# DRAFT ENVIRONMENTAL IMPACT STATEMENT

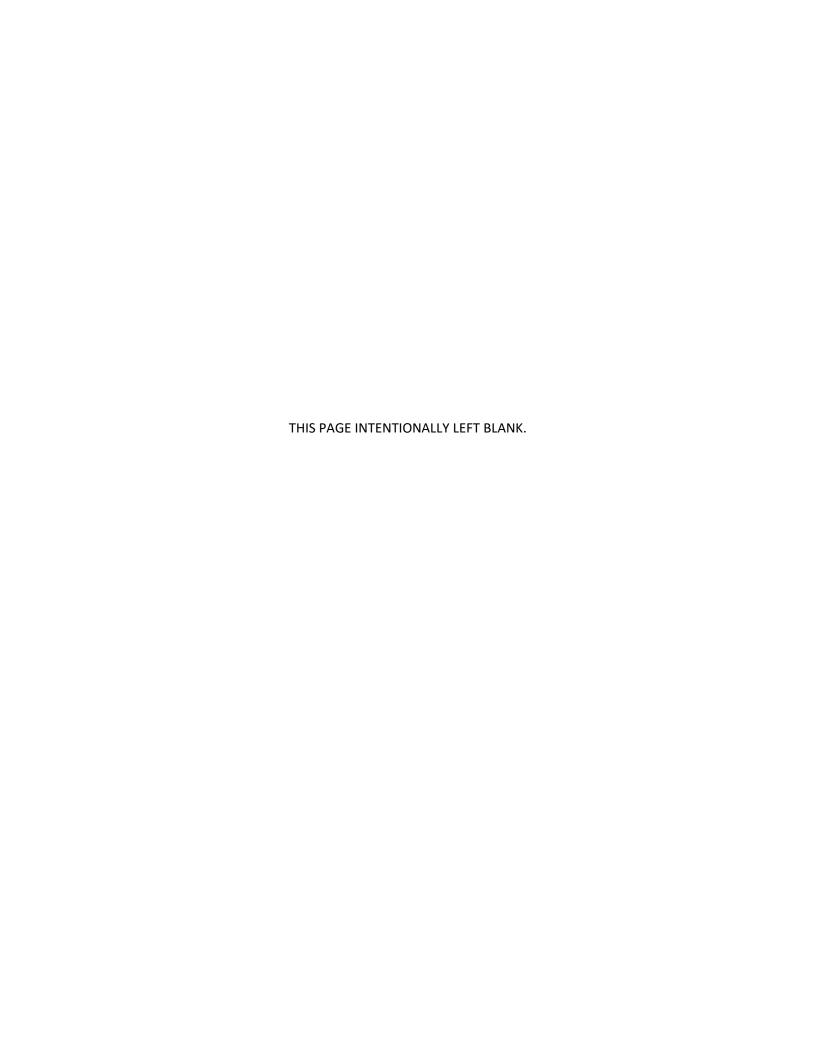
# SPACEX STARSHIP-SUPER HEAVY LAUNCH VEHICLE AT LAUNCH COMPLEX 39A

at the Kennedy Space Center, Merritt Island, Florida

Volume II, Appendix B.3, Part 5

August 2025





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# B.3.2 NHPA Section 106 Cultural Resources Assessment



#### **REVISED**

# CULTURAL RESOURCE SURVEY FOR THE STARSHIP-SUPER HEAVY PROJECT AT LC-39A, KENNEDY SPACE CENTER BREVARD COUNTY, FLORIDA

**SEARCH PROJECT No. 240265** 

**PREPARED FOR** 

**LEIDOS** 

1140 EGLIN PARKWAY

SHALIMAR, FL 32579

Ву

**SEARCH** 

**MAY 2025** 

# CULTURAL RESOURCE SURVEY FOR THE STARSHIP-SUPER HEAVY PROJECT AT LC-39A, KENNEDY SPACE CENTER BREVARD COUNTY, FLORIDA

**SEARCH PROJECT No. 240265** 

PREPARED FOR

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**SEARCHINC.COM** 

**MAY 2025** 

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#### **EXECUTIVE SUMMARY**

SpaceX proposes to use Launch Complex 39A (LC-39A) to support Starship Super Heavy (SSH) operations at the National Aeronautics and Space Administration Kennedy Space Center (NASA KSC) in Brevard County, Florida (Proposed Action). The Proposed Action is the issuance of a Vehicle Operator License to SpaceX from the Federal Aviation Administration (FAA) to support SSH launch and landing operations at LC-39A, including ocean landings of SSH in the Atlantic Ocean on floating platforms (droneships), or directly in the ocean as a contingency. Associated activities include infrastructure construction at LC-39A and ground, launch, and landing operations associated with SSH. The FAA has determined that the Proposed Action is an undertaking requiring compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA; United States Code [U.S.C.] Title 54, Section 306108). The FAA is also preparing an environmental impact statement under the National Environmental Policy Act to evaluate the potential environmental impacts of the Proposed Action. Similarly, NASA KSC has determined the associated activities at LC-39A constitute and undertaking requiring compliance with Section 106. NASA KSC is acting as the lead federal agency for compliance with Section 106 of the NHPA. Section 106 will be conducted pursuant to the 2009 Programmatic Agreement Among the National Aeronautics and Space Administration, John F. Kennedy Space Center, Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer: Regarding Management of Historic Properties at the Kennedy Space Center, or any subsequent version thereof.

21 Southeastern Archaeological Research LLC (SEARCH) completed this report in compliance with 22 the regulations implementing Section 106 of the NHPA (Code of Federal Regulations [CFR] Title 23 36, Part 800), and in accordance with Florida Administrative Code, Chapter 1A-46. The approach 24 for the identification of historic properties in this report was developed in consultation with NASA 25 KSC, the FAA, and the Florida State Historic Preservation Officer (SHPO). The report presents the 26 results of background research, desktop-level review of previously recorded historic properties 27 (architectural history and archaeological resources), intensive architectural history field survey 28 of historic properties, and a windshield architectural history survey.

The area of potential effects (APE) has been developed by NASA KSC and the FAA to consider both a construction APE and an operational APE. The construction APE is limited to the existing boundaries of LC-39A. The operational APE is predicated on the auditory and vibratory effects of the SSH launch activity, as well as the overpressure effects of the sonic boom generated during atmospheric reentry. These effects are based on thresholds identified in literature regarding structural damage from sound pressure levels (Fenton and Methold 2016; National Academy of Sciences 1977) and overpressures (Haber et al. 1989). Sound lasting more than one second with levels exceeding 130 decibels (dB; unweighted) is potentially damaging to structures (Haber et al. 1989; National Academy of Sciences 1977). Considering effects of ground, launch, and landing operations associated with SSH, the operational APE was established as any area subjected to greater than or equal to 2 pounds per square foot (psf) from sonic booms under annual mean weather conditions for the range of launch/landing activities, an area that also encompasses the 130 dB threshold for launch effects. The APE totals 2,050,232.71 acres (ac); the majority of the

- 42 APE extends off the Cape Canaveral coast over the Atlantic Ocean, leaving 168,770.55 ac as
- 43 terrestrial.
- 44 SEARCH completed an intensive architectural history survey and NRHP evaluation for 97
- 45 previously recorded resources outside of federal property, including 18 NRHP-listed resources or
- 46 resource groups, 36 resources or resource groups previously determined eligible or "potentially
- 47 eligible" by SHPO, and 43 resources without SHPO determinations that were previously
- 48 recommended "NRHP eligible." SEARCH determined during survey that seven of these previously
- 49 recorded resources are no longer extant (8BR00681, 8BR00759, 8BR00946, 8BR00953,
- 8BR01762, 8BR1763, and 8BR01764), and are therefore not eligible for NRHP inclusion. SEARCH
- recommends all 18 NRHP-listed resources or resource groups retain sufficient integrity to remain
- 52 listed in the NRHP. SEARCH recommends that 64 previously recorded resources are eligible for
- NRHP inclusion, that one previously recorded resource is eligible as a resource group contributor
- 54 (8BR00703), and that six previously recorded resources are not eligible for NRHP inclusion.
- 55 Additionally, one previously recorded resource (8BR01812) remains unevaluated for NRHP
- 56 eligibility due to a lack of survey access.
- 57 SEARCH completed an intensive architectural resource survey of 142 previously recorded
- 58 resources outside of federal property that are within existing resource group boundaries,
- resources without determinations or recommendations, and cemeteries without determinations
- or recommendations. SEARCH determined during the survey that one resource (8BR02171/St.
- 61 Mary's Church Rectory); and one resource group (8BR03345) are no longer extant, and are
- 62 therefore not eligible for NRHP inclusion. SEARCH recommends that 122 resources are eligible as
- 63 resource group contributors and that nine resources are eligible for NRHP inclusion. SEARCH
- recommends that six resources are ineligible for NRHP inclusion. Additionally, two previously
- 65 recorded cemeteries (8BR01979 and 8BR03334) and one previously recorded resource group
- 66 (8BR02143) remain unevaluated for NRHP eligible due to a lack of survey access.
- 67 SEARCH conducted a windshield survey outside of federal property to identify architectural
- 68 styles, distinguishing characteristics, and general development patterns in areas with a high
- 69 concentration of unrecorded resources to reasonably analyze the effects on notable
- 70 characteristics, such as stained-glass windows and decorative woodwork, as a result of the SSH
- 71 launch and landing activities. Areas of concentration in Titusville North, Titusville South, and
- 72 Merritt island were identified to characterize architectural styles, distinguishing characteristics,
- 73 integrity, and inform interpretations about development patterns.
- 74 SEARCH completed an archaeological desktop analysis of the 355 archaeological resources
- 75 recorded in the FMSF within the operational APE. Of these resources, 93 are eligible for NRHP
- 76 listing, are potentially eligible, or have not been evaluated by the SHPO and are recorded as site
- 77 types that have the potential to contain above-ground or landscape features, or potentially
- 78 contain human remains. According to the Florida Master Site File, 33 of the sites potentially
- 79 contain human remains. There are 15 sites with the potential to retain above-ground
- 80 components that may contribute to the sites' NRHP eligibility.

Within the construction APE, LC-39A is well documented, and no further identification or evaluation of LC-39A is proposed. Furthermore, it is anticipated that proposed new construction associated with the operation of the SSH will be compatible with the characteristics of other launch-complex infrastructure and will not pose viewshed effects to historic properties.

Within the operational APE, SEARCH recommends that adverse effects resulting from SSH launch and landing activities are not likely but are possible. Though unlikely, vibratory and sonic-boom events could result in the potential for window breakage, damage to character-defining plaster and masonry features, and structural damage to highly vulnerable or poorly maintained buildings. Although it is similarly unlikely—because the nature of longitudinal effects of vibratory and overpressure events on archaeological sites has not been studied thoroughly—adverse effects to such resources cannot be ruled out. The majority of documented resources outside of NASA KSC and CCSFS are within the 2 psf overpressure contour. However, resources located on KSC and CCSFS are within the 20, 10, 6, and 4 psf contours. Resources subjected to higher overpressure resulting from sonic booms may be more susceptible to adverse effects. Because a final determination of how the undertaking will affect historic properties is not possible at this time, the development of a programmatic agreement to monitor for and mitigate potential adverse effects is recommended.

Finally, SEARCH makes several recommendations for the development of Programmatic Agreement stipulations based on feedback received from earlier drafts of this report. These include additional efforts to identify and evaluate historic properties not discussed in this report, monitoring historic properties within different psf contours for effects resulting from spacecraft launches and landings, and monitoring sonic boom overpressure and vibration at archaeological sites.

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1 INTRODUCTION 226

227 This report presents the results of an architectural history survey and archaeological desktop 228

analysis conducted on behalf of Leidos and SpaceX in support of an environmental impact 229 statement (EIS) evaluating the potential impacts of proposed infrastructure construction and

ground, launch, and reentry operations associated with the SpaceX Starship Super Heavy (SSH)

231 launch vehicle at LC-39A, National Aeronautics and Space Administration Kennedy Space Center

232 (NASA KSC), Brevard County, Florida (Figure 1-1).

233 SpaceX proposes using Launch Complex 39A (LC-39A) to support SSH operations at NASA KSC.

234 Proposed operations include construction of a launchpad and other launch-support

infrastructure at LC-39A, launching the SSH at LC-39A, landing the Starship and the Super Heavy

236 Booster at LC-39A, landing the Super Heavy Booster and Starship on droneships in the Atlantic

237 Ocean, expending the vehicles and components in the ocean, or landing and recovering Starship

238 from the ocean as a contingency. For operations at LC-39A, SpaceX must obtain a Vehicle

Operator License from the Federal Aviation Administration (FAA). Issuance of this license

240 constitutes an undertaking under Section 106 of the National Historic Preservation Act of 1966

241 (NHPA). Similarly, NASA KSC has determined the associated activities at LC-39A constitute an

242 undertaking requiring compliance with Section 106. The FAA is the lead Federal Agency for the

243 National Environmental Policy Act of 1969 (NEPA) review and is responsible for the development 244 of the EIS. NASA KSC is acting as the lead federal agency for compliance with Section 106 of the

245 NHPA. As such, Section 106 will be conducted pursuant to the 2009 Programmatic Agreement 246 Among the National Aeronautics and Space Administration, John F. Kennedy Space Center,

247 Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer:

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Regarding Management of Historic Properties at the Kennedy Space Center, or any subsequent

249 version thereof.

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250 Southeastern Archaeological Research LLC (SEARCH) completed this study to comply with Public

Law 113-287 (Title 54 U.S.C.), which incorporates the provisions of the National Historic 251

252 Preservation Act of 1966, as amended (NHPA), in compliance with the regulations implementing

253 Section 106 of the NHPA (Code of Federal Regulations [CFR] Title 36, Part 800), and in accordance

254 with Florida Administrative Code, Chapter 1A-46. The approach for the identification of historic

255 properties in this report was developed in consultation with NASA KSC, the FAA, and the Florida

256 State Historic Preservation Officer (SHPO). The report presents the results of background

research, desktop-level review of previously recorded historic properties (architectural history

258 and archaeological resources), intensive architectural history field survey of historic properties,

259 and windshield architectural history survey.

260 The research design was developed in consultation with NASA KSC, the FAA, and the Florida State

Historic Preservation Officer (SHPO) to make a good-faith effort to identify NRHP-eligible,

262 potentially eligible, and unevaluated properties possessing character-defining features that could

263 reasonably be expected to incur adverse effects from episodic and longitudinal exposure to

264 auditory, vibratory, and sonic-boom overpressure events caused by SSH launch and reentry

265 activities. The approach was discussed with and presented in a technical report to the Florida

> 1-1 Introduction

- 266 SHPO, who concurred with the approach in a meeting on January 23, 2025. Additionally, this
- identification and evaluation approach is aligned with standard FAA practice for compliance with
- 268 Section 106 of the NHPA and its implementing regulations and is consistent with Chapter 8 of the
- 269 FAA Order 1050.1F, Environmental Impacts: Policies and Procedures (FAA 2015).
- 270 The architectural history survey efforts included an intensive architectural survey and a
- 271 windshield survey outside of federal property. Prior to conducting the survey, an architectural
- 272 history desktop review was conducted including research in the FMSF, previously recorded
- 273 cultural resource surveys documented with KSC after 2001, Integrated Cultural Resources
- 274 Management Plans (ICRMP) for NASA KSC and CCSFS, and review of historic maps and aerial
- 275 photography. In total, 1,583 previously recorded historic resources located outside federal lands
- or federally owned parcels; and nine historic age bridges are documented in the FMSF within the
- 277 APE.
- 278 SEARCH completed an intensive architectural history survey and NRHP evaluation off federal
- 279 property for 96 previously recorded resources, including 18 NRHP-listed resources or resource
- groups, 35 resources or resource groups previously determined eligible or "potentially eligible"
- by SHPO, and 43 resources without SHPO determinations that were previously recommended
- 282 "NRHP eligible." SEARCH determined during survey that seven of these previously recorded
- 283 resources are no longer extant (8BR00681, 8BR00759, 8BR00946, 8BR00953, 8BR01762,
- 284 8BR1763, and 8BR01764), and are therefore not eligible for NRHP inclusion. SEARCH
- 285 recommends all 18 NRHP-listed resources or resource groups retain sufficient integrity to remain
- 286 listed in the NRHP. SEARCH recommends that 63 previously recorded resources are eligible for
- NRHP inclusion, that one previously recorded resource is eligible as a resource group contributor
- 288 (8BR00703), and that six previously recorded resources are not eligible for NRHP inclusion.
- 289 Additionally, one previously recorded resource (8BR01812) remains unevaluated for NRHP
- 290 eligibility due to a lack of survey access.
- 291 SEARCH completed an intensive architectural resource survey off federal property of 142
- 292 previously recorded resources that are within existing resource group boundaries, resources,
- 293 without determinations or recommendations, and cemeteries without determinations or
- 294 recommendations. SEARCH determined during the survey that one resource (8BR02171/St.
- 295 Mary's Church Rectory); and one resource group (8BR03345) are no longer extant, and are
- 296 therefore not eligible for NRHP inclusion. SEARCH recommends that 122 resources are eligible as
- 297 resource group contributors and that nine resources are eligible for NRHP inclusion. SEARCH
- resource group contributors and that time resources are engine for With inclusion. SEARCH recommends that six resources are ineligible for NRHP inclusion. Additionally, two previously
- recorded cemeteries (8BR01979 and 8BR03334) and one previously recorded resource group
- 300 (8BR02143) remain unevaluated for NRHP eligible due to a lack of survey access.
- 301 SEARCH conducted a windshield survey off federal property to identify architectural styles,
- 302 distinguishing characteristics, and general development patterns in areas with a high
- 303 concentration of unrecorded resources to reasonably analyze the effects on notable
- 304 characteristics, such as stained-glass windows and decorative woodwork, as a result of the SSH
- 305 launch and landing activities. Areas of concentration in Titusville North, Titusville South, and

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- Merritt Island were identified to characterize architectural styles, distinguishing characteristics, integrity, and inform interpretations about development patterns.
- 308 SEARCH conducted a desktop analysis of archaeological sites within the APEs that included a
- review of the FMSF database and modern aerial photographs to identify archaeological sites that
- 310 have the potential for aboveground components that may contribute to NRHP eligibility,
- 311 including all sites that may contain human remains. There are 355 sites recorded on the FMSF
- database within the operational APE. In total, 15 archaeological sites were identified as having
- 313 the potential to retain aboveground components that may contribute to the site's NRHP
- eligibility. According to the FMSF, 33 of the sites potentially contain human remains.
- 315 The principal investigator for this project exceeds the Secretary of the Interior's Standards and
- 316 Guidelines for Archaeology (48 FR 44716 [SOI Standards]). The report was written by Kate Willis,
- 317 MPS; Angelique Theriot, MA; Alexis Thomas, MPS, MS; Ashley Parham, PhD; and Leeanne
- 318 Mahoney, MPS. The fieldwork was conducted by Kate Willis, MPS; Angelique Theriot, MA; Alexis
- Thomas, MPS, MS; Ashley Parham, PhD; Mary Bonatakis, BA; and Shelby Foy, BA. Ms. Willis and
- 320 Ms. Theriot exceed the SOI Standards for Architectural History, and Ms. Mahoney exceeds the
- 321 SOI Standards for Archaeology. Angelica Costa, BA, produced field maps and report figures.
- 322 Charles Sterchi, MFA, produced the document.

#### 1.1 AREA OF POTENTIAL EFFECTS

- 324 The area of potential effects (APE) is defined as the "geographic area or areas with which an
- 325 undertaking may directly or indirectly cause alterations in the character or use of historic
- properties, if any such properties exist" (36 Code of Federal Regulations 800.16[d]). As such, the
- 327 APE has been developed to consider both a construction APE and an operational APE.
- 328 The construction APE is limited within the previously disturbed and existing boundaries of LC-
- 329 39A. The proposed new construction is anticipated to be compatible with the characteristics of
- 330 other launch complex infrastructure and will not pose viewshed effects to historic properties.
- 331 The operational APE considers the auditory, vibratory, and sonic boom overpressure effects of
- 332 the SSH launch and reentry activities covered under the FAA operating license. For launch
- operations, the FAA has typically selected a noise contour for a specific propulsion/engine noise
- 334 level and/or a specific sonic boom/overpressure, because rocket noise has the greatest
- 335 geographical extent of all the potential sources of alterations to historic properties from launches
- 336 (including landings and reentries). Auditory, vibratory, and sonic boom overpressure effects are
- 337 based on thresholds identified in literature regarding structural damage from sound pressure
- levels (Fenton and Methold 2016; National Academy of Sciences 1977) and overpressures (Haber
- 339 et al. 1989).

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- 340 Vibratory impacts can be quantified using the Maximum Unweighted Sound Level (Lmax)
- 341 (Bradley et al. 2020:3). Impacts from sonic-boom overpressure are quantified in psf. Studies have
- 342 shown that damage from sonic-booms is highly unlikely when structures are exposed to levels
- under 2 psf (Haber et al. 1989). However, when exposed to levels between 2 and 4 psf, structural

1-3 Introduction

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- components, including glass and plaster, demonstrate damage at a higher rate than expected due to natural wear in well-maintained structures (Haber et al. 1989). The National Academy of Sciences' "Guidelines for Preparing Environmental Impact Statements on Noise" (National Academy of Sciences 1977) state that one may conservatively consider all sound lasting more than one second with levels exceeding 130 dB (unweighted) as potentially damaging to structures.
- 350 Based on this information and previous research regarding rocket engine noise and vibration 351 effects to structures, the operational APE was established as any area subjected to overpressure 352 levels greater than or equal to 2 psf associated with sonic booms under annual mean weather 353 conditions for the range of launch/landing activities, which encircles a smaller area, focal to the 354 launch pad, associated with greater than or equal to 130 dB (Figure 1-1 and Figure 1-2) (Fenton 355 and Methold 2016, Guest and Slone 1972, Haber et al. 1989). The APE is 2,050,232.71 acres (ac), 356 mostly extending off the Cape Canaveral coast over the Atlantic Ocean, leaving 168,770.55 ac of 357 the APE as terrestrial.

#### 1.2 REPORT ORGANIZATION

The report introduction and description of the APE is presented in **Section 1**. The APE location and Environment is described in Section 2. Regional historic context including Native American culture history and postcontact history is synthesized in **Section 3**. The background research, including review of relevant state and local resources, and historic maps and aerial photography is discussed in Section 4. The research design and methods employed for the survey are described in Section 5. The results are described and discussed in Section 6. Conclusion and recommendations are in Section 7 and the references used for the report can be found in Section 8. The following appendices compliment the main report content and provide more detailed information; Appendix A: Previously Recorded Cultural Resources at NASA KSC and CCSFS, Appendix B: Historic Maps and Aerial Photographs, Appendix C: Intensive Architectural History Survey Results Figures: Resources Determined NRHP Eligible or Potentially Eligible by SHPO or Recommended NRHP Eligible or Potentially Eligible without SHPO determinations, Appendix D: Intensive Architectural History Survey Results Figures: Resources Within Existing Resource Group Boundaries, Those Without Determinations or Recommendations, and Cemeteries Without Determinations or Recommendations, and Appendix E: Previously Recorded Archaeological Resources.

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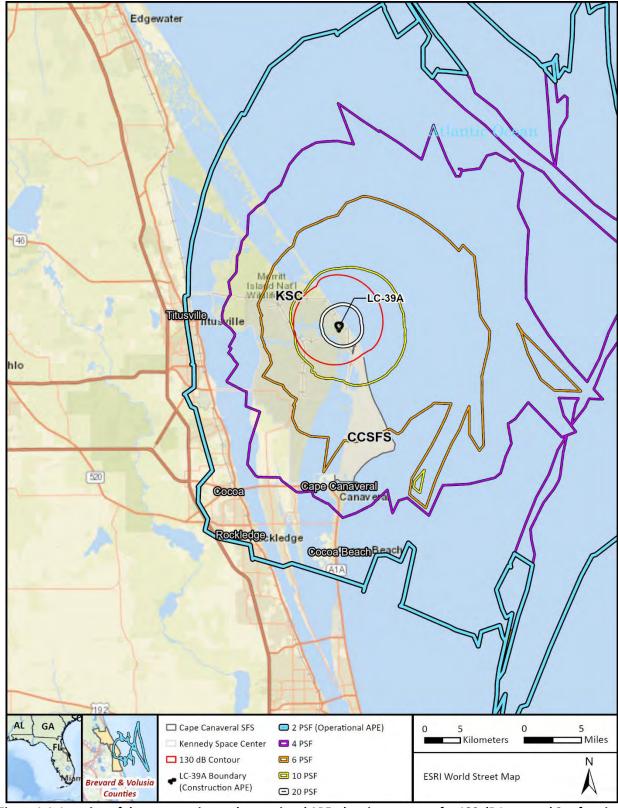


Figure 1-1. Location of the construction and operational APE, showing contours for 130 dB Lmax and 2 psf sonic boom overpressure.

Figure 1-2. Location of the construction and operational APE, showing contours for 130 dB Lmax and 2 psf sonic boom overpressure on an aerial photograph.

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#### 2 LOCATION AND ENVIRONMENT

This section presents a description of the location and modern condition of the APE and a review of the natural environment physiography, geology, and paleoenvironment that assisted in the development of appropriate survey methods. These data also contribute to understanding land use and regional settlement patterns to facilitate the survey results interpretations.

#### 2.1 LOCATION AND MODERN CONDITIONS

- The operational APE surrounds LC-39A and includes NASA KSC and Cape Canaveral Space Force Station (CCSFS) in Brevard County. From LC-39A, the boundary expands west approximately 19 miles (mi) over Cape Canaveral, North Merritt Island, and the Banana and Indian Rivers, and inland Florida, east approximately 60 mi from the Cape Canaveral coast over the Atlantic Ocean, north approximately 45 mi off the northeastern coast of Cape Canaveral, and south approximately 54 mi over Cape Canaveral and Merritt Island.
- The operational APE totals 2,050,232.71 ac, the majority of which is over the Atlantic Ocean. The inland portion intersects densely populated and developed municipal districts such as Titusville, Cocoa, and Cape Canaveral, residential areas, industrial areas, and rural and undeveloped areas. Undeveloped areas are characterized by dune, hammock, and lagoon habitat, and are mostly on Merritt Island between the Banana and Indian Rivers.

#### 2.2 PHYSIOGRAPHY AND GEOLOGY

The operational APE is centered in the Cape Canaveral physiographic province within the larger Eastern Flatwoods District, as defined by Brooks (1981). The area is characterized by an accreted series of coastal ridges over coquina and sand shell from the Middle and Late Pleistocene and by excessively drained dunes and ridges on coastal plain marine terraces (Brooks 1981). The geological formations within the APE include Pleistocene and Holocene beach ridge and dune sand along the Cape Canaveral coast, Quaternary Holocene sediments on Cape Canaveral and Merritt Island and Pleistocene Anatasia Formation and shelly sediments of Plio-Pleistocene age on the mainland Florida coast (Florida Geological Survey 2001).

#### 2.3 PALEOENVIRONMENT

Approximately 24,000 to 18,000 years ago, during the Last Glacial Maximum, global ice volumes were at their greatest, and temperatures were about 11°F colder than they are today (Ehlers and Gibbard 2004). However, this period was also characterized by a slow warming trend that melted massive ice sheets and resulted in global sea-level rise (Rohling et al. 1998). At 22,000 calibrated years before present (cal BP) (20,050 BC), Gulf of Mexico sea levels were at a low stand of 125.0 to 130.0 m (410.1 to 426.5 ft) below modern levels (Joy 2019:109), and Pleistocene shorelines

- extended at least 200 km (124 mi) further south than today's (Balsillie and Donoghue 2004; Gagliano et al. 1982; Saucier 1994:49–50).
- 410 After about 17,000 cal BP (15,050 BC), global melting of the ice sheets (deglaciation) led to sea-
- level rise and transgression of the continental shelves, particularly Florida's western margins that
- drain the Floridan aguifer-fed rivers. Even during the Younger Dryas, the last return to glacial
- 413 conditions about 13,800 cal BP (11,850 BC), meltwaters slowed, but sea level continued to rise
- at least 60.0 m (196.9 ft) over the next 2,400 years (Joy 2019). Sea levels, though higher, were
- 415 still much lower than at present; along the Gulf Coast, extensive grasslands probably existed,
- 416 possibly attracting mammoth, bison, and other large grazing mammals.
- 417 The rate of sea-level rise was generally slow for 13,000 years to about 4500 cal BP (2550 BC);
- 418 however, the rate and magnitude of ice melt was punctuated by three "melt-water pulses" that
- occurred in the late Pleistocene and early Holocene at approximately 14,200, 11,400, and 8000
- 420 cal BP (12,250, 9450, and 6050 BC) (Blanchon 2011). Florida's wetlands, lakes, and ponds formed
- 421 mostly after 9000 cal BP (7050 BC) (Watts and Hansen 1988). By 6000 cal BP (4050 BC), Florida's
- 422 climate included increased precipitation and surface water flow, as indicated by increased pine
- 423 and wetland pollens, including abundant cypress, which indicates broad new areas of wetland
- habitat in the later pollen records (Watts and Hansen 1988; Watts et al. 1992). Higher sea levels
- 425 and elevated water tables resulted in essentially modern conditions by the late Holocene,
- 426 approximately 4500 cal BP (2550 BC). The climate, water levels, and plant communities of Florida

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427 have been relatively stable during the past 4,000 years.

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#### 3 HISTORIC CONTEXT

430 This section presents the cultural context for eastern Florida including a Native American culture 431 history and a historical summary of Brevard County. The precontact Native American culture 432 history consists of a three-part chronology, with each period based on distinct cultural and 433 technological characteristics recognized by archaeologists. The three temporal periods that 434 predate the written record are Paleoindian, Archaic, and Post-Archaic. The historical summary of 435 Brevard County reviews the early European exploration and settlement in the region beginning 436 in the sixteenth century, the establishment of Brevard County in the nineteenth century, and the 437 major events of the twentieth century.

