



Appendix L

Cultural Resources Survey and Section 106 Consultation

June 2021

Phase I Cultural Resources Survey of US 278 Corridor Improvements from Moss Creek Drive to Squire Pope Road

Beaufort County, South Carolina



New South Associates, Inc.

Phase I Cultural Resources Survey of US 278 Corridor Improvements from Moss Creek Drive to Squire Pope Road

Beaufort County, South Carolina

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A handwritten signature in black ink, reading "Natalie Adams Pope". The signature is fluid and cursive, with the first name "Natalie" and last name "Pope" being more prominent than the middle name "Adams".

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ABSTRACT

This report describes a Cultural Resources Survey of proposed improvements to US 278 from Moss Creek Drive to Squire Pope Road in Beaufort County, South Carolina. The project area consisted of an approximately 4.1-mile long corridor, of which roughly 2.4 miles is on land. The proposed undertaking includes addressing structural deficiencies at the existing eastbound Mackay Creek bridge as well as increasing capacity and reducing congestion along US 278 from Moss Creek to Spanish Wells Road. Additional improvements may include modifications to three other bridges, improved access to the Pinckney Island National Wildlife Refuge, and improved access to the C.C. Haigh, Jr. Boat Ramp. The Area of Potential Effects (APE) consists of a 300-foot wide buffer from the existing right of way (ROW) and a 300-foot buffer from the centerline of any new alignment. The architectural survey examined the entire APE, while the archaeological survey examined only areas of direct effects. As part of an Archaeological Resource Protection Act (ARPA) Permit for the Pinckney Island National Wildlife Refuge, the U.S. Fish and Wildlife Service (FWS) requested a larger APE to accommodate possible equipment staging outside of the project area. The larger APE covered approximately 50 acres. An underwater archaeological survey conducted for offshore portions of the APE covered a 500-foot wide corridor encompassing the project corridor.

As a result of the cultural resources survey, two archaeological sites were identified (38BU2337 and 38BU2338) and three previously recorded archaeological sites were relocated (38BU64, 38BU66, and 38BU67). While archaeological sites 38BU97, 38BU98, 38BU99, 38BU167, 38BU168, and 38BU2315 are located within the APE, they were not identified during shovel testing. In addition, 13 architectural resources were evaluated, and two previously recorded architectural resources were revisited. No underwater resources were identified.

One of the newly identified archaeological sites, 38BU2337, has been substantially impacted by road construction and lacks research potential. However, the site could extend outside of the APE and it has not been evaluated. Therefore, the National Register of Historic Places (NRHP) eligibility of this site is unknown. The second newly identified site, 38BU2338, has integrity and is recommended as needing additional assessment to determine its eligibility for the NRHP. It is located outside of the area of direct effects, but is within the larger APE requested by FWS. Avoidance of this site is recommended.

Previously recorded sites 38BU66 and 38BU67 were determined eligible for the NRHP on the basis of prior investigations because of their ability to yield information significant to the pre-contact and historic periods of the area. At 38BU66, the current survey yielded historic and pre-contact artifacts from multiple shovel tests. Shell was noted on the surface of both sites. There is no basis for revising the previous recommendation that these sites are eligible for the NRHP. Site 38BU66 cannot be avoided and there will be an adverse effect from the proposed project's preferred alternative and will be mitigated through a data recovery. Site 38BU67 will have no adverse effects and will be identified as "Restricted Area" on all construction plans.

Site 38BU64 was previously recommended as needing additional work to determine its eligibility, but the portion of the site within the APE has been disturbed by road construction and no additional work is recommended for it.

Previously recorded sites 38BU97, 38BU98, 38BU99, and 38BU2315 were all recommended for additional work to determine their eligibility for the NRHP. As no evidence of these sites was identified during the Phase I survey, no further work is needed within the APE. Site 38BU167 was previously recommended as not eligible for the NRHP; this site was not identified during shovel testing and the recommendation remains the same. Site 38BU168 was previously determined eligible for the NRHP on the basis of previous investigations due to its ability to yield information significant to the pre-contact period of the area. However, this site was not identified in shovel tests or on the surface during the current survey. Therefore, it is recommended not eligible for the NRHP and no further work is needed.

The architectural survey evaluated 13 new and two previously recorded architectural resources. None of these are recommended individually or collectively eligible for the NRHP.

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I. INTRODUCTION

New South Associates, Inc. (New South) has completed a cultural resources survey of proposed improvements along US 278 between Moss Creek Drive and Squire Pope Road in Beaufort County, South Carolina. This work was completed on behalf of KCI Technologies to comply with Section 106 of the National Historic Preservation Act. New South obtained an Archaeological Investigations permit from the town of Hilton Head Island, as well as an Archaeological Resource Protection Act (ARPA) permit and a Special Use permit for excavations on Pinckney Island National Wildlife Refuge.

The project area consisted of an approximately 4.1-mile long corridor, of which approximately 2.4 miles is on land (Figure 1). The planned undertaking involves addressing structural deficiencies at the existing eastbound Mackay Creek bridge along with increasing capacity and reducing congestion along US 278 from Moss Creek to Spanish Wells Road. Other potential improvements include modifications to three other bridges, enhancing access to the Pinckney Island National Wildlife Refuge, and facilitating access to the C.C. Haigh Jr. Boat Ramp. The Area of Potential Effects (APE) consists of a 300-foot wide buffer from the existing right of way (ROW) or extends 300 feet from the centerline of any new alignment. The architectural survey examined the entire APE, while the archaeological survey examined only the area of direct effects. As part of the ARPA Permit for the Pinckney Island National Wildlife Refuge, however, a larger APE, measuring about 50 acres, was requested by the U.S. Fish and Wildlife Service (FWS) to encompass possible equipment staging outside of the project area during construction. For the portions of the project area covered by underwater archaeological survey, a 500-foot wide area was examined that encompassed the project corridor.

The archaeological survey was conducted from March 9-27, 2020. Natalie Adams Pope served as Principal Investigator and Kelly Higgins served as Project Archaeologist and Field Director. Field assistance was provided by Archaeological Technicians Holly Adington, Shawn Johns, Eli Kilgore, and Johnathan Whitlatch. Katie Quinn conducted the architectural survey on March 12, 2020 and served as Historian. The underwater archaeological survey was conducted by Lee Cox of Dolan Research, Inc. on March 11, 2020.

This report is divided into six chapters, including this Introduction. Chapter II presents an environmental overview. Chapter III contains the cultural background of the project area. Chapter IV discusses the methodology used during the survey and Chapter V presents the survey results



Source: Bing Maps Hybrid

Figure 1.
Project Location Map

and recommendations. Chapter VI provides conclusions. Appendix A contains the Underwater Archaeology report, Appendix B contains the Artifact Catalog, and Appendices C-E include the ARPA, Special Use, and town of Hilton Head Island permits, respectively. Completed archaeological site forms and architectural survey cards will be submitted as a separate volume.

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II. ENVIRONMENTAL CONTEXT

The following chapter provides information on the natural setting of the project location and surrounding areas. Relevant information presented herein includes discussion of physiographic setting, hydrology, topography, soils, geology, climate, and floral and faunal resources. This information provides a context for developing expectations regarding archaeological resources and interpreting pre-contact and historic archaeological sites with respect to settlement and local subsistence resources.

PHYSIOGRAPHIC SETTING

The project area is in the Lower Coastal Plain physiographic region, an area of nearly level lowlands and low ridges with slopes of generally less than two percent. The Coastal Plain is the largest physiographic region in the state, covering approximately twenty thousand miles and extending to the Sandhills region. Surface features in this area were shaped in part by repeated advances and retreats of the sea during the Pliocene and Miocene epochs, which resulted in the formation of seven abandoned shorelines. Within the Coastal Plain, the project area is more specifically situated in the Barrier and Sea Island Complex, which runs from the Santee Delta south of Georgetown, along the coast of Georgia, and into northern Florida. These islands formed when sea levels stabilized approximately 6,000 years ago and are constantly shifting in shape due to soil erosion and deposition (Murphy 2016).

HYDROLOGY

There are many tidal streams and rivers in the vicinity of the project area. Two of these streams, Mackay Creek and Skull Creek, cross the project tract, while Jarvis Creek is to the south of the project area on Hilton Head Island. Additionally, there are several rivers that empty into the Atlantic Ocean near Hilton Head Island, including the Broad River, May River, and Savannah River. The Broad River is an 18-mile long tidal river flowing southeast between the mainland and Port Royal and Parris Island. It accepts drainage from many rivers and creeks, including Mackay Creek and Skull Creek, before it empties into the Atlantic Ocean at Port Royal Sound. Additionally, Carolina Bays, river bottomlands, swamps, estuaries, and other wetlands are common to the Coastal Plain and the project area (Braun 1950).

GENERALIZED TOPOGRPAHY

Elevations in the Coastal Plain range from 0–200 feet above mean sea level (amsl), although the current project area is low-lying with elevations ranging from 0–10 feet amsl. The Sea Islands are dominantly sandy and have high water tables. The county’s low elevation makes it susceptible to flooding, with two-thirds of the county’s land mass within the 100-year floodplain (Anon 2010:5). Over 50 percent of Beaufort County has elevations of less than 42 feet and about 19.5 percent of the area is flooded daily or occasionally by saltwater (Stuck 1980).

SOILS

Soils in the project area formed in clayey, loamy, or sandy marine deposits and range from excessively drained to very poorly drained (Figure 2). According to the United States Department of Agriculture (USDA) Web Soil Survey, approximately 55 percent of the project area is classified as somewhat poorly drained to very poorly drained and only 35 percent is considered moderately to excessively well-drained; the remainder is classified as water (Table 1). Eight soil types are mapped in the project area and include: Argent fine sandy loam, Bertie loamy sand, Bohicket association, Capers association, Coosaw loamy fine sand, Seabrook fine sand, Wando fine sand, and Yemassee loamy fine sand (Soil Survey Staff 2020).

Table 1. Soils in the Project Area

Map Unit Name	Drainage Class	Map Unit	Acres in Project Area	Percentage of Project Area
Argent fine sandy loam	Poorly Drained	Ae	0.6	0.4
Bertie loamy sand	Moderately Well-Drained	Bb	19.2	13.2
Bohicket Association	Very Poorly Drained	BK	6.4	4.4
Capers Association	Very Poorly Drained	CE	31.2	21.4
Coosaw loamy fine sand	Moderately Well-Drained	Cs	3.4	2.4
Seabrook fine sand	Somewhat Poorly Drained	Sk	20.1	13.8
Wando fine sand	Excessively Drained	Wd	28.7	19.7
Yemassee loamy fine sand	Somewhat Poorly Drained	Ye	22.5	15.4

GEOLOGY AND LITHIC RESOURCES

The Coastal Plain of South Carolina is divided into five formations: Coastal Terraces or “low country”, Aiken Plateau, Richland Red Hills, High Hills of Santee, and the Congaree Sand Hills. Beaufort County is located within the Coastal Terraces formation, which occupy approximately two-thirds of the South Carolina Coastal Plain (Cooke 1936). Within this formation, seven

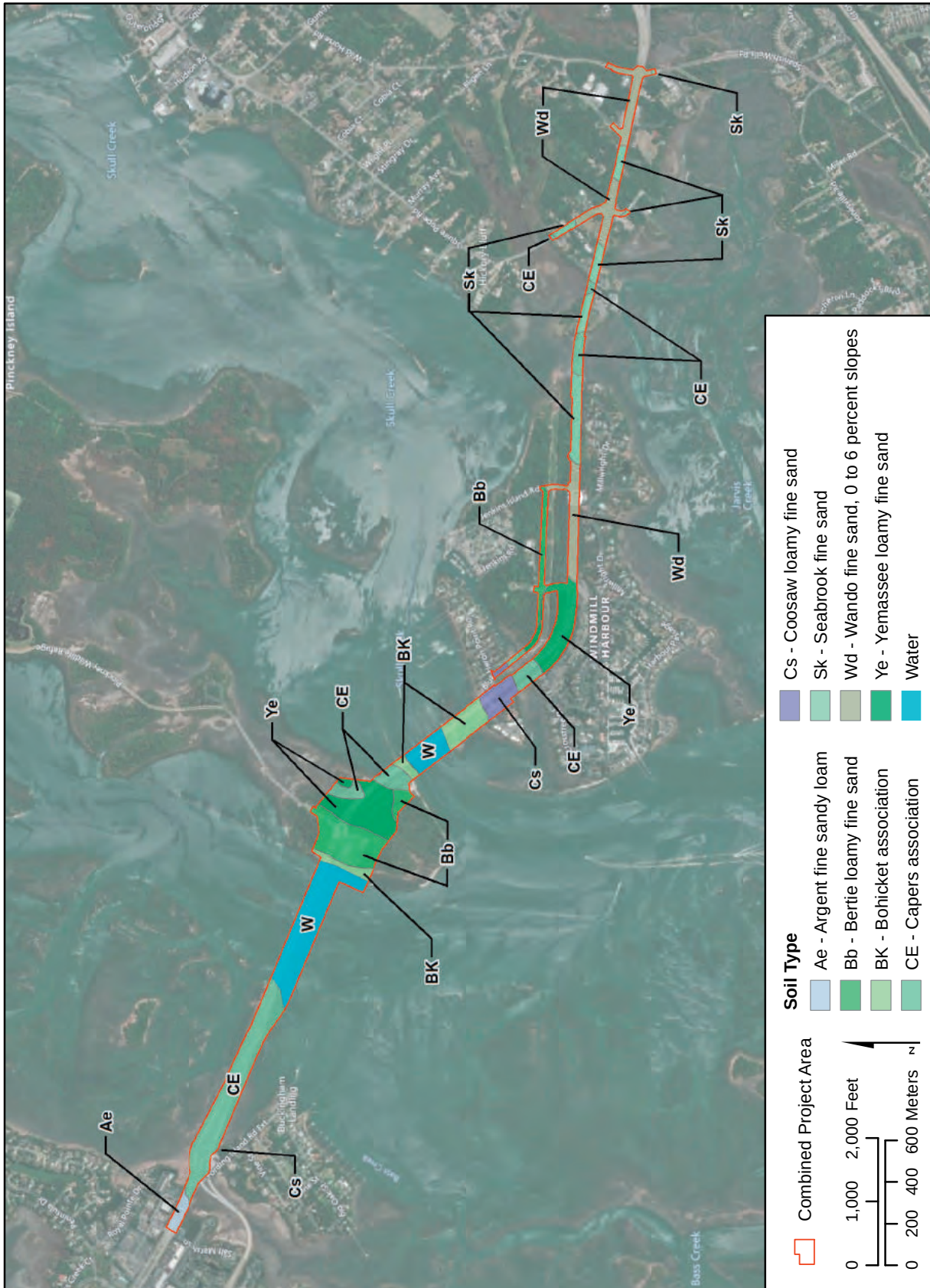


Figure 2.
Soils Map

terraces have been identified based on marine deposits associated with sea level fluctuations during the Pleistocene. The project area is situated within the Pamlico Terrace, which includes the land between the recent shore and an abandoned shoreline at approximately 25 feet amsl. Characteristics of this terrace include numerous short, stubby, emergent barrier islands; well-developed back-barrier tracts; and active sedimentation associated with coastal construction (Murphy 1995).

In general, knappable lithic resources are rare along the coast and pre-contact inhabitants made do with locally available materials such as wood or shell. However, recent investigations at St. Catherine's Island along the Georgia coast identified over 11,000 pieces of lithic debitage from two shell rings (Sanger and Ogden 2017). The most common lithics recovered include Coastal Plain chert, quartz, quartzite, metavolcanics, or cherts originating outside the Coastal Plain. As none of these resources are found on the barrier islands, this indicates some level of exchange or direct procurement must have been taking place (Sanger and Ogden 2017). Though materials such as quartz and quartzite can be found along the coast, the closest known high-quality chert outcrops occur along the Savannah River and Brier Creek drainages approximately 60 miles (94 kilometers) from the current project area.

CLIMATE

Beaufort County has a warm climate and only 27 days per year with freezing temperatures. Annual rainfall ranges from 46–53 inches per year, with 70 percent occurring between April and October. The summers are long, hot, and humid, with maximum daily temperatures around or above 90-degree Fahrenheit with minimums in the 65–70-degree range. Winters are mild and snowfall is rare. Daily temperatures average around 50 degrees Fahrenheit, with maximum daily temperatures around 65 degrees and minimum daily temperatures around 38 degrees. Record temperatures in Beaufort County consist of a record high of 106 degrees Fahrenheit in June 1985 and a record low of five degrees Fahrenheit in January 1985. The tropical storm season is generally from July to October. While hurricanes are rare, tropical storms occur about every two to three years (Stuck 1980).

VEGETATION

The project area is located in the Sea Islands/Coastal Marsh sub-ecoregion, which is a highly dynamic environment affected by ocean wave, wind, and river action. Natural vegetation includes salt and brackish marshes, maritime swamp forest, maritime evergreen forest, and dune grass. These environments include species such as cordgrass, saltgrass, rushes, tupelo, red maple, sweet gum, bald cypress, live oak, sand laurel oak, slash pine, loblolly pine, sea oats, bitter panic grass, and beach grass (Braun 1950).

Vegetation within the project tract is typical of a mixed pine and oak hardwood forest with a secondary growth understory that includes palmettos and saltwater wetland flora. While this secondary growth is light to moderately dense throughout the project area, it is very dense on Pinckney Island.

FAUNAL RESOURCES

Fauna in Beaufort County includes mammalian species such as deer, raccoon, opossum, black bear, otter, bobcat, fox, coyote, rabbit, muskrat, beaver, and bats. The extensive wetlands and estuaries in the county make it attractive to reptiles such as alligator, turtle, terrapin, snake, lizard, and skink, and fresh and salt-water fish are abundant in streams and marshes. Additionally, shellfish are present in large numbers and avian species include various songbirds, ducks and wading birds, quail, wild turkey, doves, hawks, and owls (James et al. 2017).

CURRENT CONDITIONS WITHIN THE APE

The project area generally follows US 278 from Squire Pope Road to Moss Creek Drive, expanding to encompass approximately 50 acres on Pinckney Island. Disturbances to the area include construction from roads, transmission lines, and housing developments, buried utilities, and commercial development. Vegetation in the majority of the survey area consists of mixed pines and hardwoods, palmetto trees, saltwater wetland vegetation, and secondary growth. Mowed grass and landscaped features are present in developed areas (Figure 3).

Figure 3.
Representative Photographs of the APE



A. Commercial Development, Buried Utilities;
Facing East



B. Dense Vegetation, Facing West

C. Standing Water in Wetland,
Facing North



III. THE CULTURAL CONTEXT

The following overview of the region's cultural history provides a means for interpreting and evaluating archaeological sites or historic resources identified in the APE. The pre-contact period in South Carolina is divided into the Paleoindian, Archaic, Woodland, and Mississippian periods. The Protohistoric period refers to the time when American Indian and European societies first encountered one another. The historic period deals primarily with the time after Europeans began permanent settlement in the region. In addition to the review of local history, there is an overview of the Gullah culture of the Sea Islands. A discussion of previously identified cultural resources is provided at the end of this chapter.

PRE-CONTACT OVERVIEW

There is a general assumption that Beaufort County was occupied throughout the pre-contact span. However, available radiocarbon dates from the Hilton Head, Colleton River, Spring Island, and Callawassie Island areas suggest temporal gaps in the surviving record. Espenshade et al. (1994) argue that the gaps do not represent hiatuses or periods of vacancy, but indicate components that have been lost to sea level rise.

The missing sites argument clearly extends to much of the record before 5,000 B.P., when sea levels were more than 4.5 meters below present high marsh surface (bphms). Today's shorelines were part of undifferentiated inland flats during the Paleoindian through early Late Archaic periods and landforms close to rivers during those periods have been lost to sea level rise. As a consequence, a large part of the archaeological record before the later Late Archaic, and for certain spans in the Woodland, are unknown.

PALEOINDIAN PERIOD (11,500 – 10,000 B.P.)

The Paleoindian period, which reflects the first known human occupation in North America, remains the most elusive and intangible of any pre-contact culture. The climate was cool and dry and water levels were significantly lower than they are today. The Paleoindian period in South Carolina is generally divided into Early (11,500-11,000 B.P.), Middle (11,000-10,500 B.P.), and Late (10,500-10,00 B.P.) subperiods on the basis of variation in stone tools, which broadly follow a lanceolate pattern (Justice 1987). Paleoindian artifacts are rarely reported along the present-day coast of South Carolina, though at least 22 sites in the middle and upper Savannah River valley have been identified (Anderson et al. 1990; Sassaman et al. 1990).

There have been claims of very early human occupation of eastern North America, predating the Paleoindian components. These “Pre-Clovis” components share questionable stratigraphic contexts, lack of diagnostic projectile points, and lithic debitage assemblages very similar to overlying Paleoindian components. In South Carolina, work at the Topper Site on the Savannah River yielded possible Pre-Clovis evidence in the form of numerous small blades, burins, burin spalls, microblades, and blade cores found in alluvial sediments at least 13,000–15,000 years old, overlying 20,000-year-old Pleistocene clay (Goodyear 1999; Goodyear et al. 1998). Most recently, investigations of the Page-Ladson site in Florida revealed stone tools with butchered mastodon bones in an undisturbed context radiocarbon dated to circa 14,550 years before present (Halligan et al. 2016). These apparent Pre-Clovis components have not yet yielded any distinctive or diagnostic stone tools that would allow for the recognition of Pre-Clovis material in non-stratified, non-dated sites. No sites with possible Pre-Clovis components have been recorded in the immediate vicinity of the project area.

The typical depiction of Paleoindians is of highly mobile big-game hunting and gathering bands. Regional settlement patterns were thought to be tied to high quality lithic resources (Gardner 1974). Toolkits recovered from Paleoindian sites indicate a focus on the processing of megafauna (side scrapers, end scrapers, and drills), though some researchers suggest reliance on a more diverse resource set (Meltzer 1988). This is especially true for the Southeast, where the proportion of Paleoindian sites with associated megafauna remains is rare (Meltzer and Smith 1986).

Many of the classic reconstructions of Paleoindian lifeways have been questioned recently by Speth et al. (2010). Using archaeological, ethnohistoric, ethnographic, and experimental data, Speth et al. offer the following suggestions:

1. Big-game hunting was not of major dietary importance to the Paleoindians. It instead served in the costly signaling of male identity.
2. High-quality lithic materials were not needed to create effective spear or dart points. Functional points were produced from lesser quality stones and fire-hardened wooden tips were equally effective as stone-tipped spears.
3. High-quality flint did not serve to tether settlement systems. Direct down-line exchange and direct procurement can account for the observed distributions of high-quality chert.
4. Paleoindian stone points were more important for social signaling than for hunting efficacy.

ARCHAIC PERIOD (10,000 – 3,500 B.P.)

