsock
Assistant Director of Rights of Way for Acquisitions, Relocations and LPAs