#### 3.1 Native American Culture History

#### 3.1.1 Paleoindian Period, 10,000-8,000 BC

440 The most widely accepted model for the peopling of North and South America is that Asian populations migrated to North America over the Beringia land bridge that formerly linked Siberia 441 442 and Alaska some 12,000 years ago (Smith 1986). However, archaeological data are mounting in 443 support of migrations that date to before 12,000 years ago (Adovasio et al. 1990; Dillehay et al. 444 2008). Regardless of the precise timing of the first occupations of North and South America, the 445 current evidence suggests that Florida was not intensively inhabited by humans prior to about 446 12,000 years ago. Claims for an earlier occupation (e.g., Purdy 1981, 2008) are controversial. The 447 best evidence comes from the Sloth Hole and Page-Ladson sites in Jefferson County, where 448 radiocarbon dates predating 10,000 BC have been obtained from levels containing lithic waste 449 flakes, but no diagnostic tool forms (Dunbar 2002, 2006; Hemmings 1999, 2004). Both sites are 450 inundated river sites, and although the contexts are thought to be intact, there is a possibility of 451 the downward movement of artifacts from the overlying artifact-bearing levels.

The conventional view of Paleoindian existence in Florida has been that people were nomadic hunters and gatherers within an environment quite different from that of the present. Excavations at the Harney Flats site in Hillsborough County (Daniel and Wisenbaker 1987) have altered this view, and many archaeologists now believe that people during the Paleoindian period lived part of the year in habitation sites near critical resources, such as fresh water.

#### 3.1.2 Archaic Period, 8,000-500 BC

- During the subsequent Archaic period (8,000–500 BC), human populations began to expand outward from north-central Florida as the climate became wetter and water sources more prevalent. After the demise of Pleistocene fauna, human subsistence strategies became more diverse and included new plant, animal, and aquatic species. People began to live in larger groups, use different types of stone tools, and inhabit more of what is now Florida.
- The Early Archaic (8000–5000 BC) represented a continuity of the Paleoindian occupation of Florida and occurred during a time of rising sea levels, a gradual warming trend, and the spread

of oak hardwood forests and hammocks. Numerous small Early Archaic special activity and camp sites have been identified throughout the East Central Florida region (Milanich 1994). The Middle Archaic (5000-3000 BC) was a wetter period, with the intrusion of mixed pine and oak into the hardwood forest. As conditions became wetter, large river systems and wetlands developed, and people began to exploit the resources associated with these aquatic habitats. This trend continued into the Late Archaic period (3000-500 BC); however, there is evidence that the environment became slightly drier during this period and that aquatic habitats were fewer and not as deep (Russo 1986). Precontact populations in Brevard County were probably much smaller than in more productive locales along the lower St. Johns River.

The earliest pottery was tempered with plant fibers. The people who made fiber-tempered pottery practiced a lifestyle of hunting, gathering, and incipient horticulture. One of the centers of early pottery production was along the Atlantic Coast between southern South Carolina and northern Florida. Fiber-tempered pottery was made with naturally occurring clays; plant fibers were added to the clay as a tempering agent to strengthen it. Traditionally, manufacture of this ware was believed to span approximately 1,500 years, with plain and decorated variants (e.g., incised and punctated types) undergoing periods of stylistic popularity (Bullen 1972). Radiometric analysis, however, suggests that the production of fiber-tempered wares, at least in the Middle St. Johns River Valley, spanned a shorter interval from about 2100–1600 BC (Randall and Sassaman 2005) with stylistic variability attributable to ethnic, sociopolitical, and functional factors more than to temporal trajectory (Sassaman 2003).

#### 3.1.3 Post-Archaic Period, 500 BC-AD 1565

By 500 BC, regional adaptations were well established. Archaeologists subdivided the state into geographic areas that share similar archaeological traits. The APE is within the Indian River region of the East and Central Lake archaeological region. The Indian River region extends from the Indian River—St. Lucie County line northward along the Atlantic coast to Merritt Island in Brevard County (Milanich 1994; Rouse 1951). The western boundary extends about 32 km (20 mi) inland to the St. Johns River drainage and tributaries.

Irving Rouse (1951) first described archaeological cultures in the Indian River area as Malabar. His chronology framed Malabar as a local variant of the St. Johns tradition, which grew out of the Orange pottery of the Late Archaic period. Mostly known from sites in its core area of northeast Florida, the St. Johns tradition is characterized by chalky pottery first produced beginning about 500 BC. Increased population and settlement numbers, construction of sand burial mounds, continued economic dependence on aquatic resources, and greater emphasis on plant cultivation accompanied the changed ceramic production (Goggin 1952:40; Milanich 1994:243-274). Significant amounts of sand-tempered pottery also characterize Indian River pottery assemblages. This pottery may indicate influence from adjacent culture areas. Some vessels were likely made from the same local clays as the St. Johns wares (Espenshade 1983).

**Table 3-1** presents the post-Archaic ceramic chronology of the Indian River region. Cordell's (1985) analysis of pottery from several sites in Brevard County largely informs the sequence. The sequence appears to be applicable to other portions of the Indian River region as well (Milanich

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1994:250). Dates assigned to these periods are estimates extrapolated from Milanich's chronology for the entire East and Central Lakes archaeological region (Milanich 1994:247).

Table 3-1. Post-Archaic Ceramic Chronologies in the Indian River Region.

Years	Period	Distinguishing Traits
ca.AD 1500-1565	Period III	Introduction of European artifacts. St. Johns Check Stamped continues.
		St. Johns Check Stamped appears in combination with St. Johns Plain.
ca. AD 750-1500	Period II	Sand-tempered plain remains at about 10 percent. Belle Glade Plain
		remains a minority type.
ca. AD 500-750	Late Period I	St. Johns Plain returns to dominance as sand-tempered plain decreases to
		about 10 percent. Slight increase in Belle Glade Plain (3 percent).
	Middle Period	St. Johns Plain is still predominant, but sand-tempered plain increases to
ca. AD 0-500	i viidale Period	about 30 to 40 percent of assemblages. Belle Glade Plain present in very
	I	small amounts (less than 1 percent).
as F00 DC AD 0	AD 0 Early Period I	Decrease in fiber-tempered pottery. St. Johns Plain is the dominant ware.
ca. 500 BC – AD 0		Minor representation of sand-tempered plain.

Sources: Carr et al. 1995; Cordell 1985; Milanich 1994

In the above table, Malabar I corresponds to the Early Period and into Period II. Malabar II is characterized by the appearance of St. Johns Check Stamped pottery, beginning in Period II, and continuing through Period III (Milanich 1994:250; Rouse 1951). The Indian River region was not widely influenced by Mississippian culture. Some exotic goods have been identified in Malabar II contexts, but they are sparse and infrequent (Penders 2012). Interaction was more frequent between coastal groups and interior groups of the Indian River region. Most sites recorded in Cape Canaveral are along the Banana River.

Interior sites include small, special-use campsites and larger, multicomponent sites featuring extensive midden deposits that may indicate permanent habitation. Russo's (1986) analysis of faunal remains from interior sites denotes a dependence on aquatic resources, including turtles, waterfowl, fish, and freshwater mussels. Throughout the post-Archaic period, wetland resources expanded. Water sources deepened, providing suitable habitats for more and larger fish, such as bass and pickerel. During the dry months (winter and spring), water sources shrank and provided habitat for fish species, such as bowfin and gar, that favor shallow, muddy-bottomed ponds. Terrestrial animals, including deer, raccoon, and rabbit, also were exploited. Dietary emphasis was definitively on freshwater wetland resource acquisition.

Coastal sites were present in many locations along the Indian River lagoon, the adjacent uplands, and on the barrier islands. Although modern development destroyed many of these sites, a few have been investigated and provided information on coastal adaptations. Evidence suggests that the coast was utilized seasonally during the winter and spring months of the year when interior wetlands were less abundant. The data indicates that some sites were small, extractive sites occupied by only a few individuals, while other larger sites served as habitation sites. People exploited marine fish, shellfish (especially coquina), and some terrestrial animals for food (Milanich 1994:252-253). Coastal and interior sites occupation is unclear. The same people may have occupied both locations during different parts of the year, or different groups may have occupied each area year-round.

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Mortuary practices intensified in the Malabar I and II periods. Shell and sand mounds were commonly built in the Indian River region but are not easy to differentiate between Malabar I or Malabar II periods (Rouse 1951; Penders 2012). At Cape Canaveral, mounds are located adjacent or in proximity to habitation areas, unlike other areas of Florida where mounds are positioned away from associated occupation sites (Penders 2012).

#### **3.2** Postcontact History

#### 3.2.1 European Exploration and Early Settlement, 1513-1821

The area that is now Brevard County served as an important stage for many early European expeditions in North America. Some historians believe that the Italian captain John Cabot sailed south along the Brevard County coast during his 1498 explorations (Dovell 1952; Eriksen 1994). There is also evidence that Spanish ships raided indigenous coastal villages to capture and enslave people. When Juan Ponce de León came to Florida, he found a local who understood Spanish. Ponce de León left Puerto Rico on March 3, 1513, with three ships. After sailing on a northwesterly course for 30 days, the ships landed either north of Cape Canaveral or in the vicinity of modern-day Melbourne Beach (Eriksen 1994, Gannon 1996, Milanich 1995). Ponce de León sighted land during the Feast of Flowers (Pascua Florida) and called it La Florida (Milanich 1995). Ponce de León remained at this initial landing place for six days before pulling anchor and sailing toward Jupiter Inlet, where he landed to restock firewood and water for the ships. The fleet rode the countercurrents of the Gulf Stream to Biscayne Bay and eventually rounded the southern tip of the peninsula (Gannon 1996; Milanich 1995). The Spanish called the island off the Brevard County coast Canaveral, the Spanish term for canebrake. Many sixteenth century maps depict the Cape, and it is one of the oldest place names in North America (Eriksen 1994).

The Gulf Stream located off the Brevard County coast became an important thoroughfare for the transportation of New World supplies to Europe. Spanish treasure galleons rode this warm current from Havana through the Bahama Channel. Though wrecks were common in the treacherous shoals around Cape Canaveral, the Spanish crown realized the importance of this trade route. When they learned that the French were developing a colony, Fort Caroline, on the St. Johns River near modern-day Jacksonville, the Spanish crown tasked Pedro Menéndez de Avilés with eradicating the French influence in the area and starting a colony in La Florida (Milanich 1995). The French colony awaited supplies and reinforcements coming from France under the command of Jean Ribault. Menéndez felt it crucial to reach and destroy Fort Caroline before Ribault arrived. In August 1565, Menéndez, with his fleet of 10 ships, sighted Cape Canaveral (Gannon 1996; Milanich 1995). The Spanish force searched for six weeks along the northern Florida coast before they found the French fort. A tropical storm had scattered the French defenses and left the fort an easy target for Menéndez to destroy. During the gale, a ship of French colonists had wrecked somewhere near Cape Canaveral. While Menéndez marched south along the coast to meet the wayward French force, he kept a detailed description of the area, including Brevard County. The Spanish constructed the garrison Santa Lucia on the high plateau near Jupiter Inlet as a line of defense for the new colony (Eriksen 1994; Milanich 1995).

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In 1605, the Spanish sent a delegation under the command of Álvaro Mexía to the Brevard County area. Spanish officials charged the diplomat with placating the Ais Native Americans and mapping the region. His mission proved successful and Mexía became an honorary chief of the tribe. He went on to explore and record the Indian and Banana Rivers (which the Spanish called Rio de Ais and Ulumay Lagoon). Mexía's maps detail many Native American settlements along the shores of Mosquito Lagoon at the north end of the Banana River. It is possible that his entourage spread orange seeds along the banks of the Indian River (Eriksen 1994).

On July 24, 1715, a flotilla of 11 Spanish ships carrying 14 million pesos in gold, silver, and jewels left Havana for Europe. A few days into the voyage, 10 of the 11 ships wrecked off the East Florida coast between the St. Lucie and Matanzas Inlets. Approximately 700 sailors died, and an additional 1,500 washed up on the coast. The Ais aided the Spaniards by providing them with supplies and instructions for gathering food in the dunes. The Spanish government, desperate to recover the lost treasure, established an encampment of salvers in the vicinity of the present-day Sebastian State Park in the far southern portion of Brevard County. Salvers recovered only one-third of the lost cargo (Eriksen 1994).

In the mid-1700s, European colonial powers fought the far-reaching Seven Years War to consolidate their colonial holdings. After the British victory in the Seven Years War in 1763, they traded their Havana conquest to Spain for Florida. The British divided the colony along the Apalachicola River into East and West Florida. In 1765, the botanist John Bartram and his son William searched for the St. Johns River headwaters (Eriksen 1994; Tebeau 1980). The two became the first Europeans to document the Brevard County region (Eriksen 1994). In 1783, the Treaty of Paris restored Florida to Spain, whose control of the territory remained tenuous (Tebeau 1980). Vicente Manuel de Zéspedes, the Spanish governor, wrote to the king in 1785 that isolated groups of Americans had settled in the area (Eriksen 1994; Tebeau 1980). Immigrants from the Native American tribes north of Florida now numbered 5,000 to 6,000 in the colony. The majority of these "Seminoles" remained west of the St. Johns River. The area known as the Mosquito Coast included present-day Brevard County (Eriksen 1994).

During the Second Spanish occupation of Florida, the government granted land to individuals to encourage settlement of the colony or as compensation for services performed. As Spain and the US entered negotiations for the transfer of Florida, the Spanish government began transferring large tracts of land to individuals (Shofner 1995:31). Spain believed these grants kept substantial portions of the colony in Spanish hands once the US took control of Florida. Only seven grants were issued in present-day Brevard County (Shofner 1995:31). The largest in the present-day county belonged to Joseph Delespine, who had previously served as the king's personal physician. Delespine received a 43,000-acre grant between Titusville and Cocoa (Nabors 1967; Works Progress Administration 1941:14-17). Spanish governor José María Coppinger granted the land to Delespine for his service during the Patriot War in 1812 (US Board of Land Commissioners 1828).

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#### 3.2.2 American Territorial Period through the Civil War, 1821–1861

Florida became a territorial possession of the US after President James Monroe ratified the Adams-Onís Treaty on February 22, 1821. Monroe appointed General Andrew Jackson governor of the territory later that same year (Eriksen 1994; Tebeau 1980). Jackson partitioned Florida into two counties, Escambia to the west and St. Johns to the east. In 1824, the area encompassing most of east-central Florida, including Brevard County, became Mosquito County. Colonel James Gadsden led a survey party through the eastern portion of the county in 1825 to find a route for a road from St. Augustine to what is now Dade County (Eriksen 1994; Fernald and Purdum 1992). Close to four million acres of the interior of the state served as a reservation for the Seminoles, including the southwestern corner of modern-day Brevard County (Mahon 1985).

On Christmas Day 1835, the Second Seminole War brought conflict to East Florida when Native American forces razed Mosquito Lagoon plantations. Along with a severe freeze in 1835, the war decimated Mosquito County's population, as most everyone fled to safe havens outside the county (Shofner 1995:36). The military erected forts throughout the Brevard area. Six hundred mounted militiamen, under General Joseph Hernandez's command, constructed Fort Ann 1.6 km (1.0 mi) south of modern-day Haulover Canal. He also erected Camp Hernandez south of present-day Scottsmoor in northern Brevard County. General Hernandez collected his troops at the camps on January 3, 1838, and proceeded to advance south along the eastern coast. Their path followed the high ground along the western side of the Indian River Lagoon before swinging west to meet Fort Taylor on Lake Winder, then angling southeast on a course parallel to what is now Interstate 95 (Eriksen 1994:38-39). The war ended in 1842, and on March 14, 1844, the territorial government created Saint Lucie County (present-day Brevard County) from Mosquito County (present-day Orange County) (Carter 1962:994-995; Dunn 1998:34).

On March 3, 1845, Florida became the twenty-seventh state admitted to the Union (Eriksen 1994). Judge Theodore Washington Brevard settled in Tallahassee two years later. He spent 12 years as state comptroller and was chosen as the county namesake on January 6, 1855, when St. Lucie County became Brevard County. This new county encompassed more than 7,000 square miles and had its seat of government in the small town of Susannah, north of Fort Pierce (Eriksen 1994; Fernald and Purdum 1992; Morris 1995). In 1854, John Houston established Arlington, the first permanent US settlement in south Brevard County, on land fronting the Indian River and Elbow Creek (Eriksen 1994). Shortly thereafter, the community of Sand Point (present-day Titusville) had enough people to receive a post office. However, the post office closed and reopened several times (Bradbury and Hallock 1962:83).

On January 10, 1861, Florida seceded from the Union. Brevard County remained far removed from the battlefields to the north but still played an important role in the war. The settlers along the Indian River engaged in salt production for the Confederate Army, and the cattle range in western Brevard County supplied beef. Blockade runners frequently utilized the inlets and bays of the Indian River and Mosquito Lagoon during their smuggling ventures (Tebeau 1980).

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#### 3.2.3 Late Nineteenth Century, 1861–1899

In 1867, Confederate Colonel Henry Theodore Titus arrived in the community of Sand Point with the intention of building a town on land owned by his wife, Mary. Once there, he and his wife built a hotel and called it "Titus House" (Titusville, Florida 2022). The Colonel and Mrs. Titus donated land for the first courthouse and four different churches. They guided planning the first streets and establishing a wagon link to the St. Johns and Indian Rivers. Eventually the name of Sand Point changed after Colonel Titus beat Captain Clark Rice at a game of dominoes to determine the settlement's new name (Titusville, Florida 2022). During this time other, smaller communities emerged in present-day Brevard County. R. A. Gardner and Thomas Hardee moved to the Rockledge area in 1868 (Shofner 1995:85). Over the next eight years, enough new settlers joined them to establish a post office in 1876 (Bradbury and Hallock 1962:72; Shofner 1995:127). By 1880, 40 people called Rockledge home (Barbour 1964[1882]:37-38).

Before the 1880s, water transportation, both sea and river, remained the dominant mode of long-distance travel for most of Florida's residents. Settlements such as Hardeeville became stops for steamboats. The small town of Hardeeville operated a substantial steamboat wharf, daily mail service and passenger service (Graham 1891:49). Due to Florida's small population, underdevelopment, and lack of capital, railroad expansion in the state progressed slowly. By the mid-1800s, Florida claimed only one successful rail line, which connected Tallahassee to the Gulf of Mexico at St. Marks (Brown 1991:13-14). Most of Florida's roads remained slow, bumpy, waterlogged (during summer months), sand-laden trails that even ox teams had difficulty traversing. With the arrival of Henry Flagler and Henry Plant in the 1880s, trains began to cross the Florida landscape. Especially for communities in Florida's interior, trains provided a "rapid transit" of agricultural produce to the northern markets. While agriculture and other Florida products flowed north along the rails, tourist, immigrants, and goods traveled south in the new trains. Railroads brought growth to the communities and regions they touched (Covington 1957:136, 169; Johnson 1966:129).

In 1879, citizens elected Titusville as the permanent seat of government for Brevard County. The population of the Indian River area rapidly expanded due to the solid economic base of agriculture and recreational fishing. In 1880, Melbourne, founded by Richard W. Goode, obtained a post office. In 1885, Titusville became a stop on the Jacksonville, Tampa, and Key West Railway. Tourists in the 1880s traveled to Rockledge by a combination of rail and steamer (Henshall 1884:18; Hawkes 1887:94-95). Railroads dropped visitors off in Titusville where they boarded Indian River steamers that conveyed them to Rockledge (Barbour 1964[1882]:37). Stephen Ryder built Rockledge's first hotel, in 1878 (Shofner 1995:127). By 1886, Rockledge's population reached 200 and Cocoa had a population of 100 (Richards 1886:385; Webb 1886:202). With the growing tourist industry, towns began to grow. Rockledge incorporated in 1887, and Cocoa opened its first post office in 1884 and incorporated in 1895. By 1887, Cocoa had six stores and quickly expanded around its deep-water landing (Historic Cocoa Village 2021).

With the increase in population, a number of African American residents also arrived in Brevard County. In 1880, 84 African Americans resided in Brevard County. This including the first African American resident of Titusville, Andrew Gibson. Gibson arrived in 1876 and worked as a barber

and owned his own restaurant (Patterson and Hatcher-Gallop n.d.; Titusville Historic Preservation Board 2025). The African American community in Brevard County remained small during the 1880s. In Titusville, the community revolved around the Joynerville Subdivision near present-day Drummet Avenue. The number of African Americans increased with the construction of the railroad. Many within the African American communities in Brevard County found work in railroad construction or orange groves. African American pioneer William Henry Maxwell operated his own citrus grove (Hinder et al 2024). Like much of the state during this decade, orange growing provided a significant source of revenue for area farmers (Hawkes 1887:94). In 1895, two deep freeze events in close succession devastated Florida's citrus industry. The industry recovered within two years (Eriksen 1994).

#### 3.2.4 Twentieth Century to Present, 1900-Present

At the end of the nineteenth century, Florida began a concerted effort in road development. With the proliferation of railroads, farmers, merchants, and others clamored for better roads to get goods and people to and from railroad depots. During the 1910s and 1920s, the number of automobiles in the state and nation exponentially increased, exerting more pressure on the government to develop roads. Before 1924, the state had only 1,204 km (748 mi) of hard-surfaced road. By 1928, this number grew to 2,556 km (1,588 mi) with an additional 95 km (59 mi) in the process of pavement (Jackson 1992; Kendrick 1964; Tebeau 1980). As car ownership increased and roads improved, train dominance diminished. Florida began paving its portion of US 1 (originally labeled State Road No. 4) during this era; when completed, US 1 stretched from Canada to the southern tip of Florida (Federal Writers' Project 1939; Frazer and Guthrie 1995; King 1992). In 1927, the State Road Department declared, "the net result of the year's work is that all the gaps [in US 1] have been closed and that there is a continuous paved road between the Georgia State line and Miami" (*Florida Highways* 1928:2).

Communities along or near the road encountered growth and additional tourism during the boom years due to the roadway (Shofner 1996). Cocoa, as well as Titusville, established "auto camps" to house these travelers (Shofner 1996:15). To entertain the tourists and to draw more into the area, Cocoa organized Orange Festivals touting the success of the region's citrus industry and the Racing Association organized a car race on Cocoa Beach (Shofner 1996:46). At the height of the Florida Land Boom, Cocoa's population reached 2,216 and Titusville had a population of 2,081 (State of Florida 1945:84). With continued population growth, commerce also increased, totaling nearly 150 businesses operating in Cocoa (R.L. Polk and Company 1925:156-158). Titusville had four hotels, one weekly newspaper, a theatre, and a Coca-Cola bottling company (R.L. Polk and Company 1925:1049—1050). This period also brought the completion of a non-wooden courthouse in 1912, and its subsequent expansion in 1925 (Brevard County Historical Society 2016). During the height of the boom, oranges constituted Rockledge's primary industry with 40 orange growers, many of whom supplemented their income by working other jobs such as carpentry or operating a general store (R.L. Polk and Company 1925:787-788).

Brevard County undertook a massive internal improvements program during the first 20 years of the new century. In 1917, Brevard County achieved its modern-day dimensions when the southern portions of the county became St. Lucie and Okeechobee Counties, and the western

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portion became Osceola County (Fernald and Purdum 1992). Municipal governments constructed water towers, sewage lines, and new roads. The county purchased a large trenching machine in 1911 and began to drain the floodplain east of the St. Johns to open land for new development. The land west of Cocoa and Rockledge was the location of various plans to drain existing swamps. The drained areas could become fertile land for crops and new areas for home building. Both the city councils of Cocoa and Rockledge agreed to cooperate to drain the land west of the cities. Hoping to take advantage of the land boom of the 1920s, private companies also began drainage projects. The Cocoa Drainage District, later renamed the Cocoa-Rockledge District, was one of the private endeavors (Evening Tribune 16 July 1925:1, 26 March 1925:1). The center of population in the county shifted from Titusville in the north to Eau Gallie, Cocoa, and Melbourne in the south. In 1920, 1,445 people lived in Cocoa, 1,361 in Titusville, and 453 in Rockledge (Andriot 1993:101; State of Florida 1945:86). By the mid-1920s, four bridges spanned the Indian River, and new towns were established along the beaches as a result of these bridges (Eriksen 1994).

After the stock market crash of 1929, the number of tourists visiting Brevard County drastically waned. This decline damaged the economy and bankrupted the government. The area received aid from the Civil Works Administration, which employed 800 people from December 1933 to March 1934 to repair roads and build schools. In 1935, the Works Progress Administration (WPA) replaced the Civil Works Administration. This agency constructed a new post office in Cocoa (DiBiase and Imberman 2018; Eriksen 1994). Despite the economic setbacks, Cocoa's population continued to rise, reaching 3,098 in 1940 (Cocoa, Florida 2021). Titusville's population also grew to 2,220 by 1940 (State of Florida 1945:85-86). In Brevard County, Harry T. Moore founded the Brevard County Chapter of the National Association for the Advancement of Colored People (NAACP). Moore worked at the African American School in Titusville where he taught ninth grade and eventually became the school's principal. Moore went on to establish the first state conference of the NAACP chapters in Florida and formed the Progressive Voters League of Florida. Moore traveled around Florida to register African American voters and voters registered by Moore eventually accounted for 31 percent of all eligible African American voters in Florida (Leon and Jewel Collins Museum of African American History and Culture n.d.).

Cape Canaveral and the islands off the coast had been primarily isolated until the construction of bridges connecting them to the mainland (Lethbridge 2021). However, even after the construction of bridges, they remained sparsely settled for several more decades (Hiller 2005). By 1936, only two settlements remained evident near Cape Canaveral: Canaveral and Artesia (Florida State Road Department [FSRD] 1936). At the dawn of World War II, roughly 100 people called Cape Canaveral home (Lethbridge 2021). As World War II approached, the military chose land south of Cocoa Beach to build the Banana River Naval Air Station (Eriksen 1994). In 1942, the Navy opened the Melbourne Naval Air Station. The bases became the epicenter of the economy. At war's end, both bases closed (Morris 1948; Stone 1988). At the end of the war, three bridges connected mainland Florida to the barrier islands. Bridges were in Titusville, Cocoa, and Melbourne; the Titusville and Cocoa bridges are in the APE. Banana River Naval Air Station (NAS) was deactivated in 1947 and reassigned to the Air Force in 1948. In 1949, the Air Force installed personnel at the former Banana River NAS (Evening Tribune, 27 January 1949:2). The *Cocoa* 

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Evening Tribune noted that the Air Force was looking to operate the site with a "complement of officers, enlisted men, and civilian workers" (Evening Tribune 6 January 1949:2). By January 27, the Evening Tribune reported that Congress provided \$200 million dollars "devoted to proving grounds for guided missiles", and while specific locations were not identified, it caused a flood of applications submitted to the Banana River Air Station, even though the station reported no jobs were available; however, the article continues, noting that a force of about 50 civilian workers have been on site repairing buildings and clearing vegetation. Finally, the paper states that while no official announcement has been made, people in Cocoa know operations would resume and that "the Tribune has known for many months about the proposed plans but has kept the information from publication" as means to keep rumors at bay (Evening Tribune, 27 January 1949:2).

By April, news emerged that Banana River Air Station was one of two sites favored for the long-range missile program with the other in California (Evening Tribune, 7 April 1949:1). A month later, Banana River was announced as the United States headquarters for its guided missiles program with city officials of Rockledge and Cocoa stating the community "was ready to...establish housing or other public facilities to care for Armed Service personnel or civilians" (Evening Tribune, 5 May 1949:1). The Department of Defense approximated that 500 service men and 430 civilians would be working at the installation in the next year (Evening Tribune, 12 May 1949:1). Within three weeks, the station was renamed the Joint Long-Range Proving Ground and the Evening Tribune published facts provided by the Air Force. Notable details included:

- The proposed acquisition of 12,000 acres on Cape Canaveral to be used as the launching area.
- Background of the long-range missile program from 1945 onwards.
- Cape Canaveral was officially recommended in 1947 due to location and the proximity of Banana River NAS infrastructure that could be adapted to the mission.
- Site studies were undertaken by the Air Force, civilian engineering firms, the USACE, Navy Bureau of Yards and Docks, Chemical Corps, and Signal Corps.
- Up to 100 test flights a year.

President Harry S. Truman officially established the Joint Long Range Proving Ground at Cape Canaveral in 1949. The Banana River Naval Air Station became Patrick Air Force Base in 1950 and hosted experimental launches of hybrid rockets as a supporting base for Cape Canaveral. Future employment options as well as the anticipated housing and infrastructure needs were likely of high interest to those in the Cocoa-Melbourne-Titusville area. The article also included that the program planned for 250 enlisted men, 2500 enlisted personnel, and 1500 civilian employees. The article did not expand on the role of civilian firms and the number of employees needed to support the mission. Additionally, there was a need for low-income housing because the military did not provide housing allowances or quarters to those below the three highest enlisted grades; thus privates, corporals, and Air Force sergeants were required to find housing for them (and if they had them, their families) in the local, private market (Evening Tribune, 16 February 1950:1). The Evening Tribune provided a view to the future writing "the joint long-range missile proving

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ground will remain a major permanent testing facility for the armed forces of the United States" (Evening Tribune, 2 June 1949:2).

The strain on the local housing market was identified quickly after the announcement of the JLRPG. In response to the anticipated future housing need, Cocoa Mayor Noah C. Butt, established the Cocoa Housing Authority in late June. One of the five members was Al H. Trafford, a local realtor that would eventually be the listing agent for many of the subdivisions built in Cocoa (Evening Tribune, 23 June 1949:1). By October, Crispin's Store was advertising insignias and chevrons for armed forces personnel (Evening Tribune, 20 October 1949:5). In September 1950, the Cocoa Housing Authority received federal approval to construct fifty low rental public housing units (Evening Tribune, 14 September 1950:1). The City of Cocoa opened up the former municipal airport for housing development. Located west of US Route 1, 160 acres of the airport could accommodate up to 800 homes. The Clark Construction Company, of Winter Park, bought 80 acres at \$100 per acre and left the remaining 80 acres unsold so that a local firm could purchase. If unsold, Clark had an option to purchase the remaining acreage. The next day, Clark submitted its financing application to the Federal Housing Authority (FHA) immediately and the day after that FHA was on site to assess the site. Clark indicated it would present three subdivision plans to the city for its selection of what was most desirable (Evening Tribune, 16 February 1950:1). The initial development would be known as Echo Park (Evening Tribune, 11 May 1950:2).