The Archaic period is frequently divided into Early, Middle, and Late sub-periods based on specific projectile point types. Its timing coincides with the onset of Holocene climatic conditions, a period that was warmer and wetter than the late Pleistocene. In addition, sea levels rose significantly as continental glaciers began to melt. In addition, the megafauna species characteristic of the late Pleistocene went extinct or shifted to new ranges due to climate change. Cultural developments included increased population, expansion into new environmental zones, and regional variations in projectile point styles.

Early Archaic (10,000–8,000 B.P.)

Lifeways of the Early Archaic in South Carolina generally exhibit continuity with the Late Paleoindian period. The cultural transition at this time is not easily distinguished and many researchers disagree about technological and subsistence/settlement systems. Types such as Palmer, St. Albans, Lecroy, and Kirk projectile points serve as reliable diagnostics at Early Archaic sites in South Carolina (Anderson and Schuldenrein 1983).

Evidence suggests social units of this period consisted of small family groups living within particular river valleys and subsisting on relatively evenly distributed resources. Annual congregations of these small groups probably took place in the fall when plentiful food supplies became available (Anderson and Hanson 1988). Sites from this period are widely dispersed through a variety of environments. There is also greater diversity in site types, including isolated finds, short-term camps, larger base camps, and frequent revisits, all being expected of highly mobile hunter-gatherers. It appears the use of the Lower Coastal Plain was limited to seasonal foraging or logistical camps likely due to the rising sea levels (Butler et al. 2013; Reitz 1988).

Middle Archaic (8,000–5,000 B.P.)

The mid-Holocene warming trend, known as the Hypsithermal, contributed to rising sea levels and the regional displacement of hardwood with pine forests and has been the accepted cause of major subsistence and settlement changes during the Middle Archaic period. Population increase from the Early to Middle Archaic has been attributed to an increased harvest of marine resources, which allowed groups to be more sedentary. Despite population growth, there is little evidence for the occupation of the Lower Coastal Plain and Barrier Islands while populations continued to exploit riverine resources.

Middle Archaic lithic technology exhibits important changes from Early Archaic assemblages. Endscrapers were discontinued (Cable 1982; Kimball and Chapman 1977); local raw material sources were emphasized (Goodyear et al. 1979:11); and cryptocrystalline materials were

deemphasized as distance to resources increased. Storage pits are associated with Middle Archaic occupations at Russel Cave (1JA940) in Alabama (Griffin 1974), and prepared burials began to occur with frequency (Chapman 1979:112–114). Large-scale tool production (notched, stemmed, and lanceolate bifaces) is indicative of Middle Archaic Coastal Plain activity (Sassaman et al. 1990:10).

Diagnostic projectile points of the Middle Archaic include Stanly, Morrow Mountain, and Guilford (Coe 1964). Towards the end of the period, people using these points relocated from the Piedmont and south or east into the Coastal Plain. The most likely reason for this is that they were forced from their home range by population increase, but it is also likely that game populations in coastal areas, which had been low during the Hypsithermal, slowly began increasing due to the decline in human populations (Johnstone 2004).

Late Archaic (5,000–3,000 B.P.)

The Late Archaic period, circa 5,000–3,000 B.P., overlapped with an era of cooler and moister climate than the preceding periods. Roughly modern forest conditions developed and sea levels stabilized at about modern elevations, contributing to the emergence of rich coastal environments (Bense 1994:85). This development was especially important for groups dependent on coastal resources (Espenshade et al. 1994:Table 2).

Stabilizing sea levels created conditions that promoted the development of oyster beds, which led to the emergence of a distinctive Late Archaic site type: the shell ring (Walker 2016). Shell rings are circular or arcing middens composed of shellfish, fish, and terrestrial faunal remains, as well as small amounts of plant debris. Along the Georgia and South Carolina coast, shell rings tend to be closed circles and appear in clusters separated by short distances. This pattern can be seen most clearly along the Georgia Bight, where more than 30 known shell rings are located between St. Simons Island, Georgia and Bulls Bay, South Carolina (Sanger and Ogden 2017).

Shell rings continued to be used into the Early Woodland period, but seem to have been abandoned by 3600 B.P. (Sanger and Ogden 2017) (see Table 2 for Hilton Head area data). Russo (2006) has argued that shell rings were purposeful constructions where population aggregation and ceremonialism took place. It is likely that shell rings were used intermittently for both residential and ceremonial purposes, with a small population remaining year-round (Sanger 2017). Typically, shell rings surround a plaza. Features tend to cluster around the plaza's exterior edge. Pit features can occur in the center and are similar to those identified as nut mast processing or storage features at Savannah River sites (Sanger 2017). Sanger (2017:52) argues that the presence of stored foods and the ability to amass surplus may relate to the emergence of elites, class structures, specialization, and inheritability of wealth or status.

Table 2. Shell Rings in Hilton Head Area (data from Walker 2016).

Site	Date	Fiber-tempered/ Sand-tempered	Lithics	L x W x H
Barrows (38BU300)	2000-1880 BC	Not reported	None reported	60x40x4 m
Bull Island		Not reported	None reported	90 m max dimension
Chesterfield		221/177	None reported	54x27x1.8 m
Coosaw 1	1910-1770 BC	169/3	1 biface fragment	60x55x1.73 m
Coosaw 2	1680-1540 BC 1880-1820 BC	472/18	1 pin fragment	60x55x1.73 m
Coosaw 3	1930-1790 BC	54/0	1 flake	60x55x0.6 m
Guerard Point		Not reported	2 flakes	40x40x0.7 m
Patent Point	1610-1470 BC 1400-1260 BC	Not reported	2 pieces worked stone	60x45x1 m
Sea Pines	1930-1790 BC 1270-1050 BC	44/83	None reported	60x55x1 m
Skull Creek	1690-1470 BC 1750-1520 BC 2050-1830 BC	129/854	3 projectile points and several grooved abraders	55x55x2.1 m 43x43x2.1 m

In addition to shell rings, the Beaufort County archaeological record for the Late Archaic includes seasonally permanent camps with shell midden deposits; short-term encampments with occasional shell-filled pits but no shell midden (e.g., Fish Haul site; Trinkley 1986); and a variety of small, seemingly ephemeral occupations lacking shell (Espenshade et al. 1994). The seasonal round was reconstructed to include various sites focused on estuarine fishes, shellfish, wild game, and nuts. Although not conclusively demonstrated, it is also likely that a wide range of aquatic tubers and other non-cultigens were also exploited seasonally.

One of the major characteristics of the Late Archaic is the emergence of ceramic containers, with the fiber-tempered Stallings Island ceramics being the earliest pottery in the region. Radiocarbon dating at Rabbit Mount (38AL15), a Late Archaic shell midden, indicated fiber-tempered ceramics were introduced as early as 4,500 B.P. (Stoltman 1966). Sand-tempered Thom's Creek ceramics were also identified at Rabbit Mount, although stratigraphic data indicate a slightly earlier appearance of Stallings Island ceramics. Stoltman saw fiber-tempered pottery as one of the few occasions when cultures of the lower Savannah River region led the Southeast in technological advances (Sassaman et al. 1990). Although shell rings are generally associated with the Stallings Island culture, the arrival of rings in Beaufort County was coeval with the arrival of the Thom's Creek pottery series.

The disappearance of fiber-tempered pottery is generally considered to mark the end of the Late Archaic, although division is clouded by the roughly 1,000-year co-existence of Stallings and Thom's Creek pottery and by the continued production of Thom's Creek into the Early Woodland (Sassaman 2010). Espenshade (1994) has suggested the co-existence of the Stallings and Thom's Creek series may represent different functions being served by each series. Based in part on the distributions of Stallings sherds, baked clay objects, and Thom's Creek sherds at site 38BU2 (ca. 3400 B.P.), Espenshade contended that Stallings pots were used for indirect heating using baked clay objects or steatite slabs while Thom's Creek vessels were used for direct-heat cooking.

WOODLAND PERIOD (3,000 – 800 B.P.)

Generally, the Woodland period was a time of increased sedentism. Sites reflecting long-term settlements are commonly in alluvial settings and contain structural remains, storage pits, and burials. Subsistence focused on limited agriculture, mixed hunting, and intensive collecting. As agriculture grew in importance, so too did village life along with social complexity and stratification, although hunting and gathering continued to supplement dietary needs.

During this period, the stemmed point tradition of the Archaic period was replaced by triangular points. Several researchers observed a probable correlation between point size and time, and attributed this correlation to the adoption of bow and arrow technology at various times throughout the Southeast (Coe 1964; Tippitt and Daniel 1987:234–235).

Early Woodland (3,000 B.P. – 2,600 B.P.)

Subsistence and settlement patterns in the Early Woodland are a continuation of the semi-sedentary lifeways practiced in the Late Archaic. There is no direct evidence for horticulture, but the introduction of large-scale pottery production is a major change in storage technology. This change may indicate a shift in subsistence systems, possibly the beginning of a trend toward sedentism and horticulture.

Stallings Island fiber-tempered wares had been replaced with sand-tempered Thom's Creek pottery by the Early Woodland. Thom's Creek persisted into the Early Woodland, to be replaced by Refuge series pottery. Refuge pottery has a similar distribution to Stallings Island and Thom's Creek and may have evolved from those traditions (Sassaman et al. 1990). Refuge ceramics were first identified in Jasper County, South Carolina and exhibit dentate stamped, simple stamped, and plain surface treatments (Waring 1968). At the mouth of the Savannah River, three Refuge phases have been identified: Refuge I (3,100–3,000 B.P.), characterized by punctated and incised finishes; Refuge II (3,000–2,900 B.P.), characterized by dentate stamping; and Refuge III (2,900–2,400 B.P.), characterized by linear check and check stamping (Sassaman et al. 1990).

Many researchers argue that the Early Woodland is also marked by the loss of shell rings. However, Walker's (2016) data suggest that certain ring sites continued to be used well into the Early Woodland sub-period. Early Woodland site types also include multi-house communities (similar to hamlets) with either shell middens or shell-filled pits (Michie 1979), and small shell-less sites that seem to represent short-term hunting, fishing, nutting, or trapping loci.

Other than ceramics, little is known of Early Woodland material culture. Associated diagnostic lithics are generally small stemmed hafted bifaces similar to those found in the latter part of the Late Archaic. Sites tend to have low lithic artifact counts, suggesting that lithic sources in the interior were not easily accessible (Hanson and DePratter 1985). Another possibility for the lack of lithics is the abundance and accessibility of shell and bone for tools, which are common additions to components in the Early Woodland period (Lepionka et al. 1983).

Middle Woodland (2,600 B.P.–1,500 B.P.)

The Middle Woodland is characterized by changes in artifact styles and settlement patterns. Settlement changes are interpreted as reflecting a focus on semi-permanent camps along major river drainages with associated limited activity sites in uplands. The existence of larger sites suggests at least periodic aggregation. As the Middle Woodland began, sea level was rising but by 1,700 B.P., sea level became stable and remained so (Espenshade et al. 1994:Table 2).

The early Middle Woodland is represented by sand-tempered Deptford phase pottery, dating from 2,600–1,500 B.P. This type normally has a sandy paste and medium to fine sand or grit temper with surface treatments including plain, simple stamped, cord marked, zone incised, check stamped, and linear check stamped. Vessel forms include cylindrical jars with rounded or conoidal bases. Tetrapods may be present. Rims are usually straight or slightly flared with square, rounded, or beveled lips (DePratter 1979). The late Middle Woodland also saw the arrival of a second technological tradition. Around 1,400 B.P., the coarse to very coarse grog tempered Wilmington series emerged. Major types are Wilmington Heavy Cord Marked, Fabric Impressed, and Check Stamped (Espenshade et al. 1994).

The most common Middle Woodland site type in Beaufort County is the oystering station. These sites are characterized by oyster shell middens, paucity or absence of other shell species, paucity or absence of vertebrate species, lack of structural features, lack of site furniture, paucity or absence of lithics, and a low frequency of ceramics (Espenshade et al. 1994).

Late Woodland (1,500 B.P.–800 B.P.)

Sassaman et al. (1990) noted that the Late Woodland is difficult to distinguish from the Middle Woodland and the subsequent Mississippian period, and in some respects, represents a transition between the two. Mound construction arrived in Beaufort County during this period, and the reuse of shell middens as mound fill indicates at least semi-permanent occupations.

During the Late Woodland, village structure intensified, and the origins of an agricultural economy are suggested by the presence of corn and squash remains. In addition, stratified social organization and subsistence strategies of the Late Woodland formed a foundation for the ensuing Mississippian period. Evidence of this includes the presence of Late Woodland earth lodges below Mississippian platform mounds at Beaverdam Creek (9EB85) in the upper Savannah Valley, which suggests the emergence of chiefdom level socio-political organization by the end of the Late Woodland. Sassaman et al. (1990; Steinen 1995) indicated that the major change in settlement from the Late Woodland to the Mississippian period is consolidation of widely dispersed small sites to larger but less numerous villages in or near floodplains.

The early Late Woodland is represented by grog-tempered Wilmington ceramics, typically with fabric impressed, brushed, check stamped, complicated stamped, simple stamped, and, chiefly, cord marked surface treatments. As the Late Woodland progressed, the Wilmington series was replaced by St. Catherine's ceramics, another grog-tempered ware but with a slightly finer temper and better overall quality than the Wilmington wares. The key diagnostic attribute is fine cord marking, but plain, burnished plain, and net marked treatments also occur. Based on excavations at Pinckney Island, St. Catherine's can be dated to 1,000–800 B.P. and might continue into the contact period (DePratter 2005).

MISSISSIPPIAN PERIOD (800–450 B.P.)

The Mississippian period is typically defined by the presence of flat-topped mounds, open plazas, permanent occupation, subsistence practices based on agriculture, and new ceramic types. Researchers of this period, however, are leaning away from defining it according to architectural and cultural categories and have focused instead on new levels of development associated with a “pan-southeastern interaction sphere” (Schnell and Wright 1993). The point of moving away from defining the period by broad cultural categories acknowledges that several complex societies emerged in the Southeast during this period, each having unique, although sometimes common, traits. More productive research might focus on understanding how these societies arose, functioned, and related to one another (Muller 1978).

Complex social, political, and religious cultural manifestations emerged and expanded across the Southeast during the Mississippian period. The growth and enforcement of these cultural norms were brought about through networks of villages and mound centers. Large permanent villages that housed elites, and most likely a population of commoners, were established along major waterways, but small villages and single-family homesteads were also prevalent. These smaller centers likely received protection in the political system and probably provided the larger villages with food and other resources as tribute (Markham and Holland 1999).

The Mississippian period along the southeastern South Carolina coast can be divided into two phases, Savannah and Irene. Pottery decorations include complicated stamping, usually in conjunction with reed punctations and/or nodes, pellets, or narrow rim strips below the vessel lip.

Savannah III (800–700 B.P.) Phase

Local mound towns formed the center of political power during the Savannah phase, and from these, ruling elites presided. Throughout this phase, mound centers were periodically constructed, maintained, and abandoned (Anderson 1990). Savannah Phase pottery concentrates along the Coastal Plain, Savannah River, and Sea Islands. Savannah wares are typically sand or grit tempered and complicated stamped surface treatments dominate. The Savannah phase can be divided based on surface treatments, with check stamped designs dominating during Savannah Phase II and complicated stamped treatments dominating the Savannah III phase. Burnished plain, or fine cord marked surface treatments are also included in the assemblage. Excavations at the Irene Mound (9CH1) and other sites in the Savannah area indicated the pottery was intermediate between Wilmington and Irene (Caldwell and Waring 1938).

Savannah cord marked wares are usually sand or grit tempered and generally display cross stamping. Vessel shapes are flared-rimmed globular and conoidal jars. Savannah complicated stamped wares are also tempered with grit or coarse grit with surface motifs including diamond, barred-diamond, double-barred circle, double-barred oval, figure eight, figure nine, and concentric circles. The most common vessel form is a flared-rimmed globular jar. Savannah plain ceramics are usually sand or grit tempered, burnished, and were made in shapes such as carinated bowls, shallow bowls, and hemispherical bowls (Markham and Holland 1999).

Irene Phase (700–425 B.P.)

The Irene Phase, defined from materials recovered at the Irene Mound near Savannah (Caldwell and Waring 1938; DePratter 1991). Braley (1990) divides the Irene Phase into Irene Phase I (700–650 B.P.), characterized by complicated stamped, plain, and burnished plain treatments; Irene Phase II (650–550 B.P.), with incised surface treatments appearing for the first time; and Irene

Phase III (550–425 B.P.), which is characterized by small jars with intricate incised motifs (DePratter 2009). Irene wares are distinguished from Savannah wares by the inclusion of very coarse grit or gravel temper. Rim treatments during this phase include rosettes and narrow folded rims with cane punctations, and sometimes finger-pinched applique strips (Sassaman et al. 1990).

The Irene period is associated with political instability, demographic shifts, and population decline. Fortified villages became common at this time, suggesting warfare between groups, possibly over trade, agricultural land, and hunting territories (Anderson 1990; Anderson and Joseph 1988; Anderson and Schuldenrein 1985). By 650 B.P., many mound centers such as Hollywood (9RI1) and Irene (9CH1) were abandoned and the regional population began to decline (Anderson 1990).

Horticulture was known to be practiced during the Irene period but it is unclear to what degree corn, beans, and squash contributed to the diet of those living along the Savannah River (Crook 1986; Hudson et al. 1984; Larson 1980). Hunting, gathering, and fishing provided most for the majority of the population.

Environmental changes could have caused population decline and dramatic social and political shifts during the late Irene phase. The collapse of large power centers coincides with the onset of the Little Ice Age, suggesting there may have been a dependence on agriculture during the latter part of the Mississippian period (Anderson 2001). Decreased global temperatures may have caused smaller crop yields, and lack of a stored food surplus could have contributed to the fall of the large political centers and pushed the population into marginal agricultural zones.

PROTOHISTORIC PERIOD (550–400 B.P.)

The Protohistoric period overlaps the latter half of the Mississippian Irene Phase III and is the last era prior to contact with European societies. Many eastern Mississippian chiefdoms declined or dissolved during this period. The lower Savannah River Valley was sparsely populated and remained so until circa A.D. 1670. Following the dissolution of the Mississippian chiefdoms, various Native American groups visited the interior Coastal Plain, including Apalachee, Apalachicola, Chickasaw, Shawnee, Westo, Yamacraw, and Yuchi (Sassaman et al. 1990). Most of these groups relocated frequently during this period and left little evidence of their presence.

Starting circa 425 B.P., the existing Irene pottery types were augmented with Altamaha types, which evolved out of the Irene ceramics and are related to the period of Spanish colonial and mission period (DePratter 2009). Surface treatments include incised and punctated check-stamped and red-filmed types associated with paddle stamped pottery that was predominately line-block stamped, simple stamped, and cross-simple stamped (DePratter 2009). Altamaha wares have been linked to the historic Guale and Yemassee Indians.

Lucas Vasquez de Avllon and Francisco Gordillo conducted the first Spanish explorations in the Carolina low country during the 1520s. One of the few areas Gordillo explored that can be identified with any certainty is the location he called Santa Elena because he entered Port Royal Sound on St. Helena's day (August 18, 1520). According to Quattlebaum (1956:8), "Cape Santa Elena" was probably Hilton Head Island (Trinkley et al. 1990:17).

After the arrival of Spanish explorers in the 1520s and the establishment of the Santa Elena outpost in 1566, European ceramics, such as Delft, Westerwald, Staffordshire slipware, along with Chinese porcelain, began appearing together at regional sites (Green 2000). In fact, around 50 percent of the ceramics from Spanish contexts at Santa Elena were Indian-made types (DePratter 2009).

The southern corner of South Carolina was one of the first visited and earliest settled in North America and Port Royal has been prized as a harbor since the days of Spanish exploration. The Spanish and French explored the area and established small outposts here beginning in the 1520s. The first attempt at permanent settlement was by the French under the leadership of Jean Ribault, who established Charlesfort. The Spanish attacked and burned this foothold in 1564. France's second attempt to establish a claim in the New World, Fort Caroline on the St. Johns River (in present day north Florida), was also destroyed by the Spanish. A massacre of captives by the Spanish ended French attempts at colonization on the southeast Atlantic coast.

To protect against further French intrusion, in 1566 the Spanish established a major outpost in the Beaufort area at Santa Elena. Three sequential forts were constructed: Fort San Salvador (1566–1570), Fort San Felipe (1570–1576), and Fort San Marcos (1577–1587). Despite Indian hostilities and periodic burning of the forts and towns, the Spanish maintained this settlement until 1587 when it was finally abandoned (South 1979). However, Spanish influence in the region persisted through a chain of missions along the Atlantic coast from St. Augustine to Georgia. Mission activity declined during the eighteenth century, primarily because of attacks on St. Augustine and outlying missions during 1702 and 1704 (Deagan 1983:25–26).

HISTORIC CONTEXT

THE BRITISH PROPRIETARY PERIOD

The southern coast of North America did not attract serious attention from the British until King Charles II granted Carolina to the Lords Proprietors in 1663. That August, William Hilton explored the Carolina territory and spent considerable time in the Port Royal area (Holmgren 1959). Hilton Head Island nearly became the site of the first English colony but, in 1670, was passed over by Sir John Yeamans in favor of a protected site on the west bank of the Ashley River, which became Charles Town (Holmgren 1959:39).

The Charleston settlement was moved in 1680, but the colony failed to grow or return profits as anticipated. The Lords Proprietors intended to discover a staple crop whose marketing would produce great wealth through the mercantile system, which was designed to profit the mother country by providing raw materials not available in England. The early economy was based almost exclusively on Indian trade, naval stores, lumber, and cattle. Rice began emerging as a money crop during the late seventeenth century but did not markedly improve the economic well-being of the colony until the eighteenth century (Clowse 1971).

The Yamasee migrated to South Carolina from the Georgia-Florida coast following attacks by the Spanish and other American Indian groups in 1685 (Sweeney 2009). From 1695–1715, three major Yamasee towns were located in present-day Beaufort County, including the capital, Altamaha Town. Initially, the Yamasee profited from a relationship with the British colonists and by 1707 the colonial government had set aside a portion of Port Royal area for them (Barr and Bastian 2008). However, by 1715, relations became strained and war broke out between the Yamasee and their Indian supporters and the British. Although the Yamasee War ended in 1717, the frontier remained unstable and raids continued into the 1720s. Additionally, this war contributed to the removal of the Lords Proprietors, as North and South Carolina became crown colonies in 1729, and the establishment of the Georgia colony in 1733 (Oatis 2004).

THE BRITISH COLONIAL PERIOD

English settlement of the Beaufort area was slow because of threats from the Indians and the Spanish. With the end of the Yamasee War and creation of the colony of Georgia, however, the area became safe for occupation. Colonists in the Carolina Lowcountry had been experimenting with rice cultivation on dry upland soils but had begun turning their attention to inland swamp cultivation. The Crown's Board of Trade took steps to remedy some of South Carolina's problems, and in 1730, the Parliament opened Carolina rice trade with markets in Spain and Portugal. Clowse (1971:249) noted that policy changes allowed the colony to enter into "an era of unprecedented expansion."