Less than one year after being appointed to the local housing authority Al Trafford's real estate firm announced more than a \$125,000 in transactions, including FHA-VA financing for Rockledge Pines and Sherwood Forest subdivisions as well as for Gray-Porter Builders. The Public Housing Authority arrived in Cocoa to undertake a survey to quantify the housing market for low rental units (Evening Tribune, 11 January 1951).

Following the launch of Soviet satellites into orbit in 1957, American interests turned to exploration of space. Originally the new mission belonged to the Department of Defense, but in 1958, President Dwight D. Eisenhower formed NASA. In 1963, the agency received 35,612 ha (88,000 ac) on Merritt Island to build Kennedy Space Center. NASA commissioned a complex of over 50 buildings on the island. The complex eventually played a central role in the Viking and Voyager missions, launching probes to Mars and the outer reaches of the Solar System (Florida Today 24 Aug 2001; NPS 1983). The space industry greatly impacted the area and produced a second population boom in Brevard County as people arrived seeking work (Brevard County, Florida 2025). Brevard County grew by 371% from 1950 to 1960, and the population doubled again during the 1960s (Tebeau 1980). Cocoa's population tripled between 1950 and 1960, increasing to 12,294. Titusville nearly tripled its population between 1950 and 1960, rising from 2,604 residents to 6,410 (State of Florida 1945:85-86). Colonel Othel R. Deering, Commanding Officer of the JLRPG, told the Cocoa Parent-Teachers Association (PTA) that the base was anticipated to issue \$9,000,000,000 in payroll by the end of 1951. He also acknowledged that the increasing population associated with the base strained extant housing and education, estimating that the school system would see an additional 300 high school students and 630 elementary students (Evening Tribune, January 19, 1950; 2).

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The construction of KSC began in 1963 and included a complex of more than 50 buildings on the island and one of the largest single-story buildings in the world: the Vehicle Assembly Building. The facility was named John F. Kennedy Space Center in 1963 following the assassination of President John F. Kennedy. LC-39A was constructed in 1965 by Bendix-Boeing (Delahaye and Hinder 1996). On July 16, 1969, the first manned mission to the moon left KSC. Lifting off at exactly 9:32 am from LC-39A, the crew of the Apollo 11 left Earth and made the first lunar landing the next day (Delahaye and Hinder 1996; Uri 2019).

The space industry had a dramatic effect on the area. Brevard County grew by 371% from 1950 to 1960, and that population had doubled by 1970 (Tebeau 1980 [1971]). This growth continued, and by 1990, Brevard County had nearly 400,000 residents (US Census Bureau 1995). As the population increased in the cities of Brevard County, the demand for infrastructure and housing increased. Subdivision development in the APE continued through 1975; however, at a much slower pace than the period from 1946 to ca. 1964. One of the largest problems faced by the county was educating its new younger residents, whose parents worked or were connected to the missile programs at Canaveral. By 1956, Brevard County faced schools which were at capacity and required the federal government to assist them (Evening Tribune, 21 September 1956:5). During the 1950s, several new elementary schools were built including Gibson Elementary and High School for Negroes, Riverview Elementary, Whispering Hills Elementary, Rockledge Elementary School, and Parkway Junior High School (Evening Tribune, 15 April 1957:1; Lemon 1997); however, overcrowding continued to be an issue into the 1960s. In 1961, the NAACP filed a lawsuit against the Brevard School Board calling for desegregation. Trial was delayed until 1964. In 1968 the school year began with the enrollment of 63,500 students and the opening of seven new elementary schools, many of them temporary portable units. In 1968, Brevard County schools initiated a "freedom of choice" to allow African American students to voluntarily attend white schools (Hill 1968:57). Desegregation plans faced numerous setbacks including picketing the riots in places such as Rockledge (Kennerly 2016; Patterson and Hatcher-Gallop n.d.). In addition to serving the educational needs of a booming population, Cocoa struggled to meet the postal needs of residents, and the US government authorized a new 23,000 square feet post office to replace one built by the WPA in the 1930s (DiBiase and Imberman 2018). Brevard County reached nearly 400,000 residents in 1990 (Forstall 1996:30). That same year, 16,023 people resided in Rockledge (Andriot 1993:101).

In 2009, NASA converted a shuttle launchpad to a commercial launch site which could host multiple types of spacecraft. The Space Shuttle Program ended in 2011, and the Space Coast entered a new era of mostly unmanned flights but continued to host visitors and launches (Beutel 2010). Brevard County continued to benefit from its location along the Space Coast, reaching over 500,000 residents by 2010 (US Census Bureau 2025). Starting in 2014, NASA sought to establish partnerships with private companies, through their "Tipping Point" Awards and Commercial Crew Program (Sheetz 2019). In December 2019, the Department of Defense created a new branch of the military, the United State Space Force, which took control of the military installations in Brevard County (Wallace 2021).

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# **4 BACKGROUND RESEARCH**

This section presents a synthesis of the background research that assisted in the development of the survey methodologies and provided data to support the results. The background research included research of the FMSF data from January 2025 to identify previously conducted cultural resource surveys and recorded cultural resources within the APE, previously recorded cultural resource surveys documented with KSC after 2001, Integrated Cultural Resources Management Plans (ICRMP) for NASA KSC and CCSFS, and historic maps and aerial photography.

#### 4.1 Previously Conducted Cultural Resource Surveys

# 4.1.1 Cultural Resource Surveys Recorded in the FMSF

SEARCH determined 210 previous cultural resource surveys have been conducted within the APEs and are documented in the FMSF. These surveys are summarized in **Table 4-1**.

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
			Griffin, John W. and
260	Cultural Resource Reconnaissance of Merritt Island National Wildlife Refuge	1978	Miller, James J.
261	Archaeological Survey Report: NASA Space Shuttle Runway Project on Merritt Island, Florida	1973	Smith, Richard L.
421	Cultural Resource Assessment of Chemical Waste Disposal Facilities, Kennedy Space Center		Martinez, Carlos A.
422	Cultural Resource Assessment of the Hypergol Logistics Facility, Kennedy Space Center	1977	Martinez, Carlos A.
498	Kennedy Space Center Chemical Waste Disposal Facilities	1979	Miller, James J.
516	Cultural Resource Potential of the Proposed Service Complex and Visitor Center, MINWR	1981	Miller, James J.
751	Archaeological and Historical Survey of the United Space Booster Facility Tract, Merritt Island	1982	Miller, James J.
961	Archaeological survey report: NASA Space Shuttle solid rocket booster facility site on Merritt Island, Florida		Smith, Richard L.
1150	An architectural and engineering survey and evaluation of facilities at Cape Canaveral Air Force Station, Brevard County, Florida	1984	Barton, David F.
1339	Canaveral National Seashore: assessment of archaeological and historical resources.	1976	Ehrenhard, John E.
1545	Report of an archaeological site assessment survey on the Indian Bay Estates, Phase II project on Merritt Island, Florida	1988	Johnson, William G.
1567	Historic properties survey, Titusville, Florida	1987	Historic Property Associates, Inc.
1611	Cultural resources assessment of state project #70140-1514	1988	Browning, William D.
1675	Redfish hatcheries near Old Haulover Canal, Merritt Island National Wildlife Refuge, Titusville, Florida	1988	Ehrenhard, John E.
1676	A cultural resource survey of three project areas at Merritt Island National Wildlife Refuge, Brevard County, Florida	1988	Ehrenhard, John E.

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Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
	Archeological investigations of packages 107 and 300(1) Canaveral National		
2376	Seashore, Brevard and Volusia Counties, Florida	1989	Bryne, Stephen C.
	Archaeological Assessment of Six Selected areas in Brevard County: A First		
2391	Generation Model	1990	Bense, Judith A.
	An Archaeological Survey of Cape Canaveral Air Force Station, Brevard		
2410	County, Florida	1984	Barton, David F.
	Archaeological survey to establish zones of archaeological potential (ZAPs) in		Archaeological
2471	the VAB and industrial areas of the Kennedy Space Center.	1990	Consultants, Inc.
2689	Archaeological Survey for the VIP Viewing Area, Kennedy Space Center	1991	Deming, Joan G.
	Cultural Resource Assessment Survey of SR A1A from North 1st Street in		
	Cocoa Beach to SR-400 in the City of Cape Canaveral, Brevard County,		
2775	Florida	1991	McMurray, Carl
			Historic Property
2844	Historic Building Survey: Merritt Island, Florida	1991	Associates, Inc.
	Historic Resources Survey: Payload Spintest Facility, Cape Canaveral Air		
2860	Force Station, Brevard County, Florida	1991	Neilson, Jerry
	Historic Resources Survey, Chemical Testing Laboratory, Wastewater		
	Treatment Facility, Command Control Building Addition Fence, Cape		
2947	Canaveral Air Force Station, Brevard County, Florida	1991	Neilson, Jerry
	Archaeological Survey for Established Zones of Archaeological Potential		
2992	(ZAPs) in the Launch Complex Area (Option 1), of the Kennedy Space Center	1991	Deming, Joan G.
	Archaeological Survey to Establish Zones of Archaeological Potential (ZAPS)		
3271	in the KSC North Area (Option 3) of the Kennedy Space Center	1992	Deming, Joan G.
	Archaeological Survey to Establish Zones of Archaeological Potential (ZAPS)		
2447	in the Shuttle Landing and KSC South Area (Option 2) of the Kennedy Space	1001	Archaeological
3447	Center	1991	Consultants, Inc.
2664	Cultural Resource Assessment Survey of a Proposed Landfill Site, Kennedy	1002	Damina Jaan C
3664	Space Center, Brevard County, Florida	1993	Deming, Joan G.
2020	Historic Properties Survey, Cape Canaveral Air Force Station, Cape Canaveral,	1002	Cantlan Charles F
3820	Florida	1993	Cantley, Charles E.
4045	An Archeological Site Assessment Survey of the Sandlake Estates Project, Brevard County, Florida	1004	Johnson, Robert E.
4043	Historic Properties Investigations of a Proposed Security Fence for Fuel	1994	Johnson, Robert E.
4129	Storage Area #1, Cape Canaveral Air Force Station, Brevard County, Florida	1000	Robinson, Neil D.
4123	Archaeological Survey of the Orbiter GSE Storage Facility Area, Order No. CC-	1300	RODINSON, NEILD.
4491	77745B	1996	Deming, Joan G.
4598	Archaeological Survey of the Spoil Site 2B Construction Area	1996	Deming, Joan G.
5025	Submerged Historic Properties Survey, Canaveral Harbor Entrance Channel Widener, Brevard County, Florida	1997	Tubby, Raymond
3023	A Cultural Resource Assessment Survey of the Proposed BV-11 Dredged	1337	Tubby, Raymond
5069	Material Management Area, Brevard County, Florida	1997	Ashley, Keith H.
3003	Archaeological Investigations within Florida Power & light Company's 115-kV	1337	Asiliey, Keitii II.
	Transmission Line Right-of-Way, Cape Canaveral Air Force Station, Brevard		
5114	County, Florida	1996	Bellomo, Randy V.
3114	Underwater Archaeological Investigations of Four Potentially Significant	1220	Denotito, Naticy V.
	Remote Sensing Targets, Canaveral Harbor Entrance Channel Widener,		Mid-Atlantic
5188	Brevard County, Florida	1998	Technology
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Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
	Survey and Evaluation of the Historic Facilities within the Industrial, Launch		
	Complex 39 (LC-39), Vehicle Assembly Building (VAB), and Shuttle Landing		
	Facility (SLF) areas of the John F. Kennedy Space Center (KSC), Brevard		
5474	County, Florida	1998	Delahaye, Daniel
	A Submerged Cultural Resources Remote Sensing Survey of Four Proposed		
	Borrow Areas and Archaeological Diver Identification and Evaluation of Eight		
	Potentially Significant Submerged Targets for the Brevard County Shore		
5555	Protection Project	1999	Tubby, Raymond
	Cultural Resource Assessment Survey for the State Road (SR) 3 Design Project		
	from SR 520 to SR 528 and the SR 3/SR 528 Interchange Project Brevard		
5718	County, Florida	1998	JANUS Research
	Cultural Resources Assessment Survey of the Proposed Buccaneer Gas		Estabrook, Richard
5840	Pipeline, Florida [Volume 1: Final Report of Findings; Volume 2: Appendices]	2000	W.
	Cultural Resource Assessment Survey for The SR528 Westbound Bridge		
6591	Replacement in Brevard County, Florida	2000	JANUS Research
	Archaeological Investigations within the Enchanted Forest Sanctuary,		
6619	Brevard County, Florida	2001	Newman, Christine
	Archaeological Diver Identification and Evaluation of Fourteen Potentially		
	Significant Submerged Targets for the Brevard County Shore Protection		
6730	Project, Brevard County, Florida	2000	Watts, Gordon
	Phase I Cultural Resource Survey of Florida Gas Transmission Company Phase		,
	VI Expansion Loop C, Loop D, Loop E, Leesburg Lateral Loop, Cape Kennedy		
6850	Lateral Loop, and Stanton Lateral	2001	Pochurek, James
	A Cultural Resources Assessment Survey of the Proposed Merritt Glen		,
7456	Residential Subdivision, Merritt Island, Brevard County, Florida	2003	Penders, Thomas E.
	An Intensive Cultural Resource Assessment Survey of the Solana on the River		,
7557	Tract, Brevard County, Florida	2003	Handley, Brent
7651	Sunset Lakes - West Development Cultural Resources Study	2000	Ellis, Gary
7031	Cultural Resource Assessment Survey of the A. Max Brewer Bridge and	2000	Daniel, Susan,
7732	Causeway (FDOT Bridge #: 704049, 704125, 704048) County: Brevard	2002	Hochberg
7732	Cultural Resource Survey: Proposed Cell Tower #812297 Cape Canaveral,	2002	riocriberg
7782	Brevard County, Florida	2001	Carlson, Betsy
7702	A Historical Reconnaissance Survey of the Proposed ME-025 Sand Point	2001	Carison, betsy
7980	Tower Location in Brevard County, Florida	2001	Batategas, Juliet T.
7300	A Cultural Resources Reconnaissance Survey of the Cidco Road Tower Site	2001	batategas, Juliet 1.
8398	County: Brevard	2001	Luxon, Tiffany L.
0330	An Intensive Cultural Resource Assessment Survey of the Willow Creek	2001	Luxon, Illiany L.
8821	Commercial Center, Brevard County, Florida	2003	Handley, Brent
0021	An Archaeological Reconnaissance Survey of the Proposed Plantation Oaks	2003	manuley, Brent
8846	Development, Titusville, Brevard County, Florida	2003	Penders, Thomas
3040	An Intensive Cultural Resource Assessment Survey of the Willow Creek	2003	i enuers, monds
0102		2003	Handlov Pront
9183	Residential Tract, St. Johns County, Florida  An Intensive Cultural Passays a Assessment Survey of the Riveredge Drive	2003	Handley, Brent
05/0	An Intensive Cultural Resource Assessment Survey of the Riveredge Drive	2002	Handlov Pront M
9548	Property in Brevard County, Florida  Phase I Cultural Resource Survey of the Biverfront Development Brenerty	2003	Handley, Brent M.
0610	Phase I Cultural Resource Survey of the Riverfront Development Property,	2002	Stokes Area V
9619	Brevard County, Florida  A Proliminary Archaeological Investigation of the Ring Island Conservation	2003	Stokes, Anne V.
10260	A Preliminary Archaeological Investigation of the Pine Island Conservation	2004	Cuasa Dak
10368	Area, Merritt Island, Brevard County, Florida	2004	Gross, Bob

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF	Title	Year	Consultant/Author
No.		rear	Consultant/Author
	Assessment of Potential Effects upon Historic Properties: Proposed 150-Foot		
	Marshall Manufacturing Wireless Telecommunications Tower (Verizon		
10606	Wireless 082552-3), Brevard County, Florida	2004	Parker, Brian T.
10001	An Intensive Cultural Resource Assessment Survey of the Tico Tract, Brevard	2004	0 " 1 "
10681	County, Florida	2004	Groff, Amanda T.
40000	A Cultural Resource Assessment Survey of the Proposed Preserve Pointe	2004	
10889	Residential Development, Merritt Island, Brevard County, Florida	2004	Penders, Thomas E.
44006	An Archaeological and Historical Survey of the Proposed Merritt Crossing	2005	
11096	Tower Location in Brevard County, Florida	2005	Hughes, Skye W.
44220	Multiple Property Submission for Historic Cultural Resources of the John F.	1001	Dalahawa Dawial
11239	Kennedy Space Center, Florida	1991	Delahaye, Daniel
44202	An Archaeological and Historical Survey of the Proposed Titusville-Cocoa	2005	
11302	Airport Tower Location in Brevard County, Florida	2005	Hughes, Skye W, RPA
44442	A Cultural Resource Assessment Survey of the Winslow Beach Tract Brevard	2005	
11443	County, Florida	2005	Nash, Jennifer L.F.
44546	Archaeological Remote Sensing Survey and Diver Investigation of a Proposed	2005	Tulalan Barrara
11516	Sediment Trap at Port Canaveral South Jetty, Brevard County, Florida	2005	Tubby, Raymond
	Cultural Resource Assessment Survey for the State Road 528 PD&E Study		
11504	from State Road 520 to the Port Canaveral Terminal B Interchange, Orange	2005	IANIIC Deceared
11594	and Brevard Counties	2005	JANUS Research
12204	A Cultural resources Assessment Survey of Brooks Landing, Brevard County,	2005	Dondors Thomas F
12204	Florida	2005	Penders, Thomas E.
12460	A Cultural Resources Assessment Survey of Mission Estates, Merritt Island,	2005	Dondors Thomas F
12460	Brevard County, Florida	2005	Penders, Thomas E.
12462	A Cultural Resource Assessment Survey of the Enchanted Oaks Project Area in Brevard County, Florida	2006	Hughes Skyo W
12463	Cultural Resource Assessment Survey of I-95 from SR50 in Volusia County to	2000	Hughes, Skye W.
	North of SR600/US92 in Brevard County Project Development and		
12927	Environment Study	2006	Chambless, Elisabeth
12321	Cultural Resources Survey and Assessment MC Cotter Property Brevard	2000	Chambless, Liisabeth
13048	County, Florida	2006	Dickinson, Martin F.
13048	A Phase I Archaeological Assessment of the NOTU Site, 8BR1641, Brevard	2000	Dickinson, iviar cirri.
13111	County, Florida	2006	Stickler, Justin
13111	Phase I Archaeological Survey NRO Substation at Cape Canaveral Air Force	2000	Stickier, Justin
13215	Station, Brevard County, Florida	2006	Smith, Greg C.
13213	Launch Complex 21/22 District, Cape Canaveral Air Force Station, Brevard	2000	Jilliti, Greg e.
13600	County, Florida	2006	Penders, Thomas E.
13000	A Cultural Resources Assessment Survey of the Proposed Enhanced use Lease		r chacis, momas E.
	Agreement North Campus, Cape Canaveral Air Force Station, Brevard		
13673	County, Florida	2006	Penders, Thomas E.
	Pine Island Conservation Area Archaeological Project, Merritt Island, Brevard		. 3
13707	County, Florida Season 2 Report Sams Creek Fossil Site (8 BR 1890)	2006	Penders, Thomas E.
	An Intensive Cultural Resource Assessment Survey of the Cabo Verde Tract,		,
13871	Brevard County, Florida	2006	Nash, Jennifer L.F.
	A Cultural Resources Assessment Survey of the Proposed Industrial Area		2011, 13111111111111111111111111111111111
13917	Stormwater Retention Pond, Cape Canaveral Air Force Station, Florida	2007	Penders, Thomas E.
	Addendum Corridor Study NRO Substation at Cape Canaveral, Brevard		3.1.2.13, 1.1.2111d3 E1
13925	County, Florida	2006	Smith, Greg C.
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Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
	Archaeological Survey Report: NASA Space Shuttle Runway Project on		
14021	Merritt Island, Florida	1973	Smith, Richard L.
	Section 106 Review of Proposed Tower Site Verizon Wireless Personal		Florida
	Communications LP Tower Site - Kennedy Space Center (No. 082525-1)		Archaeological
14073	Kennedy Space Center, Merritt Island, Brevard County, Florida	2006	Consulting, Inc.
14138	Historic Properties Survey Cape Canaveral Air Station, Brevard County, Florida	1994	Cantley, Charles E.
14176	A Cultural Resources Assessment Survey of the Proposed Mitchell Ellington Park, Merritt Island, Brevard County, Florida	2004	Penders, Thomas E.
	A Cultural Resource Assessment Survey of 20 Acres within the Magruder-		Arbuthnot, Michael
15146	Smith Farms, Inc. Property, Brevard County, Florida	2008	A.
15805	Cultural Resource Review for the FPL Cape Canaveral Plant	2008	Janus Research
	An Archaeological and Historical Survey of the Water Mark Estates Project		
15836	Area in Brevard County, Florida	2008	Carty, Thomas J.
_	An Archaeological and Historical Survey of the 10019999 - NASA Traffic		Bland and
15892	Tower in Brevard County, Florida FCC Form 620	2008	Associates, Inc.
	Cultural Resource Assessment Survey of the Proposed Commercial Vertical		
	Launch Complex at the John F. Kennedy Space Center Brevard County,		
15932	Florida	2008	ACI
	Archaeological Survey to Establish Zones of Archaeological Potential in the		
	KSC North Area (East of State Road 3) (Basic Contract Area) of the Kennedy		
16157	Space Center	1996	Deming, Joan
46224	Determination of Eligibility for Launch Complex 25/29, Cape Canaveral Air	2040	
16231	Force Station, Brevard County, Florida	2010	Penders, Thomas E.
16277	A Cultural Resources Assessment Survey of the Pritchard House (8 BR 524 &	2000	Dandon Thomas F
16377	8 BR 1964), Titusville, Florida	2009	Penders, Thomas E.
16535	Pine Island Conservation Area Archaeological Project, Merritt Island, Brevard County, Florida 2003-2008 Volume I: Report Volume II: Appendices	2009	Austin Pohort
10333	A Cultural Resource Magnetometer Survey of Coastal Waters, Vicinity of	2009	Austin, Robert Oceanic Retrievals,
16559	Cape Canaveral, Brevard County, Florida	2000	Inc.
10333	Level II Documentation of Launch Complex 31/32, Cape Canaveral Air Force	2000	iiic.
16800	Station, Florida	2008	Enscore, Susan I.
10000	A Cultural Resources Assessment Survey of Land Management Unit 89, Cape	2000	21130010, 34341111
17298	Canaveral Air Force Station, Brevard County, Florida	2010	Penders, Thomas E.
	A Cultural Resources Assessment Survey of Land Management Units 75 and		,
17299	157, Cape Canaveral Air Force Station Brevard County, Florida	2010	Penders, Thomas E.
	A Cultural Resources Assessment Survey of Land Management Unit 109,		
17300	Cape Canaveral Air Force Station, Brevard County, Florida	2010	Penders, Thomas E.
	Trip Report on archeological site identification and marking prior to the		
	demolition of the dikes around the T41, T42, and T43 mosquito control		
	impoundments at Canaveral National Seashore, Brevard County, Florida,		
17406	Oct. 13-15, 2009. SEAC ACC. 2270	2009	Lawson, Charles F.
_	A Cultural Resources Assessment Survey of Land Management Unit 84, Cape		
17665	Canaveral Air Force Station, Brevard County, Florida	2010	Penders, Thomas E.
	Cultural Resources Evaluations of the Original Lighthouse Site (8BR234), the		
	Cape Canaveral Lighthouse Site (BR212), and the New Lighthouse Site		
17880	(BR1660), Cape Canaveral Air Force Station, Brevard County, Florida	2006	Baxter, Carey L.

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
140.	Phase I Cultural Resource Assessment Survey of the East Central Florida		
18019	Regional Rail Trail in Brevard and Volusia Counties, Florida	2010	Brouwer, Kaitlyn T.
	Historical Survey and Evaluation of the Space Station Processing Facility,		
18046	John F. Kennedy Space Center, Brevard County, Florida	2010	Deming, Joan
	A Cultural Resources Assessment Survey, Jupiter Missile Crash Site		J,
18077	(8BR2087), Cape Canaveral Air Force Station Brevard County, Florida	2010	Penders, Thomas E.
18367	Proposed 150-Foot Overall Height Monopole Telecommunications Structure	2011	Bazzill, Dina M.
	A Cultural Resource Assessment Survey of Land Management Unit 5, Cape		
18826	Canaveral Air Force Station, Brevard County, Florida	2012	Penders, Thomas E.
	A Cultural Resource Assessment Survey of Land Management Unit 6, Cape		,
18829	Canaveral Air Force Station, Brevard County, Florida	2011	Penders, Thomas E.
	A Cultural Resources Magnetometer Survey of Coastal Waters, Vicinity of		
18917	Cape Canaveral, Brevard County, Florida	2004	T9S, Inc.
	Historical Survey and Evaluation of the Jay Jay Bridge, Railroad System, and		Archaeological
19482	Locomotives, John F. Kennedy Space Center, Brevard County, Florida	2012	Consultants, Inc.
	Determination of Eligibility for Area 55: Delta Operations Support Area, Cape		
19642	Canaveral Air Force Station, Brevard County, Florida	2012	Penders, Thomas E.
	Determination of Eligibility for the Facility 49800: Heavy Equipment Shop		
19644	(8BR2480), Cape Canaveral Air Force Station, Brevard County, Florida	2012	Penders, Thomas E.
	Cultural Resource Assessment Survey of the Florida Power & Light Company		
19775	(FPL) Cape Canaveral Energy Cener Project: Brevard County	2009	Janus Research
	Cultural Resource Assessment of Proposed Navigation Improvements Canal		
20016	Port Authority of Port Canaveral, Brevard County, Florida	2007	Terzis, Lee
	A Cultural Resources Assessment Survey FP&L Substation South Location,		
20233	Cape Canaveral Air Force Station, Brevard County, Florida	2010	Penders, Thomas E.
	Cultural Resource Assessment Report for the All-Aboard Florida Passenger		
20495	Rail Project from Orlando to West Palm Beach	2013	Janus Research
	A Phase I Cultural Assessment Survey of the Proposed Payload Processing		
	Operations Facility, Cape Canaveral Air Force Station, Brevard County,		
20582	Florida	2005	Koski, Steven
	A Cultural Resource Assessment Survey of the Flores Del Sol Project Area in		
20609	Brevard County, Florida	2013	Mikell, Gregory
	A Cultural Resource Assessment Survey of the Proposed Precision Fabricating		
20733	and Cleaning Site Improvements, Cocoa, Brevard County, Florida	2014	Penders, Thomas E.
	Architectural Survey and Evaluation of 45 Facilities that have reached the		
20744	age of 45-50 years, John F. Kennedy Space Center, Brevard County, Florida	2013	Price, David L.
	Architectural Survey and Evaluation of NASA- owned Facilities at Cape		
20760	Canaveral Air Force Station	2013	Price, David L.
20766	A Cultural Resources Assessment Survey for the New Space X Hangar	2012	
20766	Complex, Cape Canaveral Air Force Station, Brevard County, Florida	2013	Penders, Thomas E.
20772	Determination of Eligibility for the Launch Complex 5/6 Spin Test Facility,	2044	Dandon Theres 5
20772	Cape Canaveral Air Force Station, Brevard County, Florida	2014	Penders, Thomas E.
	Determination of No Adverse Effect: Painting of Four Facilities within the		
20706	Cape Canaveral Air Force Station (CCAFS) Industrial Area, CCAFS, Brevard	2014	Dondors Thomas F
20796	County, Florida	2014	Penders, Thomas E.
20862	Cultural Resource Assessment Survey of the Proposed TMDL Pond, Cape Canaveral Air Force Station, Brevard County, Florida	2013	Arbuthnot, Michael
20863	Cunaveral All Force Station, Brevara County, Florida	2013	Ai butilliot, Mitchael

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No.	Title	Year	Consultant/Author		
	A Cultural Resources Assessment Survey of Land Management Units 50 and				
20929	166, Cape Canaveral Air Force Station, Brevard County, Florida	2014	Penders, Thomas E.		
	Submerged Cultural Resources Remote Sensing Survey of the Canaveral		, , , , , , , , , , , , , , , , , , , ,		
20957	Shoals Borrow Areas 1 & 2, Brevard County, Florida	2013	Faught, Michael K.		
	GME Global Marine Exploration, Inc. Remote Sensing Archaeological Survey		Global Marine		
21128	Report Permit #2014.01 - Brevard County, Florida	2014	Exploration, Inc.		
	Cultural Resource Assessment Survey for the Proposed Falcon Vertical				
21172	Landing Site, Cape Canaveral Air Force Station, Brevard County, Florida	2014	Penders, Thomas E.		
	Historic Properties Investigations of Centaur Processing Facility Interim Spin				
	Test Facility Missile Assembly Building Parking Cape Canaveral Air Force		U.S. Army Corps of		
21251	Station Brevard County, Florida	1990	Engineers		
21470	Proposed 150-Foot Overall Height Monopole Telecommunications Structure	2014	Beazley, Matthew		
	Submerged Cultural Resources Remote Sensing Survey and Diver				
21513	Identifications, 21st Century Channel, Port Canaveral, Brevard, Florida	2014	Gifford, Matt		
	The Dunal Ridge Midden (8 BR 3274): a Phase I Investigation of the B&B				
	Enterprises/Cumberland Farms Tract-an Addendum to Environmental				
21561	Services Inc.'s 2006 Report on the Cabo Verde Tract (FMSF #13871)	2015	Brech, Alan		
21579	City of Titusville CRA Historic Property Survey, Brevard County, Florida	2012	JANUS Research		
	Determination of Eligibility for Launch Complex 20 (8BR3272), Cape				
21667	Canaveral Air Force Station, Brevard County, Florida	2015	Penders, Thomas E.		
	A Beach-Face Magnetometer Survey at Canaveral National Seashore: A		, , , , , , , , , , , , , , , , , , , ,		
22210	Regional Archaeological Survey Program Project	1998	Brewer, David		
	Phase I Cultural Resource Assessment Survey of the Space Coast Regional		Archaeological		
22248	Airport, Brevard County, Florida	2015	Consultants, Inc.		
	Year End Summary of Activities and Archaeological Assessment of a		,		
22417	Suspected Historic Period Shipwreck "Lantana Site" 2012.06	2014	Sinclair, James		
	Dig and Identify Report 06-19-2015 through 09-31-2015 Permit #2015.02 -				
22418	Brevard County, Florida	2015	Pritchett, Robert		
	Dig and Identify Report 06-19-2015 through 09-31-2015 Permit #2015.02 -				
22419	Brevard County, Florida	2015	Pritchett, Robert		
	Remote Sensing Archaeological Survey Report Permit #2015.04 - Brevard				
22420	County, FL	2015	Pritchett, Robert		
	Remote Sensing Cultural Resources Survey Report & Request for Dig ID and				
22421	Addendum	2015	Pritchett, Robert		
	Archaeological Dig and Identify Report for Permit #2014.01 - Brevard				
22422	County, Florida	2014	Pritchett, Robert		
	Supplemental Dig and Identify Report Update #2 Final Report 03-30-2015				
22423	through 04-04-2015 Permit #2014.01 - Brevard County, Florida	2014	Pritchett, Robert		
	Remote Sensing Archaeological Survey Permit #2014.01 - Brevard County, FL				
22424	Final Report / Request for Dig & Identify Addendum	2014	Pritchett, Robert		
	Remote Sensing Archaeological Survey Report Permit #2015.03 - Brevard				
22425	County, FL	2015	Pritchett, Robert		
	Cultural Resource Assessment Survey of the Proposed FPL Mars Substation at		Archaeological		
22465	the John F. Kennedy Space Center, Brevard County, Florida	2015	Consultants, Inc.		
	Remote Sensing Archaeological Survey Permit #2014.05 - Brevard County, FL				
22500	Final Report / Request for Dig & Identify Addendum	2014	Pritchett, Robert		
	Dig and Identify Report 10-17-2015 through 06-14-2015 Permit #2014.05 -				
22501	Brevard County, Florida	2015	Pritchett, Robert		