By 1730, the colony's population had risen to about 30,000 individuals, of whom 20,000 were enslaved Africans. This large enslaved population was essential for the expansion of the labor-intensive rice industry (Clowse 1971:Table 1). Although rice was grown in the Beaufort area, it did not become a major crop in South Carolina until after the Revolutionary War. It was never a significant crop on the Beaufort area Sea Islands, where ranch farming was favored because of its economic returns and favorable climate (Starr 1984:267–270). Elsewhere, however, rice monoculture shaped the social, political, and economic systems that produced and perpetuated the coastal plantation system prior to the rise of cotton culture (Trinkley et al. 1990:20).

Although indigo seeds were brought to the Carolina colony by English settlers in the 1670s, it was not until the 1740s that indigo became a major cash crop (Butler 2019; Huneycutt 1949). The process of making dye from the indigo plant was extremely labor intensive and unpleasant, requiring significant enslaved labor (Butler 2019). Indigo's success partially lay in its compatibility with rice cultivation in that the two were grown under different conditions. Huneycutt (1949:18) noted that planters were able to "dovetail" the work season of the two crops so that a single enslaved work gang could cultivate both. Indigo remained the chief cash crop of South Carolina until the Revolutionary War fatally disrupted the industry.

Ten years prior to the Revolutionary War, James Cook produced a map entitled *A Draught of Port Royal Harbour in South Carolina*, that identified 25 families living on Hilton Head Island (Figure 4) (Cook 1766). This is significant in understanding the Colonial ownership of the island, since most property records were destroyed either in 1864 (by events during the Civil War) or during a fire in 1883 (Trinkley et al. 1990:20).

During the American Revolution, the British occupied Charleston from 1780–1782 and established a post in Beaufort to coordinate forays into the inland waterways (Rowland 1978:288). British earthworks were also established around Port Royal and on Lady's Island (Rowland 1978:290). The removal of royal bounties on rice, indigo, and naval stores caused considerable economic chaos during and after the war, with the eventual "restructuring of the states' agricultural and commercial base" (Brockington et al. 1985:34).

THE ANTEBELLUM PERIOD

After the colonial era ended, the South Carolina economy shifted to tidewater rice production and cotton agriculture. Lepionka et al. (1983:20) noted that "long staple cotton of the Sea Islands was of far higher value than the common variety (60 cents a pound compared to 15 cents a pound in the 1830s) and this became the major cash crop of the coastal islands." Thus, in the Beaufort area, the production of long-staple cotton ushered in the plantation economy. Lepionka et al. (1983:21) went on to say:

An aristocratic planter class was created, but was based on the essential labor of black slavery without which the plantation economy could not function. Consequently, the demographic pattern of black majority first established in colonial times was reinforced.

The Sea Islands were considered to be attractive and having high potential for cultivation. Describing the islands of the Beaufort area, Mills (1826:372) said that they were "beautiful to the eye, rich in production, and withal salubrious." Land prices ranged from \$60 an acre for the best,

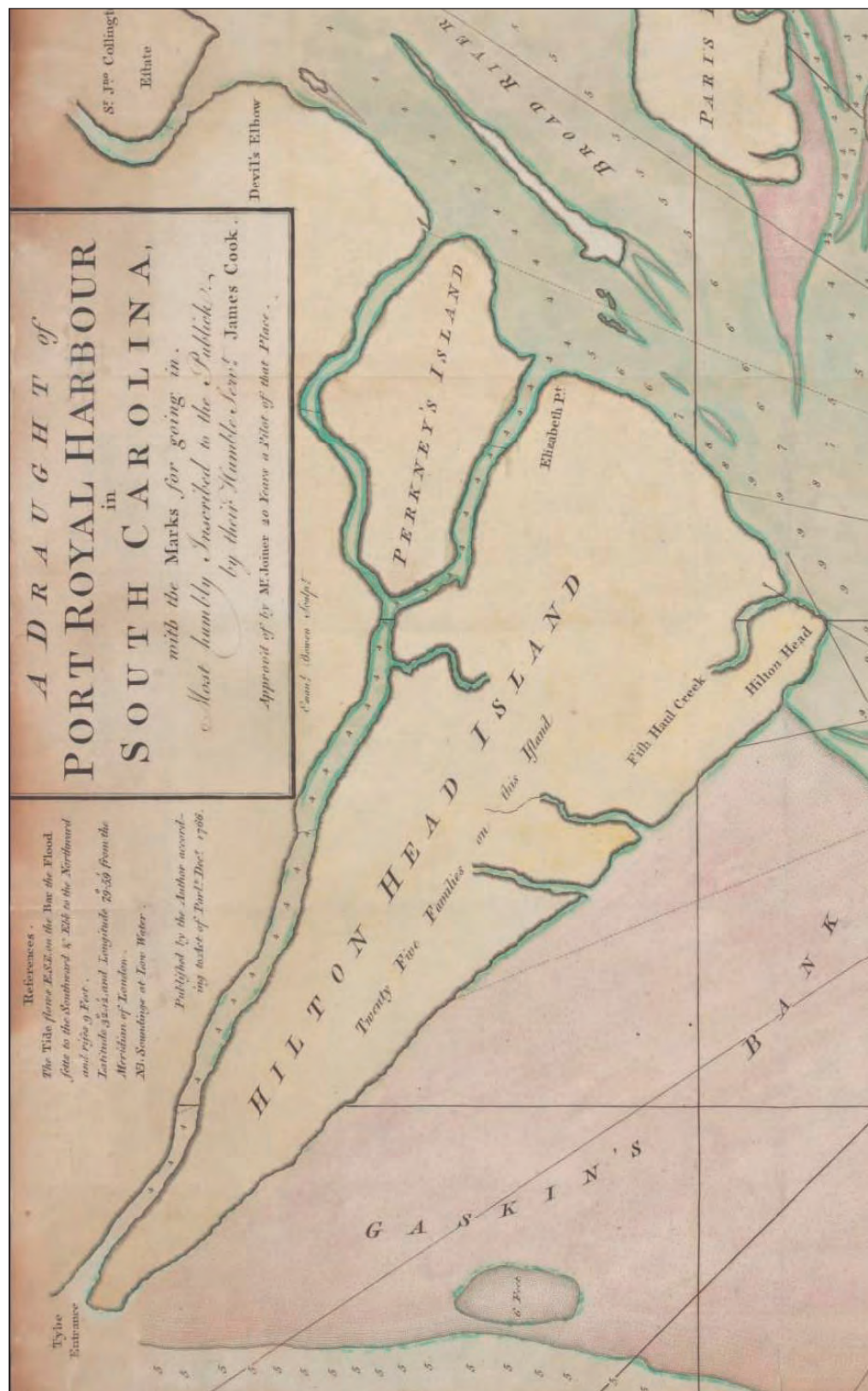


Figure 4.
Hilton Head Island on A Draught of Port Royal Harbour in South Carolina, 1766

\$30 for second quality, and as low as 25 cents for the inferior lands. Although most farming efforts focused on crops grown for profit, grain and sugarcane were cultivated in small quantities for home use. An 1820 map of Beaufort District included in the Mills Atlas showed regional development, including roads, a “Mason Lodge,” various residences, and a church (Figure 5) (Mills 1980).

By the turn of the nineteenth century, yields in the production of cotton, as well as rice and tobacco expanded exponentially, likely due to improvements in farming methods and the expansion of agriculture into unimproved areas (Barr and Bastian 2008). While cotton became more lucrative elsewhere in the county, particularly after the invention of the cotton gin in 1790, rice was the principal crop in the Beaufort area and around nine percent of the entire state’s yield was produced in the district in 1840 (Barr and Bastian 2008). Though Beaufort’s wealth increased, making it the third largest port in the South Carolina, it remained overshadowed by the import/export market in Charleston, a circumstance that persisted as a source of contention for Beaufort and Port Royal into the twenty-first century.

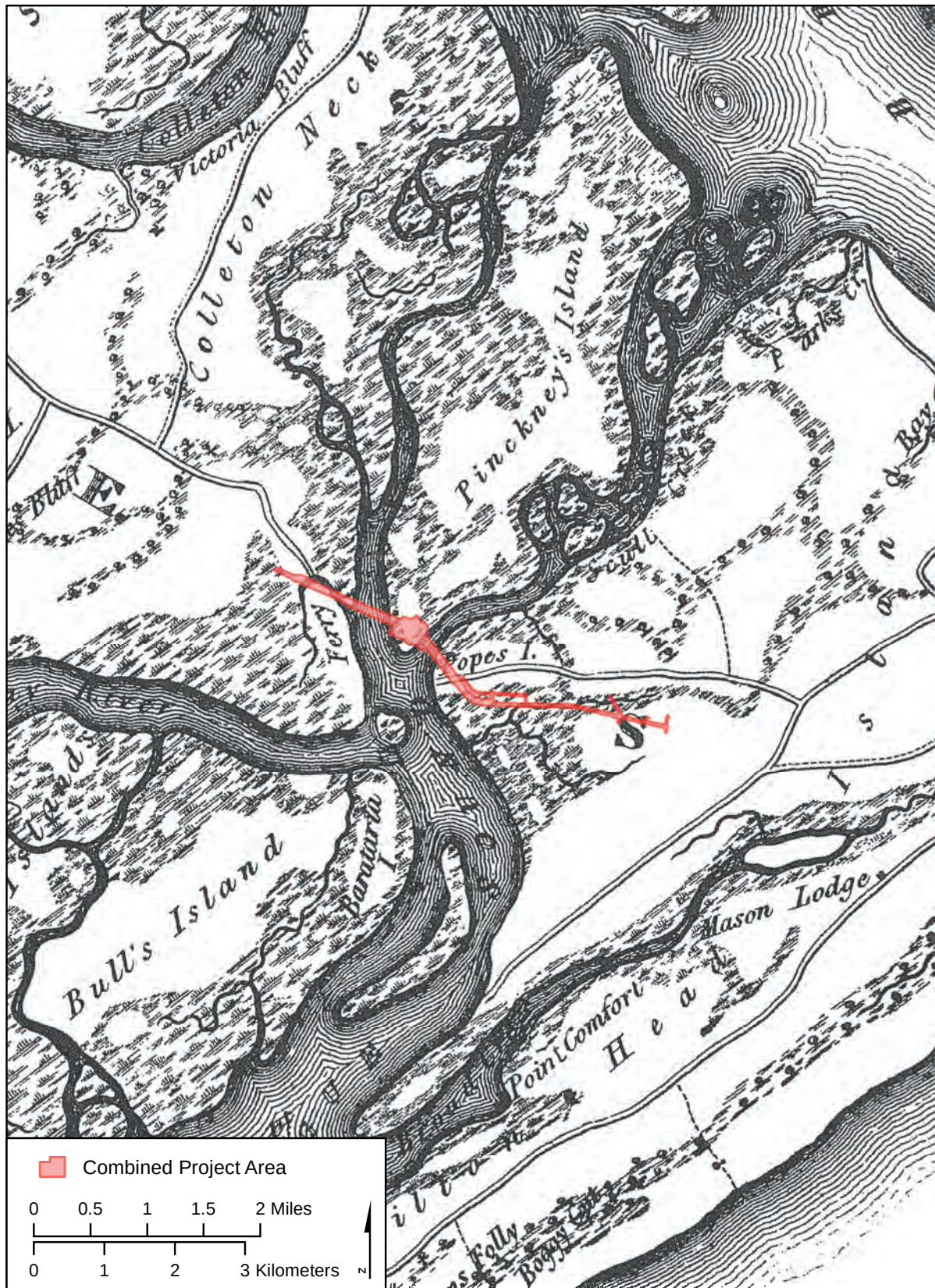
The prosperity of the South Carolina coast largely rested on the work of enslaved people brought from Africa, many from the Congo and Angola. By 1820, 84.9 percent of the population of the Beaufort District was African and African-American; a similar percentage is reported in 1850, with 84.7 percent of the population being African-American. The ratio of free whites to enslaved African Americans in Beaufort District was over five to one (Trinkley 1988a).

In the Lowcountry, plantation owners employed the “task labor” system, wherein each enslaved worker was responsible for specific work assignments per day and once the task was completed, the worker was in control of his or her time (Brabec and Richardson 2007). This organization of labor was in contrast to plantations in the western states, where “gangs” worked dawn to dusk (Steen 2010). The task system, combined with the absence of white overseers, contributed to the formation of strong communities and the development of the Gullah culture.

CIVIL WAR AND THE POSTBELLUM ERA

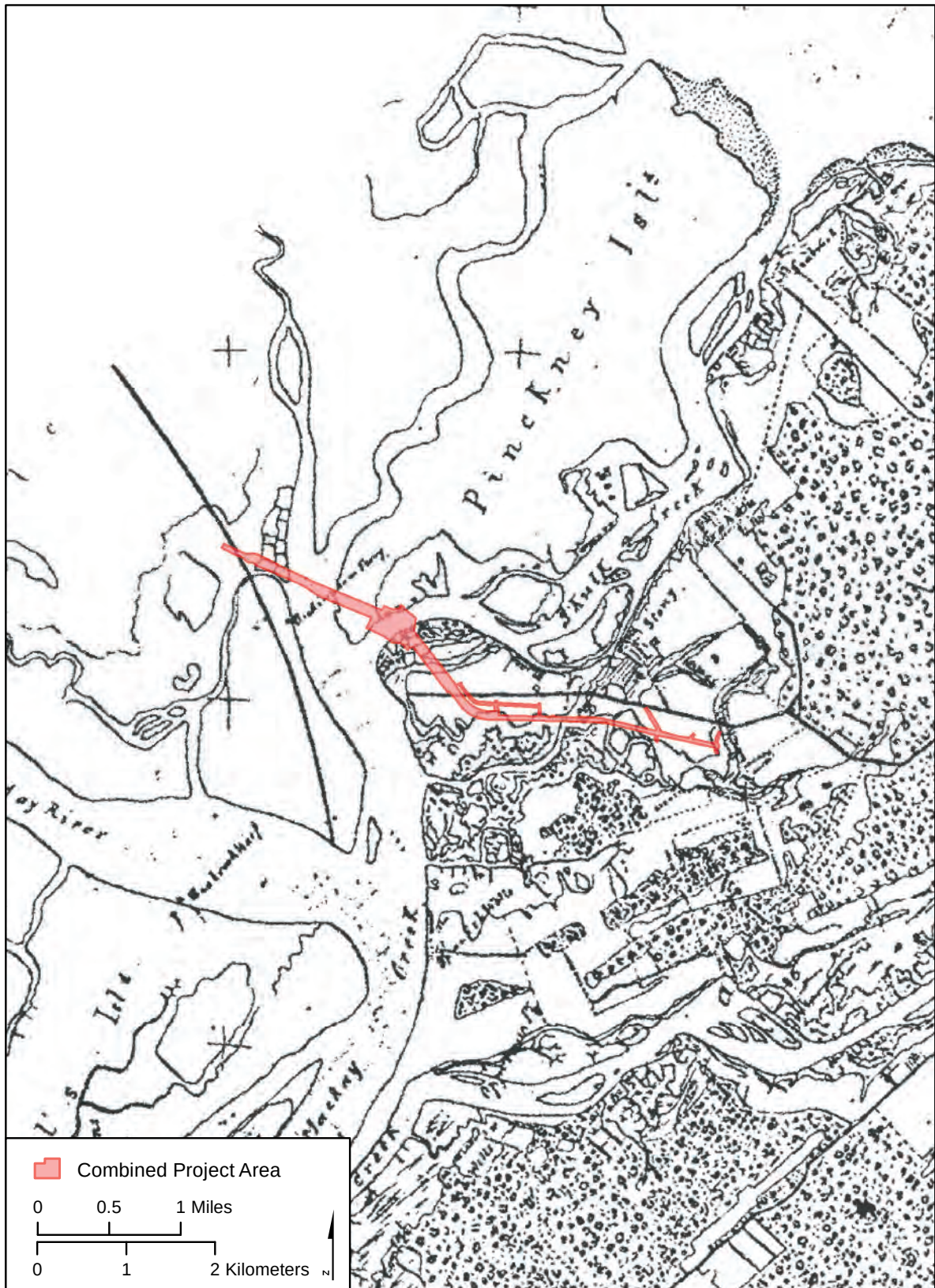
South Carolina seceded from the Union in December 1860. Six other “cotton” states soon followed in January and February 1861 as the Deep South formed its own “Confederacy” under the leadership of Jefferson Davis. After the bombardment of Fort Sumter in Charleston Harbor (April 12–13, 1861), Lincoln called for volunteers to repress the rebellion, leading to four more Southern states seceding, and the American Civil War began in earnest. Hilton Head Island fell to Union forces on November 7, 1861 and was occupied by the Expeditionary Corps under the direction of General T.W. Sherman. Union forces later occupied Beaufort, deserted by Confederate troops and white towns people, several weeks later. Hilton Head became the headquarters for the Department of the South and served as the military staging area (Figure 6) (Johnson 1969:189).

Figure 5.
Project Vicinity on Beaufort District Map, Mills Atlas 1825



Source: Georeferenced Beaufort District, Mills Atlas (1825)

Figure 6.
Map of Hilton Head Island, 1861



Source: Georeferenced National Archives, RG 77, Map I28-1 (1861)

Trinkley (1986) has examined the freedman village of Mitchelville on Hilton Head Island. One result of this research was to document how little is actually known about the black heritage and postbellum history of the Sea Islands. In general, African-Americans slowly came to own a large proportion of the available land, with certificates of possession eventually issued for a number of the Sea Island plantations (McGuire 1982:36). Additionally, some of the previous owners eventually came forward to reclaim, or redeem, land confiscated by the Federal government.

POST-WAR RECONSTRUCTION

By the end of the Civil War, the Port Royal Experiment, touted a rehearsal for Southern Reconstruction, was largely complete. Beginning with Sherman's campaign through South Carolina in 1865, and periodically in the Reconstruction years that followed, it would be used as the model upon which to pattern more widespread experiments.

The Sea Islands enclave controlled by Federal forces was greatly expanded after the surrender of Savannah to Sherman in December of 1864. The Confederacy was close to its demise, as was the Southern plantation system. On the march through Georgia, thousands of slaves followed Federal troops to freedom. Faced with serious logistical problems in Savannah, and knowing that more would follow with the march through South Carolina, Sherman issued Special Field Order No. 15 on January 16, 1865. This order established a 30-mile wide coastal area, from below Charleston to northern Florida, as a preserve for African American settlement. Offered in this order were 40 acres per family and assistance with the loan of Army mules. Soon Skidaway Island, south of Savannah, was established as an African American community with 40,000 freedmen situated on 400,000 acres of "Sherman land" (Foner 1988:70; McGuire 1986:13, 24–15).

South Carolina's Reconstruction government redrew local political units in 1868, changing Beaufort District to Beaufort County, and creating local townships (Harvey et al. 1998:II.27). The African American bid for land on the mainland, however, was largely unsuccessful as former landowners managed to retain or regain pre-war deed titles, even in the "Sherman Reservation." Land distribution, however, was successful in St. Helena Parish, where planter land redemption, begun in the 1870s, was never more than partially achieved (McGuire 1986:2).

The 1870 census, taken when Reconstruction was at its height, depicted a society in the Beaufort area quite different from that of a decade earlier. In 1860, out of the 1,062 whites, only 209 owned property, including 7,644 slaves. The number of whites decreased to 600 by 1870 with most coming from the North (55 from Massachusetts alone), while the number of African Americans increased to 11,063. Real estate was now shared among 1,233 people, most of whom were "colored farmers" (Baumhofer 1949:5–6).

In the 1870s, a new economic driver was introduced in the Beaufort area: the mining of phosphates for fertilizer. While both land and river rock mining had previously been practiced in South Carolina, river dredging was also used to acquire phosphates. As the industry began to decline in the early twentieth century, African Americans returned to agriculture and to taking jobs in oyster factories (Mathews et al. 1980:27, 31).

Despite the construction of the Port Royal Railroad, finished in 1874, and the development of the town of Port Royal (Harvey et al. 1998:I.30), agricultural development languished in the South Carolina Sea Islands after Reconstruction and local agriculture declined until at least the 1920s (McGuire 1986:160–170). There were a number of reasons for this. The 1893 Hurricane and others decimated the region. Additionally, new rice fields in Louisiana and Texas drove many of the older South Carolina fields out of business. Not only was the market bad for cotton in subsequent decades, but also the smaller plots of the Reconstruction era were not able to compete with the mechanization and increased farm size characteristic of the twentieth century.

Woofter (1930:265) provided information on the agricultural practices of the African American residents of St. Helena Island during the early twentieth century, noting that the population was largely stable. Most remained in the vicinity of their parents' "home" plantations. While the large and easily accessible islands, such as St. Helena, began to change rapidly during this period, the smaller and more isolated islands, such as Hilton Head, maintained very clear connections with the past that have often been documented through oral histories (Trinkley et al. 1990:23). Development on Hilton Head Island remained relatively sparse during the early twentieth century (Figure 7).

TWENTIETH-CENTURY DEVELOPMENTS

It was only during the twentieth century that Hilton Head Island began to develop at the rate of Beaufort County as a whole. In the 1940s, the island had a population of approximately 1,100 people, most of whom were descendants of freedmen (Figure 8). The region benefited from the establishment of new military bases and improvements to the Port Royal area during World War II, though the county remained largely rural.