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF	1. Previous Cultural Resources Assessment Surveys recorded in the Pivish will		
No.	Title	Year	Consultant/Author
	Remote Sensing Archaeological Cultural Resource Survey Report Permit		
22502	#2014.06 - Brevard County Florida	2014	Pritchett, Robert
	Dig and Identify Report 05-13-2015 through 07-05-2015 Permit #2014.06 -		
22503	Brevard County, Florida	2015	Pritchett, Robert
	Inventory and Evaluation of Buildings in the Industrial Area, Cape Canaveral		
22746	Air Force Station	2015	Enscore, Susan I.
	TECHNICAL MEMORANDUM: MARINE REMOTE-SENSING SURVEY OF SR 528		
	FROM WEST OF SR 524 (INDUSTRY ROAD) TO EAST OF SR 3 AND SR 528		
	FROM EAST OF SR 3 TO PORT CANAVERAL INTERCHANGE BREVARD COUNTY,		
23234	FLORIDA	2016	Hanks, Matthew
	Phase I Archaeological Survey of Biolab Boat Ramp Project, Merritt Island		
23537	National Wildlife Refuge, Brevard County, Florida: Negative Finding Report	2015	Kanaski, Richard S.
	Cape Canaveral Air Station Launch Complexes 11 and 36 Phase I Cultural		
23553	Resources Assessment Survey	2016	Healey, Martin
	TECHNICAL MEMORANDUM: CULTURAL RESOURCE ASSESSMENT SURVEY OF		
	STATE ROAD 528 FROM EAST OF STATE ROAD 3 TO PORT CANAVERAL		_
23563	INTERCHANGE, BREVARD COUNTY, FLORIDA	2016	Dye, Melissa
	Phase I Archaeological and Historical Survey, Forest Trace Subdivision,		
23663	Brevard County, Florida	2017	Mikell, Gregory A.
	Cultural Resources Assessment Surveys for the Proposed Skid Strip Area		
24466	Development Plan, Cape Canaveral Air Force Station, Brevard County, Florida	2047	
24166	Volume I: Report, Volume II: Supporting Documents	2017	Penders, Thomas E
24250	Cultural Resource Reconnaissance Survey for the Hopkins Avenue Complete	2017	Armstrong Kirston
24358	Streets Project, City of Titusville, Brevard County, Florida	2017	Armstrong, Kirsten
24478	Phase I Archaeological Testing for Visitor Center at Merritt Island National Wildlife Refuge, Brevard County, Florida - A Negative Findings Report	2017	William Brant
24476	Archaeological Survey and Evaluation for the Post-Hurricane Sandy Dune	2017	William Dram
24494	Repair Project, John F. Kennedy Space Center, Brevard County, Florida	2013	Deming, Joan
24434	Phase I Cultural Resources Assessment Survey of Florida Power and Light	2013	Denning, Joan
	Glenn Substation and Transmission Lines Right-of-Way Corridor, Cape		
24517	Canaveral Air Force Station, Brevard County, Florida	2017	Banguilan, Alvin
	3D Digital Documentation of Historic Launch Complex Structures at CCAFS: A		24.184.14.17.11.11
	Workflow Methodology for Cultural Resource Documentation LCA. 19 and		
24721	LC34 Areas of Interest	2016	Collins, Lori
	A CULTURAL RESOURCE ASSESSMENT SURVEY OF LUNA TRAILS BREVARD		,
24848	COUNTY, FLORIDA	2017	Handley, Brent
	Cape Canaveral Air Force Station Launch Complex 34 Hot Spot Area 6		,,
25006	Cultural Resource Assessment Survey	2018	Lackett, Matthew M.
25307	City of Titusville Survey of Historical Resources	2017	Meghan Powell
	A CULTRUAL RESOURCES ASSESSMENT SURVEY FOR THE PROPOSED BLUE		20
	WATER POINTE DEVELOPMENT, MERRITT ISLAND, BREVARD COUNTY,		
25528	FLORIDA	2017	Penders, Thomas E.
	Cold War Era Historic Architectural Survey for the CCASF, Brevard County,		,
25799	Florida	2018	Ellen Turco
	Cultural Resource Assessment Survey of the NASA Causeway Bridge Project		
	Development and Environment (PD&E) Study, FM No. 440424-1-22-01,		
25880	Brevard County, Florida	2018	JANUS Research

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
	Phase I Cultural Resources Assessment Survey, 101 and 131 River Park		
25916	Boulevard Titusville, Brevard County, Florida	2019	Ben DiBiase
	Canaveral Harbor Sand Bypass Submerged Cultural Resources Survey and		
25935	Archaeological Reconnaissance Survey, Brevard County, Florida	2018	Gifford, Erica K.
	CULTURAL RESOURCE ASSESSMENT SURVEY OF SR 528 FROM EAST OF SR		
26082	524 (INDUSTRY ROAD) TO EAST OF SR 3, BREVARD COUNTY, FLORIDA	2019	Armstrong, Kirsten
	A Cultural Resources Assessment Survey of the Armen Grove Project Parcel,		Mankowski, Joseph
26120	Smith Road, N. Merritt Island, Brevard County, Florida	2019	F.
	Cultural Resource Reconnaissance Survey for the State Road 528 over Indian		
26191	River and Banana River Relief Bulkhead Repair, Brevard County, Florida	2019	Armstrong, Kirsten
	Cultural Resource Reconnaissance Survey for the State Road 3 Improvements		
26235	Project, Brevard County, Florida	2019	Fish, Jessica
	A Cultural Resources Assessment for the Proposed Silver Horseshoe		
26295	Development Archaeological Survey, Merritt Island, Brevard County, Florida	2019	Penders, Thomas E.
	Cultural Resource Assessment Survey of the Space Coast Trail within the		
	Merritt Island National Wildlife Refuge and the Canaveral National Seashore,		Archaeological
26641	Brevard and Volusia Counties, Florida	2018	Consultants Inc.
	An Archaeological Investigation of Cape Fish Company (8BR239) and		
	Surrounding Area on Cape Canaveral Air Force Station, Brevard County,		
26676	Florida	2019	Collins, Lori D.
	An Archaeological Survey South of Launch Complex 37 [Land Management		
26677	Units 8-12] at Cape Canaveral Air Force Station, Brevard County, Florida	2019	Collins, Lori D.
	Cultural Resource Assessment Survey of the Discovery Solar Energy Center		Archaeological
26810	Property, Brevard County, Florida	2019	Consultants Inc.
	Cultural Resources Assessment Survey, City Point to South Cape Transmission		
	Line Pole Locations 87F11A/F11, 88F3A and 89F10A/F10, Brevard County,		
27093	Florida	2020	Wayne, Lucy B.
	Technical Memorandum: Cultural Resource Assessment Survey in Support of		
27137	the Florida Coast to Coast Trailhead at Parrish Park, Brevard County, Florida	2020	Bennett, Sarah
	Global Marine Exploration, Inc. Dig and Identify Report 08-19-2015 through		Global Marine
27192	09-19-2015 Permit # 2015.04 - Brevard County, Florida	2015	Exploration Inc.
	Global marine Exploration, Inc. Remote Sensing Survey Report Permit		Global Marine
27193	#2015.03 - Brevard County, Florida. Addendum Request	2015	Exploration, Inc.
	A Cultural Resources Assessment for the Proposed Outback Reserve		
27491	Development, Merritt Island, Brevard County, Florida	2020	Penders, Thomas E.
	Cultural Resources Assessment Survey (CRAS) Prior to Contaminated Soil		
	Removal at Cape Canaveral Air Force Station Launch Complex 41, Brevard		
27494	County, Florida	2020	Bach, Jaime
	Phase I Archaeological Survey of 2138.3 Acres at Cape Canaveral Air Force		
27738	Station, Brevard County, Florida	2019	Brian Snyder
	Historic Building Inventory and Evaluation of Space Launch Complexes 37,		
27798	40, 41, and 46, Cape Canaveral Space Force Station, Brevard County, Florida	2021	Andrew B. Orr
	Cultural Resource Assessment Survey of the Tulsa Barna-Roadway		Archaeological
27855	Improvement Area, Brevard County, Florida IO#T24103	2020	Consultants, Inc.
	Phase I Cultural Resources Assessment Survey along ICBM Road, Cape		
27962	Canaveral Air Force Station, Brevard County, Florida	2020	Collins, Lori
	Canaveral Harbor Sand Bypass, Submerged Cultural Resources Survey and		
27963	Diver Identification and Evaluation, Brevard County, Florida	2021	Gifford, Erica K.

Table 4-1. Previous Cultural Resources Assessment Surveys recorded in the FMSF within the APEs.

FMSF No.	Title	Year	Consultant/Author
	Cultural Resource Assessment Survey for Space Commerce Way from NASA		
28010	Parkway West to Kennedy Parkway, Brevard County, Florida	2022	JANUS Research
	Cultural Resource Assessment Survey in Support of the SR 401 Bridge		
	Replacements Project Development and Environment (PD&E) Study, Brevard		
28044	County, Florida	2022	Angela Matusik
	Cultural Resource Assessment Survey in Support of the State Road A1A		
28057	Urbanization Project, Brevard County, Florida	2021	Angela Matusik
	Phase I Cultural Resources Assessment Survey of Exploration Park North		
28108	Expansion EA Brevard County, Florida	2020	Lombardi, Kathryn
20462	An Archaeological Reconnaissance Survey for the Proposed Parrish Landing	2024	
28168	Development, Mims, Brevard County, Florida	2021	Penders, Thomas E.
	Cultural Resource Assessment Survey in Support of the State Road (SR)		
28176	Improvements, Brevard County, Florida	2022	Matusik, Angela
	Phase I Cultural Resources Assessment Survey of Land Management Units		
28260	13-17, Cape Canaveral Space Force Station, Brevard County, Florida	2020	Collins, Lori
	Cultural Resource Assessment Survey for the SR 5 Lighting Project, Brevard		
28287	County, Florida	2022	Matusik, Angela
20520	Cultural Resources Assessment Survey, Pine Island Road, Brevard County,	2022	
28520	Florida.	2022	Rudewicz, Joel D.
2225	A Cultural Resources Assessment Survey of Five Improvement Locations on		
28952	the NASA Causeway, Brevard County, Florida	2020	Mark F. Martinkovic
20054	Cultural Resource Assessment Survey of the Proposed International Space	2004	Archaeological
28954	Research Park at the John F. Kennedy Space Center, Brevard County, Florida	2004	Consultants, Inc.
	Cultural Resource Assessment Survey Saturn Substation and Distribution		Archaeological
28963	Project in Brevard County, Florida	2023	Consultants, Inc.
	Cultural Resource Assessment Survey for ITS Improvements on Movable		
20007	Bridges on SR 3, SR 40, and SR 44, Brevard, Lake, and Volusia Counties,	2022	
28997	Florida	2023	Matusik, Angela
20000	Phase I Cultural Resources Assessment Survey of the DNC Retail Warehouse	2022	Zianahawa Elizahath
29098	Pre-Con Site, Brevard County, Florida	2023	Zieschang, Elizabeth
20150	Cultural Resource Assessment Survey for the Districtwide Rumble Stripes	2022	Matusik Angola
29158	Bundle 5A, Brevard, Orange, and Seminole Counties, Florida	2023	Matusik, Angela
29255	Cultural Resource Assessment Survey of SR 5 (US 1) at Fay Boulevard,	2022	Matusik Angola
29233	Brevard County, Florida Final Cultural Resources Technical Report Reactivation of Space Launch	2022	Matusik, Angela
29357	Complex 14, Cape Canaveral Space Force Station, Brevard County, Florida	2024	Penders, Thomas. E.
29337	Cultural Resource Assessment Survey for SR 5 at US 1 Southbound Lanes	2024	renders, momas. L.
	from the Florida East Coast Railway Bridge to Grace Road Brevard County,		
29388	Florida	2024	Feriend, Kyle
23300	Cultural Resources Assessment Survey for the Roberts Road North Expansion	2024	renena, kyle
	Area and NASA Parkway Connector at Kennedy Space Center, Brevard		
29422	County, Florida	2022	Newton, Jason
	A Phase I Archaeological Survey of Parcel 103 at Cape Canaveral Space Force		
	printings in a since or great survey of railer 100 at cape carraveral space roile	1	i

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# 4.1.2 Previous Cultural Resources Surveys On-file With KSC

There are 28 cultural resource surveys conducted after 2001 that are on file at KSC and not documented in the FMSF (**Table 4-2**).

Table 4-2. Previous Cultural Resources Assessment Surveys Documented at KSC within the APEs.

Title	Year	Author
Survey and Evaluation of NASA Facilities Within the Cape Canaveral Air Force Station	2001	Hinder, Kimberly et al.
NASA-Wide Survey and Evaluation of Historic Facilities and Properties in the	2007	Deming, Joan and
Context of the U.S. Space Shuttle Program, John F. Kennedy Space Center,		Patricia Slovinac
Brevard County, Florida		
Canaveral National Seashore Historic Resource Study	2008	Parker, Susan
Archaeological Survey and Evaluation of the Bottle Dump Site (8BR2364), John F. Kennedy Space Center, Brevard County Florida	2009	Deming et al.
A Cultural Resource Assessment Survey of the Clifton Schoolhouse, Brevard County, Florida	2009	Penders, Thomas E.
Trip Report for an Archaeological Survey pd Mosquito Lagoon, Canaveral National Seashore undertaken March 8-19 and June 22-July 2, 2009, SEAC Acc. 2227	2009	Hellman, Robert
Demolition of Facilities, Design Package One (FY 2012)	2010	Naylor, Barabara A.
Demolition of Facilities, Design Package Two (FY 2011)	2010	Naylor, Barabara A.
Demolition of Additional Facilities, Design Package One (FY 2012)	2011	Naylor, Barabara A.
Internal Evaluation and Historic Survey of NASA Owned Real Properties that have Reached the Age of 45-50 Years John F. Kennedy Space Center, Brevard County	2011	Naylor, Barabara A.
Historical Survey and Evaluation of Facility 49635/Environmental Health/Health	2012	Deming, Joan and
Physics Facility (BOSU), Cape Canaveral Air Force Station, Brevard County, Florida		Patricia Slovinac
Management Summary: History Survey and Evaluation Hypergol Module Processing South (M7-1212) and Boresight Control Building (M7-0867) John F. Kennedy Space Center, Brevard County	2012	Price, David
Canaveral National Seashore Volusia and Brevard County, Florida	2013	Hellmann, Robert and David Brewer
Archeological Investigations Prior to Boardwalk Rehabilitation at Canaveral National Seashore (CANA), Titusville, Florida	2015	Simmons, Rusty L.
The Search for the Lost French Fleet of 1565: Report on 2014 Archaeological Investigations by Chuck Meide, Samual P. Turner, P. Brendan Burke, and Olivia McDaniel; Grant No: S1506	2015	Meide, Chuck et al.
In-House Survey of NASA Owned Facilities/ Structures Built in the 1970s at the Kennedy Space Center	2015	Naylor, Barabara A.
2016 In-House Survey of NASA-Owned Real Property Located at the Kennedy Space Center and the Cape Canaveral Air Force Station in Florida	2016	Naylor, Barabara A.
Phase II Archaeological Survey of Selected Sites in Mosquito Lagoon, Canaveral	2019	Hellman, Robert and
National Seashore (SEAC Accession 2776)		Alexandra Parsons
A Cultural Resource Assessment Survey for the Proposed Roberts Road Site	2020	Keel, Frank
Florida Power and Light (FP&L) Feeder Line Brevard County, Florida		
Cultural Resource Assessment Survey of the Space Coast Trail within the Merritt Island National Wildlife Refuge and the Canaveral National Seashore Brevard and Volusia Counties, Florida	2020	Almy, Marion et al.
Cultural Resource Assessment Survey of Transmission Corridor T21584 in Brevard County, Florida	2020	Almy, Marion et al.

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Table 4-2. Previous Cultural Resources Assessment Surveys Documented at KSC within the APEs.

Title	Year	Author
Demolition of KSC Visitor Center Administration Buildings and Construction of a	2023	Maggioni, Joseph Paul
New Exhibit Building Kennedy Space Center, Brevard County		and Sierra DeVanie
Cultural Resource Assessment Survey, Wetland Mitigation Sites, Kennedy Space	2023	Davidson, John H. et al.
Center, Brevard County, Florida		
An Archaeological Survey of the Kennedy Space Center Spaceport Growth	2024	Handley et al.
Boundaries Districts 1, 2, 3, and 4, Brevard County, Florida		
Phase I Cultural Resources Assessment Survey of the Visitor Complex PEA	2024	Keel, Frank
Boundary Site, Merritt Island, Brevard County, Florida		
Cultural Resource Assessment Survey of the Schwartz Road Property at the John	2024	Altes, Kristina
F. Kennedy Space Center, Brevard County, Florida		
Archaeological Survey of the LC-39A Landing Pad Project, Kennedy Space Center,	2024	Mahoney, Leeanne
Brevard County, Florida		

# 4.1.3 Cultural Resources Recorded in the FMSF (Non-Federal Properties)

There are 355 archaeological sites and 1,592 previously recorded architectural history resources recorded in the FMSF on non-federal property within the APEs. Previously recorded historic resources located on federal lands or federally owned parcels; and linear resources such as roads, railroads and canals within the APE were omitted from this section and are discussed elsewhere. The archaeological sites data provide results and contribute to interpretations and is presented in **Section 6.2.** 

SEARCH determined there are 1,592 previously recorded architectural history resources within the APE (**Table 4-3**). Of these, 18 resources are National Register of Historic Places (NRHP)-listed; SHPO previously determined that 27 architectural history resources are eligible for NRHP inclusion; 525 are ineligible for NRHP inclusion; and 1,022 resources have not been evaluated.

Table 4-3. Previously Recorded Historic Resource Types within the APEs.

Resource Type	Total
Buildings or Structures	1567
Resource Groups	11
Cemeteries	14
Total	1592

#### 4.2 Previously Recorded Cultural Resources at NASA KSC and CCSFS

NASA KSC and CCSFS are within the APE. Both NASA KSC and the Department of the Air Force (DAF), CCSFS have updated their ICRMPs (NASA KSC in 2024 and DAF in 2023). Inventories and descriptions of architectural history resources are included in these documents. Data on historic resources from the ICRMPs and from the FMSF database comprise the following sections. NRHP-listed, NRHP-eligible, and contributing elements to listed and eligible resources are discussed below. Figures depicting the locations of previously recorded cultural resources at NASA KSC and SSFSF are included in **Appendix A**.

# 4.2.1 Documented Cultural Resources at NASA KSC or Owned/Controlled by NASA KSC on Other Federal Property

Since 1972, numerous architectural surveys and NRHP-nominations have been carried out at NASA KSC. Presently, 24 historic properties associated with NASA KSC are determined to be individually eligible or listed in the NRHP, with 22 properties located at NASA KSC and two located at CCSFS. A further 86 properties are determined to be contributing elements to seven listed or eligible historic districts, two of which are located at CCSFS. The FMSF includes four cemeteries on KSC. **Table 4-4** quantifies resource types by category at KSC, and **Table 4-6** lists previously recorded NRHP-listed and NRHP-eligible resources at KSC. Note that some historic properties owned and under NASA KSC control are located with the Merritt Island National Wildlife Refuge, Canaveral National Seashore, and CCSFS. All such resources are mapped in **Appendix A**.

One NRHP-listed resource at NASA KSC, Launch Complex 39 Pad A (LC-39-A) Historic District (8BR1686/NRHP #99001638) is within the 130 dB Lmax contour, and is within the construction APE. The LC 39A Historic District has approximately 24 contributing resources (e.g., camera pads, LOX/LH<sub>2</sub> facility, support buildings, etc.). LC-39A was the site of the first Saturn V launch in 1967, the Apollo 4 mission, and the Apollo 11 mission in 1969, which took astronauts Armstrong, Aldrin, and Collins to the moon. In total, 11 Apollo missions and one Skylab mission, all using the Saturn V rocket, were launched at LC-39A. On April 14, 1981, the first Space Shuttle was launched from LC-39A, followed by an additional 80 launches.

Historic American Engineering Record (HAER FL-8-11-F), at a Level II, for LC-39A was completed in 2010 to mitigate for "adverse effects" that might occur with post Shuttle Program redevelopment. The Florida SHPO, in a letter dated May 10, 2013, concurred future consultation is not required for the reuse of LC-39A by a commercial entity (Bendus 2013), (NASA 2019). As such, LC-39A is well documented and no further identification or evaluation of LC-39A is proposed. Furthermore, it is anticipated that proposed new construction associated with the operation of the SSH will be compatible with the characteristics of other launch complex infrastructure and will not pose viewshed effects to historic properties.

Table 4-4. Historic Resource Types on KSC within the APE.

Resource Type	Total
Buildings or Structures	110
Resource Groups	8
Cemeteries	4
Total	122

#### 4.2.2 Documented Resources at CCSFS

Since 1980, several efforts to identify historic properties at CCSFS have resulted in the recordation of numerous resources associated with the early United States space program. These resources are inventoried and described in the 2023 ICRMP, and in most instances the resources are included in the FMSF. They include one National Historic Landmark (NHL), 23 eligible or unevaluated historic districts, 153 properties considered contributing elements to the NHLs and historic districts, and eight cemeteries (**Table 4-5**). Some of these properties are documented

resources at NASA KSC (owned and controlled by NASA KSC, but within the boundaries of CCSF) and are referenced in **Section 4.2.1** and **Table 4-6.** 

Notably, Cape Canaveral Air Force Station was designated a NHL in 1984 for its association with the early space program (DAF 2023). CCSFS is not within the 130 dB Lmax contour for the undertaking but is within the 4-6 psf sonic-boom overpressure contour. **Table 4-7** provides a list of NRHP-listed, NRHP-eligible and unevaluated resources located at CCSFS and their NRHP status.

Table 4-5. Historic Resource Types on CCFSF within the APE.

Resource Type	Total
Buildings or Structures	153
Resource Groups	24
Cemeteries	8
Total	185

#### 4.3 Traditional Cultural Places

A traditional cultural place (TCP) is generally defined as a property that is eligible for the NRHP because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community (see criteria in 36 CFR §60.4 and NPS 2025). When evaluating TCPs, it is important to note that significance derives from past and continuous use of the site for specific cultural practices. TCPs are typically identified through consultation with tribes or other consulting parties that have cultural affiliation with the APE. There are no previously recorded TCPs, or resources described as TCPs in the FMSF, within the APE.

#### 4.4 HISTORIC MAP AND AERIAL PHOTOGRAPH REVIEW

SEARCH examined historic maps and aerial photographs to identify past land use within the operational APE. The earliest detailed maps consulted were General Land Office (GLO) survey maps. Government surveyors created GLO maps during the nineteenth century as part of the surveying, platting, and sale of public lands. In Florida, these maps characteristically show landscape features such as vegetation, bodies of water, roads, and Spanish land grants. The level of detail in GLO maps varies, with some also depicting structures, Native American villages, railroads, and agricultural fields. GLO maps of Florida Townships 18 through 26 South, Ranges 34 through 38 East and Townships 30 and 31 South, Ranges 37 through 39 East show all land within the APE is platted for sale. A total of 11 land grants are within the APE including several large tracts belonging to Joseph Delespine and his heirs. A northwest-southeast road extended through the APE west of the Indian River and was labeled both Hernandez Trail and Road to Haulover (Appendix B) (GLO 1845a, 1945b, 1845c, 1845c, 1845d, 1845e, 1846a, 1846b, 1846c, 1846d, 1846e, 1846f, 1848a, 1848b, 1848c, 1848d, 1849, 1850a, 1850b, 1850c, 1852a, 1852b, 1852c, 1852d, 1852e, 1852f, 1852g, 1852h, 1852i, 1959a, 1859b, 1859c, 1859d, 1859e, 1859f, 1859g, 1860a, 1960b, 1960c, 1960d).

990 In 1860, the only development within the APE is the northwest-southeast road, which is not 991 depicted by 1871 (Asher and Adams 1871a, 1871b; Johnson 1860). The settlements of Titusville, 992 Rockledge, and City Point are labeled within the APE in 1880 (Leslie-Judge Company 1880a, 993 1880b). By 1890, the towns of Mims and Titusville are stops on the Jacksonville, Tampa and Key 994 West Railroad within the APE. The towns of Cocoa, Courtenay, Canaveral, and Micco are labeled 995 within the APE (Norton 1890). The Florida East Coast Railroad intersected the entire APE west of 996 the Indian River with stops at numerous towns west of the Indian River in 1900 (Rand McNally 997 and Company 1900). In 1910, the towns of Mims, LaGrange, Titusville, Pritchards, Frontenac, City 998 Point, Cocoa, and Rockledge are within the APE west of the river and connected by the Florida 999 East Coast Railroad. The towns of Nathan, Canaveral and Artesia are within the APE east of the 1000 Indian River (C. S. Hammond and Company 1910). A state road map created in 1917 shows a 1001 northwest-southeast road intersected the APE on the present-day alignment of US 1. A bridge 1002 from Cocoa connected US 1 with a north-south road on Merritt Island where the towns of 1003 Audubon, Indianola, and Merritt are labeled (FSRD 1917).

1004 By 1935, US 1 is labeled within the APE. More than 400 individual buildings are illustrated within the APE as part of the towns of Scottsmoor, Shiloh, Aurantia, Mims, LaGrange, Allenhurst, Wilson, 1005 1006 Indian River City, Frontenac, Sharpes, Orsino, Courtenay, Audubon, Canaveral, City Point, 1007 Indianola, Merritt Island, Footman, Bonaventure, Artesia, Georgiana, Lotus, and Micco. The three 1008 largest cities are Titusville, Cocoa, and Rockledge and are represented by shaded areas. 1009 Additional roads within the APE include two on the present-day alignments of Cape Road/Samuel 1010 C. Phillips Parkway and Courtenay Parkway east of the Indian River on the out islands. 1011 Development is limited to areas accessible by the major roads (see Appendix B) (FSRD 1935a, 1012 1935b).

1013 By the early 1950s, Titusville, Cocoa, and Rockledge remained the largest cities with hundreds of 1014 individual buildings depicted. A bridge connected Titusville to Merritt Island on the present-day 1015 alignment of SR 406. Three airports are labeled within the APE near Titusville and Cocoa. 1016 Numerous orchards are apparent throughout the APE. West of Cocoa and Rockledge, a system 1017 of canals and levees has drained former marshland for agricultural and residential use. The 1018 Whispering Hills Golf Estates is labeled as a planned community within the APE further into the 1019 interior of the county. A US Military Reservation is labeled in the present-day location of Patrick 1020 Space Force Base (see Appendix B) (US Geological Survey [USGS] 1949a, 1949b, 1949c, 1949d, 1021 1949e, 1949f, 1949g, 1949h, 1949i, 1949j, 1949k, 1949l, 1949m, 1949n, 1949o, 1949p, 1949q, 1022 1950a, 1950b, 1950c, 1950d, 1951, 1953a, 1953b, 1953c).

1023 By 1970, Interstate 95 is evident on its present-day alignment within the APE. Several planned 1024 communities are apparent west of US 1 and on the outer islands. The outer islands are extensively 1025 developed with residential areas and Partick Air Force Base. Areas shaded to indicate high 1026 population density show several of these communities had large numbers of residents by 1970. 1027 Shaded areas in Titusville and Cocoa show the cities continued to expand along US 1 to the north 1028 and south (see Appendix B) (USGS 1970a, 1970b, 1970c, 1970d, 1970e, 1970f, 1970g, 1970h, 1029 1970i, 1970j, 1970k, 1970l, 1970l, 1970m, 1970n, 1970o, 1970p, 1970q, 1970r, 1970s, 1970t, 1030 1970u, 1970v, 1970w, 1970x, 1970y).

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FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
Resource Groups					
8BR1686/NRHP #99001638	Launch Complex (LC) 39 Pad A Historic District	20 psf	Apollo/SSP	1967-85	NRHP Listed
8BR1687/NRHP #99001639	Launch Complex 39 Pad B Historic District	20 psf	Apollo/SSP	1967-85	NRHP Listed
8BR1986	Shuttle Landing Facility (SLF) Historic District	6 psf	SSP	1969-2010	Eligible
8BR1990	Orbiter Processing Historic District	10 psf	SSP	1969-2010	Eligible
8BR2932	NASA KSC Railroad System Historic District	10 psf	SSP	1978-2010	Eligible
8BR1996	Solid Rocket Booster (SRB) Disassembly and Refurbishment Complex Historic District	10 psf	SSP	1962-2011	Eligible
8BR2015*	Hypergolic Maintenance and Checkout Area Historic District	6 psf	SSP	1969-2011	Not Eligible
8BR3073	NASA-owned Cape Canaveral Air Force Station Industrial Area Historic District	6 psf	Mercury/ELV/SSP	1958-Present	Eligible
Buildings/Structures (Indi	ividually Eligible or Listed)				
-	Orbiter Atlantis	4 psf	SSP	1984	Eligible
8BR1684	Vehicle Assembly Building	10 psf	Apollo/SSP	1962-66	NRHP Listed
8BR3150	VAB Utility Annex	10 psf	Apollo	1966	NRHP Listed
8BR2986	Barge Terminal Facility	10 psf	Apollo/SSP	1965	Eligible
8BR1685	Launch Control Center	10 psf	Apollo/SSP	1966	NRHP Listed
8BR1689	Crawlerway	20 psf	Apollo/SSP	1963-65	NRHP Listed
8BR1688	Crawler Transporter 1 & 2	20 psf	Apollo/SSP	1965	NRHP Listed
8BR1690	Press Site: Clock and Flag Pole	4 psf	Apollo	1969	NRHP Listed
8BR1691*	Headquarters Building	-	Apollo	1965	Not Eligible

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR1693	Neil Armstrong Operations and Checkout (O & C) Building	6 psf	Apollo	1964	NRHP Listed
8BR1692*	Central Instrumentation Facility	-	Apollo	1965	Not Eligible
8BR1998	Manufacturing Building/Booster Fabrication Facility (BFF)	6 psf	SSP	1986	Eligible
8BR2014*	Parachute Refurbishment Facility	-	SSP	1964	Not Eligible
8BR2016	Canister Rotation Facility (aka Launch Abort System Facility)	6 psf	SSP	1993	Eligible
8BR2017*	Payload Cannister 1 & 2	-	SSP	1978	Eligible
8BR2019*	Retrieval Ship, Liberty Star	-	SSP	1980-81	Eligible
8BR2020*	Retrieval Ship, Freedom Star	-	SSP	1980-81	Eligible
8BR2021	Mobile Launcher Platforms 1, 2, and 3	10 psf	SSP	1963-68	Eligible
8BR1997	Rotation/Processing Facility	10 psf	SSP	1984	Eligible
8BR2671	Space Station Processing Facility	6 psf	ISS	1992	Eligible
-	Ammonia Vapor Containment Building	10 psf	ISS	2006	Eligible
8BR2905*	Bioastronautics Operations Support Unit (BOSU)	-	Apollo	1965	Not Eligible
8BR2990	Beach House	10 psf	Apollo/SSP	1962	Eligible
8BR2969	Engineering Development Lab	6 psf	Apollo	1966	Eligible
Historic Bridges					
8BR2956*	Indian River Bridge	-	Apollo/SSP/ISS	1964	Not Eligible
8BR2957	Haulover Canal Bridge	2 psf	Apollo/SSP/ISS	1965	Eligible
8BR2955	Banana River Bridge	6 psf	Apollo/SSP/ISS	1964	Eligible
Buildings/Structures (Con	tributors to Resource Groups)				
8BR1995	Launch Complex 39 Pad A	20 psf	Apollo/SSP	1967-1985	NRHP Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR2010	Launch Complex 39 Pad B	20 psf	Apollo/SSP	1967-1985	NRHP Listed (Contributor to RG)
8BR2094	High Pressure GH2 Facility	20 psf	Apollo/SSP	1968	NRHP Listed (Contributor to RG)
8BR2095	Liquid Oxygen (LOX) Facility	20 psf	Apollo/SSP	1966	NRHP Listed (Contributor to RG)
8BR2096	A-1 Operations Support Building	20 psf	Apollo/SSP	1966	NRHP Listed (Contributor to RG)
8BR2102	A-2 Operations Support Building	20 psf	Apollo/SSP	1966	NRHP Listed (Contributor to RG)
8BR2097	Camera Pad No. 1	20 psf	Apollo/SSP	1966	NRHP Listed (Contributor to RG)
8BR2105	Camera Pad No. 2	20 psf	Apollo/SSP	1965	NRHP Listed (Contributor to RG)
8BR2107	Camera Pad No. 3	20 psf	Apollo/SSP	1965	NRHP Listed (Contributor to RG)
8BR2106	Camera Pad No. 4	20 psf	Apollo/SSP	1965	NRHP Listed (Contributor to RG)
8BR2100	Camera Pad No. 6	20 psf	Apollo/SSP	1965	NRHP Listed (Contributor to RG)
8BR2098	LH2 Facility	20 psf	Apollo/SSP	1965	NRHP Listed (Contributor to RG)
8BR2101	Electrical Equipment Building No. 1	20 psf	Apollo/SSP	1979	NRHP Listed (Contributor to RG)
8BR2099	Electrical Equipment Building No. 2	20 psf	Apollo/SSP	1979	NRHP Listed (Contributor to RG)
8BR2110*	Electrical Equipment Building No. 3	-	SSP	1979	Not Eligible
8BR2111	Electrical Equipment Building No. 4	20 psf	SSP	1979	Eligible (Contributor to RG)
8BR2103	Slidewire Termination Facility	20 psf	Apollo/SSP	1965	NRHP Listed

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR2104	Water Chiller Building	20 psf	Apollo/SSP	1968	NRHP Listed
8BR2108	Water Tank	20 psf	SSP	1980	NRHP Listed (Contributor to RG)
8BR2109	Flare Stack	20 psf	SSP	1985	NRHP Listed (Contributor to RG)
8BR2113	Hypergol Fuel Facility	20 psf	SSP	1979	Eligible (Contributor to RG)
8BR2112*	Hypergol Oxidizer Facility	-	SSP	1979	Not Eligible
-	Foam Building	10 psf	Apollo	1965	NRHP Listed (Contributor to RG)
-	Pump House	10 psf	Apollo	1964	NRHP Listed
-	Compressed Air Building	10 psf	Apollo	1965	NRHP Listed (Contributor to RG)
-	Remote Air Intake Building	10 psf	Apollo	1965	NRHP Listed (Contributor to RG)
_*	Azimuth Alignment Station	-	Apollo	1965	NRHP Listed (Contributor to RG)
8BR2114	B-1 Operations Support Building	10 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2122	B-2 Operations Support Building	20 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2115*	High Pressure GH2 Facility	-	Apollo/SSP	1967	Not Eligible
8BR2116	LOX Facility	10 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2118	Camera Pad B No. 1	10 psf	Apollo/SSP	1968	NRHP Listed (Contributor to RG)
8BR2124	Camera Pad B No. 2	20 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2127	Camera Pad B No. 3	20 psf	Apollo/SSP	1968	NRHP Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR2126	Camera Pad B No. 4	20 psf	Apollo/SSP	1968	NRHP Listed
					(Contributor to RG)
8BR2117	Camera Pad B No. 6	10 psf	Apollo/SSP	1968	NRHP Listed (Contributor to RG)
8BR2119	LH2 Facility	20 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2121	Electrical Equipment Building No. 1	20 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2120	Electrical Equipment Building No. 2	10 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2123	Slidewire Termination Facility	10 psf	Apollo/SSP	1967	NRHP Listed (Contributor to RG)
8BR2128	Flarestack	20 psf	SSP	1985	Eligible (Contributor to RG)
8BR2125	Water Chiller Building	20 psf	Apollo/SSP	1968	NRHP Listed (Contributor to RG)
8BR2129	Water Tank	20 psf	SSP	1981	Eligible (Contributor to RG)
8BR3046	Foam Building	20 psf	Apollo	1968	NRHP Listed (Contributor to RG)
8BR2130*	Hypergol Oxidizer Facility	-	SSP	1981	Not Eligible
8BR2132*	Hypergol Fuel Facility	-	SSP	1981	Not Eligible
8BR2131*	Electrical Equipment No. 3	-	SSP	1981	Not Eligible
8BR2133*	Electrical Equipment No. 4	-	SSP	1981	Not Eligible
-	Compressed Air Building	10 psf	Apollo	1967	NRHP Listed (Contributor to RG)
-	Azimuth Alignment Station	10 psf	Apollo	1967	NRHP Listed (Contributor to RG)
-	Remote Air Intake Building	10 psf	Apollo	1967	NRHP Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR1987	Shuttle Landing Runway	6 psf	SSP	1976	Eligible (Contributor to RG)
8BR1988	Landing Aids Control Building	6 psf	SSP	1976	Eligible (Contributor to RG)
8BR1989*	Mate-Demate Device	-	SSP	1977-1978	Not Eligible
8BR1991	Orbiter Processing Facility	10 psf	SSP	1977	Eligible (Contributor to RG)
8BR1992	Orbiter Processing Facility High Bay 3 (includes the Space Shuttle Main Engine Processing Facility)	10 psf	SSP	1987	Eligible (Contributor to RG)
8BR1994	Thermal Protection System Facility	10 psf	SSP	1988	Eligible (Contributor to RG)
8BR2001	Hangar AF	10 psf	SSP	1962	Eligible (Contributor to RG)
8BR2002	High Pressure Gas Facility	10 psf	SSP	1963	Eligible (Contributor to RG)
8BR2003	High Pressure Wash Facility	10 psf	SSP	1979	Eligible (Contributor to RG)
8BR2004*	First Wash Building	-	SSP	1979	Not Eligible
8BR2005	SRB Recovery Slip	10 psf	SSP	1979	Eligible (Contributor to RG)
8BR2006	SRB Paint Building	10 psf	SSP	1984	Eligible (Contributor to RG)
8BR2007*	Robot Wash Building	-	SSP	1987	Not Eligible
8BR2008	Thrust Vector Control Deservicing Building	10 psf	SSP	1985	Eligible (Contributor to RG)
8BR2009	Multi-Media Blast Facility	10 psf	SSP	1992	Eligible (Contributor to RG)
8BR2931	Railroad Track	6 psf	SSP	ca. 1963	Eligible (Contributor to RG)

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status	
8BR2906	Jay Jay Bridge	10 psf	SSP	1963	Eligible (Contributor to RG)	
8BR2908	70-Ton Aft Skirt Car	10 psf	SSP	1985	Eligible (Contributor to RG)	
8BR3042*	70-Ton Aft Skirt Car	-	SSP	1985	Eligible (Contributor to RG)	
8BR2923*	Locomotive 1	-	SSP	1968	Eligible (Contributor to RG)	
8BR3043*	Locomotive 2	-	SSP	1970	Eligible (Contributor to RG)	
8BR3044*	Locomotive 3	-	SSP	1970	Eligible (Contributor to RG)	
8BR1993*	Hypergol Module Processing North	-	SSP	1964	Not Eligible	
8BR2933*	Hypergol Module Processing South	-	SSP	1964	Not Eligible	
8BR2000*	Hypergol Support Building	-	SSP	1964	Not Eligible	
8BR3069	Hangar N	6 psf	SSP	1958	Eligible (Contributor to RG)	
8BR2190	Little N Storage Building	6 psf	SSP	1958	Eligible (Contributor to RG)	
8BR2972*	Hangar M Annex	-	SSP	1963	Not Eligible	
8BR2977*	Solar Array Test Building	-	ELV	1966	Not Eligible	
8BR2975	E&O Building	6 psf	Mercury/ELV	1961	Eligible (Contributor to RG)	
8BR2976	Missile Assembly Building AE	6 psf	ELV	1959	Eligible (Contributor to RG)	
8BR3070	Hangar S	6 psf	Mercury	1959	Eligible (Contributor to RG)	
Cemeteries						

FMSF/NRHP Number	Resource Name	psf Threshold	Associated Programs	Year Built/Period of Significance	NRHP Status
8BR0191	African American Graves/New Haulover 2	2 psf	-	1880	Not Evaluated By SHPO
8BR0186	Campbell-Jackson Cemetery	2 psf	-	1913	Not Evaluated By SHPO
8BR1626	Crook/Watton Cemetery	2 psf	-	1915	Not Evaluated By SHPO
8BR1624	Emma Watton Cemetery	2 psf	-	1882	Not Evaluated By SHPO

<sup>\*</sup>Notes as demolished or removed from KSC in KSC ICRMP.

Table 4-7. Previously Recorded NRHP-listed and NRHP-eligible Resources at CCSFS.

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
Resource Groups				
8BR00216/NRHP #84003872	Cape Canaveral Space Force Station National Historic Landmark	6/4 psf	1950-Present	NHL and NRHP Listed
8BR03034	Delta II Solid Rocket Motor Area Historic District	6 psf	1963-1965	Eligible
8BR02269	Launch Complex 19	6 psf	1956-1966	Eligible
8BR03036	Delta Spin Test Facility Historic District	6 psf	1966-2010	Eligible
8BR02272	Launch Complex 30	6 psf	1950-Present	Eligible
8BR02209	Launch Complex 14	6 psf	1957-1966	Eligible
8BR00198	Launch Complex 13	6 psf	1956-1966	Eligible
8BR02518	Launch Complex 25	6 psf	1958-1969	Eligible
8BR02022/8BR1985	Launch Complex 21/22	6 psf	1950-Present	Eligible
8BR02033	Cape Canaveral Lighthouse Station Historic District	4 psf	1861-1865	Not Evaluated By SHPO

Table 4-7. Previously Reco	orded NRHP-listed and NRHP-eligible F	Resources at CCSFS.		
FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR03166	Skid Strip Historic District	6 psf	1950-Present	Eligible
8BR03433	Control Tower Road Tracking Site	6 psf	1950-Present	Eligible
8BR2170	Patrick Air Force Base Missile Instrumentation Station Historic District	<2 psf	-	Eligible
8BR2181	Bomarc-SAGE Tracking Facility Historic District	6 psf	-	Eligible
8BR2438	Patrick Air Force Base Facilities Landplace Historic District	Less than 2 psf	-	Eligible
8BR03369	Cape Canaveral Air Force Station Industrial Area Historic District	6 psf	1946-1989	Eligible
8BR02369	Launch Complex 17	6 psf	1957-1960	Eligible
8BR02279	Launch Complex 34	6 psf	1961-1971	Eligible
8BR03034	Delta II Solid Rocket Motor Area	6 psf	1963-1965	Eligible
8BR03036	Delta Spin Test Facility	6 psf	1966-2010	Eligible
8BR2440	Patrick Air Force Base Administrative Historic District	Less than 2 psf	-	Eligible
8R02515	Launch Complex 31/32	6 psf	1950-Present	Eligible
8BR2076	High Explosive Storage Facility Historic District	6 psf	-	Eligible
8BR1975	Banana River Naval Air Station Seaplane Historic District	Less than psf	-	Eligible
Buildings/Structures				
8BR0174	Air Force Space Museum/LC-26	6 psf	1958	NHL Listed
8BR0212	Cape Canaveral Lighthouse	Less than 2 psf	1867	Eligible
8BR1970	Seaplane Ramp	<2 psf	-	NHL Listed (Contributor to RG)
8BR1971	Seaplane Ramp	<2 psf	-	Eligible (Contributor to RG)
8BR1972	Seaplane Ramp	<2 psf	-	NHL Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR1974	A&R Shop	<2 psf	-	Eligible (Contributor to RG)
8BR1980	Hangar C	4 psf	1953	Eligible (Contributor to RG)
8BR1981	Launch Building 21/22	6 psf	1958	Eligible (Contributor to RG)
8BR1982	CX 21/22 Utility Room	4 psf	1958	Eligible (Contributor to RG)
8BR1983	LC-21/22 Blockhouse	4 psf	1958	Eligible (Contributor to RG)
8BR1984	Storage Building	6 psf	-	Eligible (Contributor to RG)
8BR02001*	Hangar AF	6 psf	1962	Eligible (Contributor to RG)
8BR02002*	High Pressure Gas Building	6 psf	1963	Eligible (Contributor to RG)
8BR02003*	High Pressure Wash Facility	6 psf	1979	Eligible (Contributor to RG)
8BR02004*	First Wash Building	6 psf	1979	Eligible (Contributor to RG)
8BR02006*	SRB Paint Building	6 psf	1984	Eligible (Contributor to RG)
8BR02007*	Robot Wash Building	6 psf	1987	Eligible (Contributor to RG)
8BR02008*	Thrust Vector Control Deservicing Building	6 psf	1985	Eligible (Contributor to RG)
8BR02009*	Multi-Media Blast Facility	6 psf	1982	Eligible (Contributor to RG)
8BR2025	Seaside Chapel	<2 psf	-	Eligible (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR02031	Oil House at Cape Canaveral Lighthouse	4 psf	1868	Not Evaluated By SHPO
8BR02032	Storage Shed at Cape Canaveral Lighthouse	4 psf	1865	Eligible (Contributor to RG)
8BR2034	Inert Storage Magazine	<2 psf	-	Eligible (Contributor to RG)
8BR2035	Inert Storage Magazine	<2 psf	-	Eligible (Contributor to RG)
8BR2036	Inert Storage Magazine	<2 psf	-	Eligible (Contributor to RG)
8BR2045	45th Space Wing Headquarters	<2 psf	-	Eligible (Contributor to RG)
8BR2046	Administrative Building	<2 psf	-	Eligible (Contributor to RG)
8BR2136	AFTAC	<2 psf	-	Eligible (Contributor to RG)
8BR2144	LC-18 Blockhouse	6 psf	1956	Eligible (Contributor to RG)
8BR2183	LC-9 Launch Platform	4 psf	1953	Eligible (Contributor to RG)
8BR2185	LC-9/10 Blockhouse	4 psf	1953	Eligible (Contributor to RG)
8BR2186	LC-9/10 Pumphouse	6 psf	1953	Eligible (Contributor to RG)
8BR2190*	Little N Storage Building	6 psf	1958	Eligible (Contributor to RG)
8BR2200	LC-13 Launch Pad and Ramp	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2201	LC-13 Flume and Skimming Basin	6 psf	c. 1956	Eligible (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2202	LC-13 LOX Storage Area	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2203	LC-13 Guard Shack	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2204	LC-13 POL Building	6 psf	1960	Eligible (Contributor to RG)
8BR2205	LC-13 Water Demineralization Building	6 psf	1957	Eligible (Contributor to RG)
8BR2206	LC-13 Gantry Rails and Parking Area	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2207	LC-13 Propellant Facility	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2208	LC-13 POL Building	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2210	LC-14 Launch Pad and Ramp	6 psf	1957	NHL Listed (Contributor to RG)
8BR2211	LC-14 Propellent Transfer Unit	6 psf	1957	NHL Listed (Contributor to RG)
8BR2212	LC-14 JP-4 Facility	6 psf	1957	NHL Listed (Contributor to RG)
8BR2214	LC-14 LOX Storage Area	6 psf	1957	NHL Listed (Contributor to RG)
8BR2215	LC-14 Flume and Skimming Basin	6 psf	1957	NHL Listed (Contributor to RG)
8BR2216	LC-14 Blockhouse	6 psf	1957	NHL Listed (Contributor to RG)
8BR2217	LC-14 Ready Building	6 psf	1957	NHL Listed (Contributor to RG)
8BR2218	LC-14 Communications Cable Building	6 psf	1957	NHL Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2219	LC-14 Water Demineralization Building	6 psf	1957	NHL Listed (Contributor to RG)
8BR2220	LC-14 LOX Storage Area	6 psf	1957	NHL Listed (Contributor to RG)
8BR2221	Mercury Memorial	6 psf	1957	NHL Listed (Contributor to RG)
8BR2233	Recreational Storage Building	6 psf	1958	Eligible
8BR2236	LC-3/4 Blockhouse	4 psf	1951	Eligible (Contributor to RG)
8BR2237	LC-3 Launch Pad	4 psf	1951	Eligible (Contributor to RG)
8BR2238	LC-4 Launch Pad	4 psf	1950	Eligible (Contributor to RG)
8BR2240	Bomare Building	4 psf	1955	Eligible (Contributor to RG)
8BR2241	Comp. and Cool Building	4 psf	1955	Eligible (Contributor to RG)
8BR2242	High Pressure Air Facility	6 psf	1951	Eligible (Contributor to RG)
8BR2249	LC-1/2 Blockhouse	4 psf	1951	Eligible (Contributor to RG)
8BR2250	LC-1 Launch Pad	4 psf	1951	Eligible (Contributor to RG)
8BR2251	LC-2 Launch Pad	4 psf	1951	Eligible (Contributor to RG)
8BR2252	Transformer Building	6 psf	1951	Eligible (Contributor to RG)
8BR2253	LC-23/24 Snark Pad	4 psf	1953	Eligible (Contributor to RG)
8BR2261	LC-19 Blockhouse	6 psf	1959	NHL Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2262	LC-19 Cableway	6 psf	1959	NHL Listed (Contributor to RG)
8BR2263	LC-19 Decontamination Building	6 psf	1959	NHL Listed (Contributor to RG)
8BR2264	LC-19 Launch Stand and Ramp	6 psf	1959	NHL Listed (Contributor to RG)
8BR2266	LC-19 Instrumentation Building	6 psf	1959	NHL Listed (Contributor to RG)
8BR2267	LC-19 Oxidizer Holding Area	6 psf	1959	NHL Listed (Contributor to RG)
8BR2268	LC-19 Theodolite Building No. 1	6 psf	1959	NHL Listed (Contributor to RG)
8BR2269	LC-19 Fuel Holding Area	6 psf	1959	NHL Listed (Contributor to RG)
8BR2270	LC-19 Flume and Catchment Building	6 psf	c. 1956	NHL Listed (Contributor to RG)
8BR2271	LC-19 Theodolite Building No. 2	6 psf	1961	NHL Listed (Contributor to RG)
8BR2280	LC-34 Blockhouse	6 psf	1969	NHL Listed (Contributor to RG)
8BR2281	LC-34 High Pressure Gas Storage Facility	6 psf	1960	NHL Listed (Contributor to RG)
8BR2282	LC-34 Oxidizer Storage Facility	6 psf	1959	NHL Listed (Contributor to RG)
8BR2283	LC-34 Oxygen Storage Building	6 psf	1959	NHL Listed (Contributor to RG)
8BR2284	LC-34 Theodolite Building	6 psf	1965	NHL Listed (Contributor to RG)
8BR2285	LC-34 Toxic Vapor Disposal Pad	6 psf	1959	NHL Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2286	LC-34 RP-1 Storage Facility	6 psf	1960	NHL Listed (Contributor to RG)
8BR2287	LC-34 RP-1 Electrical Equipment Building	6 psf	1960	NHL Listed (Contributor to RG)
8BR2288	LC-34 RP-1 Special Liquids Storage Building	6 psf	1960	NHL Listed (Contributor to RG)
BBR2289	LC-34 Cableway	6 psf	1960	NHL Listed (Contributor to RG)
3BR2290	LC-34 Launch Pad	6 psf	1959	NHL Listed (Contributor to RG)
8BR2291	LC-34 Mobile Service Tower Parking Area	6 psf	1959	NHL Listed (Contributor to RG)
3BR2292	LC-34 Launch Pedestal	6 psf	1959	NHL Listed (Contributor to RG)
8BR2293	LC-34 Flame Deflectors and Deflector Parking Area	6 psf	1959	NHL Listed (Contributor to RG)
8BR2294	LC-34 Launch Pad Environmental Control Building	6 psf	1959	NHL Listed (Contributor to RG)
3BR2295	LC-34 Flume and Catchment Basin	6 psf	1961	NHL Listed (Contributor to RG)
3BR2296	LC-34 Liquid Hydrogen Electrical Equipment Building	6 psf	1963	NHL Listed (Contributor to RG)
3BR2297	LC-34 High Pressure Hydrogen Storage Facility	6 psf	1965	NHL Listed (Contributor to RG)
3BR2298	LC-34 Automatic Ground Control Station	6 psf	1959	NHL Listed (Contributor to RG)
BBR2299	LC-34 Liquid Hydrogen Storage Facility	6 psf	1963	NHL Listed (Contributor to RG)
8BR2300	LC-34 High Pressure Gas Storage Battery	6 psf	1959	NHL Listed (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2322	LC-16 Blockhouse	6 psf	1959	Eligible (Contributor to RG)
8BR2333	LC-36 Blockhouse	4 psf	1959	Eligible (Contributor to RG)
8BR2348	NRC Experimentation Facility	4 psf	1952	Eligible (Contributor to RG)
8BR2353	Hangar K	6 psf	1957	Eligible (Contributor to RG)
8BR2370	LC-17 Blockhouse	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2371	LC-17 Alignment Building	4 psf	1970	Eligible (Contributor to RG)
8BR2372	LC-17B Launch Pad	4 psf	1959	Eligible (Contributor to RG)
8BR2373	LC-17B Mobile Service Tower	4 psf	1959	Eligible (Contributor to RG)
8BR2374	LC-17B Umbilical Tower	4 psf	1956	Eligible (Contributor to RG)
8BR2375	LC-17 Deluge Basin	6 psf	1956	Eligible (Contributor to RG)
8BR2376	LC-17A Launch Pad	6 psf	1959	Eligible (Contributor to RG)
8BR2377	LC-17A Mobile Service Tower	4 psf	1956	Eligible (Contributor to RG)
8BR2378	LC-17A Umbilical Tower	4 psf	1956	Eligible (Contributor to RG)
8BR2379	LC-17A Deluge Basin	4 psf	1956	Eligible (Contributor to RG)
8BR2380	LC-17 Switch Control Building	4 psf	1958	Eligible (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2381	LC-17 Electrical Distribution Building	4 psf	1958	Eligible (Contributor to RG)
8BR2382	LC-17 Change and Rest Home	4 psf	1968	Eligible (Contributor to RG)
8BR2383	LC-17 Cases Storage Area	4 psf	1956	Eligible (Contributor to RG)
8BR2384	LC-17B DIGs Building	4 psf	1973	Eligible (Contributor to RG)
8BR2385	LC-17A DIGs Building	6 psf	1973	Eligible (Contributor to RG)
8BR2386	LC-17 Chiller Building	4 psf	1994	Eligible (Contributor to RG)
8BR2387	LC-17 UPS Building	4 psf	1969	Eligible (Contributor to RG)
8BR2388	LC-17 RP-1 Storage Building	6 psf	1956	Eligible (Contributor to RG)
8BR2389	LC-17 LH2 Storage Area	4 psf	1956	Eligible (Contributor to RG)
8BR2390	LC-17 Paint, Oil, and Lubricant Building	6 psf	1967	Eligible (Contributor to RG)
8BR2391	LC-17 Delta Operations Building	4 psf	1958	Eligible (Contributor to RG)
8BR2392	LC-17 Battery Laboratory	4 psf	1958	Eligible (Contributor to RG)
8BR2393	LC-17 Electrical Distribution Building	4 psf	1958	Eligible (Contributor to RG)
8BR2394	LC-17 Locker and Storage Facility	6 psf	1958	Eligible (Contributor to RG)
8BR2397	GPI Camera Pad	6 psf	c. 1956	Eligible (Contributor to RG)

Table 4-7. Previously Recorded NRHP-listed and NRHP-eligible Resources at CCSFS.

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2398	GPI Camera Pad	6 psf	c. 1956	Eligible (Contributor to RG)
8BR2454	Hangar AO	6 psf	c. 1964	Not Evaluated By SHPO
8BR2480	Heavy Equipment Shop	6 psf	1956	Eligible (Contributor to RG)
8BR2516	LC-32 Blockhouse	6 psf	1959	Not Evaluated By SHPO
8BR2517	LC-31 Blockhouse	4 psf	1959	Not Evaluated By SHPO
8BR2519	LC-25 Blockhouse	6 psf	1958	Eligible (Contributor to RG)
8BR2520	LC-25 Electrical Distribution Building	6 psf	1958	Eligible (Contributor to RG)
8BR2021	LC-25 Substation	6 psf	1958	Eligible (Contributor to RG)
8BR2022	LC-25 Pad A/B Instrumentation Ditches	6 psf	1958	Eligible (Contributor to RG)
8BR2523	LC-25 Pad A	6 psf	1958	Eligible (Contributor to RG)
8BR2524	LC-25 Pad B	6 psf	1958	Eligible (Contributor to RG)
8BR2525	LC-25 Pad C/D Instrumentation Ditches	6 psf	1958	Eligible (Contributor to RG)
8BR2526	LC-25 Pad C/D	6 psf	1958	Eligible (Contributor to RG)
8BR2527	LC-25 C Missile Access Stand	6 psf	1958	Eligible (Contributor to RG)
8BR2528	Pad Service Building	6 psf	1958	Eligible (Contributor to RG)
8BR2530	LC-29 Blockhouse	6 psf	1960	Eligible (Contributor to RG)
8BR2531	LC-29 Substation	6 psf	1960	Eligible (Contributor to RG)

FMSF/NRHP Number	Resource Name	PSF Threshold	Year Built/Period of Significance	SEARCH Recommendation
8BR2532	LC-29 Instrumentation Tunnel	6 psf	1960	Eligible (Contributor to RG)
8BR2533	LC-29 Pad A	6 psf	1960	Eligible (Contributor to RG)
8BR2536	Hangar AA	6 psf	1959	Eligible (Contributor to RG)
8BR2537	Hangar AM	6 psf	1964	Eligible (Contributor to RG)
8BR2538	Satellite Processing Facility	6 psf	1964	Eligible (Contributor to RG)
8BR2546	Hangar F	6 psf	1955	Eligible (Contributor to RG)
8BR2587	Hangar G	6 psf	1956	Eligible (Contributor to RG)
8BR2588	Hangar U	6 psf	1958	Eligible (Contributor to RG)
8BR2590	Mission Control Center	6 psf	1956	Eligible (Contributor to RG)
8BR2905*	BOSU	6 psf	1964	Not Evaluated By SHPO
Cemeteries				
8BR2354	Penny Cemetery	6 psf	c. 1890	Insufficient Information
8BR2355	Quarterman North Cemetery	6 psf	c. 1920	Not Evaluated By SHPO
8BR2356	Quarterman South Cemetery	6 psf	c. 1869	Not Evaluated By SHPO
8BR3366	Wilson Cemetery	4 psf	c. 1940	Insufficient Information
8BR2352	Burnham Cemetery	4 psf	c. 1866	Insufficient Information
8BR0233	Cape Road Cemetery	4 psf	c. 1894	Insufficient Information
8BR2358	Stinktown Cemetery	4 psf	1913	Eligible
8BR2357	Osman Cemetery	6 psf	c. 1913	Eligible

<sup>\*</sup>NASA KSC resources within CCSFS. Also included in Table 4-6.