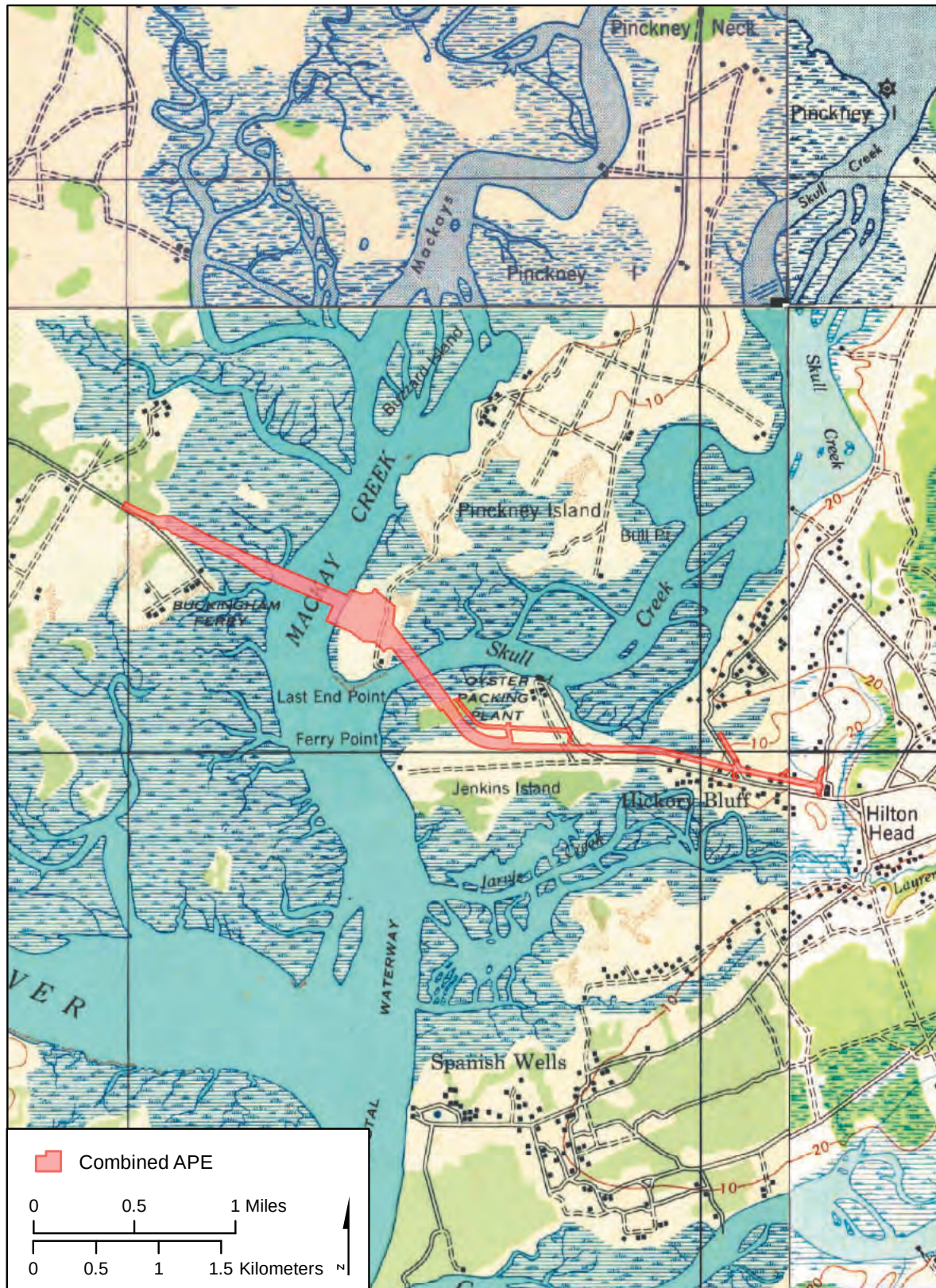
In 1950, the Palmetto Electric Cooperative first brought electricity to the island. The J. Brynes Bridge opened on May 20, 1956 and was the first bridge connecting Hilton Head to the mainland; it was a swing bridge that allowed boats to pass through from either side. Also in 1956, Norris and Lois Richardson opened the first supermarket on the island, a Chamber of Commerce was established, and the Hilton Head Company began developing Sea Pines Plantation. Telephone service, offered by the Hargray Telephone Company, came to the island two years later (Town of Hilton Head Island 2013).

Figure 7.
Project Area on 1920 USGS Bluffton and Hilton Head Quadrangle Maps



Source: USGS 15-minute Bluffton (1920), GA-SC and Hilton Head (1920), SC Topographic Quadrangles

Figure 8.
Project Area on 1945 Bluffton and Hilton Head USGS Quadrangles



Source: USGS 15-minute Bluffton (1945), GA-SC and Hilton Head (1945), SC Topographic Quadrangles

By 1960, the island had become a popular destination for tourists and retirees, leading to exponential increases in development. This is in contrast to the rest of the county, where truck farming became significant. As a result, farming is highly diversified with crops such as corn, soybeans, string beans, cucumbers, watermelons, tomatoes, and squash grown for local markets.

PINCKNEY ISLAND NATIONAL WILDLIFE REFUGE

Ownership of Pinckney Island remained in the Pinckney family until 1937 when descendants of Charles Pinckney and his son, Charles Cotesworth, finally divested of the property, then largely home to tenant farmers (Braley 1982). The property was originally sold to Ellen Bruce, a New Yorker, whose husband, James Bruce, used it as a bird hunting preserve (Braley 1982; Drucker and Anthony 1980). During the years of Bruce family ownership, the island remained home to many tenant farmers (Braley 1982).

By the 1950s Bruce had brought on several more owners, and the island was the property of six wealthy northerners, including the Bruces, H. Wendell Endicott, Robert Wood, Edward Starr, Jr., and James Barker. All were successful businessmen who used the property as a hunting retreat (Drucker and Anthony 1980). The use of the island by tenant farmers waned during this period, and most of the buildings on the island were removed (Braley 1982). Additionally, the construction of the James F. Byrnes Bridge in 1956 and expansion of US 278 resulted in the construction of a portion of highway on the island. Once the southernmost tip of the island, termed Last End Point, was separated from the rest of the island by US 278, the area underwent land use changes. Between 1951 and 1961 much of the area was cleared for use as farmland; in 1980 it was described as being planted with soybeans (Figure 9A-B) (Drucker and Anthony 1980).

By 1959, Bruce, Endicott, and Wood had sold their shares to Starr and Barker, who remained the sole owners of the property from 1959 until 1972. The island was managed by the Smith family, who lived there (Drucker and Anthony 1980). In 1972 Starr donated his half interest in the island to the National Lands Trust, Inc., for use as a wildlife refuge. When Barker followed suit in 1975, donating his half share to the U.S. Fish and Wildlife Service, the property became a federally-owned wildlife retreat (Drucker and Anthony 1980).

The Pinckney Island National Wildlife Refuge contains roughly 4,000 acres of predominately salt marsh and woodland. It is administered by the U.S. Fish and Wildlife Service (Drucker and Anthony 1980). The Pinckney Island National Wildlife Refuge includes Pinckney Island, Corn Island, Big Harry Island, Little Harry Island, and Buzzards Island, although only Pinckney Island is open to the public (Fish and Wildlife Service, Southeast Region 2011). Today Last End Point has been largely reforested, although a public boat landing and paved parking area are located on the northwest side (Figure 9C).

Figure 9.
Aerial Photographs of Last End Point

A. 1951 Aerial Last End Point



B. 1968 Aerial Last End Point



C. Last End Point Today



The refuge seeks to provide habitat for threatened and endangered species and native wildlife, with a particular focus on birds. While many migratory and permanent bird species use the refuge as habitat and nesting grounds, the refuge is particularly important as habitat for the painted bunting, a species whose numbers are in decline (Fish and Wildlife Service, Southeast Region 2011).

GULLAH CULTURAL CONTEXT

The Sea Islands along the South Carolina and Georgia coast are culturally and ecologically unique, spanning approximately 250 miles in length (Brabec and Richardson 2007). These islands remained physically and socially separate from the mainland until the mid-twentieth century, which resulted in the development of the unique Gullah-Geechee culture. Gullah culture is closely tied to the geography of the Lowcountry, where there has been continuous occupation by this African-derived culture for three centuries (Brabec and Richardson 2007). The culture has survived in its purest forms in areas with minimal white intrusion. Hilton Head Island was such an enclave, with a Gullah-dominated community in place until the construction of the James Byrnes Bridge in 1956 (Town of Hilton Head Island 2013).

This distinct culture developed in part due to practices employed by plantation owners in the Lowcountry. A black majority population allowed for cultural practices to be retained despite the European influences of the white upper classes and the task system of agriculture employed on the plantations allowed for the development of a strong economy in slave communities along with the potential for more free time for enslaved workers. Additionally, Lowcountry plantation owners were rarely present between March and November, and up to 25 percent of the plantations in the Beaufort District went without white oversight between 1790 and 1820. This isolation provided a place for Gullah culture to develop without significant white interference, as well as encouraging a sense of ownership in the plantation itself (Brabec and Richardson 2007).

Following the Union capture of Port Royal and the Sea Islands in 1861, white plantation owners fled the islands. They left a large population of newly freed enslaved workers behind. How to successfully integrate the formerly enslaved into the existing fabric of society as free citizens became a pressing question. The so-called “Port Royal Experiment” was the Treasury Department’s ideal plan for Reconstruction, with the ultimate goal of making the formerly enslaved self-sufficient and independent. Initially, the Union army convinced former slaves to continue to harvest cotton on the plantations for wage labor. Northern missionaries, known as Gideonites, soon arrived in the area and introduced a comprehensive program of adult education and literacy. In addition to education, these missionaries, educators, and doctors oversaw the creation of houses of worship, provided for the health and well-being of the freed men and women, and acted as plantation supervisors in some instances (Parten 2016). The Port Royal Experiment was ultimately somewhat successful, and by 1870 a considerable portion of the Sea Islands was

owned by a society of free African American farmers who had the opportunity to become self-sufficient. This allowed the Gullah population to keep their land and families intact (Brabec and Richardson 2007).

The term “Gullah” came into use in the nineteenth century to refer to people who spoke the Gullah dialect, though later it came to refer to the people who lived on the Sea Islands (Steen 2010). This name is likely derived from the African country Angola, where many captured Africans originated. Additionally, the Gullah culture is known as Geechee in Georgia, probably after populations living near the Ogeechee River. As per the context studies conducted by the National Park Service (2005; 2012) major traits of the Gullah culture include:

- A strong heritage of small watercraft production and use;
- A heavy reliance on wild resources including game animals, waterfowl, fish, and shellfish;
- An emphasis on multi-generational, family clusters of residences;
- A burial tradition stressing burial near water and the marking of grave tops with a variety of items;
- Continued use of African-derived language;
- Continuity of traditional beliefs and stories;
- Minimal movement away from the plantations where their ancestors were enslaved laborers, and;
- Continuity of foodways and traditional crafts.

The Gullah-Geechee Heritage Corridor covers the coastal zone from Pender County, North Carolina to St. Johns County, Florida. Hilton Head Island was recognized as a key reservoir of Gullah-Geechee culture (Gullah Geechee Cultural Heritage Corridor 2012).

BACKGROUND RESEARCH

Background research identified previously recorded cultural resources in the vicinity of the APE and helped to develop a general cultural and historical overview to properly evaluate resources identified during the field survey. New South reviewed ArchSite, the digital site files and GIS database maintained by the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Department of Archives and History (SCDAH), to identify previously recorded resources within and adjacent to the APE. In addition, historic maps were reviewed to determine the location of potential historic resources and to develop a general view of the development of the area over time. Cultural resource survey and evaluation reports were reviewed, and secondary sources on Beaufort County history were also consulted.

ARCHAEOLOGICAL BACKGROUND RESULTS

The archaeological site files indicated that there are nine previously recorded archaeological sites within the project area (38BU64, 38BU66, 38BU67, 38BU97, 38BU98, 38BU99, 38BU167, 38BU168, and 38BU2315). There are an additional 28 previously recorded sites located within one half mile of the project area (Figure 10, Table 3). Of the 37 sites in the search radius, five (38BU63, 38BU66, 38BU67, 38BU168, and 38BU1166) are either listed on or eligible for the NRHP, eight (38BU167, 38BU169, 38BU835, 38BU840, 38BU900, 38BU901, 38BU2162, 38BU2295) are not eligible, and the balance need additional evaluation.

Table 3. Previously Recorded Archaeological Sites within a 0.5-mile radius of the Project Area

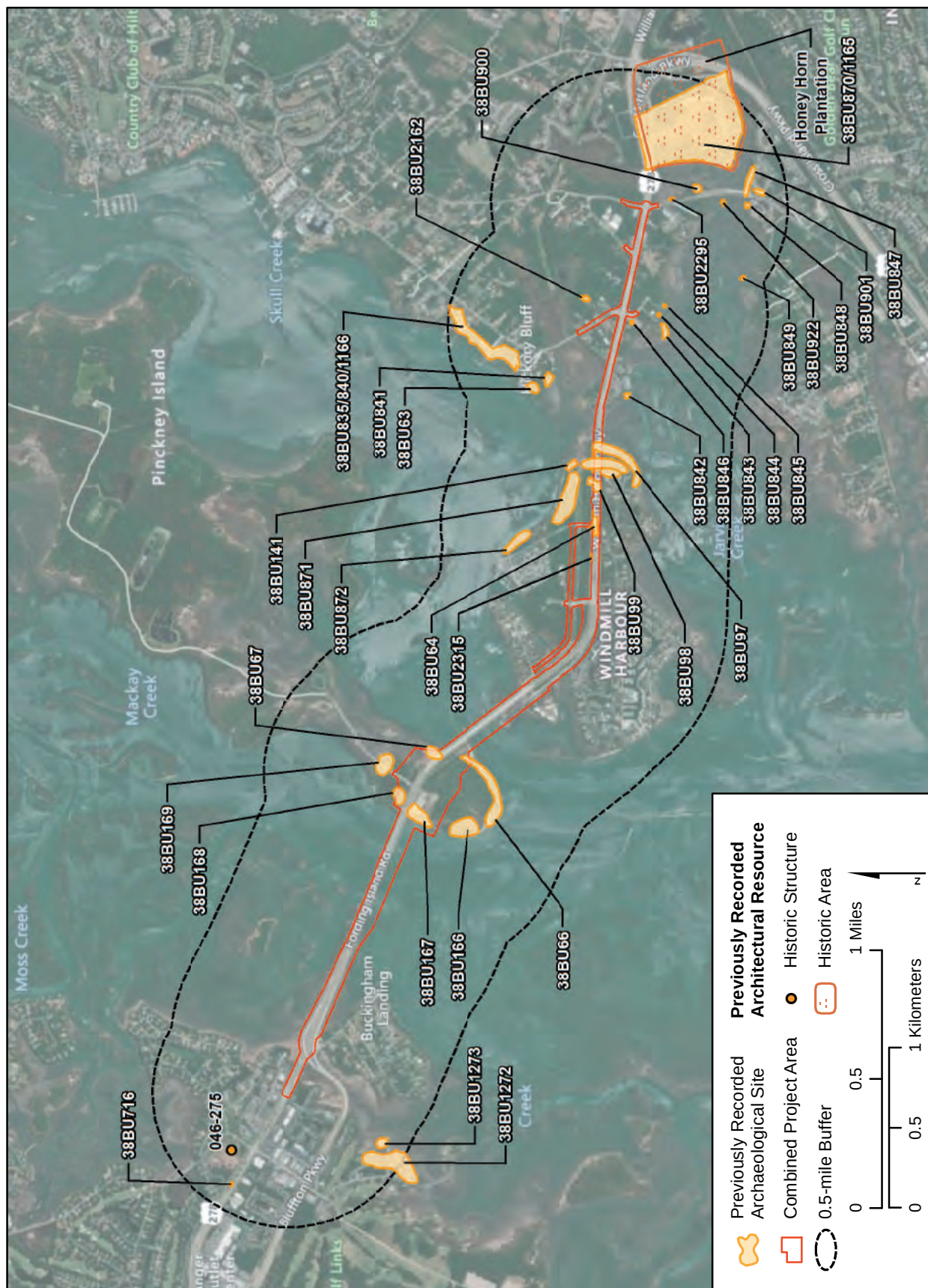
Site	Components	Recommendation	SHPO Concurrence	Reference
38BU63	Mississippian	Listed	Yes	Trinkley 1987
38BU64	Late Archaic, Early Woodland, Middle Woodland, 20 th century	Additional Work		Baluha 2017
38BU66	Late Woodland, Mississippian, 16 th century	Eligible		Charles 1984
38BU67	Woodland	Eligible	Yes	Adams 1994
38BU97	Woodland, 19 th /20 th century	Additional Work		Baluha 2017
38BU98	Unknown Pre-contact	Additional Work		Trinkley 1987
38BU99	Middle Woodland, Late Woodland, Unknown Historic	Additional Work		Baluha 2017
38BU141	Unknown Pre-contact, 19 th /20 th century	Additional Work		Trinkley 1987
38BU166	Woodland, Unknown Historic	Additional Work		Charles 1984
38BU167	Woodland, Unknown Historic	Not Eligible		Charles 1984
38BU168	Woodland	Eligible	Yes	Adams 1994
38BU169	Woodland, Unknown Historic	Not Eligible		Drucker and Anthony 1980
38BU716	Early Woodland, Middle Woodland	Additional Work		Roberts 1987
38BU835	Unknown Pre-contact, 20 th century	Not Eligible	Yes	Smith 2012
38BU840	Unknown Pre-contact, 20 th century	Not Eligible	Yes	Smith 2012
38BU841	19 th /20 th century	Additional Work		Trinkley 1987
38BU842	Early Woodland, Mississippian	Additional Work		Trinkley 1987
38BU843	Middle Woodland, Late Woodland	Additional Work		Trinkley 1987
38BU844	19 th /20 th century	Additional Work		Trinkley 1987

Table 3. Previously Recorded Archaeological Sites within a 0.5-mile radius of the Project Area

Site	Component	Recommendation	SHPO Concurrence	Reference
38BU845	Unknown Pre-contact, Unknown Historic	Additional Work		Trinkley 1987
38BU846	Early Woodland, 19 th century	Additional Work		Trinkley 1987
38BU847	Early Woodland	Additional Work		Trinkley 1987
38BU848	Early Woodland	Additional Work		Trinkley 1987
38BU849	Late Woodland	Additional Work		Trinkley 1987
38BU870	19 th century	Additional Work		Norris 2002
38BU871	Middle Woodland, 18 th /19 th century	Additional Work		Sawyer et al. 2007
38BU872	Unknown Pre-contact, 19 th century	Additional Work		Trinkley 1987
38BU900	Early Woodland	Not Eligible		Johnson 1987
38BU901	Woodland, 19 th /20 th century	Not Eligible		Johnson 1987
38BU922	Middle Woodland	Additional Work		Johnson 1987
38BU1165	Woodland, 19 th century	Additional Work		Norris 2002
38BU1166	Middle Woodland, Late Woodland, 18 th /19 th century	Eligible	Yes	Smith 2012
38BU1272	Late Woodland, 20 th century	Additional Work		Dickinson and Wayne 1991
38BU1273	Unknown Pre-contact	Additional Work		Dickinson and Wayne 1991
38BU2162	Late Woodland, Mississippian, 20 th century	Not Eligible	Yes	Lansdell et al. 2007
38BU2295	19 th /20 th century	Not Eligible		Baluha 2011
38BU2315	Middle Woodland, Late Woodland	Additional Work		Baluha 2017

**Bolded sites are located in the project area*

Site 38BU63, Green's Shell Enclosure, is a possible Irene phase shell midden located on the western edge of Hilton Head Island on a bluff overlooking Skull Creek. The site was initially identified and excavated by Calmes in 1968. Calmes excavated two, five-foot squares, one in the shell midden and the other in the interior edge of the ring. He found that there was little stratigraphy and thought this indicated the site was not lived on and refuse accumulated over a short time span (Lawrence et al. 1989). Though Green's Shell Enclosure has been revisited many times since the 1960s (Lawrence et al. 1989; Trinkley 1981, 1987), excavations have been limited and the site remains largely undisturbed. Due to its high level of preservation, Site 38BU63 was added to the NRHP in 1974.



Source: Bing Maps Hybrid

Site 38BU64 (bold indicates sites in the APE), the Jenkins Island Shell Pit, is a multi-component pre-contact site initially excavated by Calmes in 1968. Subsequent investigations include South (1973), Trinkley (1987), Lawrence et al. (1989), and Roberts (1991). Calmes and Roberts recommended the site as eligible for the NRHP, but investigations by Brockington and Associates in 2017 found the archaeological deposits within their study area along US 278 on Jenkins Island to be diffuse and believed that the proposed project would have no adverse effects (Baluha 2017). Brockington and Associates also noted it was likely that all the sites on the eastern end of Jenkins Island form one large site. Site 38BU64 is located within the current project area.

Site 38BU66, the Last End Point Site, is a multi-component site located on Pinckney Island within the current project area. This site may be part of 38BU67. Initially identified by Hemmings and Ryan in 1971, testing conducted by Southeastern Wildlife Services in 1982 included the excavation of 19 test units and an auger survey. This investigation identified Wilmington, St. Catherine's, Savannah, and Irene components, as well as several Spanish artifacts that could be related to the San Felipe/Santa Elena complex on Parris Island. Site 38BU66 was recommended as eligible for the NRHP (Braley 1982). Excavations by Southwind Archaeological Enterprises in 1984 identified pre-contact and protohistoric components and suggested the site may represent one of the oldest known contact period sites in the United States (Charles 1984).

Site 38BU67, the Pinckney Island Shell Midden, is located on Pinckney Island adjacent to Skull Creek and is likely related to 38BU66. The construction of the US 278 bridge has impacted portions of the site. First identified in 1971 by Hemmings and Ryan, additional surveys were conducted by Lepionka (1979), Drucker and Anthony (1980), Trinkley (1980, 1981), Braley (1982), Charles (1984), Lawrence et al. (1989), and most recently Adams (1994). Testing by Trinkley (1981) found intact deposits to a depth of two feet, though one unit had cultural remains to a depth of 2.31 feet. The site dates to the Early through Middle Woodland periods and well-preserved skeletal remains have been recovered (Adams 1994). Located within the current project area, site 38BU67 is eligible for inclusion in the NRHP.

First identified by South in 1973, **Site 38BU97** is located along Jarvis Creek on the eastern side of Jenkins Island. The site is a multi-component scatter dating to the Woodland period with a historic nineteenth- to twentieth-century component. Site 38BU97 has been revisited on multiple occasions since its discovery, including by Trinkley (1981, 1976), Roberts (1991), and Lawrence et al. (1989). While Trinkley (1978) recommended the site eligible, investigations along US 278 by Brockington and Associates in 2017 found that the portion of the site in the project area was disturbed. They concluded that the proposed project would not adversely affect the site (Baluha 2017). Site 38BU97 is located within the current project area.

Site **38BU98** lies on Jenkins Island, just west of site 38BU97. Identified by South in 1973 as part of his Jenkins Island Survey, the site was represented by at least one cord-marked sherd and a diffuse shell scatter. Trinkley (1987) listed it as potentially eligible for the NRHP. It appears that 38BU98 has not been revisited since it was recorded, but it has been mentioned in Rahenkamp (1986), Trinkley (1987), and Roberts (1991). Site 38BU98 is within the current project area.

Located on Jenkins Island, **Site 38BU99** was identified by South in 1973, who recovered six sherds and recorded it as an oyster shell midden. When Trinkley revisited the site in 1978, he identified a Middle to Late Woodland component and recommended it eligible for the NRHP. Roberts revisited Site 38BU99 in 1991 and indicated it might have been destroyed by the expansion of US 278. However, investigations by Brockington and Associates in 2017 yielded two positive shovel tests at the site. While concluding that improvements along US 278 on Jenkins Island would not adversely affect the site, Brockington and Associates acknowledged that the entire site had not been assessed and required further work (Baluha 2017). This site is located within the current project area.

Site 38BU141, the Jenkins Island Cemetery, is located on the eastern side of Jenkins Island and north of US 278 and the current project area. It was initially identified by Trinkley, who revisited the site in 1987. The site is a nineteenth- to twentieth-century African American cemetery and may date to the Antebellum period. Approximately 20 headstones were identified. The site was recommended potentially eligible for the NRHP. Additionally, a pre-contact shell midden partially surrounds the cemetery (Trinkley 1987). The cemetery is unassessed, but regardless of eligibility it is protected by State Law.

Site 38BU166 is located on the southwestern portion of Pinckney Island, partially in the marsh. Investigations conducted by Carolina Archaeological Services (CAS) in 1980 identified a Middle Woodland component (Drucker and Anthony 1980). Testing by Southwind Archaeological Enterprises (SAE) in 1984 did not yield subsurface cultural material in the area above high water, but pre-contact ceramics were noted on a large shell deposit in the marsh (Charles 1984). Based on this testing, the site was recommended for additional evaluation of its eligibility.

Site **38BU167**, located on the west side of Pinckney Island immediately south of US 278, was recorded by Drucker and Anthony in 1980. This site is likely a portion of Site 38BU168 that was separated by the construction of US 278. Investigations by SAE indicated the site consists of two small shell middens extending south from the highway right-of-way to an erosion bluff. The majority of the site has been disturbed from cultivation and highway construction. Excavation of nine test units yielded Middle to Late Woodland ceramics. Based on these results, SAE recommended site 38BU167 not eligible for the NRHP (Charles 1984). This site is located within the current project area.

Site **38BU168** is on the western side of Pinckney Island, just north of US 278. Trinkley identified the site in 1979 and recommended it potentially eligible for the NRHP. Subsequent revisits by Drucker (1980) and Trinkley (1981) did not revise this recommendation. Excavations by Trinkley in 1981 for US 278 widening consisted of units in a 40x240-foot area and found an intact midden zone and one shell pit feature. The work recovered mainly St. Catherine's ceramics, as well as faunal and botanical remains. Chicora Foundation conducted a pedestrian survey of the site in 1994 and noted a thin lens of intact midden eroding into the creek. This survey recommended the site as eligible for the NRHP although no shovel tests were excavated (Adams 1994). This site is located in the current project area.

Site 38BU169 is located in the south-central portion of Pinckney Island and is bisected by Pinckney Wildlife Refuge. This site was identified by CAS in 1980. Artifacts recovered from the surface indicate a Middle Woodland occupation. While 38BU169 seems to be safe from tidal erosion, historic agriculture has impacted it. Investigations indicated the site is shallow and amorphous but it was recommended for additional evaluation if it were to be impacted by the construction of a visitor's center in order (Drucker and Anthony 1980). No work has been done on the site since 1980.

Site 38BU716 is located on the western edge of the half-mile search radius. Identified by Trinkley in 1983, the site is an intact Early and Middle Woodland shell midden. Testing indicated good integrity with subsurface features and a thin intact midden below the plowzone. Based on letter reports from Trinkley (1983 and 1984), the site was recommended for additional work to determine its NRHP eligibility (Roberts 1987).

Sites 38BU835 and 38BU840 are pre-contact shell middens located along Skull Creek on the western edge of Hilton Head Island. They were identified by Chicora Foundation in 1987 and recommended for additional work to determine their NRHP eligibility. Brockington and Associates revisited 38BU835 in 1996 and identified a Middle Woodland occupation with Deptford and Wilmington ceramics. This investigation surveyed only part of the site and did not generate data that could contribute to the NRHP eligibility of the entire site. As the site as a whole was not assessed, the recommendation that it needed further work was not changed (McMakin and Harvey 1996). New South visited the sites in 2012 and found sparse artifacts and variable densities of shell mixed with twentieth-century material. The sites were combined with another site, 38BU1166, and recommended not eligible for the NRHP (Smith 2012).

Chicora Foundation recorded Site 38BU841, the Stoney Cemetery, in 1987 during an Archaeological Survey of Hilton Head Island. The site is located just east of Green's Shell Enclosure on the western side of Hilton Head Island. This cemetery contains the graves of at least 50 African Americans concentrated in two loci and dating to the nineteenth and twentieth centuries. The site required additional work to determine its NRHP eligibility (Trinkley 1987).

Site 38BU842 is located on the eastern side of Hilton Head Island, south of US 278 and the current project area. This site was identified by Chicora Foundation in 1987 and is a pre-contact shell midden where a small number of pre-contact ceramic sherds recovered. The site was recommended for additional work (Trinkley 1987).

Site 38BU843 was identified in 1987 by Chicora Foundation. It is located south of the current project area on the eastern side of Hilton Head Island and consists of a dense shell deposit eroding from a bank along Jarvis Creek. Two pre-contact ceramic sherds were recovered from the site, and it was recommended for additional work to determine its NRHP eligibility (Trinkley 1987).

Site 38BU844 is located along Jarvis Creek to the south of the current project area on the eastern side of Hilton Head Island. This site was identified in 1987 by Chicora Foundation and consists of a historic midden. Artifacts include glass and a manganese pitcher fragment. This site was recommended for additional work to determine its NRHP eligibility (Trinkley 1987).

Site 38BU845 lies along Jarvis Creek and is south of US 278 and the current project area. It was identified by Chicora Foundation in 1987 and consists of a small shell midden eroding from the marsh bank. No artifacts were recovered and no cultural features were identified. The site was recommended as needing additional work to determine its NRHP eligibility (Trinkley 1987).

Site 38BU846 is located just south of the current project area on the eastern side of Hilton Head Island. Identified in 1987 by Chicora Foundation, this site contains Early Woodland and nineteenth-century components. The site consists of a shell midden containing historic and pre-contact artifacts. In total, 10 artifacts were recovered, with nine dating to the historic component. Site 38BU846 was recommended for additional testing to determine its eligibility for the NRHP (Trinkley 1987).

Chicora Foundation identified Site 38BU847 in 1987. It lies south of the current project area and east of Spanish Wells Road. The initial investigation revealed a scattered shell midden with an Early Woodland represented by two Deptford sherds. Site 38BU847 was recommended as needing additional work to determine its eligibility (Trinkley 1987).

Site 38BU848 is located roughly 50 feet west of Spanish Wells Road and south of the current project area. This site was identified by Chicora Foundation in 1987 as part of their Archaeological Survey of Hilton Head Island and consists of a pre-contact shell midden. Pre-contact ceramics were noted amongst the shell, but only one Deptford sherd was collected. The site has been disturbed due to grading along the road edge. Chicora Foundation recommended additional work for the site to determine its NRHP eligibility (Trinkley 1987).

Located in a marshy area on the eastern side of Hilton Head Island, Site 38BU849 was identified by Chicora Foundation in 1987. This site consists of a small shell midden eroding into the marsh. A cord-marked St. Catherine's sherd indicated a Late Woodland date. Chicora Foundation recommended the site as needing additional work to determine its NRHP eligibility (Trinkley 1987).

Located southeast of the current project area, Site 38BU870, the Honey Horn Church and Cemetery, was identified by Chicora Foundation in 1987. It is considered a part of the Honey Horn Plantation. While initially considered a Gullah "praise house", Johnson (1989) dates the church to the around 1900, when the property was owned by William P. Clyde. This site was revisited by New South in 2002, as a part of a survey of the Honey Horn Plantation. Investigations identified two grave markers, depressions that may indicate additional graves, and a surface scatter of building materials indicating the former chapel. New South concurred with the previous recommendations and the site requires further testing to determine its eligibility for the NRHP (Norris 2002).

Site 38BU871, the Jenkins Island Plantation, is located on Jenkins Island north of the current project area. The site was recorded by Chicora Foundation in 1987 and was revisited by Trinkley (1988b) and Sawyer et al. (2007). Investigations indicate the site has good integrity and represents a major plantation. Identified loci include a slave row, area of higher status, and a cemetery. Additionally, testing revealed a shell midden eroding into the marsh. Recovered artifacts date the site to the eighteenth and nineteenth centuries, with a discrete Middle Woodland component. While the pre-contact occupation does not contribute to the eligibility of the site, the historic component was recommended for additional testing to determine its NRHP eligibility (Trinkley 1988b).

Site 38BU872 is located north of the project area on the northern edge of Jenkins Island. This eroding shell midden was identified by the Chicora Foundation in 1987. The only artifact collected is a tabby brick fragment, indicating the site is multi-component with nineteenth-century and unknown pre-contact occupations. Site 38BU872 was recommended for additional work to determine its eligibility for the NRHP (Trinkley 1987).

Site 38BU900 is located along Spanish Wells Road southeast of the current survey area. This site was recorded in 1987 by Robert E. Johnson Archaeological Consultant (REJAC) and consists of a sparse small shell midden located in a marsh along Jarvis Creek. The 25 artifacts recovered indicate the site dates to the Early Woodland period. Site 38BU900 was recommended as not eligible for the NRHP (Johnson 1987).

REJAC identified Site 38BU901 east of Spanish Wells Road and along Jarvis Creek in 1987. This site consists of a small shell midden that was impacted by cultivation. The 75 artifacts recovered indicated Woodland and nineteenth/twentieth-century components. Due to its diffuse nature and disturbance, the site was recommended not eligible for the NRHP (Johnson 1987).

Site 38BU922 is located approximately 30 meters west of Spanish Wells Road where it crosses Jarvis Creek. Identified by REJAC in 1987, the site consists of a thin shell scatter with a few Woodland ceramics. While there was some surface disturbance, the site was judged to have good integrity and possibly contained subsurface features. Based on these factors, site 38BU922 was recommended for additional work to determine its NRHP eligibility (Johnson 1987).

Site 38BU1165, Honey Horn Plantation, is located on the west side of Hilton Head Island and east of the current project area. This site was recorded during a regional survey of historic resources in the Lowcountry in 1979. The first archaeological survey was conducted in 1987 by Chicora Foundation, which recovered small amounts of cultural material from three loci. The site was recommended for additional work at this time (Trinkley 1987). Site 38BU1165 was revisited in 1989 by REJAC, and the NRHP recommendation was changed to potentially eligible as the site appears to contain significant elements of Hilton Head Island's archaeological and historical heritage (Johnson et al. 1989). New South's 2002 revisit resulted in its size expanding to the current 68.6 acres. A number of the plantation's houses, barns, and out-buildings remain and there are two areas where intact pre-contact components may be recovered (Norris 2002).

Site 38BU1166, the Fairfield or Stoney Plantation, is located to the north of the current project area between Squire Pope Road and Skull Creek. It has been combined with sites 38BU835 and 38BU840. The site was surveyed in 1987 and revisited in 1988 by Chicora Foundation. During the first visit, the site was observed eroding from the bank overlooking Skull Creek. Despite this, the area was not developed and the site retained high integrity. The subsequent investigation consisted of shovel testing and a pedestrian survey along the beach, identifying the slave row situated in the vicinity of site 38BU63, Green's Shell Enclosure, and a tabby fireplace (Trinkley 1988b). Site 38BU1166 was determined to be eligible for inclusion in the NRHP in 2013. However, the portion of the site revisited by Smith (2012) was in poor condition.

Recorded by SouthArc, Inc. in 1990, Site 38BU1272 is a pre-contact shell midden with a twentieth-century component. It lies southwest of the current survey area. Shovel testing test units identified Late Woodland ceramics and several historic sherds. The site was recommended for additional work to determine its NRHP eligibility (Dickinson and Wayne 1991).

Site 38BU1273 is located to the southwest of the current project area, near site 38BU1272 and was identified by SouthArc, Inc. in 1990. This site consists of a small shell midden on a rise surrounded by marsh. It may have been a portion of 38BU1272 prior to sea level rise. Investigations included shovel testing and the excavation of one test unit. The artifact assemblage consists of Woodland period ceramics. Though this site could be part of 38BU1272, it is considered non-contributing and is not eligible for the NRHP (Dickinson and Wayne 1991).

Site 38BU2162 is located on the west side of Hilton Head Island near Squire Pope Road and north of the project area. Brockington and Associates identified the site in 2005 as a pre-contact ceramic scatter and a historic artifact scatter. A total of 29 artifacts were recovered from 11 positive shovel tests and diagnostic artifacts date the site to the Late Woodland period, Mississippian period, and twentieth century. The site was recommended not eligible for the NRHP (Lansdell et al. 2007).

Site 38BU2295 is a nineteenth- to twentieth-century artifact scatter located south of the current project area along Spanish Wells Road. This site was initially identified during a bridge replacement survey by Brockington and Associates in 2011. While no artifacts were collected, modern refuse, whole and fragmentary brick, mortar, metal, and cinder blocks were noted on the surface. The site was recommended not eligible for the NRHP (Baluha 2011).

Located on Jenkins Island, **Site 38BU2315** was identified in 2017 by Brockington and Associates and is inside the current APE immediately north of US 278. This site is a small low density pre-contact artifact scatter with oyster deposits. Two grog tempered sherds recovered from one shovel test indicate a Middle to Late Woodland component. Though the portion of the site within the project area is not likely eligible for the NRHP, it could extend outside the survey area and was recommended as needing additional work to determine its eligibility (Baluha 2017).

ARCHITECTURAL BACKGROUND RESULTS

Background research was conducted by accessing the ArchSite GIS database housed at the University of South Carolina. Two previous historic architectural studies have been completed within 0.5 miles of the APE. The *Beaufort County Above Ground Historic Resources Survey* was conducted in 1998 (Harvey et al. 1998). A detailed study of Honey Horn Plantation, located approximately 0.25 miles east of the APE, was conducted in 2000 (Jaeger Company 2000). While other cultural resource surveys have been conducted in the area, all focused on archaeology and did not have architectural components. There are no previously recorded historic resources within the APE and only two recorded within 0.5 miles of the APE (Table 4). Honey Horn Plantation contains multiple components including numerous outbuildings, a chapel, and historic landscape features and has been recommended eligible for the NRHP. The other resource is a pecan orchard which has not been recommended eligible for the NRHP.

Table 4. Previously Surveyed Architectural Resources within 0.5 Miles of the APE

Resource Number	Name/Location	Build Date	Historic Use	NRHP Recommendation
-	Honey Horn Plantation 70 Honey Horn Plantation Road	1854; ca. 1890; 1930	Plantation/Agricultural	Eligible
046-275	Hogg's Bluff Pecan Orchard Moss Creek Plantation	ca. 1920	Agricultural	Not Eligible

IV. METHODS

FIELD METHODS

A two- to three-person crew, including one field director, conducted the archaeological survey. The survey was conducted according to the standards outlined in the *South Carolina Standards and Guidelines for Archaeological Investigations* (Council of South Carolina Professional Archaeologists et al. 2013). Per the conditions of approval for the Archaeological Investigations permit issued by the town of Hilton Head, all shovel tests were filled back in, soil/leaf litter that was displaced was spread back in the same location, and excavation under canopies of trees 30 inches in diameter was avoided.

All areas were surveyed using 30-meter interval tests except on Pinckney Island where the interval was reduced to 15 meters at the request of FWS. Shovel tests measured roughly 30 centimeters in diameter and were excavated until culturally sterile subsoil was encountered. Soils were screened through 0.25-inch mesh hardware cloth to ensure systematic artifact recovery. Field notes were maintained for all shovel tests excavated.

For this survey, an archaeological site was defined as an area yielding three or more historic or pre-contact artifacts within a 30-meter radius and/or an area with visible or historically recorded cultural features (e.g., shell middens, cemeteries, chimney falls, brick walls, piers, earthworks, etc.). An isolated find was defined as no more than two historic or pre-contact artifacts found within a 30-meter radius.

When identified, archaeological sites were investigated with shovel tests at 15-meter intervals in a cruciform pattern to determine the extent and integrity of the deposit. This interval was reduced to 10 meters on Pinckney Island. All cultural remains were collected except patently modern material (concrete, plastic, asphalt, modern glass) and shell, which were noted, while shell was weighed. Sufficient information required for completion of SCIAA site forms was collected and photographs were taken to document conditions within the survey area.

HISTORIC RESOURCE SURVEY METHODS

The architectural historian surveyed the APE for unrecorded buildings, structures, and sites 50 years of age or older, which were assessed for NRHP eligibility. Architectural properties were surveyed in accordance with the South Carolina State Historic Preservation Office (SHPO)'s *Survey Manual: South Carolina Statewide Survey of Historic Places* and were recorded using the

Statewide Survey Form. They were recorded using FileMaker Pro and photographed using a tablet computer. Properties were evaluated according to NRHP eligibility criteria, and a preliminary assessment of effect for the proposed project was conducted for any property in the APE that was NRHP-listed or that met the NRHP criteria for eligibility.

LABORATORY ANALYSIS

All recovered artifacts were taken to New South's laboratory in Stone Mountain, Georgia, for analysis. Analysis included cleaning, identifying, cataloging, and curation preparation of all artifacts to the standards required by SCIAA. Distinct provenience numbers were assigned to each shovel test and surface collection point. Artifacts from each provenience were divided by class and type and assigned a catalog number.

All artifacts were cataloged using a database developed by New South Associates for 4th Dimension Software. Historic remains were identified using sources such as South (1977), Noel-Hume (2001), and Brown (1983) for ceramics, Nelson (1968) for nails, Jones and Sullivan for bottle glass (1985), and other sources for various other artifact categories. Pre-contact pottery was sorted according to temper and surface treatment (Rice 2005; Shepard 1974). In some instances, a surface treatment was noted but was too eroded for identification. No lithic debitage or tools were found.

CURATION

New South Associates provides temporary storage for all records and artifacts, which will be turned over to SCIAA for final curation. Artifacts, photographs, and notes will be prepared using their standards.

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

Cultural resources are evaluated based on criteria for NRHP eligibility specified in the Department of Interior Regulations 36 CFR Part 60: NRHP of Historic Places. Cultural resources can be defined as significant if they "possess integrity of location, design, setting, materials, workmanship, feeling, and association," and if they are 50 years of age or older and:

Criterion A.) are associated with events that have made a significant contribution to the broad pattern of history;

Criterion B.) area associated with the lives of persons significant in the past;

Criterion C.) embody the distinctive characteristics of a type, period, method of construction, or represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or,

Criterion D.) have yielded, or may be likely to yield, information important in prehistory or history.

Criteria A, B, and C are usually applied to architectural resources. Archaeological sites are generally evaluated relative to Criterion D. In order to evaluate a resource under Criterion D, the National Register Bulletin Guidelines for Evaluation and Registering Archaeological Properties (Little et al. 2000) lists five primary steps to follow:

- 1) Identify the property's data set(s) or categories of archaeological, historical, or ecological information.
- 2) Identify the historic context(s), that is, the appropriate historical and archaeological framework in which to evaluate the property.
- 3) Identify the important research question(s) that the property's data sets can be expected to address.
- 4) Taking archaeological integrity into consideration, evaluate the data sets in terms of their potential and known ability to answer research questions.
- 5) Identify the important information that an archaeological study of the property has yielded or is likely to yield.

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V. RESULTS AND RECOMMENDATIONS

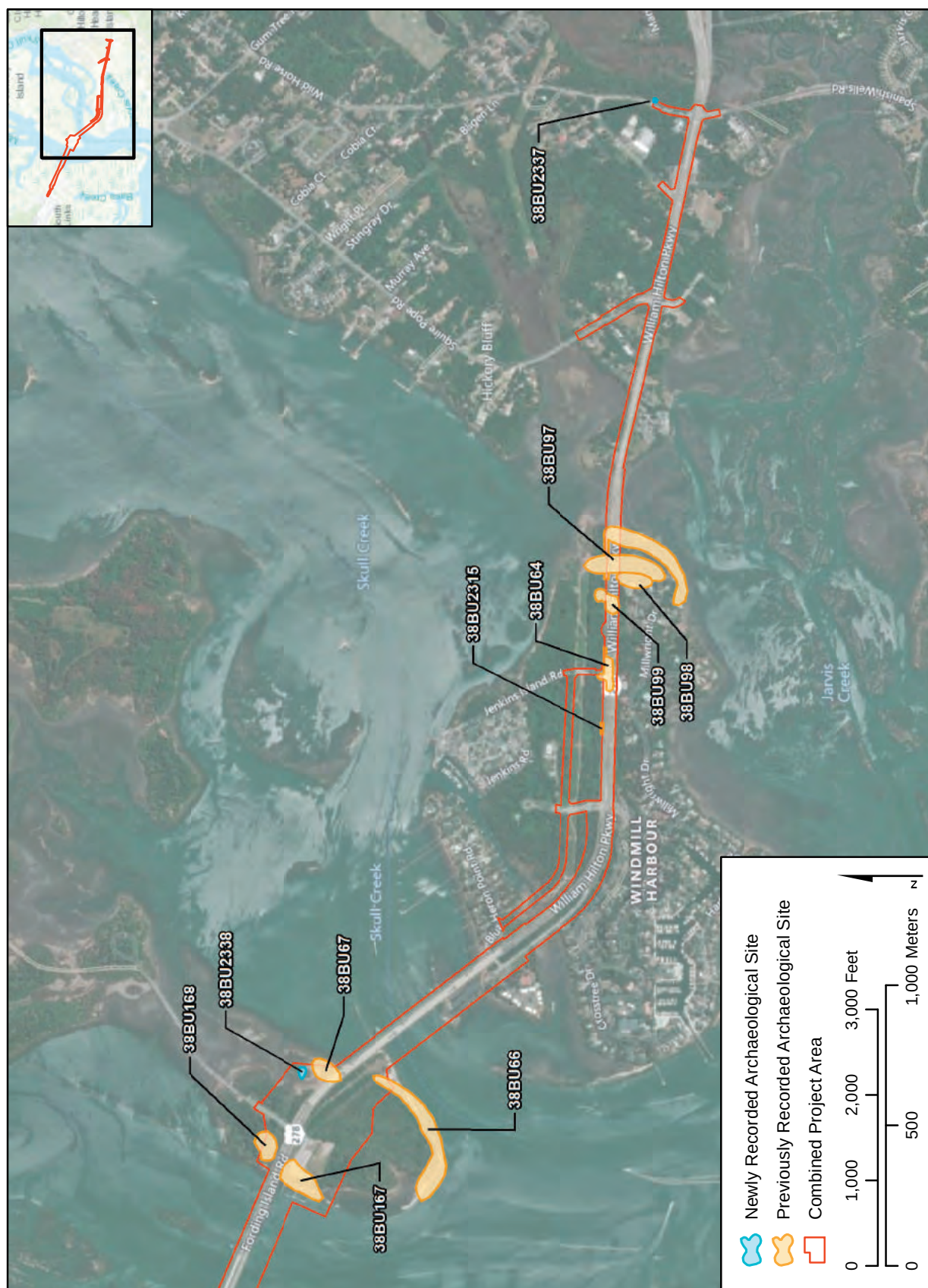
This Phase I Cultural Resources Survey included both archaeological and architectural investigations. Fieldwork took place from March 9-27, 2020, resulting in the identification of two archaeological sites and 13 architectural resources. Nine previously recorded archaeological sites were plotted within the project area but only three were relocated. Additionally, two previously recorded architectural resources were revisited (Figure 11). This chapter describes these resources and provides recommendations for further historic preservation.