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5 RESEARCH DESIGN

Because thousands of unrecorded buildings and structures are within the operational APE, NASA KSC, in consultation with the FAA and the Florida SHPO, developed an identification approach to make a reasonable and good faith effort to identify historic properties within the APE that may be affected by the undertaking. Identification efforts focused on historic properties greater than 45 years of age, in areas that have not been surveyed within the last 10 years and limited to those historic properties and potential historic properties that may reasonably be affected by the undertaking. This identification and evaluation approach is aligned with standard FAA practice for compliance with Section 106 of the NHPA and its implementing regulations and is consistent with Chapter 8 of the FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015).

This research design and the methods presented in this section were discussed with and presented in a technical report to the Florida SHPO, who concurred with the approach in a meeting on January 23, 2025.

# **5.1** POTENTIAL FOR ADVERSE EFFECTS

Per 36 Code of Federal Regulations 800.5, a federal undertaking has an adverse effect on a historic property when it diminishes one or more aspects of integrity to the extent that the property no longer conveys its significance per Criteria A–D for listing in the NRHP. NRHP eligibility is defined in 36 Code of Federal Regulations 60.4, under the authority of the National Historic Preservation Act of 1972, as amended: The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,

- **Criterion A** (Event). Association with one or more events that have made a significant contribution to the broad patterns of national, state, or local history.
- Criterion B (Person). Association with the lives of persons significant in the past.
- **Criterion C** (Design/Construction). Embodiment of distinctive characteristics of a type, period, or method of construction; or representation of the work of a master; or possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction.
- **Criterion D** (Information Potential). Properties that yield, or are likely to yield, information important in prehistory or history. Criterion D is most often (but not exclusively) associated with archaeological resources. To be considered eligible under Criterion D, sites must be associated with specific or general patterns in the development of the region. Therefore, sites become significant when they are seen within the larger framework of local or regional development.

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The increased vibratory impacts from the undertaking have the potential to cause adverse effects 1067 1068 to cultural resources, including archaeological sites, buildings, structures, objects, and historic 1069 districts. While there is the potential for such adverse effects due to the vibratory and sonic-1070 boom overpressure events related to SSH activities, notably, no studies have been completed in 1071 Florida, to date, that examine these types of impacts to cultural resources. In 2021 an analysis 1072 was conducted that specifically addressed potential impacts on cultural resources from engine 1073 noise and sonic booms associated with static tests and launches from the proposed Blue Origin 1074 Orbital Launch Site in Santa Barbara County, California (Nocerino et al. 2021). The results of this 1075 analysis and few other studies inform this section to posit some of the impacts that could be 1076 expected and outline what impacts would be considered an adverse effect to a historic property. 1077 It is also important to acknowledge that some adverse effects to cultural resources are more 1078 obvious than others; while a broken window can be identified immediately following a launch, 1079 for example, an alteration to subsurface archaeological deposits at a site due to vibration or 1080 overpressure events cannot be readily ascertained. This section will examine what is known, and 1081 unknown, concerning vibratory and overpressure impacts, and potential adverse effects to 1082 cultural resources.

For above-ground resources, including buildings, structures, objects, and historic districts, an understanding of the resource's character-defining features is integral to assessing adverse effects. Such features could include neon signage or a rural setting. For an archaeological resource, adverse effects are typically physical impacts that alter features or archaeological deposits and thus reduce the site's research potential.

Current literature does indicate that high sound pressure levels and vibrations have the potential to cause building/structural damage. In general, however, structural damage to buildings due to propulsion/engine noise is rare. The historic building element "most susceptible to damage from launch vehicle noise [are] windows, and more infrequently, plastered walls and ceilings" (Nocerino et al. 2021:15). Masonry buildings and structures are most susceptible to vibration damage through the "wearing of joints...which can cause load to be redistributed due to a weakening of a structural member" (National Cooperative Highway Research Program [NCHRP] 2012a:35). Further, vibration effects may be greatest to "non-structural building elements [such as] fragile glass, loose plaster mosaics or pieces of stone" (NCHRP 2012a:36). Previous analysis also indicates "wood and steel are more elastic than masonry, such as brick and stone" (NCHRP 2012a:2). Therefore, increased exposure to vibration may diminish the integrity of a resource's significant historic features.

Sonic booms also have the potential to result in structural damage. A large degree of variability exists in the possible effects of a sonic boom. For example, the probability of a window breaking when exposed to a sonic boom of 1 psf ranges from one in a billion to one in a million (Sutherland 1990) with much of the variability depending upon the condition of the glass. At 10 psf, the probability of glass breaking is between 1 in 100 and 1 in 1,000. Laboratory tests involving glass have shown that properly installed glass will not break at overpressures below 10 psf, even when exposed to repeated sonic booms (White 1972). Damage to plaster has the potential to occur in the same range of overpressures as damage to glass. Plaster often cracks due to shrinkage over

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time or due to structural settling. Sonic-boom damage to plaster may occur when internal stresses are already high as a result of these processes. In general, for well-maintained structures, the threshold for potential damage from sonic booms is 2 psf; below 2 psf, damage is unlikely (Haber et al. 1989).

Additionally, the setting and feeling of historic properties may be temporarily altered by the visual, audible, and vibratory effects of the undertaking. Setting refers to the physical environment of a resource, while feeling refers to the aesthetic qualities of a resource as they relate to the specific time during which the resource became significant. The setting and feeling of historic properties may be permanently altered as repeated launches, and the visual, audible, and vibration effects, could have a cumulative impact.

Concerning archaeological resources, there is no research to support that archaeological deposits at or below ground surface are affected by vibratory effects or overpressure effects of increased sonic-boom exposure. Archaeological sites that consist of only surface and/or buried archaeological material were excluded from 2021 analysis of potential impacts at the Blue Origin Orbital Launch Site because it was assumed that soil would protect materials in place (Nocerino et al. 2021). Although there is no research to support that assumption, as it relates to archaeological sites, sound dB and sonic boom overpressure would be significantly lower underground due to sound attenuation, and variables in the air depending on factors such as humidity, temperature and wind profiles (Leal et al. 2021), passing through the interface of the air and ground, and in the soil depending on conditions such as moisture and sediment type. Ground motion resulting from a sonic boom is rare (United States Air Force 2024). Aboveground components of archaeological sites, such as building remains, have the potential to be affected by vibratory or overpressure effects like those described for buildings, structures, objects, and historic districts. These aboveground components of archaeological sites may contribute to their NRHP eligibility. Native American mounds are aboveground features and may have an unstable soil matrix due to lack of sufficient vegetation cover, human or animal disturbances, or are influenced by natural erosion processes and could be vulnerable to vibratory or overpressure effects. In addition, some sites within the APE have the potential to contain interred human remains and the vibratory or overpressure effects have the potential, although low, to compromise the integrity of their deposition. Concerning submerged archaeological deposits, there is limited understanding of how they could be affected by vibratory effects or overpressure effects. A portion of a sound wave that originates above the water would be reflected into the air at the water and air interface depending on the angle of incidence. Water is acoustically dense, and the remaining portion of the sound wave would continue to travel but a sound wave has a higher dB in the air than in water (National Oceanic Atmospheric Administration [NOAA] 2022). Therefore, vibratory and overpressure effects are likely to be significantly less underwater from a sound that originates in the air.

The National Park Service (NPS) provides guidelines for interpreting the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association) as they relate to the potential effects of an undertaking (NPS 1995:45). The effects of the undertaking examined in this report are unlikely to impact the location or association of historic properties within the APE.

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- As noted above, there are limited circumstances in which the effects of vibration may result in damage to above-ground structures. Such damage may potentially affect the design, materials, and workmanship of historic properties, particularly as they relate to exterior and ornamental detailing and other character-defining features.
- Physical adverse effects that could occur due to the proposed undertaking include, but are not limited to:
  - Damage to glass elements, including original single-pane units and stained glass windows;
  - Damage to neon signage on commercial buildings;
  - Weakening to the structural members of a building, including joints;
  - Damage to plaster elements, including plaster and lathe walls and decorative plaster medallions;
  - Damage to fragile roof elements, including steeples, clay tiles, and slate shingles;
  - Damage to poorly mixed or poorly maintained concrete elements, including within structures, headstones, and cemetery vaults;
  - Damage to the loose matrix of a shell midden or mound; and
  - Disarticulation of fragile and fragmentary human remains, within both cemeteries and archaeological sites.

Importantly, there are likely adaptation efforts already in place in this region of Florida that reduce the potential for adverse effects. For example, due to the known, ongoing risk of hurricanes, many buildings in Florida, including historic-age buildings, have been constructed or modified using concrete that is able to withstand powerful storms, and, if properly built, these buildings are less likely to be impacted by vibratory effects. Additional storm proofing for buildings could include reinforced roofs with additional tie-ins, metal strapping to trusses and joints throughout the structure, and the addition of storm shutters, all of which may reduce the risk of structural damage and window breakage. Since this review does not include interviews with building owners or materials analysis, SEARCH cannot know if these measures have been added to or retrofitted onto historic buildings within the APE. Similarly, many of the buildings and structures built for launch and space-related activities at NASA KSC and CCSFS were constructed to withstand concussive forces resulting from launches and engine tests.

## 5.2 METHODS

## **5.2.1** Architectural History Field Methods

Due to the size of the APE and the unique nature of the undertaking, a specialized approach for the identification of historic properties was developed for this study. The architectural history field methods consisted of an intensive architectural survey of previously recorded architectural resources and a windshield survey of unrecorded architectural resources that are likely to be 45 years or older. SEARCH conducted research in the FMSF to inform the strategy of the field methods. In addition, SEARCH reviewed USGS quadrangle maps and available parcel data

(Brevard County Property Appraiser 2025) for buildings and/or structures built prior to 1980 and created color-coded "heat maps" to identify areas of concentration in which previously unrecorded structures that are likely to be 45 years or older to further inform general interpretations on architectural styles, integrity, and development patterns.

Following the background research, architectural history fieldwork was conducted by three teams of two surveyors. One team was tasked with the intensive architectural survey focused on previously recorded architectural resources within the APE, and two teams were tasked with the windshield survey focused on previously unrecorded architectural resources that are likely to be 45 years or older within the APE. Additional windshield survey efforts used heat maps to identify concentrated areas of unrecorded resources, focus the effort, and inform interpretations on architectural styles, distinguishing characteristics, integrity, and notable development patterns. Following fieldwork completion, field notes, field maps, photo logs, and digital photographs returned to SEARCH offices for analysis.

#### **Previously Recorded Resources**

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- One team of two architectural historians completed an intensive architectural survey of previously recorded resources that was informed by the results of the research of the FMSF;
- 2. SEARCH omitted the following previously recorded FMSF resources from the survey:
  - a. Previously recorded resources located on federal lands or federally owned parcels, including NASA KSC and CCSFS (these resources are discussed in **Section 4**).
  - Certain previously recorded linear resource groups, such as roads and canals, which are considered unlikely to be effected by sonic boom overpressure, vibratory, and auditory effects based on existing literature, discussed above;
  - c. Previously recorded resources without SHPO determinations which previous surveyors recommended "ineligible" for NRHP inclusion (including five previously recorded bridges [8BR03009, 8BR03011, 8BR03013, 8BR03938, 8BR04019]), both individually and as resource group contributors; and
  - d. Previously recorded resources without SHPO determinations recommended as "Potential Resource Group contributors" but located outside existing resource group boundaries.
- 3. All NRHP-listed properties and historic properties previously determined NRHP eligible or "potentially eligible" were field verified during intensive survey for character-defining features that may be susceptible to damage.
  - a. SEARCH collected digital photographs and notes about integrity and architectural features from the public Right of Way (ROW).
  - b. SEARCH used these field notes to concur with previous eligibility determinations, or provide updated recommendations, as applicable.
  - c. SEARCH recommends whether or not the SSH activities possess the potential for adverse effects to these resources.
- 4. FMSF resources without SHPO determinations which surveyors previously recommended individually eligible or "potentially eligible" during previous survey were field verified

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during intensive survey for character-defining features that may be susceptible to damage.

- a. SEARCH collected digital photographs and notes about integrity and architectural features from the public ROW.
- b. SEARCH used these field notes to concur with previous eligibility determinations, or provide updated recommendations, as applicable.
- c. SEARCH recommends whether or not the SSH activities possess the potential for adverse effects to these resources.
- 5. FMSF resources located within existing resource group boundaries which were previously recommended as "Potential contributor to NR districts" were surveyed at the resource group level.
  - a. SEARCH collected digital photographs and notes about integrity and architectural features from SEARCH vehicles.
  - b. SEARCH used these field notes to concur with previous resource group contributor eligibility recommendations or provide updated recommendations, as applicable.
  - c. SEARCH recommended whether or not the SSH activities possess the potential for adverse effects to eligible or listed resource groups.
- 6. Individual resources documented in the FMSF without SHPO determinations, surveyor recommendations, or sufficient information were surveyed from SEARCH vehicles to understand development trends, but were not surveyed or recorded individually.
- 7. SEARCH surveyed cemeteries and resource groups without SHPO determinations, surveyor recommendations, or sufficient information. SEARCH entered cemeteries with public access to record notes and digital photographs. SEARCH surveyed resource groups from SEARCH vehicles to record notes and representative digital photographs.
- 8. Previously recorded bridges were identified in the FMSF, and all are associated with KSC. The FDOT bridge inventory was also reviewed to identify any potential historic bridges within the APE outside of federal land holdings. The FDOT bridge inventory did not identify any bridges in the APE constructed prior to 1945. For the purposes of this project, NASA is following guidance within FHWA's Program Comment for Common-1945 Concrete and Steel Bridges for the purposes to identify potentially significant bridges. The FHWA program comment codifies a way for FHWA to process Section 106 of the NHPA for concrete or steel bridges constructed after 1945 that are unexceptional examples of common bridge engineering of the time. It also documents the historic context of post war transportation patterns and exceptional, rare examples, which are then excepted from the streamlining provided by the comment. Florida has identified nineteen bridges that are exceptional examples and excepted from the streamlined process; none of them are located in the APE. As all but four bridges within the APE were constructed after 1945 and do not represent significant patterns of history, associations with significant people, or represent distinctive engineering, as documented with the historic context developed for Florida's implementation of the FHWA program comment, no bridges were newly recorded.

Research Design 5-6

#### Windshield Survey for Unrecorded Resources

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- Two teams of two architectural historians conducted a windshield survey of previously unrecorded architectural resources likely to be 45 years or older within the operational APE. Heat maps depicting areas with a high concentration of previously unrecorded resources were used to inform an additional windshield survey effort to characterize architectural styles, distinguishing characteristics, integrity, and identify notable development patterns;
  - a. Resources were identified by parcel and broken down into four construction periods: Pre-1930, 1931-1945, 1946-1970, and 1971-1979 using historic aerial imagery and topographic maps;
  - b. One survey team covered the area of north of Titusville and Merritt Island;
  - c. One survey team covered the area south of Titusville, as well as Titusville proper;
  - d. Survey teams collected notes and representative digital photographs from SEARCH vehicles.
- 2. SEARCH omitted the following resources from the APE windshield survey:
  - a. All resources located on federal lands or federally owned parcels, including previously recorded resources (these resources are discussed in **Section 4**);
  - Specific linear resource groups, such as roads and canals, including previously recorded resources, which are considered unlikely to be effected by sonic boom overpressure, vibratory, and auditory effects based on existing literature, discussed above;
- 3. Areas with a high concentration of previously unrecorded resources were spot checked as informed by the heat maps to identify distinguishing characteristics, integrity, and how these resources participated in the general development of these areas;
  - a. SEARCH collected digital photographs and notes on specific architectural styles, distinguishing characteristics, integrity, and notable development patterns from SEARCH vehicles;
  - b. Additional digital photographic documentation took place from SEARCH vehicles for resources that possessed materials or craftmanship that may be susceptible to damage (i.e., stained-glass windows, exterior decorative woodwork, etc.);
- 4. Based on the data collected during the survey, SEARCH developed an analysis of general patterns of development for areas of the APE, as well as notable architectural styles and significant alterations to identify resources, materials, and/or architectural characteristics that may be affected by the undertaking.

# 5.2.2 Archaeological Desktop Analysis Methods

The FMSF Geographic Information System database was researched to identify all archaeological sites that are previously documented within the operational APE. Archaeological sites with aboveground components have the potential to be affected by vibratory and overpressure effects like those described for architectural resources. Sites in the FMSF that include a site type description with a clear aboveground component such as precontact mound, building remains, or structures were further researched. Sites that were previously found to be ineligible for listing in the NRHP presumably lack integrity, significant historical associations, and information

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- potential, and were excluded because impacts to these sites are not likely to be significant. In summary, archaeological sites that met all the following criteria within the APE were considered to have the potential for aboveground components that could contribute to NRHP eligibility and be affected by vibratory and overpressure effects:
  - A site type description with a clear aboveground component such as precontact mound, building remains, or structures, and also;
  - Sites that the SHPO has not evaluated or determined the site to be eligible or potentially eligible for listing in the NRHP
- Sites that have the potential to contain human remains were accounted for regardless of the presence of aboveground components or NRHP eligibility due to their sensitive nature. For sites that met the above criteria, modern aerial imagery (Google Earth Pro 2025) and site details recorded in the FMSF for the last field visit were reviewed to assess the likelihood for aboveground components to be extant that may contribute to NRHP eligibility.

#### **5.2.3 Certified Local Government Consultation**

- The City of Titusville is within the APE and is a Certified Local Government (CLG). KSC NASA has initiated Section 106 consultation via the submittal of project information and has requested the
- 1327 CLG's participation as a consulting party to the Section 106 consultation.

Research Design 5-8

1328 **6 RESULTS** 

- 1329 This section presents the results of the intensive architectural history survey that followed the
- background research, the windshield survey of previously unrecorded resources that are likely to
- be 45 years old or older, and the archaeological desktop analysis within the operational APE.

### 6.1 ARCHITECTURAL HISTORY SURVEY RESULTS

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### **6.1.1** Intensive Survey of Previously Recorded Resources

- Background research identified 1,592 total previously recorded architectural resources located
- outside federal lands or federally owned parcels within the APE. SEARCH completed an intensive
- architectural history survey within the APE following the methodology outlined in **Section 5.2**.
- 1337 The intensive architectural history survey included verifying if resources that were determined
- eligible or potentially eligible by SHPO and those that were recommended as such but do not
- have SHPO determinations have character defining features that may be susceptible to damage.
- 1340 The intensive architectural history survey also included identifying if resources located within
- 1341 existing resource group boundaries, those without determinations or recommendations, and
- 1342 cemeteries without determinations or recommendations could be adversely affected by SSH
- activities. The results of this survey are summarized below.

## 1344 Resources Determined NRHP Eligible or Potentially Eligible by SHPO or Recommended NRHP

- 1345 Eligible or Potentially Eligible without SHPO Determinations
- 1346 SEARCH completed intensive architectural history survey and NRHP evaluation for 97 previously
- 1347 recorded resources, including 18 NRHP-listed resources or resource groups, 35 resources or
- 1348 resource groups previously determined eligible or "potentially eligible" by SHPO, and 43
- 1349 resources without SHPO determinations which were previously recommended "NRHP eligible"
- by previous surveys (**Table 6-1**). During survey, SEARCH determined three of these resources are
- misplotted in FMSF data (8BR00465, 8BR00468, and 8BR00678). These resource locations have
- been updated on results figures included in **Appendix C**.
- 1353 Of the 97 previously recorded architectural resources intensively surveyed, SEARCH:
  - confirmed seven resources are no longer extant (8BR00681, 8BR00759, 8BR00946, 8BR00953, 8BR01762, 8BR1763, and 8BR01764);
  - recommends all 18 NRHP-listed resources or resource groups retain sufficient integrity to remain NRHP listed;
  - concurs with previous SHPO determinations that 28 resources, including three cemeteries (8BR01705, 8BR01724, and 8BR01777), one railroad (8BR01870), and four bridges (8BR02906, 8BR02956, 8BR02955, 8BR02957) are "NRHP Eligible"; and recommends the resources remain eligible for NRHP inclusion;
  - recommends one resource previously determined "NRHP eligible" by SHPO is no longer eligible for NRHP inclusion (8BR01765);

6-1 Results

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- concluded one resource previously determined "Potentially Eligible for NRHP" by SHPO is not visible from Right of Way (ROW) (8BR01812). Therefore, its current NRHP eligibility could not be evaluated/updated;
- 1367 1368
- recommends 36 resources without SHPO determinations which were recommended "NRHP eligible" by previous surveys are eligible for NRHP inclusion;
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- recommends one resource without a SHPO determination, which was recommended "NRHP eligible" by previous surveys, is eligible for NRHP inclusion only as a resource group contributor (8BR00703); and,
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- recommends 5 resources without SHPO determinations, which were recommended "NRHP eligible" by previous surveys, are not eligible for NRHP inclusion.

#### 1374 Effects Evaluation

- 1375 When exposed to levels between 2 and 4 psf, structural components, including glass and plaster, 1376 demonstrate damage at a higher rate than expected due to natural wear in well-maintained 1377 structures (Haber et al. 1989). Activities associated with SSH operation have the potential to 1378 impact historic properties in the APE, although the precise nature of adverse effects to individual 1379 historic properties is unknown. Therefore, SEARCH assessed, to the extent feasible, the types of 1380 previously recorded resources that could be affected, based on their architectural characteristics, 1381 materials, alterations and/or architectural styles. For NRHP-eligible or listed resources without 1382 photographic access during survey, SEARCH used previous FMSF documentation and 1383 photographs to understand the potential for adverse effects to these historic properties.
- 1384 SEARCH determined the majority of extant NRHP-listed or eligible buildings are Frame Vernacular style (27 resources) (Table 6-1). This style is characterized by balloon-frame construction, simple 1385 1386 rectangular or square plans, one- or two-story heights, wood siding, and minimal exterior 1387 ornamentation (McAlester 2013). Frame Vernacular style buildings are common throughout 1388 Florida. This architectural style typically does not include attached exterior ornamentation that 1389 may be adversely affected by SSH-related vibration or overpressure events. Additionally, during 1390 intensive survey SEARCH observed many of the resources throughout the APE no longer retained 1391 original wood frame sash windows, which have been replaced over time with metal frame or 1392 vinyl frame sash windows.
- 1393 Additional styles, including Georgian Revival (10 resources), Mediterranean Revival (7 resources), 1394 Queen Anne Revival (6 resources), Neoclassical Revival (2 resources), Gothic Revival (1 resource) 1395 and others, were observed during intensive survey in lesser numbers throughout the APE (see 1396 Table 6-1). Though styles like Queen Anne Revival, Neoclassical Revival, and Gothic Revival styles 1397 do feature exterior ornamentation, SEARCH determined during survey that the buildings 1398 representative of these styles within the APE do not possess plentiful ornamentation or high style 1399 decorative elements. Additionally, many of these buildings no longer possess their original wood 1400 frame sash windows. Original multi-light, stained glass windows found on Gothic Revival style 1401 buildings (8BR00177/St. Gabriel's Episcopal Church [2 psf]) are enclosed by fixed plexiglass panels 1402 or modern glass panes. Additionally, other NRHP listed or eligible buildings - such as the Queen 1403 Anne Revival 8BR00524/Pritchard House (2 psf) and 8BR00699/27 Barton Avenue (2 psf), and the

Georgian Revival 8BR00721/1125 Rockledge Drive (2 psf) - possess functional louvered storm shutters or fixed fiberglass storm shutters.

1406 SEARCH identified 8BR00444, a ca. 1915 Craftsman style residence at 1423 Main Street (2 psf) on 1407 the western outer range of the historic core of Titusville. The resource has been previously 1408 recorded and recommended NRHP eligible for its significance under Criterion C but lacks a SHPO 1409 eligibility determination. Resource 8BR00444 is a good local example of the Craftsman style. 1410 Similar examples of smaller Craftsman houses were observed throughout the APE but not in the 1411 frequency as Spanish Revival or Mission styles of similar massing. Of those observed, this 1412 resource embodies the characteristics of the style, such as low-pitched gable roof, unenclosed 1413 eave overhang, braces or brackets, large, dominant incised porches, tapered columns, dormers 1414 and balconies (McAlester 2013). One of the distinctive features of this example is the leaded, 1415 multipaned sash over a single pane. SEARCH recommends the resource is eligible for NRHP 1416 inclusion for its significance under Criterion C; and recommends it retains sufficient integrity to 1417 convey that significance.

- The three cemeteries included in intensive survey (8BR01705/Indianola Pioneer Cemetery [2 psf], 8BR01724/Hilltop Cemetery [2 psf], and 8BR01777/Cocoa Cemetery [2 psf]) do not possess any high styles (see **Table 6-1**). Markers are primarily vernacular, low profile stone or concrete headstones, slabs, or vaults. SEARCH determined during survey these cemeteries do not possess intentional landscape design, are not intended to serve recreational purposes, and are located within maintained vegetated areas.
- 1424 The five resource groups included in intensive survey (8BR00560/Titusville Commercial District 1425 [2 psf], 8BR01611/Rockledge Drive Residential District [2 psf], 8BR01612/Valencia Subdivision 1426 Residential District [2 psf], 8BR01613/Barton Avenue Residential District [2 psf], and 1427 8BR04229/Johnathan H. Sams Farmstead [4 psf]) are primarily Frame Vernacular, Mediterranean 1428 Revival, Queen Anne Revival, and/or Spanish Colonial Revival in style (see Table 6-1). Frame 1429 Vernacular, Mediterranean Revival and Spanish Revival styles are not characterized by ornate 1430 exterior ornamentation. Additionally, many original wood-frame sash or casement windows 1431 throughout the resource groups have been replaced over time with metal or vinyl frame types.
- The two bridges included in intensive survey (8BR02906/Jay Jay [2 psf] and 8BR02957/Haulover Canal [2 psf]) are two bascule bridges built in the 1960s. Two additional bridges (8BR02955/Banana River Bridge and 8BR02956/Indian River [demolished]) are located in the APE. These are discussed in **Section 4.2.1** and **Table 4.6**.
- SSH-related operational activities will result in vibratory and sonic-boom overpressure events that would meet or exceed 2 psf. Events at the 2 psf threshold have a 1:10,000 chance of breaking windows. As such, the undertaking may possess the potential for adverse effects to Resource 8BR00444. The breakage of leaded glass windows would be considered an adverse effect under Section 106 of the NHPA. Additionally, SEARCH identified terra cotta barrel tiles often used for Spanish Revival and Mission Revival roofing material may be adversely affected by SSH activities.