ARCHAEOLOGICAL SURVEY

The archaeological survey involved systematic shovel testing in the area of direct effect. Transects were placed on either side of US 278/William Hilton Parkway, as well as along portions of Wild Horse Road, Old Wild Horse Road, Squire Pope Road, Chamberlin Drive, Jenkins Road, Gateway Drive and to the north of a transmission line corridor on Jenkins Island. A total of 1,106 shovel tests were investigated (Figures 12-26). Of those, 405 shovel tests were not excavated due to commercial development, buried utilities, paved/graveled parking lots, intersecting roads, standing water, slopes greater than 15 degrees, or because they were under the canopy of a tree 30 inches or over in diameter.

Land use varies across the project area, ranging from extensively developed areas to a wildlife refuge on Pinckney Island. Disturbance from development consists of grading, graveled or paved areas, utility lines, and single-family houses. Vegetation throughout the study area includes mixed pines and hardwoods, palmetto trees, saltwater wetland flora, secondary successional vegetation, and various landscaped features.

Soil profiles throughout the APE generally consisted of approximately 30 centimeters of a grayish brown (10YR 5/2) to dark grayish brown (10YR 4/2) sandy loam plow zone (Stratum I). This was above a 50-centimeter E horizon of yellowish brown (10YR 5/6) sandy (Stratum II). In some shovel tests, a third stratum, consisting of light brownish gray (10YR 6/2) sand, was present from 60-80 centimeters below surface (Figure 27). Additionally, 131 shovel tests were disturbed and exhibited a soil profile consisting of 30 centimeters of yellowish brown (10YR 5/4) sandy loam mottled with gray (7.5YR 5/1) and strong brown (7.5YR 5/6) sandy clay. Standing water, waterlogged, or hydric conditions were also encountered in 115 shovel tests. Hydric soil profiles generally revealed 20 centimeters of dark gray (10YR 4/1) silty clay loam.



Source: Bing Maps Hybrid

Figure 11.
Cultural Resources in the APE

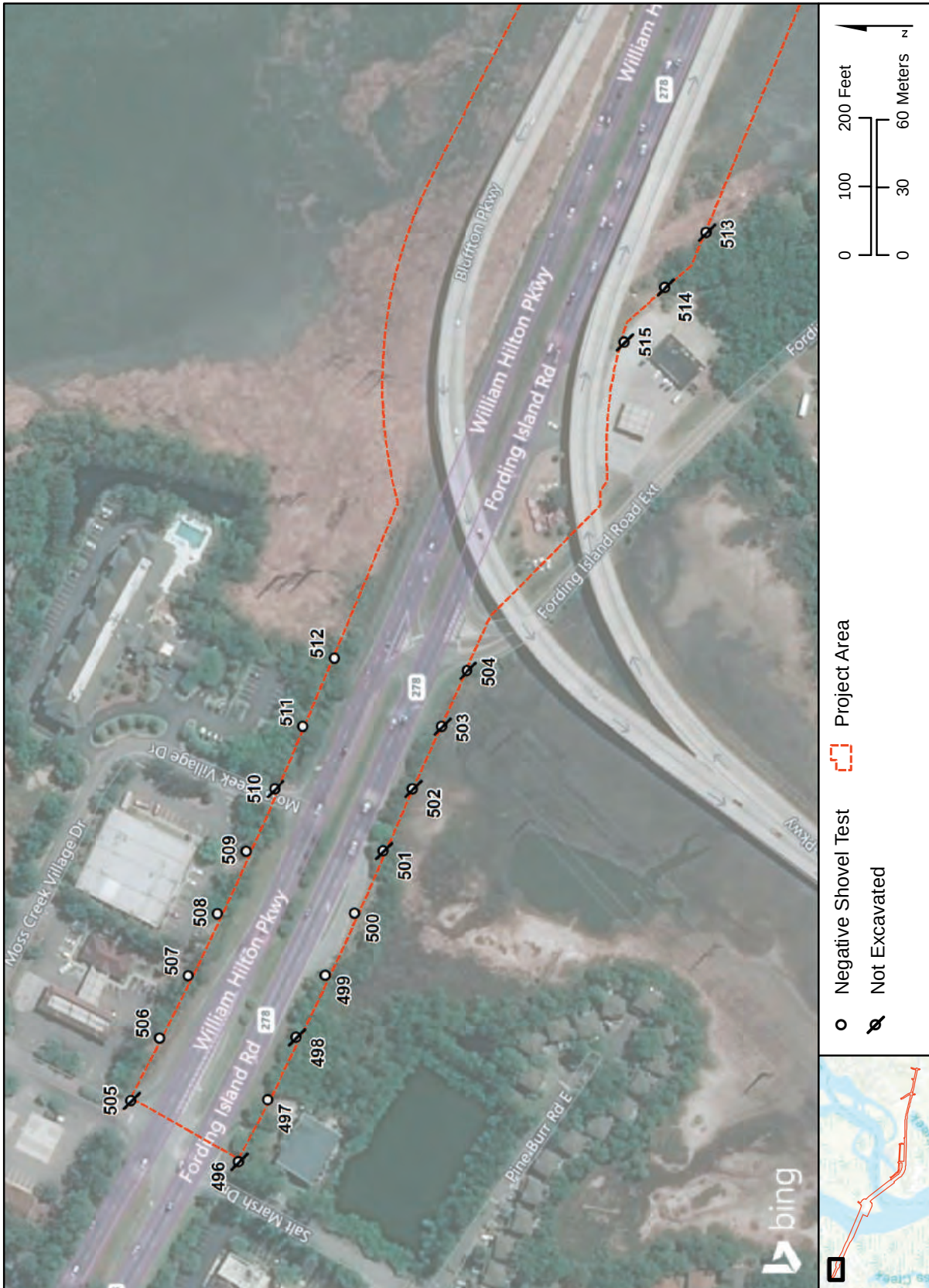
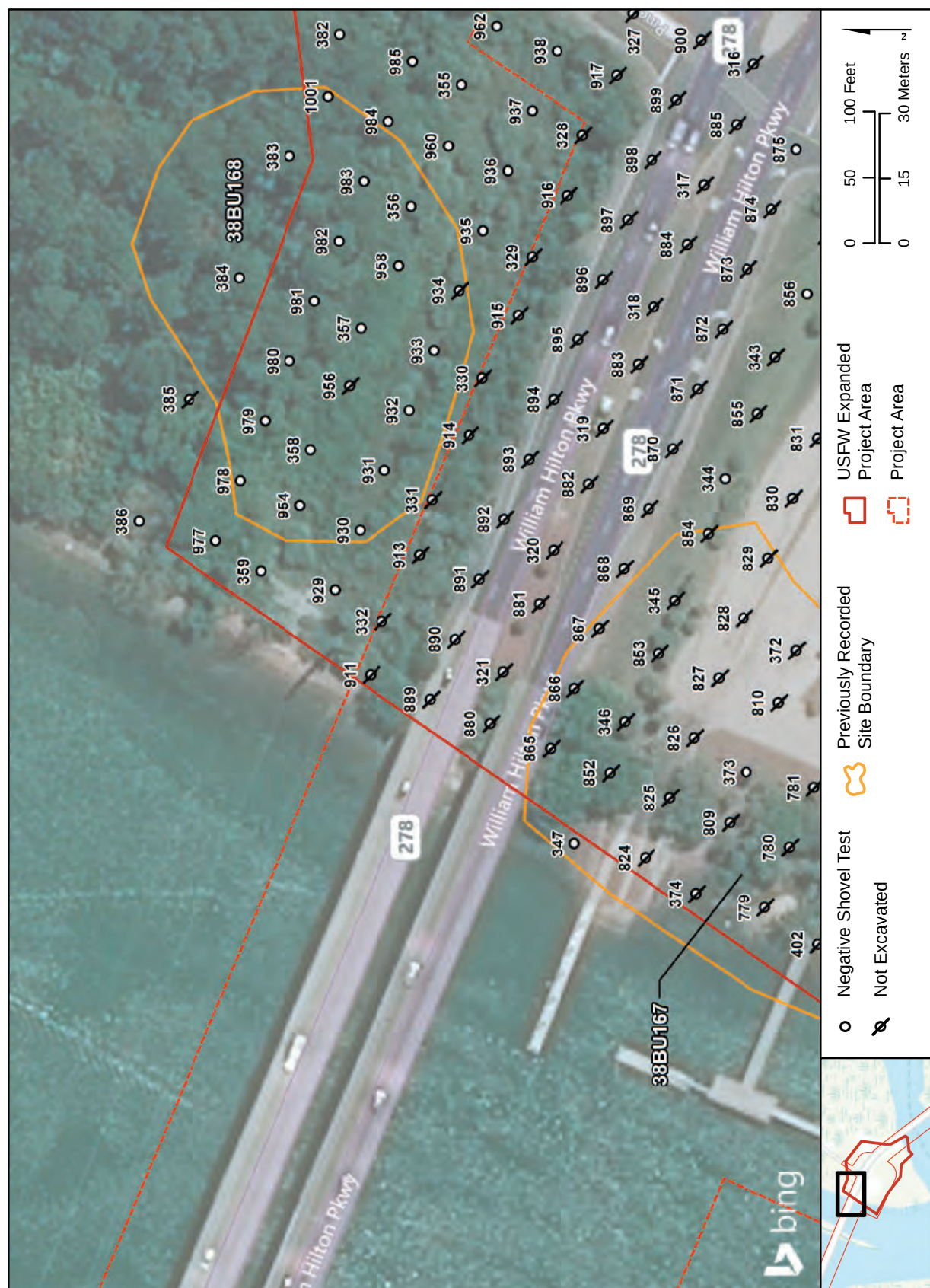
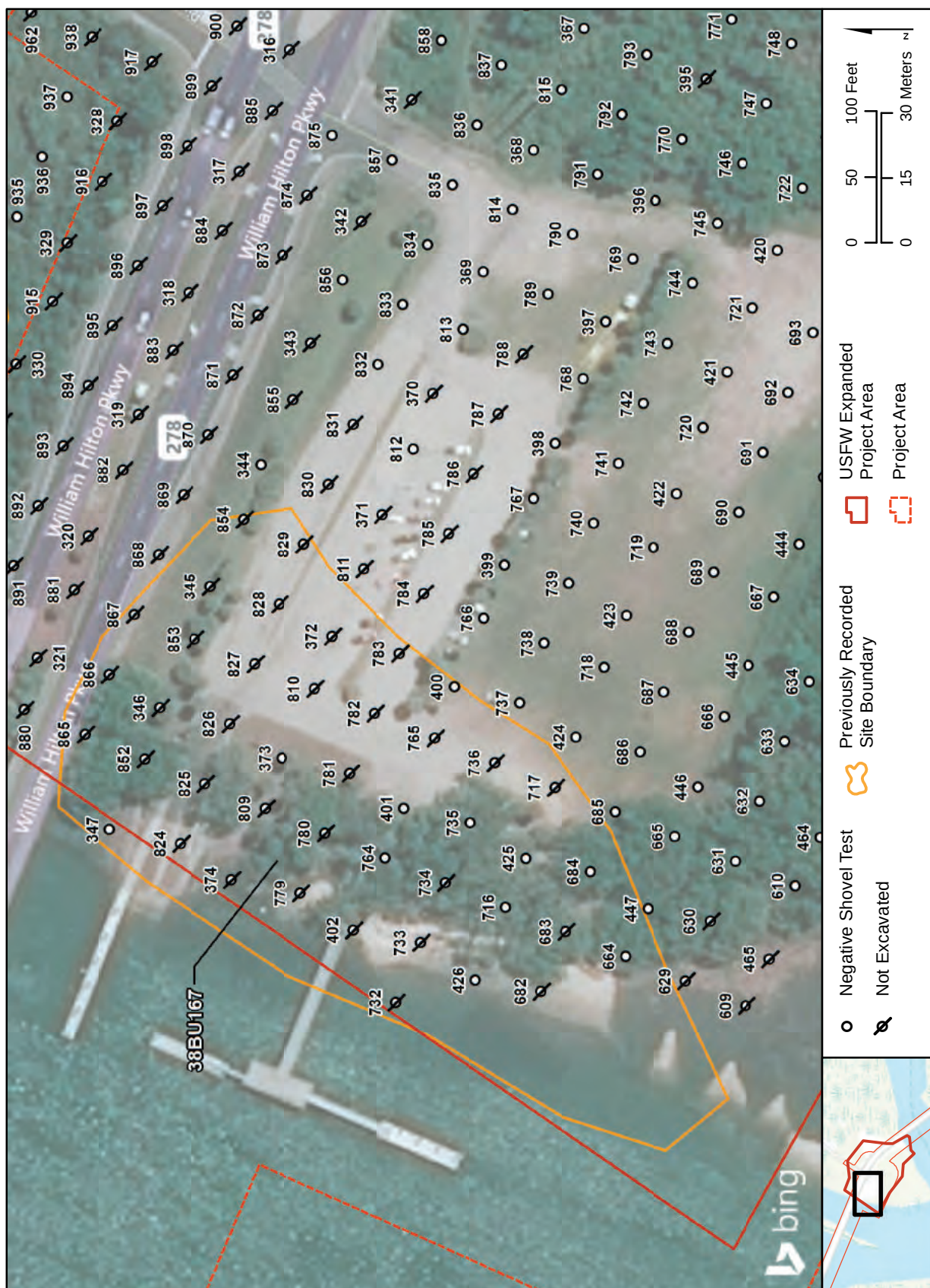


Figure 12.
Shovel Test Map (1 of 15)



Source: Bing Maps Hybrid

Figure 13.
Shovel Test Map (2 of 15)



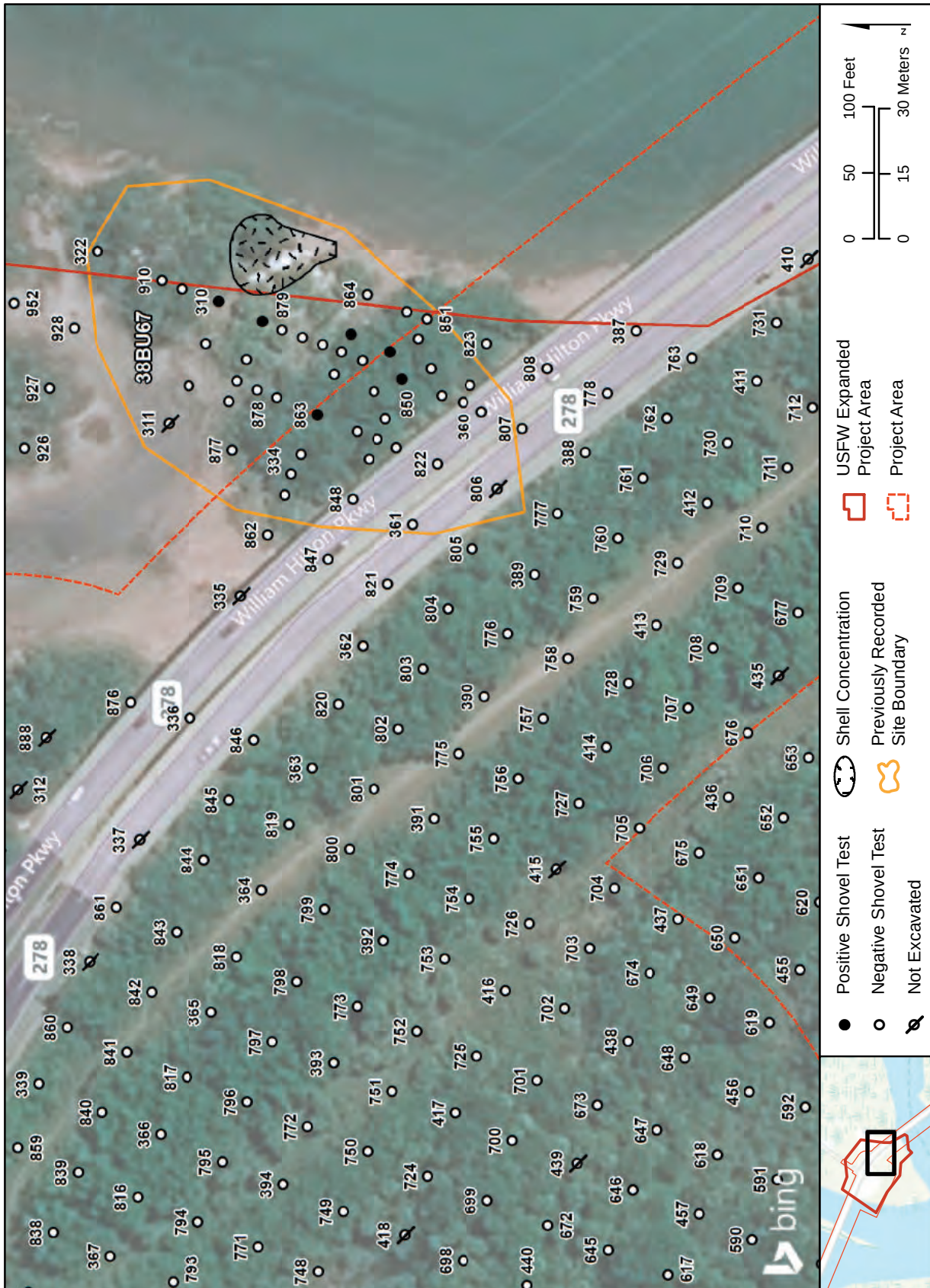
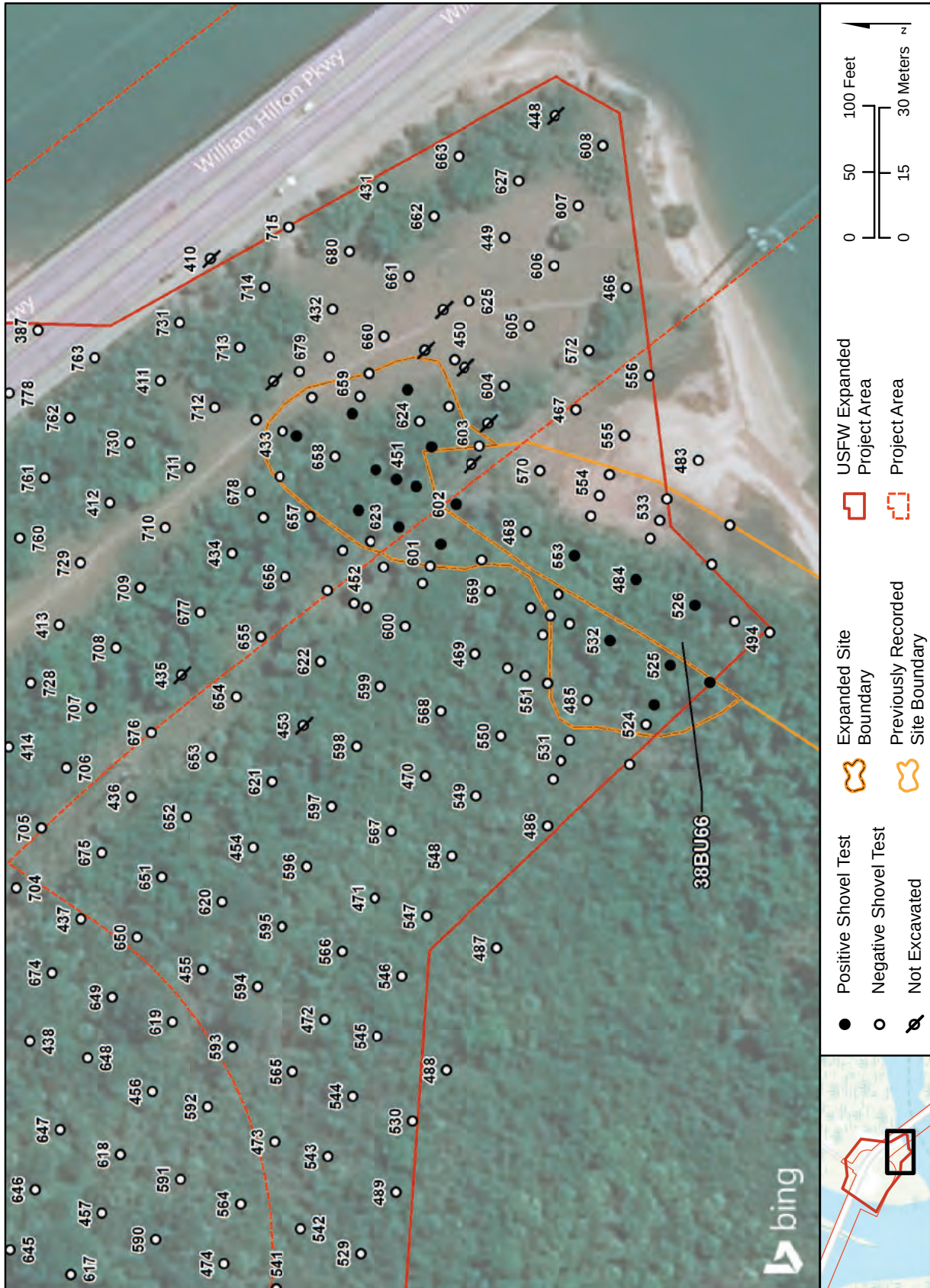


Figure 16.
Shovel Test Map (5 of 15)



Source: Bing Maps Hybrid

Figure 17.
Shovel Test Map (6 of 15)



Source: Bing Maps Hybrid

Figure 18.
Shovel Test Map (7 of 15)



Source: Bing Maps Hybrid

Figure 19.
Shovel Test Map (8 of 15)