6-3 Results

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Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
Resource Groups							
8BR00560/NRHP #89002164	Titusville Commercial District	2 psf	Spanish Colonial Revival; Neoclassical Revival	1890– 1930	NRHP Listed	NRHP Listed	
8BR01611/NRHP #92001045	Rockledge Drive Residential District	2 psf	Frame Vernacular; Colonial Revival; Queen Anne; Mediterranean Revival; Bungalow	1880– 1926	NRHP Listed	NRHP Listed	
8BR01612/NRHP #92001047	Valencia Subdivision Residential District	2 psf	Mediterranean Revival; Mission Revival	1924– 1926	NRHP Listed	NRHP Listed	At YOU
8BR01613/NRHP #92001046	Barton Avenue Residential District	2 psf	Frame Vernacular; Colonial Revival; Queen Anne; Mediterranean Revival; Bungalow	1884– 1926	NRHP Listed	NRHP Listed	
8BR04229	Jonathan H. Sams Farmstead	4 psf	Frame Vernacular	1878	Eligible	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style		Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR01870	Florida East Coast Railroad	2 psf	N/A	1821- 1929	Eligible	Eligible	No Photo
Buildings							
8BR00177/NRHP #72000302	St. Gabriel's Episcopal Church	2 psf	Gothic Revival	1887	NRHP Listed	NRHP Listed	
8BR00211/NRHP #86000023	E.P. Porcher House	2 psf	Georgian Revival	1916	NRHP Listed	NRHP Listed	
8BR00278/NRHP #100003581	Cocoa Junior High	2 psf	Masonry vernacular	ca. 1924	NRHP Listed	NRHP Listed	
8BR00282/NRHP #91001541	Aladdin Theater Building	2 psf	Italian Renaissance Revival	1924	NRHP Listed	NRHP Listed	
8BR00397/NRHP #89002165	Wager House	2 psf	Frame Vernacular	ca. 1891	NRHP Listed	NRHP Listed	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number	Name/Address	Threshold	Style	Built	Determination	Recommendation	Nesource Photograph
8BR00399/NRHP #89002168	Judge George Robbins House	2 psf	Georgian Revival	ca. 1892	NRHP Listed	NRHP Listed	
8BR00480/NRHP #89002166	Spell House	2 psf	Queen Anne	ca. 1911	NRHP Listed	NRHP Listed	
8BR00524/NRHP #89002167	Pritchard House	2 psf	Queen Anne	1891	NRHP Listed	NRHP Listed	
8BR00581/NRHP #90000848	St. Luke's Episcopal Church	4 psf	Frame Vernacular	1889	NRHP Listed	NRHP Listed	
8BR00860/NRHP #93000819	Dr. George E. Hill House	2 psf	Frame Vernacular	ca. 1880	NRHP Listed	NRHP Listed	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR01657/NRHP #95000731	City Point Community Church	2 psf	Frame Vernacular	1885	NRHP Listed	NRHP Listed	
8BR01702/NRHP #97001121	J.R. Field Homestead	2 psf	Frame Vernacular	ca. 1900	NRHP Listed	NRHP Listed	
8BR01825/NRHP #100003582	Cocoa Post Office	2 psf	Art Deco	1940	NRHP Listed	NRHP Listed	
8BR04215/NRHP #100006776	Imperial Towers	2 psf	Mid-Century Modern	ca. 1963	NRHP Listed	NRHP Listed	
8BR00425	422 Julia Street	2 psf	Mission	1926	Eligible	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number	Name/Address	Threshold	Style	Built	Determination	Recommendation	Resource Photograph
8BR00426	428 Julia Street	2 psf	Masonry Vernacular	1905	Eligible	Eligible	
8BR00430	423 Main Street	2 psf	Frame Vernacular	ca. 1910	Eligible	Eligible	
8BR00444	1423 Main Street	2 psf	Craftsman	ca. 1915	Not Evaluated	Eligible	
8BR00465	Brevard County Courthouse	2 psf	Neo-Classical Revival	ca. 1912	Eligible	Eligible	
8BR00467	423 Palm Avenue	2 psf	Masonry Vernacular	1901	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00468	420 Pine Street	2 psf	Mission Revival	1925	Eligible	Eligible	
8BR00508	300 Washington Avenue S	2 psf	Beaux Arts Eclecticism	ca. 1925	Not Evaluated	Eligible	
8BR00586	351 Rockledge Drive	2 psf	Georgian Revival	1923	Not Evaluated	Eligible	
8BR00617	515 Rockledge Drive	2 psf	Frame Vernacular	ca. 1925	Not Evaluated	Eligible	
8BR00620	Dr. S.D. Rambo Residence	2 psf	Frame Vernacular	ca. 1900	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number 8BR00640	635 Rockledge Drive	Threshold 2 psf	Stick	ca.	Not Evaluated	Recommendation  Eligible	
8BR00641	633 Rockledge Drive	2 psf	Georgian Revival	ca. 1910	Not Evaluated	Eligible	
8BR00642	629 Rockledge Drive	2 psf	Queen Anne	ca. 1915	Not Evaluated	Eligible	
8BR00644	621 Rockledge Drive	2 psf	Frame Vernacular	ca. 1890	Not Evaluated	Eligible	
8BR00648	709 Rockledge Drive	2 psf	Mediterranean Revival	ca. 1915	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00668	106 Valencia Road	2 psf	Beaux Arts Eclecticism	ca. 1925	Not Evaluated		
8BR00678	133 Valencia Road	2 psf	Mediterranean Revival	ca. 1925	Not Evaluated	Eligible	
8BR00681	825 Osceola Drive	2 psf	Mediterranean Revival	ca. 1926	Eligible	Not Eligible (Demolished)	
8BR00685	26 Orange Avenue	2 psf	Mission Revival	ca. 1925	Not Evaluated	Eligible	
8BR00698	23 Barton Avenue	2 psf	Frame Vernacular	ca. 1890	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number	Name/Address	Threshold	Style	Built	Determination	Recommendation	Resource Filotograph
8BR00699	27 Barton Avenue	2 psf	Queen Anne	ca. 1890	Not Evaluated	Eligible	
8BR00700	White's Cottage	2 psf	Frame Vernacular	ca. 1875	Not Evaluated	Eligible	
8BR00702	Andrew Anderson Jr. Residence	2 psf	Queen Anne	ca. 1890	Not Evaluated	Eligible	The second secon
8BR00703	34 Barton Avenue	2 psf	Queen Anne	ca. 1890	Not Evaluated	Eligible as RG Contributor (Barton Avenue Residential District)	
8BR00705	39 Barton Avenue	2 psf	Frame Vernacular	ca. 1890	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number	·	Threshold	,	Built	Determination	Recommendation	
8BR00715	St. Mary's Catholic Church	2 psf	Frame Vernacular	ca. 1917	Not Evaluated	Eligible	
8BR00719	1101 Rockledge Drive	2 psf	Frame Vernacular	ca. 1900	Not Evaluated	Eligible	
8BR00720	1119 Rockledge Drive	2 psf	Georgian Revival	ca. 1910	Not Evaluated	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR00721	1125 Rockledge Drive	2 psf	Georgian Revival	ca. 1910	Not Evaluated	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR00724	Troy E. Caldwell Residence	2 psf	Georgian Revival	ca. 1905	Eligible	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year	Prior SHPO	SEARCH Recommendation	Resource Photograph
8BR00729	1273 Rockledge Drive	2 psf	Frame Vernacular	ca. 1905	Potentially	Eligible	
8BR00730	1277 Rockledge Drive	2 psf	Frame Vernacular	ca. 1915	Eligible	Eligible	
8BR00731	1279 Rockledge Drive	2 psf	Frame Vernacular	ca. 1887	Potentially Eligible	Eligible	
8BR00743	1341 Rockledge Drive	2 psf	Mediterranean Revival	ca. 1920	Potentially Eligible	Eligible	
8BR00759	Marion S. Whaley Citrus Packing House	2 psf	Frame Vernacular	1930	Eligible	Not Eligible (demolished)	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00871	John Miot House	2 psf	Frame Vernacular	1920	Potentially Eligible	Eligible	
8BR00889	6195 N Tropical Trail	4 psf	Frame Vernacular	ca. 1882	Not Evaluated	Eligible	
8BR00946	Melissa Moore house	2 psf	Frame Vernacular	ca. 1890	Not Evaluated	Not Eligible (Demolished)	
88BR00953	Mt. Moriah AME Church	2 psf	Gothic Revival	1923	Eligible	Not Eligible (Demolished)	
8BR00991	Old Weathers House	2 psf	Masonry Vernacular	ca. 1930	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year	Prior SHPO	SEARCH Recommendation	Resource Photograph
8BR01023	Snider House	2 psf		63	Not Evaluated		
8BR01035	Claranet Inn	2 psf	Georgian Revival	ca. 1924	Not Evaluated	Eligible	
8BR01039	E.C. Johnson House	2 psf	Georgian Revival	ca. 1905	Not Evaluated	Eligible	
8BR01046	719 Forest Avenue	2 psf	Mediterranean Revival	ca. 1930	Not Evaluated	Eligible	
8BR01066	Charles B. Provost House	2 psf	Frame Vernacular	ca. 1910	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO	SEARCH Recommendation	Resource Photograph
	Gertrude Alfred House	2 psf	Neo-Classical Revival		Not Evaluated	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR01076	John D'Albora House	2 psf	Georgian Revival	ca. 1935	Not Evaluated	Eligible	a Brugg
8BR01078	Charles Smith House	2 psf	Georgian Revival	ca. 1938	Not Evaluated	Eligible	
8BR01082	Carl Schnabel House	2 psf	Frame Vernacular	ca. 1895	Not Evaluated	Eligible	
8BR01084	Norman Clindenen House	2 psf	Bungalow	ca. 1908	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO	SEARCH Recommendation	Resource Photograph
	3113 Indian River Drive	2 psf	Mediterranean Revival	1900	Potentially Eligible	Eligible	
8BR01094	2515 McFarland Drive	2 psf	Mediterranean Revival	ca. 1924	Not Evaluated	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR01096	2415 McFarland Drive	2 psf	Georgian Revival	ca. 1924	Not Evaluated	Eligible	
8BR01101	2205 McFarland Drive	2 psf	Masonry Vernacular	ca. 1926	Not Evaluated	Eligible	
8BR01163	Mattie Lamar House	2 psf	Frame Vernacular	1917	Eligible	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP Number	Name/Address	psf Threshold	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR01723	Cocoa Cemetery Storage Building	2 psf	Masonry Vernacular	ca. 1931	Eligible	Eligible	
8BR01739	Ashley's Café and Lounge	2 psf	Tudor Revival	ca. 1932	Eligible	Eligible	
8BR01741	Rockledge Gardens Nursery and Landscaping	2 psf	Industrial Vernacular	ca. 1930	Eligible	Eligible	
8BR01762	Reynolds Oil Gasoline Tanks	2 psf	Industrial Vernacular	ca. 1927	Potentially Eligible	Not Eligible (Demolished)	No Photo
8BR01763	Reynolds Oil Pump House	2 psf	Industrial Vernacular	ca. 1927	Potentially Eligible	Not Eligible (Demolished)	No Photo
8BR01764	Reynolds Oil Office/Warehouse	2 psf	Industrial Vernacular	ca. 1927	Potentially Eligible	Not Eligible (Demolished)	No Photo
8BR01765	Bohn Equipment Company	2 psf	Industrial Vernacular	ca. 1927	Eligible	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR01812	1265 Rockledge Drive "Hunting Lodge"	2 psf	Frame Vernacular	ca. 1905	Potentially Eligible	No Access	No Photo

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	Name/Address	psf	Style	Year	Prior SHPO	SEARCH	Resource Photograph
Number	Name/Address	Threshold	Style	Built	Determination	Recommendation	Resource Photograph
8BR01873	John Sam's House	4 psf	Frame Vernacular	ca. 1875	Not Evaluated	Eligible	
8BR02704	400 Lucerne Drive	2 psf	Mid-Century Modern	ca. 1966	Eligible	Eligible	
8BR02779	317 Rosa Jones Drive	2 psf	Masonry vernacular	1962	Eligible	Eligible	
8BR03378	Cape Canaveral Original City Hall	4 psf	Mid-Century Modern	1965	Not Evaluated	Not Eligible (lack of significant associations or distinctive characteristics)	
8BR03614	The Norwood House	2 psf	Frame Vernacular	1920	Not Evaluated	Eligible	

Table 6-1. Intensive Architectural History Survey Results Summary.

FMSF/NRHP	ive Architectural History Survey Results s	psf		Year	Prior SHPO	SEARCH	
Number	Name/Address	Threshold	Style			Recommendation	Resource Photograph
8BR03955	2460 Courtenay Parkway N	2 psf	Mid-Century Modern	ca. 1965	Eligible	Eligible	
Cemeteries							
8BR01705	Indianola Pioneer Cemetery	2 psf	N/A	ca. 1890	Eligible (6/24/2022)	Eligible	
8BR01724	Hilltop Cemetery	2 psf	N/A	ca. 1887	Eligible (6/24/2011)	Eligible	
8BR01777	Cocoa Cemetery	2 psf	N/A	ca. 1890	Eligible (10/01/2010)	Eligible	
Bridges							
8BR02906	Jay Jay	2 psf	Bascule	ca. 1963	Eligible	Eligible	No Photo
8BR02957	Haulover Canal	2 psf	Bascule	1965	Eligible	Eligible	No Photo

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# Resources Within Existing Resource Group Boundaries, Those Without Determinations or Recommendations, and Cemeteries Without Determinations or Recommendations

There are 142 previously recorded resources, within existing resource group boundaries without determinations or recommendations, or cemeteries without determinations or recommendations including:

- 125 resources within existing resource group boundaries but without SHPO determinations recommended by previous surveyors as "NRHP Eligible as Potential Resource Group Contributors;"
- 11 cemeteries without SHPO determinations noted in FMSF data as having "insufficient information" for eligibility determinations, or no recorded surveyor data; and,
- Six resource groups without SHPO determinations noted in FMSF data as having "insufficient information" for eligibility determinations, or no recorded surveyor data.

Background research identified 164 additional previously recorded resources without SHPO determinations that were recommended by previous surveyors as "NRHP Eligible as Potential Resource Group Contributors." However, these resources are not located within any existing resource group boundaries identified in FMSF data. Therefore, the data does not reflect if the resources are contributors to existing resource groups, which would require a reevaluation of existing resource group boundaries. As this additional research and survey was outside the scope of the current project, these outside existing resource group boundaries were omitted from intensive survey. Additionally, 379 individual FMSF resources without SHPO determinations, surveyor recommendations, or sufficient information were quantified during background research and intensive architectural survey to identify regional development trends but were not individually recorded or evaluated for NRHP eligibility. A representative sample of resource photographs are included in **Table 6-2**. Results figures are included in **Appendix D**.

- SEARCH recommends that 123 of the 125 resources within existing resource group boundaries are NRHP-eligible as resource group contributors; and one resource (8BR00716/St. Mary's Church Rectory [2 psf]) is ineligible for NRHP inclusion, neither individually nor as a resource group contributor, as it is not extant (see **Table 6-2**). Additionally, SEARCH recommends one of these resources (8BR00514/Walker Apartment Building [2 psf]) is individually eligible for NRHP inclusion for its significance under Criterion C (see **Table 6-2**).
- SEARCH recommends six of the 11 cemeteries are eligible for NRHP inclusion (8BR02401, 8BR02406, 8BR02411, 8BR02808, 8BR04482, and 8BR04574); three cemeteries are ineligible for NRHP inclusion (8BR02785, 8BR02786, and 8BR03000); and two cemeteries remain unevaluated due to a lack of survey access (8BR01979 and 8BR03334) (see **Table 6-2**). Background research determined:
  - Resource 8BR02401/White Lily Cemetery (2 psf) is associated with Bethel African Methodist Episcopal Church of Merritt Island, and with late nineteenth century Black

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history in Brevard County. SEARCH recommends the resource is significant under Criterion A for this association.

- Resource 8BR02406/Mt. Carmel Missionary Baptist Church Cemetery (2 psf) is associated with Mt. Carmel Missionary Baptist Church, St. Paul's African Methodist Episcopal (AME) Church, and with early twentieth century Black history in Brevard County. SEARCH recommends the resource is significant under Criterion A for this association.
- Resource 8BR02411/Dennis Sawyer Cemetery (2 psf) is associated with mid-twentieth century Black history in Brevard County; and with Edwin Dennis Sawyer, who is interred within the cemetery. Sawyer immigrated to Florida from the Bahamas in the late nineteenth century. In 1898, Sawyer relocated to Cocoa, Florida, and established Mt. Olive AME Church in 1908, Sawyer Hall, Merritt Junior High. Sawyer was also a noted advocate for Black residents of Merritt Island throughout the twentieth century until his death in 1964 (Historical Marker Database 2022). SEARCH recommends the resource is significant under Criterion A and Criterion B for these associations.
- Resource 8BR02808/Pinecrest Colored Cemetery (2 psf) is associated with midnineteenth through the twentieth century Black history in Brevard County. Previous documentation indicates the cemetery includes the mid-nineteenth century interments of enslaved Brevard County residents. The cemetery remained in use through the late nineteenth century into the twentieth century by their descendants (Goodson and Harding 2011). SEARCH recommends the resource is significant under Criterion A for this association.
- Resource 8BR04482/Davis Memorial Cemetery (2 psf) is associated with early to midtwentieth century Black history in Brevard County. Previous documentation also indicates members of the Fayson family, a Black pioneer family significant to local history, are interred within the cemetery (FMSFweb 2025). SEARCH recommends the resource is significant under Criterion A for this association.
- Resource 8BR04574/Oak Ridge Cemetery (2 psf) is associated with early to midtwentieth century Black history in Brevard County. SEARCH recommends the resource is significant under Criterion A for this association.
- Additionally, SEARCH recommends Resources 8BR02401, 8BR02406, 8BR02411, 8BR02808, 8BR04482, and 8BR04574 fulfill Criterion Consideration D as they possess "important historic associations from a community's early period of settlement" and historic associations with "an ethnic or cultural group whose impact on the community or region was significant but is not well documented in other resources" (NPS 1992: 17).
- SEARCH recommends two of the six resource groups are eligible for NRHP inclusion (8BR00564 and 8BR02935); two resource groups are ineligible for NRHP inclusion (8BR03407 and 8BR03921); and one resource group remains unevaluated due to lack of survey access (8BR02143). SEARCH determined during survey one resource group (8BR03345) is no longer extant and is therefore not eligible for NRHP inclusion (see **Table 6-2**).

#### 1520 Effects Evaluation

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1521 When exposed to levels between 2 and 4 psf, structural components, including glass and plaster, 1522 demonstrate damage at a higher rate than expected due to natural wear in well-maintained 1523 structures (Haber et al. 1989). Activities associated with SSH operation have the potential to 1524 impact historic properties in the APE, although the precise nature of adverse effects to individual 1525 historic properties is unknown. Therefore, SEARCH assessed, to the extent feasible, the types of 1526 previously recorded resources that could be affected, based on their architectural characteristics, 1527 materials, alterations and/or architectural styles. For NRHP-eligible or listed resources without 1528 photographic access during survey, SEARCH used previous FMSF documentation and 1529 photographs.

SEARCH determined the majority of extant NRHP-eligible resources/resource group contributors are Frame Vernacular (41 resources), Mediterranean Revival (27 resources), and Masonry Vernacular (26 resources) styles (see **Table 6-2**). The Frame Vernacular and Masonry Vernacular styles are characterized by balloon frame or concrete block masonry construction, simple rectangular or square plans, one- or two-story heights, wood or concrete cladding, and minimal exterior ornamentation (McAlester 2013). Frame Vernacular and Masonry Vernacular style buildings are common throughout Florida. Mediterranean Revival style buildings are characterized by stucco cladding, roof tiles, ironwork details, and arched windows (McAlester 2013). These architectural styles typically do not include attached exterior ornamentation that may be adversely affected by SSH-related vibration. Additionally, during the intensive architectural survey SEARCH observed that many of the resources throughout the APE no longer retained original wood frame sash windows, which have been replaced over time with metal frame or vinyl frame sash windows.

Other styles, including Georgian Revival (9 resources), Bungalow (7 resources), Queen Anne Revival (6 resources), and others, were observed during the intensive architectural survey in lesser numbers throughout the APE (see **Table 6-2**). Though styles like Queen Anne Revival do feature exterior ornamentation, SEARCH determined that the buildings representative of these styles within the APE do not possess plentiful ornamentation or high style decorative elements. Additionally, many of these buildings no longer possess their original wood frame sash windows.

The six cemeteries recommended NRHP eligible following the intensive architectural survey (8BR02401/White Lily [4 psf], 8BR02406/Mt. Carmel Missionary Baptist Church Cemetery [2 psf], 8BR02411/Dennis Sawyer Cemetery [2 psf], 8BR02808/Pinecrest Colored Cemetery [2 psf], 8BR04482/Davis Memorial Cemetery [2 psf], and 8BR04575/Oak Ridge Cemetery [2 psf]) do not possess any high styles (see **Table 6-2**). Markers are primarily vernacular, low profile stone or concrete headstones and slabs. SEARCH determined an additional character defining feature of these cemeteries are raised, case concrete vaults with decorative cast concrete festoon details. SEARCH determined during survey that these cemeteries do not possess intentional landscape design, are not intended to serve recreational purposes, and are located within densely vegetated areas.

6-25 Results

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The two resource groups recommended NRHP eligible following the intensive architectural survey (8BR00564/Cocoa Historic District [2 psf] and 8BR02935/Titusville Downtown Residential District [2 psf]) are primarily Frame Vernacular, Masonry Vernacular, Mediterranean Revival, Queen Anne Revival, and/or Ranch in style (see **Table 6-2**). Frame Vernacular, Masonry Vernacular, Mediterranean Revival and Ranch styles are not characterized by ornate exterior ornamentation. The only Queen Anne style contributing resource identified within 8BR02935/Titusville Downtown Residential District (2 psf) does not possess high style elements (8BR00393/602 Indian River Avenue [2 psf]). Additionally, many original wood frame sash or casement windows throughout the resource groups have been replaced over time with metal or vinyl frame types.

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
Buildings R	ecommended "NRHP	Eligible as Re	source Group Cont	tributor" by Pre	vious Survey	's		
8BR00393	602 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Queen Anne Revival	ca. 1902	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00394	606 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00395	615 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1905	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00396	612 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1902	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00398	620 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Georgian Revival	ca. 1905	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00400	715 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Neo-Classical Revival	ca. 1895	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00402	804 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Bungalow	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00404	820 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1929	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00405	821 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1940	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00406	824 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1929	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00407	902 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Bungalow	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00408	904 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00409	915 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1909	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00411	916 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00412	925 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Frame Vernacular	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00420	102-112 Julia Street	2 psf	Titusville Commercial District	Masonry Vernacular	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00421	214 Julia Street	2 psf	Titusville Commercial District	Masonry Vernacular	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00427	13 Main Street	2 psf	Titusville Commercial District	Masonry Vernacular	1926	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00428	21 Main Street	2 psf	Titusville Commercial District	Masonry Vernacular	1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00429	106 Main Street	2 psf	Titusville Commercial District	Masonry Vernacular	1913	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00507	219 Washington Avenue S	2 psf	Titusville Commercial District	Mission Revival	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00509	301 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00510	305 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00511	307-311 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00512	313-315 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00513	317-319 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1912	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00514	Walker Apartment Building/322 Washington Avenue S	2 psf	Titusville Commercial District	Mission Revival	1925	Not Evaluated by SHPO	Individually Eligible; Eligible as RG Contributor	
8BR00515	326 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00516	327 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1900	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00517	329 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1890	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00520	337 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00522	342 Washington Avenue S	2 psf	Titusville Commercial District	Masonry Vernacular	1920	Not Evaluated by SHPO	Eligible as RG Contributor	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00584	225 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00585	227 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00615	403 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00619	Bryan Residence	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1900	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00632	21 Rockledge Avenue	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00635	Martin A. Metzner Estate	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1905	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00636	663 Rockledge Drive	2 psf	Rockledge Drive Residential District	Queen Anne Revival	ca. 1900	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00637	657 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00638	McEwen Residence	2 psf	Rockledge Drive Residential District	Queen Anne Revival	1896	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00639	639 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00643	623 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00645	613 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00646	611 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00647	607 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00649	Earl Ranck Residence	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1902	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00650	803 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00651	1-3 Orange Avenue	2 psf	Rockledge Drive Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00652	Margaret Funch Residence	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00654	20 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00655	25 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00656	26 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00657	28 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00659	32 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00660	34 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00661	40 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00662	42 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00663	48 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00664	50 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00665	47 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00666	David Dunscombe Residence	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00667	104 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00669	107 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00671	115 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00672	119 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00673	122 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00674	123 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00675	130 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00676	127 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00677	129 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	1924	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00679	140 Valencia Road	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00686	24 Orange Avenue	2 psf	Valencia Subdivision Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00688	1075 Shares Drive	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1930	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00690	11A-11B Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00691	19 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1900	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00692	11 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00693	14 Barton Avenue	2 psf	Barton Avenue Residential District	Queen Anne Revival	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00694	18 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00695	Rockledge Women's Exchange	2 psf	Barton Avenue Residential District	Neo-Classical Revival	ca. 1903	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00696	22 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00697	Old Rockledge Town Hall	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00701	26 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00704	37 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00706	James T. Jensen Residence	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00707	Gloria Eswine Residence	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	
8BR00708	Elma Atkinson Residence	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00709	43 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1900	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00710	47 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00711	49 Barton Avenue	2 psf	Barton Avenue Residential District	Bungalow	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00712	52 Barton Avenue	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00713	55 Barton Avenue	2 psf	Barton Avenue Residential District	Bungalow	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00714	59 Barton Avenue	2 psf	Barton Avenue Residential District	Bungalow	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00716	St. Mary's Church Rectory	2 psf	Barton Avenue Residential District	Frame Vernacular	ca. 1920	Not Evaluated by SHPO	Not Eligible	
8BR00722	1201 Rockledge Drive	2 psf	Rockledge Drive Residential District	Bungalow	ca. 1915	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00723	H.S. Williams Residence	2 psf	Rockledge Drive Residential District	Queen Anne Revival	ca. 1885	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00732	1283 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00735	1291 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1900	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00736	1297 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1909	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR00737	1305 Rockledge Drive	2 psf	Rockledge Drive Residential District	Mediterranean Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00738	1311 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1925	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00739	1319 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1910	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00740	1323 Rockledge Drive	2 psf	Rockledge Drive Residential District	Georgian Revival	ca. 1909	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00741	1323 1/2 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1909	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00742	1321 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1909	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00744	1347 Rockledge Drive	2 psf	Rockledge Drive Residential District	Bungalow	ca. 1920	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00745	1357 Rockledge Drive	2 psf	Rockledge Drive Residential District	Mediterranean Revival	ca. 1929	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00746	1359 Rockledge Drive	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00747	R.L. Geiger Residence	2 psf	Rockledge Drive Residential District	Queen Anne Revival	ca. 1890	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR00748	14 Park Avenue	2 psf	Rockledge Drive Residential District	Frame Vernacular	ca. 1924	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR02171*	St Mary's Church 1940 Rectory	2 psf	Barton Avenue Residential District	Other	1940	Not Evaluated by SHPO	Not Eligible	No Photo
8BR02837	904 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02839	934 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1949	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02840	1002 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1926	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02841	1008 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1962	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02842	1013 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Ranch	ca. 1953	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02843	1018 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1951	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02845	Crestwood Apartments	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1953	Not Evaluated by SHPO	Eligible as RG Contributor	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR02847	1128 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1960	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02848	1135 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Ranch	ca. 1961	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02849	1136 Indian River Avenue	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1953	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02878	1136 Riverside Drive	2 psf	Titusville Downtown Residential Historic	Ranch	ca. 1957	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02881	103 St. Johns Street	2 psf	Titusville Downtown Residential Historic	Masonry Vernacular	ca. 1935	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02886	322 S. Washington Avenue	2 psf	Titusville Commercial District	Masonry Vernacular	ca. 1957	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
8BR02888	Southern Room Lounge and Package	2 psf	Titusville Commercial District	Masonry Vernacular	ca. 1888	Not Evaluated by SHPO	Eligible as RG Contributor	No Photo
Resource G	roups							
8BR00564	Cocoa Historic District	2 psf	N/A	Masonry Vernacular; Mediterranean Revival	1882–1930	Insufficient Information	Eligible	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR02143	Rockledge Country Club Resource Group	2 psf	N/A	No Style	1927–1957	Insufficient Information	No Access	
8BR02935	Titusville Downtown Residential Historic	2 psf	N/A	Masonry Vernacular; Ranch; Queen Anne; Frame Vernacular	1891–1962	Not Evaluated by SHPO	Eligible	
8BR03345*	Cocoa Maintenance Yard	2 psf	N/A	Masonry Vernacular	ca. 1940	Not Evaluated by SHPO	Not Eligible	No Photo
8BR03407	Carpenter Homes Complex	2 psf	N/A	Masonry Vernacular	1949	Insufficient Information	Not Eligible	No Photo
8BR03921	Richard E. Stone Historic District	2 psf	N/A	Masonry Vernacular	1890	Not Evaluated by SHPO	Not Eligible	
Cemeteries								
8BR01979	City Point Cemetery	2 psf	N/A	No Style	1878	Not Evaluated by SHPO	No Access	No Photo
8BR02401	White Lilly	4 psf	N/A	No Style	Early Twentieth Century	Not Evaluated by SHPO	Eligible	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR02406	Mt. Carmel Missionary Baptist Church Cemetery	2 psf	N/A	No Style	1918	Not Evaluated by SHPO	Eligible	
8BR02411	Dennis Sawyer Cemetery	2 psf	N/A	No Style	ca. 1956	Not Evaluated by SHPO	Eligible	
8BR02785	Evergreen Memorial Cemetery	2 psf	N/A	No Style	1942	Not Evaluated by SHPO	Not Eligible	
8BR02786	Canaveral Groves Cemetery	2 psf	N/A	No Style	1884	Not Evaluated by SHPO	Not Eligible	
8BR02808	Pinecrest Colored Cemetery	2 psf	N/A	No Style	ca. 1940	Not Evaluated by SHPO	Eligible	

Table 6-2. Survey of Previously Recorded Architectural History Resources Results Summary.

FMSF Number	Name/Address	psf Threshold	Resource Group (RG)	Style	Year Built	Prior SHPO Determination	SEARCH Recommendation	Resource Photograph
8BR03000	Pinecrest Cemetery	2 psf	N/A	No Style	1925	Not Evaluated by SHPO	Not Eligible	
8BR03334	Fisher Plot	4 psf	N/A	No Style	1884	Not Evaluated by SHPO	No Access	No Photo
8BR04482	Davis Memorial Cemetery	2 psf	N/A	No Style	1940	Not Evaluated by SHPO	Eligible	
8BR04574	Oak Ridge Cemetery	2 psf	N/A	No Style	ca. 1916	Not Evaluated by SHPO	Eligible	

<sup>\*</sup>Survey determined the resource is no longer extant.

# 6.1.2 Windshield Survey for Previously Unrecorded Historic Properties

1571 The purpose of the windshield survey for previously unrecorded historic properties was to 1572 identify architectural styles, distinguishing characteristics, and general development patterns in 1573 areas with a high concentration of unrecorded resources (those likely to be 45 years old or older) 1574 to reasonably analyze the effects on notable characteristics, such as stained-glass windows and decorative woodwork, as a result of the SSH launch and landing activities. The windshield survey 1575 1576 follows the methodology outlined in Section 5.2 and is described in three subsections, based on 1577 the geographic areas covered by each team of surveyors. The first subsection describes the 1578 trends found within the APE on the mainland north of Titusville to the northern terminus of the 1579 APE. The second subsection describes the trends within the APE on the mainland south of 1580 Titusville to the southern terminus of the APE. The third subsection describes the trends within 1581 the APE on Merritt Island outside of federal land holdings.

### Titusville North

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Circa 1948, the historic core of Titusville was roughly bounded by Indian River to the east, South Street (Route 1) to the south, Deleon Avenue to the west and Garden Street to the north (USGS 1949o). Much of this area, in addition to areas immediately adjacent, has been surveyed previously. Most of the resources in these areas predate 1945. Post-World War II development in Titusville, when compared to southern areas of the APE, was somewhat inconsistent prior to the 1960s. While Titusville experienced the general trends of post war housing, it was not as conveniently located to Patrick AFB, which likely limited large scale development until the announcement of NASA's development of Kennedy Space Center. No subdivision reviewed, researched, or surveyed in areas surrounding Titusville predates 1955 (Whispering Hills Golf Estates) and of those filed in the 1950s, most are from 1958 and 1959. While many of the subdivisions in the south area of the APE are rectangular in plan (the single exception is Levitt at Buckingham), many subdivisions in the north have more curvilinear roads and boundaries. The best example of this conglomeration of subdivisions west of S. Park Ave, some of which are rooted in the proposed development of the Blueberry Drive area as a golf course in the 1920s. Whispering Hills Golf Course, near to Whispering Oaks, was advertised in NASA's 1962 Launch Operation directorate (NASA, 1962).

The immediate surrounds of Titusville, which are in the APE, include two subdivisions of note. Indian River Heights, near Cheney Highway, is a redevelopment of a paper subdivision (i.e., a development that only existed on paper and was not constructed) first filed in 1871. Whispering Oaks, a subdivision off South Park Avenue, features the most consistently architecturally distinctive residences viewed in the subdivisions included in the windshield survey. The single-family homes are a variety of Contemporary brick ranches with different configurations of butterfly and slant, gable, and flat roofs. Some still feature carports. Unfortunately, while the roof lines are distinctive and unlike many others seen in the APE, many of the homes exhibit changes to fenestration, including enclosure of the carports for additional living space as well as replacement windows and doors (Figure 6-1).