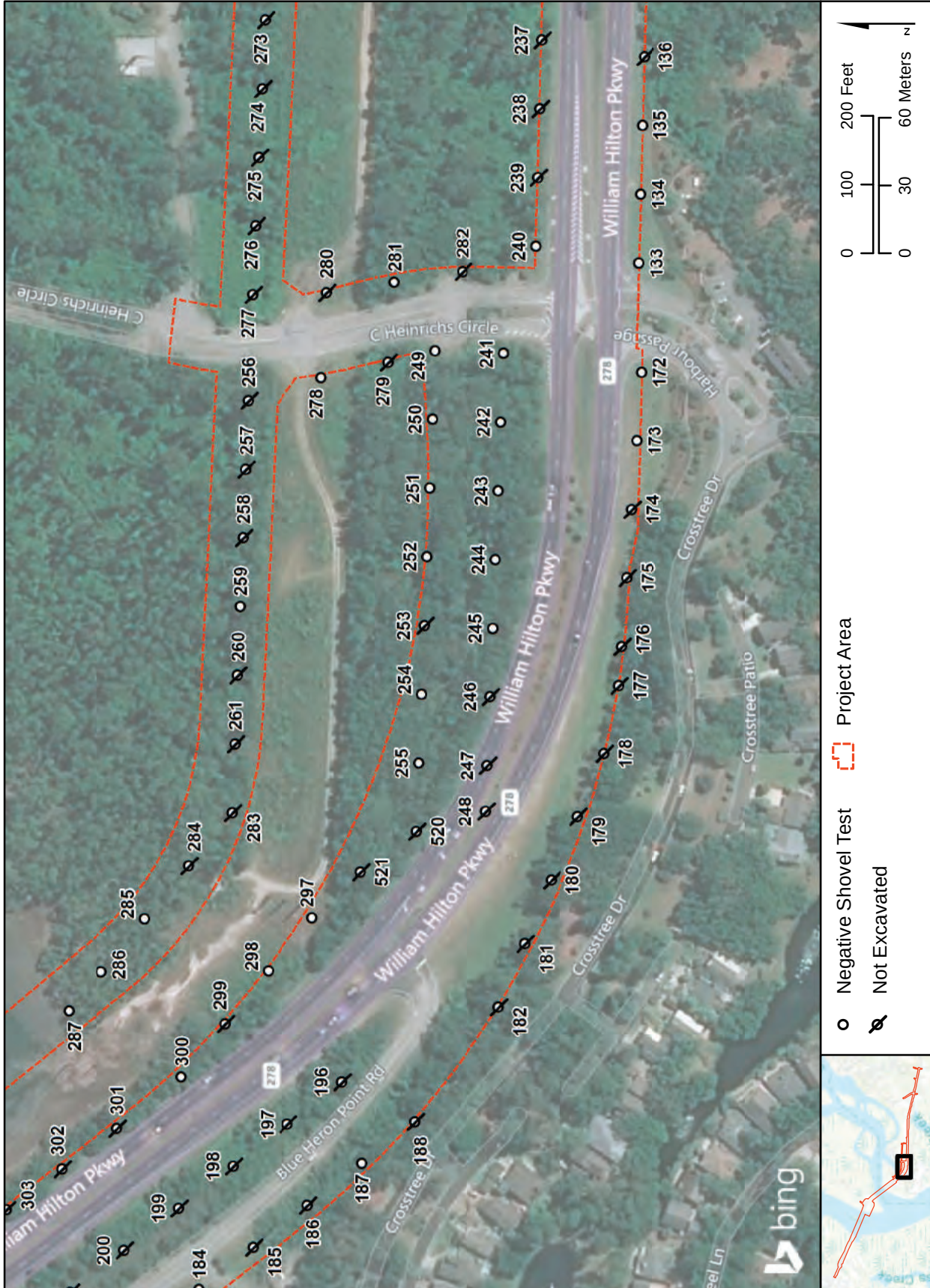
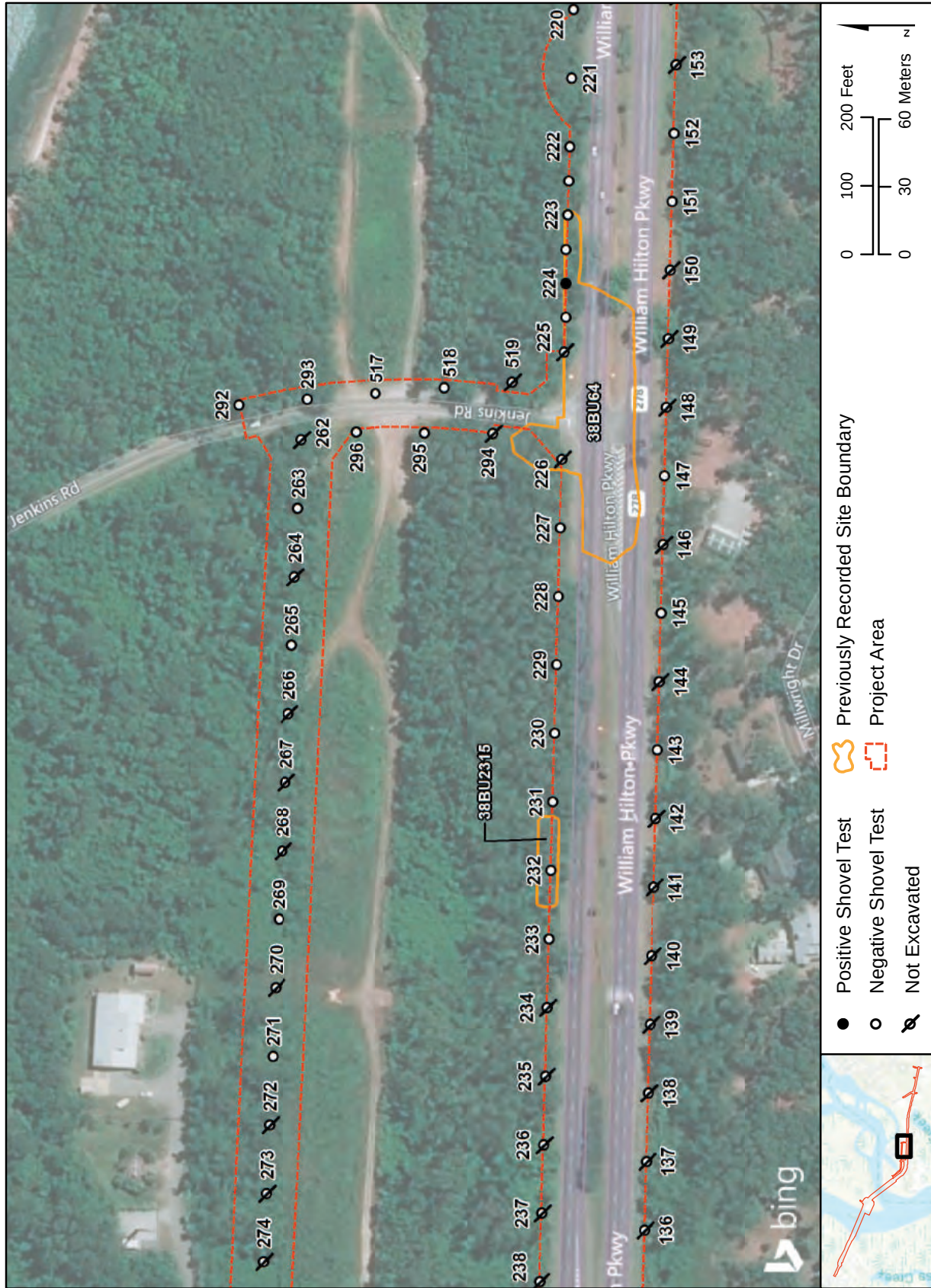
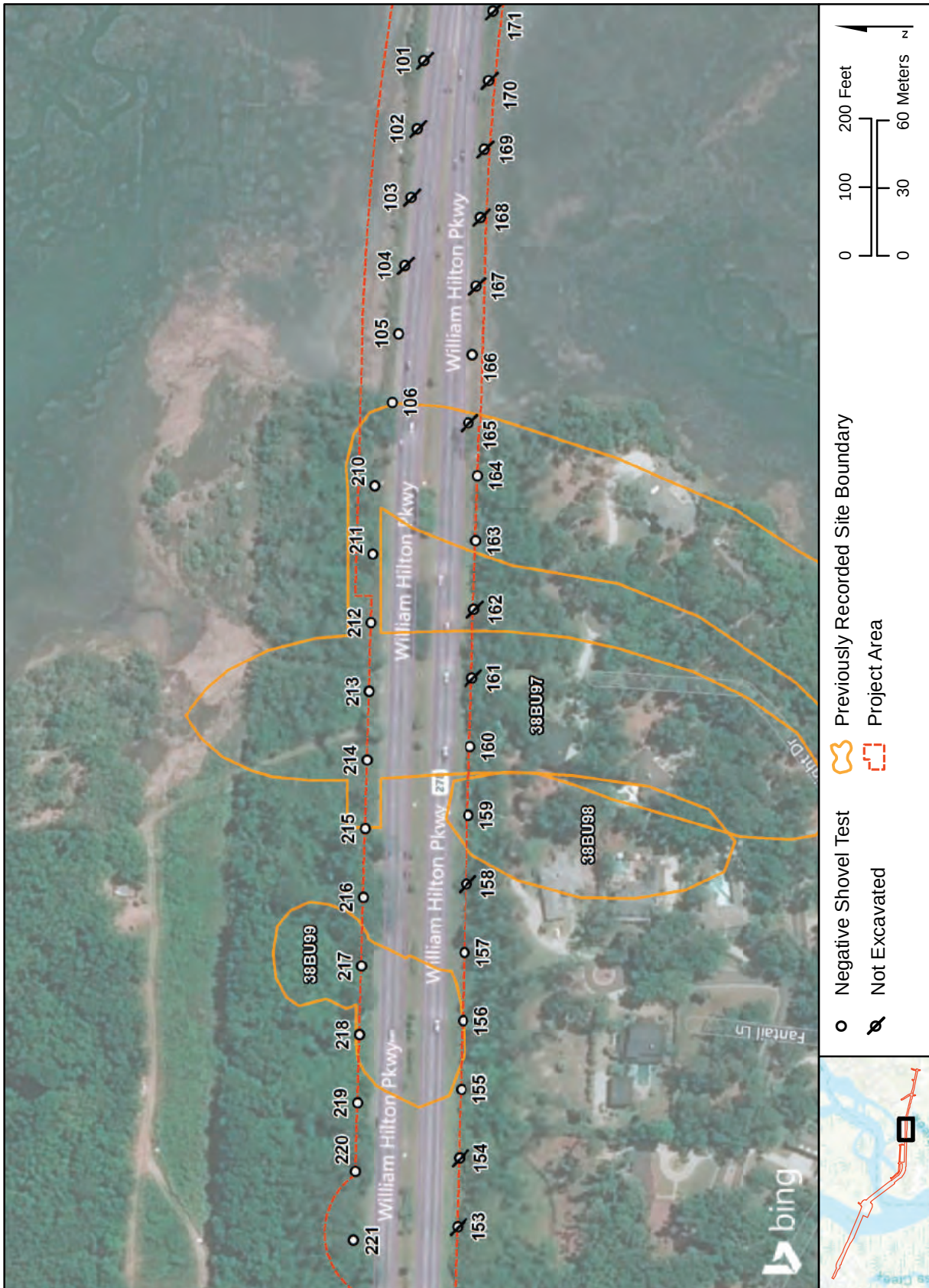


Figure 20.
Shovel Test Map (9 of 15)



Source: Bing Maps Hybrid

Figure 21.
Shovel Test Map (10 of 15)



Source: Bing Maps Hybrid

Figure 22.
Shovel Test Map (11 of 15)



Source: Bing Maps Hybrid

Figure 23.
Shovel Test Map (12 of 15)



Source: Bing Maps Hybrid

Figure 24.
Shovel Test Map (13 of 15)



Source: Bing Maps Hybrid

Figure 25.
Shovel Test Map (14 of 15)



Source: Bing Maps Hybrid

Figure 26.
Shovel Test Map (15 of 15)

Figure 27.
Typical Shovel Test Profile



As a result of the archaeological survey, three previously recorded sites (38BU64, 38BU66, and 38BU67) were found and two sites (38BU2337 and 38BU2338) were newly identified. The locations of six previously recorded sites (38BU97, 38BU98, 38BU99, 38BU167, 38BU168, and 38BU2315) were revisited but could not be found (Table 5).

Table 5. Summary of Revisited or Newly Identified Archaeological Sites

Site	NRHP Recommendation	Management Recommendation	Revisited?
38BU64	Additional Work	No Additional Work Within the Project Area	Yes
38BU66	Eligible	Avoidance or Mitigation	Yes
38BU67	Eligible	Avoidance or Mitigation	Yes
38BU97	Additional Work	No Additional Work Within the Project Area	No
38BU98	Additional Work	No Additional Work Within the Project Area	No
38BU99	Additional Work	No Additional Work Within the Project Area	No
38BU167	Not Eligible	No Additional Work	No
38BU168	Not Eligible	No Additional Work	No
38BU2315	Additional Work	No Additional Work Within the Project Area	No
38BU2337	Additional Work	No Additional Work Within the Project Area	Identified
38BU2338	Additional Work	Located Outside of the Project Area. Avoid.	Identified

38BU64

Field Number:	38BU64
UTM Coordinates:	521850E, 3564464N (Zone 17N, NAD 1927)*
Elevation:	10 feet amsl
USGS Quadrangle (7.5'):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Late Archaic, Woodland, 19 th /20 th century
Setting:	Mixed Pine/Hardwood
Site Size:	152m E/W x 53m N/S (15m E/W x 15m N/S within the Project Area)
Cultural Deposit Depth:	0-40 cmbs
Features:	Shell Midden
NRHP Recommendation:	Additional Work
Management Recommendation:	No further work within Project Area

**Based on current investigation*

Site Description

Site 38BU64, the Jenkins Island Shell Pit, is a multi-component pre-contact site initially excavated by Calmes in 1967. It lies along US 278 near the intersection with Jenkins Road. Based on Calmes' survey and subsequent investigations, 38BU64 was recommended for further work to

determine its NRHP eligibility. Brockington and Associates investigated part of the site in 2017, as it was within their project area. This portion of the site was judged as not contributing to the site's overall eligibility (Baluha 2017). Previous investigations indicate the site is irregular in shape and measures 152x53 meters (Figure 28). Vegetation at the site consists of mixed pines and hardwoods, palmetto trees, and a light understory. There was no ground surface visibility (Figure 29). It has been impacted by the expansion of the US 278 corridor.

New South investigated six shovel tests at 38BU64, one of which was positive. The site boundary was determined by close-interval negative shovel tests to the east and west but was not fully delineated to the north and south because of the APE boundary and US 278 (see Figure 12). Soils at the site consist of excessively drained Wando fine sand. A typical shovel test profile consists of 10 centimeters of dark brown (10YR3/3) sandy loam (Stratum I) above 30 centimeters of dark yellowish brown (10YR 3/6) sand (Stratum II). This overlays Stratum III, consisting of 40 centimeters of dark yellowish brown (10YR 4/6) sand.

Calmes' initial investigation entailed the excavation of four 6x6-foot blocks, which yielded pre-contact pottery, debitage, shell, bone, wood, and historic ceramics. A single radiocarbon date of 580 A.D. was obtained, indicating a Wilmington component. An analysis of the Fred Hack collection in 1971 identified net-impressed and cord-marked sherd-tempered pre-contact ceramics. South investigated the site in 1973 and recovered a single cord-marked sherd (South 1973).

Trinkley collected one chert Savannah River stemmed-type projectile point in 1978, but when he revisited the site in 1986, no artifacts were collected (Trinkley 1987). In 1991, Roberts indicated the widening of US 278 would have impacted a portion of the site (Roberts 1991). Brockington and Associates' survey primarily recovered shell, which was discarded in the field, as well as glass and one pre-contact ceramic (Baluha 2017).

During the current survey, the shell midden was identified in one shovel test inside the previously recorded site boundary. This layer, located in Stratum II, was approximately 30 centimeters thick. A total of 7.734 kilogram of shell was weighed in the field. One pre-contact ceramic sherd was also identified in this shovel test from 10-40 centimeters below surface (cmbs). This sherd is grog-tempered with a burnished rim and possibly fabric impressed or cord-marked surface. A Wilmington period occupation was previously determined for the site, and this sherd is consistent with the Wilmington pottery series.

Figure 28.
Site 38BU64 Map



Figure 29.
Site 38BU64 Overview, Facing East



Recommendations

Initial investigations at site 38BU64 indicated it may have research potential that could make it eligible for the NRHP. However, the site has been impacted by the expansion of US 278 and Brockington's survey found that the portion of the site in their project area was diffuse and disturbed. The current investigation encountered the site in one shovel test, which yielded a single pre-contact ceramic sherd along with shell fragments. New South judges the portion of Site 38BU64 inside the APE as lacking research potential due to its low artifact density and diversity as well as impacts from prior US 278 expansion. No further work is recommended for the portion of the site within the project area. However, the site was not fully delineated and still requires additional work outside of the APE to determine its overall eligibility.

38BU66

Field Number:	38BU66
UTM Coordinates:	520321E, 3565263N (Zone 17N, NAD 1927)*
Elevation:	20 feet amsl
USGS Quadrangle (7.5'):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Woodland, 16 th /17 th century
Setting:	Mixed Pine/Hardwood
Site Size:	578m N/S x 106m E/W (110m N/S x 55m E/W within the Project Area)
Cultural Deposit Depth:	0-80 cmbs
Features:	Shell Midden
NRHP Recommendation:	Eligible
Management Recommendation:	Avoidance or Mitigation

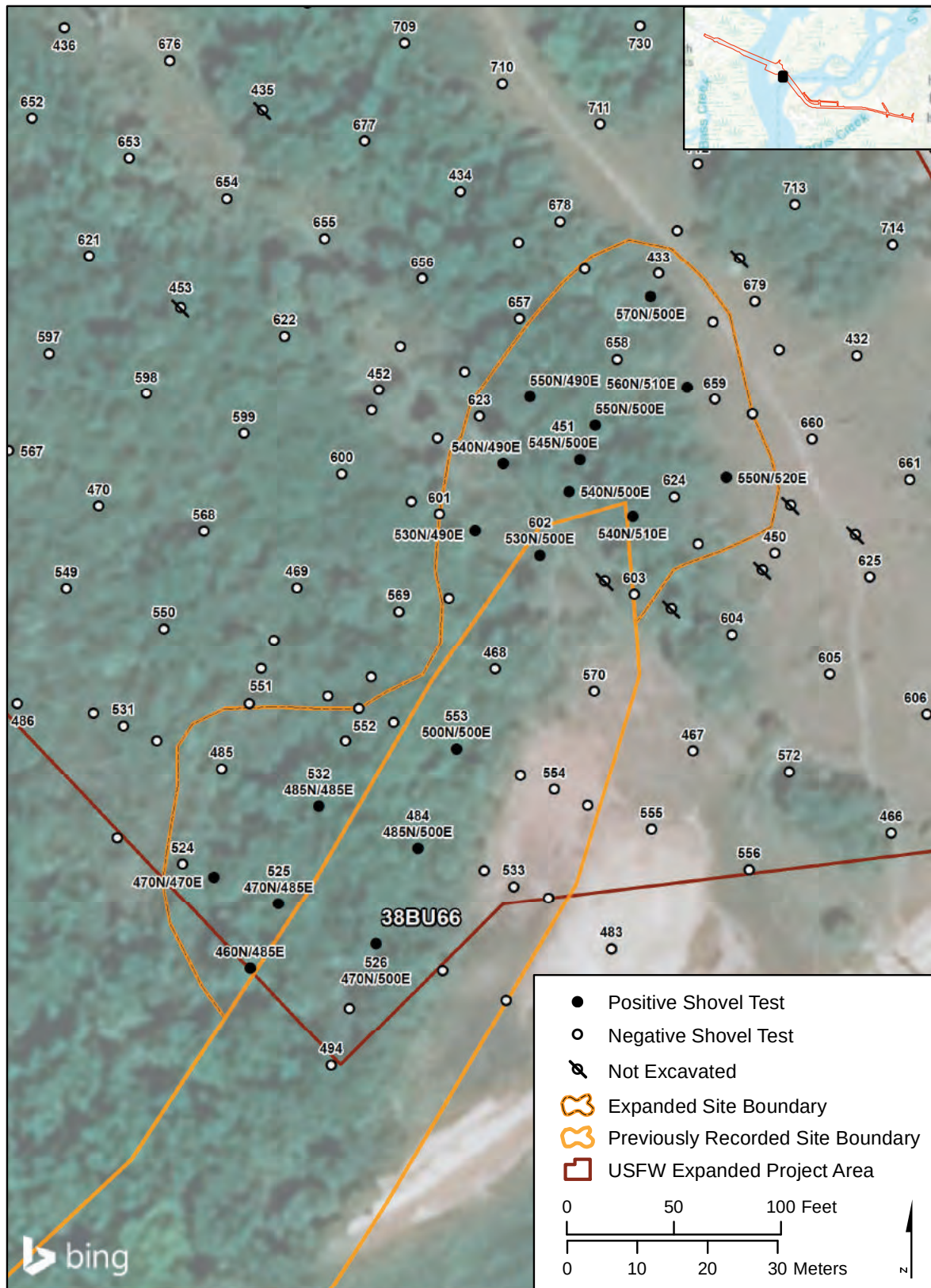
*Based on current investigation

Site Description

Site 38BU66, the Last End Point Site, is a multi-component shell midden located on the south-southeastern side of Last End Point on Pinckney Island. The site follows the curve of the shoreline and was previously found to measure approximately 553x71 meters. Site 38BU66 has been revisited several times since it was recorded in 1971 and it is considered eligible for the NRHP.

During the current survey New South revisited the portion of 38BU66 within the project area, expanding the boundary 25 meters north and 35 meters west, and revising the site's size to 578x106 meters (Figure 30). Additionally, while no discrete shell piles were visible, shell was scattered across its surface. Ground disturbance reflected erosion and inundation from Skull and Mackay creeks, the construction of a transmission line, and historic plowing. Vegetation at the time of the survey consisted of mixed pines, hardwoods, palmettos, and various saltwater wetland flora. Ground surface visibility was around zero percent (Figure 31).

Figure 30.
Site 38BU66 Map



Basemap: Bing Maps Hybrid

Figure 31.
Vegetation at 38BU66



A. Vegetation at the Site, Facing East



B. Vegetation at the Site Northeast

The initial investigation of 38BU66 identified historic ceramics, glass, and bricks in portions of the midden along Skull Creek, while pre-contact sherds were identified along the beach (Hemmings and Ryan 1971a). An analysis of the Alan Hack collection suggests a mid- to late nineteenth-century occupation as well as a Wilmington period component. A survey conducted by Lepionka in 1979 investigated eight fields within the Wildlife Refuge but only scattered Middle Woodland artifacts were recovered (Lepionka 1979). Carolina Archaeological Services identified Late Archaic to Middle Woodland pre-contact components, as well as sixteenth- and mid to late nineteenth-century occupations (Drucker and Anthony 1980). A pedestrian survey of Pinckney Island by Southeastern Wildlife Services in 1982 identified Mississippian and Proto-historic artifacts (Braley 1982). Testing by SAE in 1984 included the excavation of 19 test units and an auger survey, which identified Wilmington, St. Catherine's, Savannah, and Irene components, as well as several Spanish artifacts that could be related to the San Felipe/Santa Elena complex on Parris Island (Charles 1984).

New South investigated 55 shovel tests at 38BU66, 19 of which were positive for cultural materials. The site boundary was determined by close-interval negative shovel tests to the north, east, and west but was not completely delineated to the south due to the project boundary. Soils consist of very poorly drained Capers Association and moderately well drained Bertie loamy fine sand. A typical soil profile at the site includes Stratum I, consisting of 30 centimeters of very dark grayish brown (19YR 3/2) sandy loam overlying Stratum II, yellowish brown (10YR 5/6) sand that extended to from 30 cmbs to more than 80 cmbs.

In addition to shell identified in 19 shovel tests during the current survey, four shovel tests produced six artifacts. These came from depths of 0-80 cmbs, reflecting Stratum I and the shell midden. The assemblage consists of one brown salt-glazed stoneware sherd, one iron ball (approximately 1 inch in diameter) of an unknown function, one calico-patterned machine-made glass marble, two cut nails, and one eroded grog-tempered pre-contact sherd (Figure 32). The shell midden ranged from 20-80 centimeters in depth and approximately 152.867 kilograms of shell were weighed in the field. The pre-contact ceramic is consistent with previously recovered sherds and likely dates to the Woodland period. The historic assemblage dates from the nineteenth to early twentieth centuries and may relate to historic farmsteads on Pinckney Island.

Recommendations

Previous investigations determined site 38BU66 was eligible for the NRHP due to undisturbed and stratified deposits that could yield data significant to the pre-contact period. Additionally, there was evidence for a sixteenth-century component related to the Spanish occupation of Parris Island

Figure 32.
Site 38BU66 Artifacts



A. Brown Salt-Glazed Stoneware; B. Cut Nails; C. Iron Ball; D. Grog Tempered Pre-Contact Sherd;
E. Calico Patterned Marble

and eighteenth- to nineteenth-century English settlement. New South relocated the site portion within the APE and expanded its boundaries to the north and west. The current survey recovered five historic artifacts and one pre-contact artifact from 0–80 cmbs, while 10 shovel tests encountered the shell midden.

New South concurs with the previous eligibility determination. Despite disturbances from erosion, inundation and plowing, the site appears to retain depositional integrity and has a high potential to continue to yield additional information important to understanding the Woodland and Contact periods along the South Carolina coast. The presence of a later historic component suggests that the site may also be able to address questions related to historic farmsteads on Pinckney Island.

Site 38BU66 cannot be avoided and will have an adverse effect from the proposed project's preferred alternative (4A) and will be mitigated through a data recovery.

38BU67

Field Number:	38BU67
UTM Coordinates:	520356E, 356462N (Zone 17N, NAD 1927)*
Elevation:	20 feet amsl
USGS Quadrangle (7.5'):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Late Archaic, Woodland
Setting:	Mixed Pine/Hardwood
Site Size:	118m N/S x 75m E/W (75m N/S x 35m E/W within the Project Area)
Cultural Deposit Depth:	0-45 cmbs
Features:	Shell Midden
NRHP Recommendation:	Eligible
Management Recommendation:	Avoidance or Mitigation

**Based on current investigation*

Site Description

Site 38BU67, the Late Archaic to Woodland period Pinckney Island Shell Midden, is located on Pinckney Island adjacent to Skull Creek. It measures approximately 118x75 meters. The most recent investigation of the site took place in 1994 when Chicora Foundation performed a pedestrian survey. The prior work at the site determined it was eligible for the NRHP and Chicora Foundation concurred with those recommendations (Adams 1994), although portions of this site had been impacted by the construction of the US 278 bridge.

When they recorded the site in 1971, Hemmings and Ryan (1971b) identified one cord-marked sherd and one fiber-tempered sherd. In 1978, Trinkley excavated 1,000 square feet in four test units and three blocks (Trinkley 1981). This investigation produced few artifacts, but exposed numerous post holes and other features that were characteristic of the Early to Middle Woodland periods. Additionally, a Late Archaic component was identified below the Middle Woodland occupation. Lepionka's investigations in 1979 concurred with Trinkley's finds, (Lepionka 1979). The site was extensively probed by Southeastern Wildlife Services in 1982, which yielded Late Archaic to Late Woodland wares (Braley 1982). During 1984 investigations by SAE, Charles indicated that 38BU67 may represent a principal habitation site associated with ancillary extraction sites represented at 38BU66, 38BU167, and 38BU168 (Charles 1984). The most recent investigation in 1994 consisted of a pedestrian survey and did not yield any artifacts.

As result of the current survey New South found portions of 38BU67 within the project area (Figure 33). Vegetation consisted of mixed pines, hardwoods, palmettos, and various saltwater wetland flora (Figure 34). Large shell piles were exposed on the surface, although overall ground surface visibility was close to zero. Disturbances noted during the fieldwork included erosion and inundation from Skull Creek, a transmission line corridor, and the construction of the US 278 bridge.

New South investigated 33 shovel tests at 38BU67, six of which were positive for cultural materials. The site boundary was determined by close-interval negative shovel tests to the north, west, and south, but was not delineated to the east due to the project boundary. Soils at the site consist of very poorly drained Capers Association and somewhat poorly drained Yemassee loamy fine sand. A typical shovel test profile noted at the site consisted of Stratum I, a roughly 30-centimeter layer of very dark grayish brown (10YR 3/2) sand above Stratum II, consisting of yellowish brown (10YR 5/8) sand to depths greater than 80 cmbs. Six shovel tests encountered shell midden deposits, indicating this feature measures roughly 30 centimeters thick and about 70 kilograms of shell were weighed in the field. No artifacts other than shell were recovered from shovel tests and no diagnostic artifacts were identified. Additionally, distinct shell piles were observed across the site.

Recommendations

Trinkley (1976) recommended site 38BU67 eligible for the NRHP because of the number of features, Woodland period artifacts, and the recovery of skeletal material. New South identified portions of the site within the current APE and encountered the shell midden in shovel tests and

Figure 33.
Site 38BU67 Map

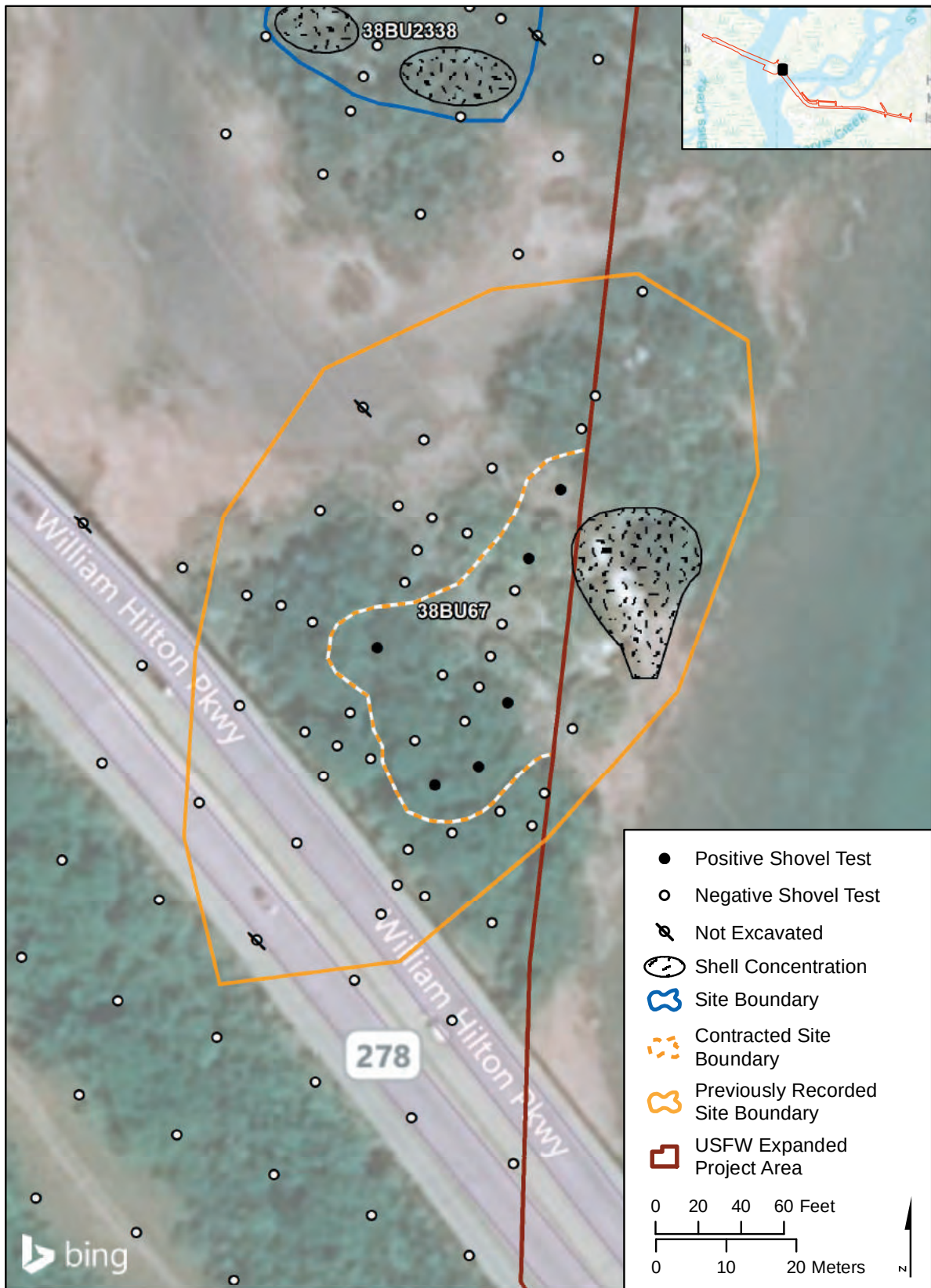


Figure 34.
Vegetation at 38BU67



A. Vegetation, Facing South



B. Vegetation, Facing West

on the surface of 38BU67. Although the site has been damaged from erosion and inundation, a transmission line, and the US 278 bridge, it appears to possess overall good integrity and archaeological deposits seem to be intact.

Prior investigations of the site have recovered information important to understanding the pre-contact period of coastal South Carolina. Further, the site retains a high potential for further significant data. Based on these factors, New South concurs with the previous recommendation that site 38BU67 is eligible for the NRHP.

Site 38BU67 will have no adverse effects and will be identified as “Restricted Area” on all construction plans in order to protect the site.

38BU97

Field Number:	38BU97
UTM Coordinates:	522206E, 3564314N (Zone 17N, NAD 1927)
Elevation:	10 feet amsl
USGS Quadrangle (7.5’):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Woodland, 19 th /20 th century
Setting:	Mixed Pine/Hardwood
Site Size:	350 m x 70 m
Cultural Deposit Depth:	0-40 cmbs
Features:	None
NRHP Recommendation:	Additional Work
Management Recommendation:	No Further Work within the Project Area

Site Description

Site 38BU97 is a pre-contact shell midden and historic artifact scatter located along Jarvis Creek on the eastern side of Jenkins Island. This multi-component site was recorded by South in 1973 and was recommended potentially eligible for the NRHP by Trinkley (1978). In 1973, South collected four cord-marked and one unidentified sherd, indicating Wilmington component (South 1973). During his 1978 visit, Trinkley identified four features and two post holes as well as recovering 104 sherds, six worked shell fragments, and small quantities of animal bone (Trinkley 1978). When Roberts revisited it in 1991 he found no evidence of the site and believed the site had been destroyed (Roberts 1991). Brockington’s 2017 survey, however, identified seven pre-contact ceramic sherds, two bottle glass shards, one brick fragment, and oyster and clam shell. At the same time, excavation of a portion of the site encountered diffuse and disturbed deposits that did not contribute to the site’s eligibility (Baluha 2017).

During the current survey New South revisited the mapped location of 38BU97 but no evidence of the site was found in shovel tests or on the surface. Ten shovel tests were excavated across the site, none of which were positive for cultural materials. Two additional shovel tests were plotted, but not excavated due to standing water and buried utilities (Figure 35). Vegetation at the site consists of mixed pines and hardwoods, as well as dense secondary growth (Figure 36). Soils at the site consist of somewhat poorly drained Seabrook fine sand, although most of the shovel tests were disturbed from the prior construction of US 278. An example of the soil profiles included approximately 20 centimeters of dark grayish brown (10YR 4/2) sandy loam (Stratum I) above yellowish brown (10YR 5/4) sand from 20–30 cmbs (Stratum II). This capped Stratum III, a light yellowish brown (10YR 6/4) sand that extended past 40 cmbs. The shovel test was terminated at 40 cmbs because of waterlogged soils.

Recommendations

Early investigations at 38BU97 recommended that the site was potentially eligible for inclusion in the NRHP due to the potential for intact features. However, the site has been heavily impacted by the construction and expansion of US 278. Investigations along US 278 by Brockington and Associates in 2017 found that the portion of the site in the project area was disturbed and concluded that the proposed project would not adversely affect the site (Baluha 2017). During the present revisit, New South revisited the site area, but no cultural material was recovered in or noted on the surface and the soils appear disturbed. As no evidence of the site was found in the APE, no additional work is recommended.

38BU98

Field Number:	38BU98
UTM Coordinates:	522119E, 3564356N (Zone 17N, NAD 1927)
Elevation:	10 feet amsl
USGS Quadrangle (7.5'):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Unknown Pre-contact
Setting:	Mixed Pine/Hardwood
Site Size:	127 m x 54 m
Cultural Deposit Depth:	0-40 cmbs
Features:	None
NRHP Recommendation:	Additional Work
Management Recommendation:	No Additional Work in the Project Area

Figure 35.
Site 38BU97 Map

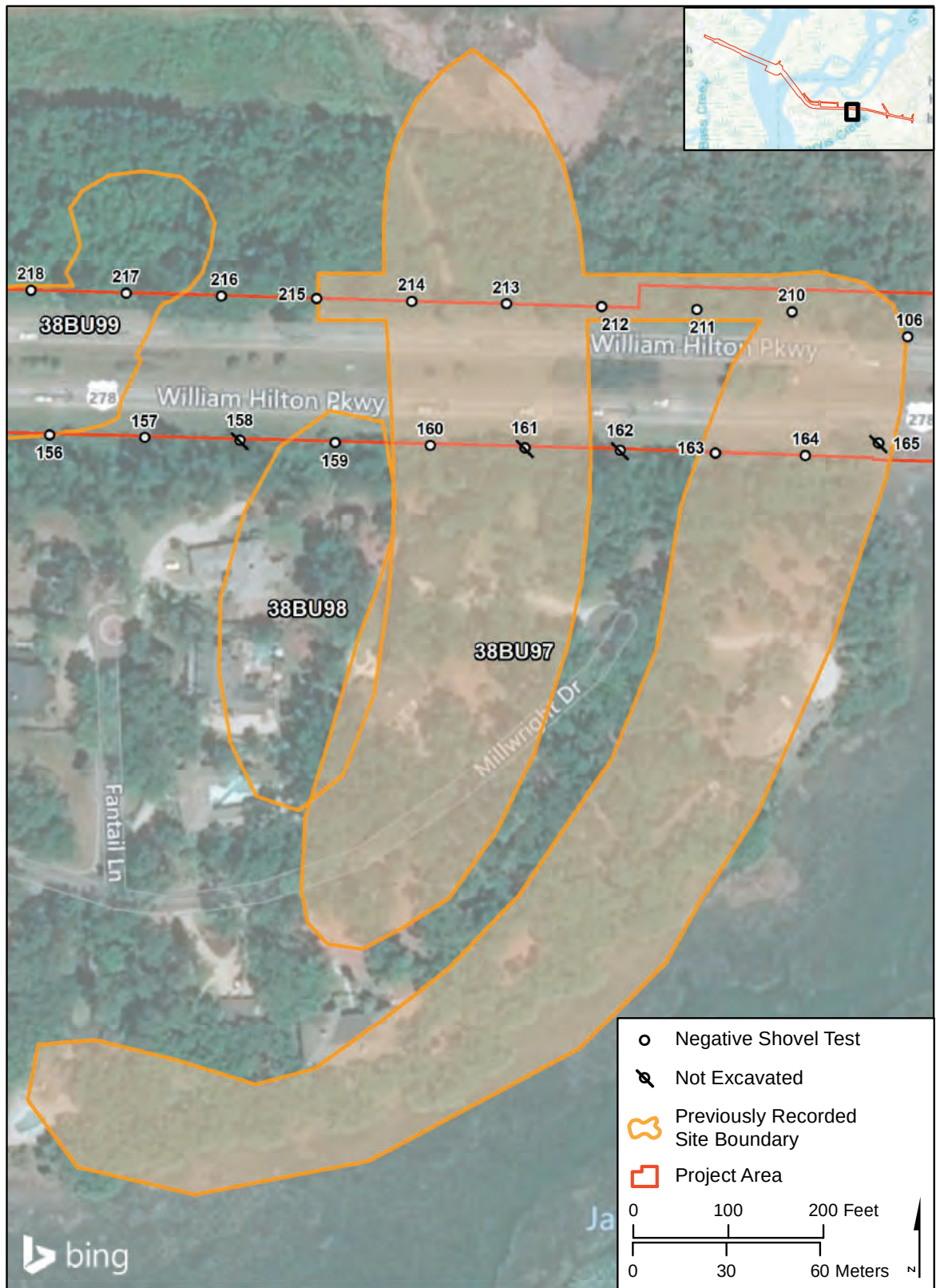


Figure 36.
Vegetation at 38BU97, Facing West



Site Description

Site 38BU98 is a pre-contact shell midden of indeterminate chronology. It lies along the western side of a water-filled basin and just west of site 38BU97 on Jenkins Island. This site was identified by South as part of his 1973 Jenkins Island survey, while Trinkley revisited it in 1987, recommending it for additional work to determine its NRHP eligibility (Trinkley 1987).

During the current survey New South revisited the 38BU98 site location but no evidence of the site was found in the APE. Mapped soils consist of somewhat poorly drained Seabrook fine sand. Two shovel tests locations were visited (Figure 37). One of these was not excavated because of slope while the other revealed a disturbed profile consisting of approximately 15 centimeters of dark grayish brown (10YR 4/2) sandy loam mottled with strong brown (7.5YR 5/6) sandy clay. Vegetation consists of mixed pines and hardwoods, and there was no ground surface visibility (Figure 38). There are also modern single family-houses at the site's location.

Previous investigations identified two sand-tempered cord-marked sherds and a diffuse shell scatter. New South did not recover any artifacts from shovel tests and did not see any shell on the surface of the site or in shovel tests during the current survey.

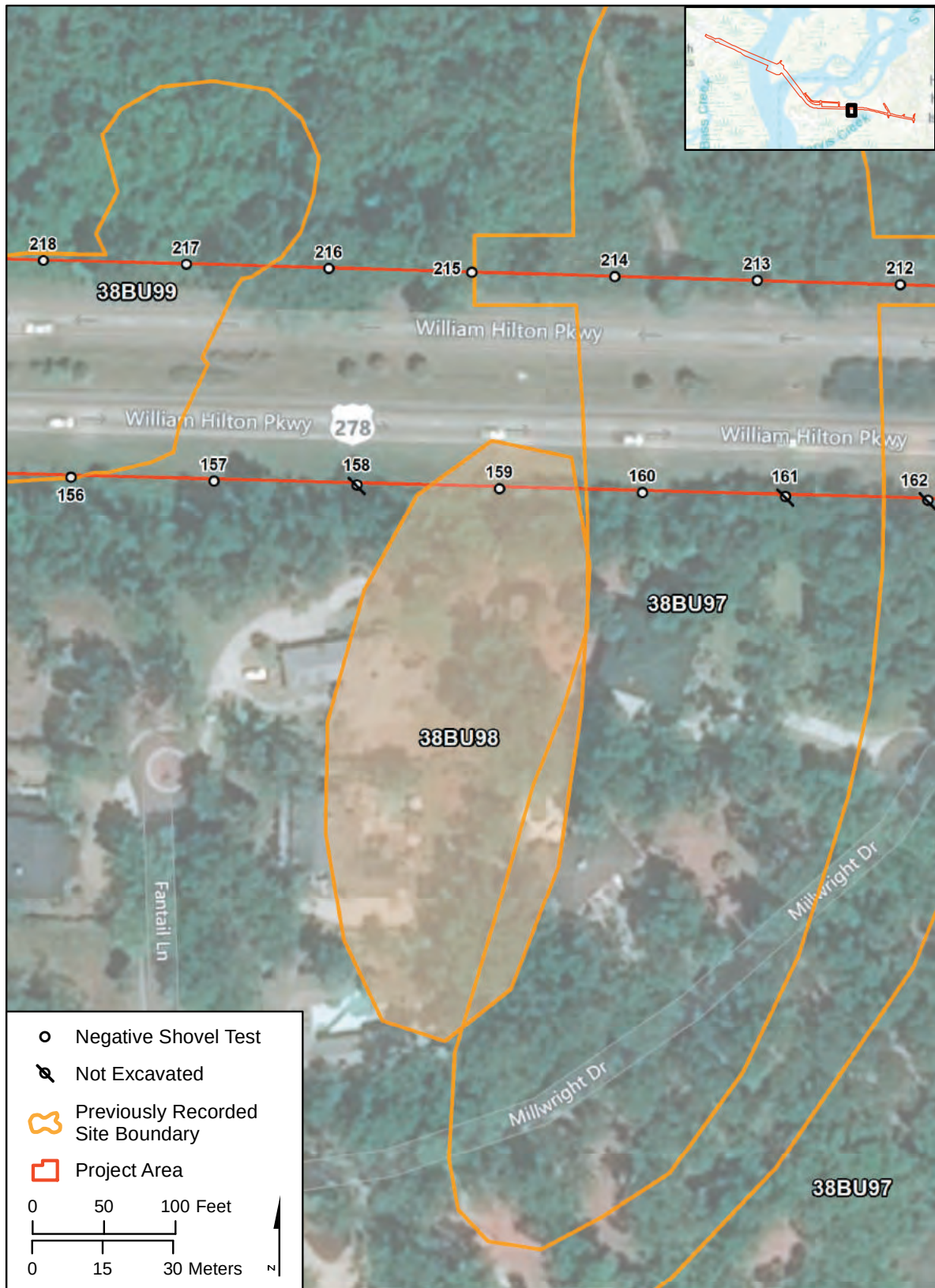
Recommendations

Early investigation of site 38BU98 suggested a potential for intact deposits and recommended additional work to determine its NRHP eligibility. However, the site has been impacted by the expansion of US 278 and modern house construction. Shovel testing and surface inspection produced no cultural material and the soils appear disturbed. As the site was not found in the APE, no additional work is recommended.

38BU99

Field Number:	38BU99
UTM Coordinates:	522000E, 3564490N (Zone 17N, NAD 1927)
Elevation:	10 feet amsl
USGS Quadrangle (7.5'):	Bluffton
Property/Site Type:	Artifact Scatter; Shell Midden
Temporal Affiliations:	Woodland, Unknown Historic
Setting:	Mixed Pine/Hardwood
Site Size:	30 m x 15 m
Cultural Deposit Depth:	0-50 cmbs
Features:	None
NRHP Recommendation:	Additional Work
Management Recommendation:	No Further Work within the Project Area

Figure 37.
Site 38BU98 Map



Basemap: Bing Maps Hybrid

Figure 38.
Vegetation at 38BU98, Facing West