6-45 Results









Figure 6-1. Streetscape and representative examples of houses within Whispering Oaks subdivision, Titusville.

### Titusville South

The map review and subsequent heat mapping indicated that the dominant development south of Titusville would be near the historic cores of Titusville and Cocoa, which includes heavy post-World War II residential development on either side of US Route 1, in addition to pockets of industrial and commercial development associated with the rail and highway corridor between the two municipal centers. Survey confirmed these patterns to be accurate while revealing additional nuances of these patterns, described below.

Areas of Cocoa and Rockledge between the Indian River and US Route 1 contain resources typically associated with Florida's late nineteenth and early twentieth century development. Heat mapping indicated that the largest concentrations of previously unevaluated resources associated with this era would be located close to the Indian River. This area is noted for its High style, while larger, grander homes were found facing the Indian River and smaller, less styled homes were found on east/west streets connecting the Old Dixie Highway with Indian River Drive and Rockledge Avenue. The area between the Indian River and US Route 1 also holds a large number of previously recorded resources. The largest concentrations of unevaluated resources

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from this area are on Indian River Drive, a small number of Cocoa Village streets, and south of Rockledge Drive Historic District.

Indian River Drive, north of Cocoa, has a collection of residences that face the Indian River Drive; however, the concentration and cohesion found here does not compare to the Rockledge Drive Historic District (Figure 6-2). Notable structures in this area are the former City Point Church, a ca. 1940 Colonial Revival residence, and a Spanish Revival residence. Residences in this area, including the east/west roads which connect Indian River Drive with Old Dixie Highway or US Route 1, range from the early twentieth century through the 1980s. The buildings in this area are indicative of the general trends within the area; however, most buildings lack high style elements and/or have reduced integrity.













Figure 6-2. Representative examples of residences on Indian River Drive north of Cocoa.

6-47 Results

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Representative buildings observed within Cocoa Village, but outside the listed historic district, include a cluster of late nineteenth and early twentieth century structures on Derby and Delannoy streets, featuring styles such as Stick and Craftsman.

The area also includes a notable concentration of wood frame vernacular homes from the same period that were not commonly observed in other areas of the APE (see Figure Figure 6-3). The ca. 1920 Derby Street Chapel (8BR00311) is near this cluster of residences (Figure 6-4). It was constructed as a Seventh Day Adventist Church and is currently leased by the First Baptist Church of Cocoa.









Figure 6-3. Residences on Derby and Delannoy Streets in Cocoa. Clockwise from upper right: Derby Street, looking NE; 103 Derby Street, Derby Street looking NE; 536 Delannoy Street, Cocoa.



Figure 6-4. Derby Street Chapel (8BR00311), Cocoa.

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There is a lack of cohesion south of the Rockledge Drive Historic District, which precludes a southern extension of the district; however, there are distinctive residences between Park Avenue and Coquina Street. These include 1935 Rockledge Drive, 1929 Rockledge Drive, and 1833 Rockledge Drive. Otherwise, the residences in this area, including the cross streets, include a variety of styles, most of which are undistinctive or have integrity concerns. **Figure 6-5** provides representative photographs of the trends.



Figure 6-5. Representative photos of the types of resources and streetscapes in the Rockledge Drive area, Rockledge.

1929 Rockledge Drive and 1935 Rockledge Drive are two examples ca. 1920 wood frame vernacular residences with minimal changes compared to the extensive alterations observed at many similar age and styled homes in this section of Rockledge Drive (see **Figure 6-5**; **Figure 6-6**). There are similar examples of wood frame, vernacular homes on the Indian River Drive north of Cocoa on Indian River Drive.

6-49 Results

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Figure 6-6. 1929 Rockledge Drive (L) and 1935 Rockledge Drive (R), Rockledge.

1833 Rockledge Drive is an excellent example of the Art Moderne style. Virginia McAlester writes in *A Field Guide to American Houses: the definitive guide to identifying and understanding America's domestic architecture* that the style "was extremely rare in [single family,] domestic architecture" (McAlester 2013:581). The single-story residence embodies the style through its smooth stucco finish, flat roofing, asymmetrical façade, and horizontal emphasis, which is accentuated through the brick band running around the exterior at the same height of the entry porch (**Figure 6-7**). It also features many curved windows and glass blocks.

The heat maps indicated the dominating development pattern in the APE south of Titusville is post-World War II subdivision of open space to create housing in the economic boom of the military industrial complex. However, the APE holds some notable non-residential buildings from the pre-war period.



Figure 6-7. Art Moderne residence at 1833 Rockledge Drive, Rockledge.

One is the Medical Arts Building (1004 Beverly Drive), associated with the former Wuestoff Hospital in Rockledge. Funds for the hospital were donated by Eugene Wuestoff, of Milwaukee. The hospital, constructed east of the 1940 Medical Arts Building, has undergone tremendous

change (**Figure 6-8**). However, the Medical Arts building is a local example of how modern architectural movements, in this case the International Style, influenced vernacular architecture. Characteristics of the office building shared with the International style are large window groupings, vertical windowless walls, smooth brick cladding, and a flat roof. The entrance is recessed and not as emphasized as other exterior aspects, another characteristic of the style (see **Figure 6-8**).

Maps show many of the region's subdivisions were clustered around Cocoa and Rockledge with some in Port St. John. This cluster is roughly bounded by the Indian River to the east, Roy Wall Boulevard to the south, Interstate 95 to the west and State Route (SR 528) to the north. The designation of the former Banana River AFB as the nucleus of America's long range missile capabilities near immediately outpaced the available housing. The opening of Cape Canaveral Launch Area for the Joint Long Range Proving Ground (JLRPG) at Patrick AFB (former Banana River NAS) and the subsequent establishment of NASA exacerbated housing and infrastructure needs from Titusville to Melbourne, as well as the small communities on Merritt Island. The Titusville crossing of the Indian River provided access to the northern-most, undeveloped reaches (as compared to the Cocoa Beach area). The Indian River crossings at Cocoa and Melbourne were 14 and 12 road miles to Patrick Air Force Base, respectively. Cocoa was 12 miles to the Cape Canaveral launchpads when it opened.





Figure 6-8. Former Wuestoff Hospital Medical Arts Building (top) and Hospital (Bottom)

6-51 Results

Research revealed that because most of the housing constructed at Banana River AFB would be exhausted by commissioned officers and senior non-commissioned personnel, immense pressure was on the local community to provide housing for the near overnight increase of personnel that arrived. This pressure was also in addition to the commonly understood patterns of post-World War II housing trends, including the near cessation of multi-generation co-habitation, increased birthrate, and the migration out of cities and rural areas into suburban areas. There is one interesting pattern exhibited in the Cocoa-Rockledge area that informs how this area may have bridged the gap between rapid, large-scale subdivision development starting in mid to late 1950s and the near immediate housing need in the late 1940s and early 1950s. This indicates how one municipality attempted to address it, as well as relying on the existing rental market and developers.

While the JLRPG wasn't announced until 1950, the *Evening Tribune* made at least one mention that municipal and business leaders (including Tribune staff) were aware of details (Evening Tribune, 19 January 1950:2). Even if that is untrue, all were likely savvy men who paid attention to not only the activities at the station when it was turned over to the Air Force in 1948, but the Department of Defense's interest in rocket research and development. Research indicated there was little detail available about what the Air Force would do at the site beyond rehabilitating the extant buildings and cleaning up vegetation. This may point to quiet communication or understanding that something big was slated to come. This was all but confirmed when, after the selection was made, the Air Force published facts about the program, including that Banana River was identified by the DoD as the ideal site by 1947. Rapid development of the area resulted in a large number of parcels being constructed in the same period (1946 to 1970), which provides an appropriate starting point for deeper assessment. SEARCH's survey and review of the plat maps revealed that the post-1945 development in Cocoa-Rockledge was concentrated in a north-south band along Fiske Boulevard beginning ca. 1955 and winding down ca. 1964 (Figure 6-9).

Some of the first subdivisions planned for the Cocoa-Rockledge area were not in large undeveloped areas west of US Route 1, which served as the western commercial boundary, but rather smaller areas between Old Dixie Highway and the Indian River. Presumably, this was the easiest area to develop – infrastructure was extant, and it was close to the downtown commercial areas. Examples of these areas are Sherwood Forest (1949), Riverview Acres (1953), and Mayfield (1951) subdivisions in Cocoa. Rockledge had fewer, but an early example of this pattern is Rockledge Villas (1951). Flamingo Heights was planned in 1956, and while crossing over with some of the first subdivisions planned for west of US 1 Route, represents the common patterns of the early subdivisions of the Cocoa/Rockledge area (Figure 6-10). Representative examples of houses in these areas are in Figure 6-11.

However, the greatest concentration of subdivisions is west of US Route 1. SEARCH conducted windshield survey for more than 50 percent of these developments. There are likely other subdivisions within these areas; however, review of the plat maps available from the Brevard County Registry of Deeds, reveals that many of these were likely small developments, perhaps only a street.

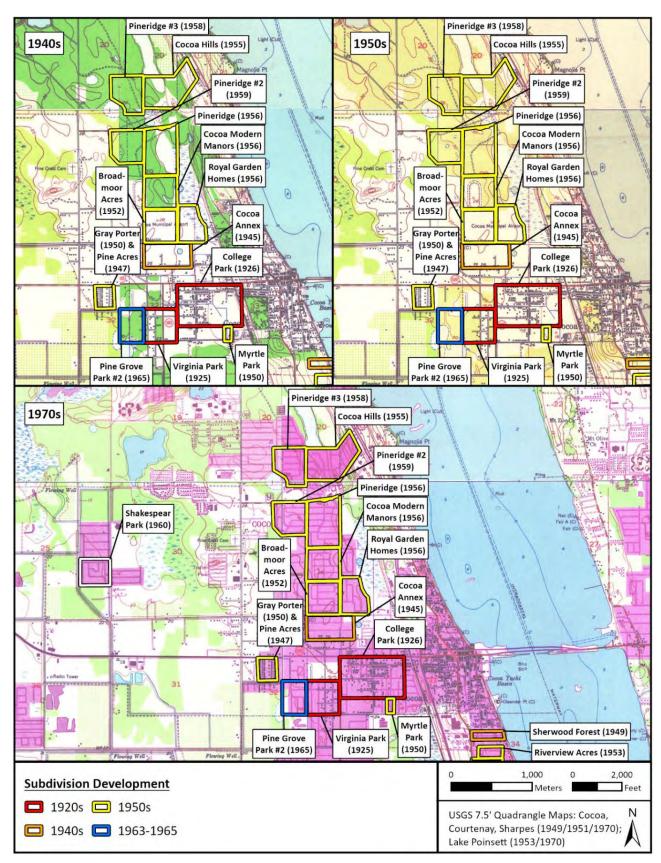


Figure 6-9. Development of Fiske Boulevard area subdivisions.





Figure 6-10. Representative homes on Dudley Drive, Flamingo Heights, Rockledge.

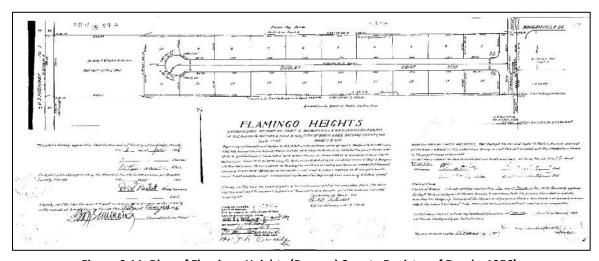


Figure 6-11. Plan of Flamingo Heights (Brevard County Registry of Deeds, 1956).

Twenty-five subdivisions are mapped in **Figure 6-9**, showing the furthest extent of development identified in plat maps, the earliest date filed with the Brevard County registry of deeds for each subdivision, and color coding to illuminate development tends over time. One of the most significant concentrations is on either side of Fiske Boulevard north from Dixon Boulevard south of one of the largest subdivisions in this area, Levitt Park at Buckingham, in Rockledge.

The first area developed is five blocks north of King Street – and represented the largest open space closest to the bridge and causeway to Cocoa Beach. These characteristics would make it an attractive, affordable place to live, close to a critical river crossing accessing Patrick AFB. The first subdivisions on the north side of School Street were Broadmoor Acres (1952) and Royal Garden Homes (1956). Cocoa Modern Manors (1956), and Pine Ridge (1956) pushed north to Dixon Boulevard. Cocoa Hills (1955) was established north of Cocoa Modern Manors along with the expansion of Pineridge (1958). All of which were wholly, or partially within, the former Cocoa municipal airport tract, which the city annexed for housing development in the early 1950s.

College Park and Virginia Park, south of School Street, were two subdivisions planned ca. 1925 (Evening Tribune, 18 January 1923). Survey showed that these were either never fully developed or were redeveloped at a later date. The only physical evidence that College Park was planned prior to the post war expansion is the ca. 1920 Harry T. Moore Center, a former school which now serves as a cultural center. Research also indicates that both College Park and Virginia Park may have been intended and planned for black residents. In 1952, the Cocoa Housing authority sought to redevelop the area for affordable housing for African Americans (Evening Tribune, 15 February 1952). Plat maps associated with the redevelopment were not identified. Fairway Estates (1964) and Rockledge Country Club Estates (1963) were constructed east and north, respectively, of the NRHP-eligible Rockledge Golf Club. Otherwise, development south into Rockledge is largely limited to the mid-1960s onwards, with a few exceptions.

The types of houses observed within the subdivisions were nearly identical: rectangular in plan, symmetrical fenestration, low pitched gable or hipped roofed with car ports or integrated garages. While some retained aluminum windows, replacement windows and doors were pervasive. The settings of the subdivisions were also common and followed Federal Housing Authority guidance of minimal lot size, setbacks, curbing, road width, including a single access point from state or large roadways. The presence of established vegetation ranged from small hedges and bushes planted along foundations to palm trees and large oaks that predate the subdivisions. There were only a few observed parks planned within the subdivisions. There were at least three schools observed to be constructed in the same period. Figure 6-12 and Figure 6-13 features representative examples of the typical setting and slight variations in post -1945 housing observed in the windshield survey. Florida Memory has historic photos of Pineridge, taken by Charles Lee Brown in 1958 (Brown 1958). The photographs provide an excellent illustration of the consistent changes since construction observed during this effort (Figure 6-14).

6-55 Results



Figure 6-12. Representative examples of Streetscapes and housing types observed.



Figure 6-13. Representative examples of streetscapes and typical housing observed.



Figure 6-14. Clockwise from upper right: Pineridge after construction (1-3), shopping center, presumed to be at Dixon Boulevard and Pineda Street, elementary school, presumed to be current Endeavor School at 571 Pineda Street, Pine Ridge under construction ca. 1958 (Brown 1958).

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Few notable commercial, municipal, religious or other buildings constructed after 1945 were observed within this section of the APE. Character defining features in this area include, but are not limited to, smooth surfaces of concrete or brick, fenestration that would be irreplaceable (aluminum windows with simple glass panes), and flat roofs. SEARCH recommends these buildings are unlikely to be adversely affected by SSH launch and landing activities.

The Brevard County Farm Bureau at 111 Virginia and the Cocoa Housing Authority building at 807 Blake Avenue are the best examples of non-residential architecture associated with the post-World War II development era observed south of Titusville (**Figure 6-15**). The character of their association with this era is embodied by the use of concrete and stucco, flat and low pitch gable roof and asymmetrical fenestration. Red bands in the elevations of the Cocoa Housing Authority emphasize the horizontal form of the building.

6-59 Results





Figure 6-15. Brevard County Farm Bureau at 111 Virgina Street (R), and Cocoa Housing Authority at 807 Blake Avenue (L).

Churches constructed after 1774 1775 1945 are also represented in 1776 the APE south of Titusville. 1777 The First Baptist Church of 1778 Rockledge is an excellent 1779 example of а modern, 1780 vernacular church in a 1781 suburban setting (Figure 6-16). Each exhibits modern 1782 1783 architecture detail such as 1784 smooth facades, large 1785 windowless expanses, 1786 emphasis on linear spaces, 1787 and use of metal and 1788 concrete. Other churches 1789 within this area of the APE 1790 are vernacular in style.



Figure 6-16. First Baptist Church of Rockledge, 1810 Cedar St.

#### Merritt Island

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Merritt Island is bounded by Indian River to the west; the Atlantic Ocean the east; and is partially bisected by the Banana River and Newfound Harbor. Development on Merritt Island consists of post-World War II residential, commercial, and recreational development along the east and west sides of the island, with industrial/military development concentrated in the northern and southern portions of the island.

Research into the history of Merritt Island indicates that Euro-American occupation largely originated in the form of agricultural land and plantations along the western coast in the mid- to late-eighteenth century. In 1837, Fort Ann was constructed along the eastern side of the island, near what is now known as the Haulover Canal, as a supply depot (Brevard County Historical Commission 2016). Following the Civil War, small settlements were established at Indianola, Haulover, Clifton, and Shiloh; the latter three, by formerly enslaved peoples. During this time, boats were the only form of transportation to and from the island. Construction of the first bridge in 1917 not only allowed for a more efficient means of transporting agricultural goods, but it also opened the island to tourism and the resort trade (Bendix Field Engineering Corporation 1973:5). Many of Merritt Island's earliest buildings were documented during previous survey efforts. Notable examples from Merritt Island's earliest days include the Jonathan H. Sams Farmstead (8BR04299) and the J.R. Field Homestead (8BR01702) (see **Appendix C**).

While Merritt Island's population increased significantly following World War II, with the establishment of NASA facilities in the northern portion of the island and Patrick AFB in the southern portion (located outside the APE), significant residential development did not begin until the 1950s. A small number of beach houses predating this era are located in Cocoa Beach. Many of these are characterized as wood-framed vernacular residences, while others are characterized by a more defined style, such as the Mission Revival style (Figure 6-17–Figure 6-19).

6-61 Results

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Figure 6-17. 2735 N Atlantic Avenue (1943) and 333 Holman Road (1939) are examples of framed vernacular residences in the Cocoa Beach area.

These early styles of Merritt Island characteristically possess minimal decorative detailing. It was noted during the survey that many of these resources have experienced some alterations, such as replacement doors or windows or exterior additions, while others appear to have been completely reconstructed and lack all historic, character-defining features.

Significant residential development on Merritt Island during the 1950s includes, among others, Cocoa Isles and Rock Isles, waterfront subdivisions located near Cocoa Beach off Highway A1A. In keeping with other residential developments of the era, Cocoa Isles and Rock Isles consist of one- and two-story Contemporary-style, custom-designed residences constructed between 1958 and 1969 (Figure 6-18). Typical characteristics identified within the developments include low-pitched roofs with wide, overhanging eaves; recessed entryways; ornamental masonry walls; broad and low chimneys; and attached garages or carports. Typical alterations noted during the survey included replacement doors or windows or enclosed carports to expand the interior living space.





Figure 6-18. 236 Jamaca Drive (1963) in Rock Isles and 650 Java Road (1958) in Cocoa Isles are examples of Contemporary residences on Merritt Island.





Figure 6-19. 105 and 110 Praetorius Lane (1928) are examples of Mission Revival-style residences in the Cocoa Beach area.

The windshield survey concluded that a large concentration of unsurveyed properties in the APE is associated with post-1945 subdivision development. Research and heat mapping informed the surveyors that these subdivisions ranged from single street developments to multi-phased neighborhoods. Some, but not all, may be associated with the rapid development of the JLRPG and NASA. Based on guidance provided in the NCHRP's A Model for Identifying and Evaluating the Historic Significance of Post-World War II Housing (NCHRP 2012b) and Florida Statewide and Regional Historical Contexts: Post-World War II Structural Resources (Janus Research 2024), SEARCH recommends the subdivisions in the APE are eligible under Criterion C. However, it is likely that some may have significance under Criterion A pending additional research, which is outside the scope of this study. With most constructed during the period associated with the JLRPG and NASA programs, part of their character may be connected to the visual and atmospheric events associated with NASA KSC launch activities. As such, adverse effects are considered unlikely.

## **6.2** ARCHAEOLOGICAL DESKTOP ANALYSIS RESULTS

The FMSF Geographic Information System database was researched to identify archaeological sites within the APE. Sites that were documented to include a site type with clear aboveground components such as precontact mounds, building remains, or structures were further researched. Modern aerial imagery (Google Earth Pro 2025) and site details recorded in the FMSF for the last field visit were reviewed to assess the potential for aboveground components that may contribute to NRHP eligibility to be extant. Sites that were previously found to be ineligible for listing in the NRHP and presumably lack integrity, significant historical associations, and information potential were excluded because impacts to these sites are not likely to be significant. Sites that have the potential to contain human remains were accounted for regardless of the presence of aboveground components or NRHP eligibility.

There are 354 sites recorded on the FMSF database within the APE (see **Appendix E**). Of these sites, 261 do not have the potential to retain aboveground components, may have aboveground

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1854 components but were determined ineligible, or do not contain human remains. The remaining 1855 93 sites within the APE are eligible for listing, potentially eligible for listing, or have not been 1856 evaluated for the NRHP, and are recorded in the FMSF as site types with aboveground or 1857 landscape features or could contain human remains (Table 6-3). Site types that are listed in the 1858 FMSF and considered to have the potential for aboveground or landscape features include 1859 precontact mound(s), building remains, farmstead, homestead, or any type of structure. There 1860 are 15 sites that have the potential to retain aboveground components that may contribute to 1861 the site's NRHP eligibility. Of these sites, there are several that are likely to be heavily disturbed 1862 and no longer retain their aboveground components, are destroyed, or are at risk due to shoreline erosion. 1863

1864 In a Technical Memorandum prepared for NASA and KSC by TRC in 2024, Sites 8BR00084, 1865 8BR0540, and 8BR0544, were revisited and reported to be likely destroyed, Site 8BR0161 is 1866 heavily disturbed or destroyed, and Site 8BR0206 is at risk due to shoreline erosion (TRC 2024) 1867 and is actively eroding into the Banana River. Following review of modern aerial imagery and 1868 information regarding the last site visit in the FMSF, Mound Sites 8BR00031, 8BR00064, 1869 8BR00065, 8BR00066, 8BR00069, 8BR00089-8BR00095, 8BR02400, and 8BR03279 are likely 1870 destroyed by development. The buildings were razed or removed (leaving only the potential for 1871 artifact scatters and no foundation remnants) at Sites 8BR00223, 8BR00239, 8BR00240, 1872 8BR00243, 8BR00243C, 8BR02160, 8BR02161, 8BR02165, 8BR02167, 8BR02229, 8BR02351, 1873 8BR02507, 8BR02680, and 8BR03048, and the building remains for Sites 8BR00540, 8BR00544, 1874 and 8BR02078 are likely destroyed by development.

There are 34 site types that are documented in the FMSF to contain mounds or shell middens that are possible mounds as suggested by their site name. Two sites with mounds (BR00086, BR01673) are NRHP-eligible. Review of modern arial imagery indicated that both mounds are within heavily vegetated and undeveloped areas and have the potential to retain aboveground features. Sites BR00086 and BR01673 are approximately 18.9 km (11.8 mi) south and 20.4 km (12.7 mi) northwest respectively from LC-39A. Site BR00064 is ineligible but is documented as potentially containing human remains, although the site has been extensively disturbed and the last survey did not confirm the presence of human remains. The remaining 31 sites are not eligible, not evaluated, or have insufficient information. Of these sites, 13 are within developed areas and review of modern aerial imagery identified no clear evidence of a mound, and seven are within densely vegetated areas with no obvious disturbance or development and have the potential to retain aboveground features. Some site disturbances, human and natural, are documented in the FMSF concerning sites with mounds. A portion of BR00063 is on private property and was documented as disturbed by digging activity. Mound Sites 8BR00031, 8BR00064, 8BR00065, 8BR00066, 8BR00069, 8BR00089-8BR00095, 8BR02400, and 8BR03279 are likely destroyed, as modern aerial imagery depicts these areas as developed.

Results 6-64

eligibility.	Site Type with Aboveground Component		Potential NRHP Contributing Aboveground Component	NRHP Status	psf Threshold	
8BR00031		Precontact mound(s)	No	Not evaluated	2	
8BR00062* Moore Mound		Precontact mound(s)	Yes	Not evaluated	4	
8BR00063* Sams Mound		Precontact mound(s)	Yes	Not evaluated	4	
8BR00065		Precontact mound(s)	No	Not evaluated	2	
8BR00066		Precontact mound(s)	No	Not evaluated	2	
8BR00069*		Precontact mound(s)	No	Not evaluated	2	
8BR00077*	Nauman's Place	Precontact mound(s)	No	Not evaluated	4	
8BR00078	Dummett's Place	Building remains	Yes	Not evaluated	4	
8BR00078B	Dummett Homestead	Building remains	Yes	Potentially Eligible	4	
8BR00064*	Tiffin Mound	Precontact mound(s)	No	Ineligible	4	
8BR00083*	De Soto Grove Burial Mound	Precontact mound(s)	Yes	Eligible	6	
8BR00084		Historic fort	No	Not evaluated	10	
8BR00085*	Burns	Precontact mound(s)/ homestead	No	Insufficient Information	4	
8BR00086*	Holmes Mound	Precontact mound/ Building remains/ homestead	No/Yes	Eligible	4	
8BR00087	Gulbransen Mound	Precontact mound(s)/ homestead	No	Not evaluated	4	
8BR00088A* Hammock Mound A		Precontact mound(s)/ homestead	No	Not evaluated	4	
8BR00088B	Hammock Mound B	Homestead	No	Not evaluated	4	
8BR00082A*	De Soto Grove Midden A	Homestead	No	Eligible	6	
8BR00088C	Hammock Mound C	Precontact shell midden/ possible mound(s)	No	Not evaluated	4	

eligibility.			Potential		psf
Site ID	Site Name	Site Type with Aboveground Component	NRHP Contributing Aboveground	NRHP Status	Threshold
		Component	Component		
8BR00089*	Norris Mound	Precontact	No	Not	4
		mound(s)/		evaluated	
		homestead			
8BR00090*	Fuller Mound A	precontact	No	Not	4
		mound(s)		evaluated	
8BR00091*	Fuller Mound B	precontact	No	Not	4
		mound(s)		evaluated	
8BR00092	Fuller Mound C	precontact	No	Not	4
		mound(s)		evaluated	
8BR00093*	Fuller Mound D	precontact	No	Not	4
		mound(s)		evaluated	
8BR00094*	Fuller Mound E	precontact	No	Not	4
		mound(s)		evaluated	
8BR00095	Fuller Mound F	precontact	No	Not	4
		mound(s)		evaluated	
8BR00142*	Butler Campbell's Mound	precontact	No	Not	2
00000150*		mound(s)		evaluated	
8BR00150*	Oyster Prong Creek	precontact	Yes	Not	6
00000151*	Mound	mound(s)		evaluated	10
8BR00151*		precontact	Yes	Insufficient	10
00000156		mound(s)	I to loo a com	Information	4
8BR00156		precontact mound(s)	Unknown	Not evaluated	4
8BR00175	Fort Ann	Historic fort	Yes	Not	2
0DKUU1/3	FOIT AIIII	HISTORIC TOFT	res	evaluated	2
8BR00205	Max Hoeck Mound and	precontact	Yes	Not	10
051100203	Midden	mound(s)	103	evaluated	10
8BR00140*	Edwards	precontact	No	Not	2
051100140	Lawaras	mound(s)	140	evaluated	_
8BR00206	Pepper Hammock	precontact	Unknown	Insufficient	20
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8BR00145*	Clark Slough	Precontact	No	Eligible	6
0011000010		burial(s)			
8BR00223*	Quarterman	Building remains/	No	Insufficient	6
		historic burial(s)/		Information	
		farmstead			
8BR00234	Old Lighthouse	Building remains	No	Not	4
				evaluated	
8BR00238A	Canaveral Town Site B	Building remains	No	Insufficient	4
				Information	
8BR00158*	Penny Plot	Precontact	No	Not	6
		burial(s)/ historic		evaluated	
		burial(s)/			
		homestead			

Results 6-66

eligibility.			Potential		nef
Site ID	Site Name	Site Type with Aboveground Component		NRHP Status	psf Threshold
8BR00161*	Cocoa Beach Mound	Possible mound	No	Not evaluated	4
8BR00238B	Canaveral Town Site C	Building remains	No	Not evaluated	6
BR00238C	Canaveral Town Site D	Building remains/ homestead	No	Insufficient Information	6
8BR00238D	Canaveral Town Site E	Building remains/ homestead	No	Insufficient Information	6
8BR00239*	Stinktown And Jeffords	Building remains/ historic burial(s)	No	Potentially Eligible	4
8BR00221*		Homestead	No	Eligible	6
8BR00240	Hotel	Industrial	No	Not evaluated	4
8BR00243	Pier Road Houses	House	No	Not evaluated	4
8BR00243B	Pier Road Houses Site B	Building remains	Yes	Not evaluated	4
8BR00243C	Pier Road Houses Site C	Building remains	No	Not evaluated	4
8BR00540	Daigle Place	Building remains	No	Not evaluated	6
8BR00544	Lopez Orchard	Building remains	No	Not evaluated	6
8BR01639	Ns Br 4	Building remains	No	Not evaluated	4
8BR01670	Haulover Canal Midden	Building remains	No	Insufficient Information	2
8BR01673*	Haulover Sand Mound And Midden (A,B)	Precontact mound(s)	Yes	Eligible	2
8BR01872*	Sam's Site	Agriculture/ Farm structure	Yes	Eligible	4
8BR01933*	Little Midden	Building remains	No	Eligible	4
8BR01935	Lone Cistern	Building remains/ farmstead/ homestead	No	Not evaluated	4
8BR02052	Fac 1222 Czr Camera Pad U15r146	Fac 1222 Czr Camera Pad Building remains No Not		6	
8BR01660*	New Lighthouse Site	Agriculture/ Farm structure/ building remains/ homestead	No	Ineligible	4
8BR02053	Fac 36900: Glotrac Site	Building remains	No	Not evaluated	4

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eligibility.			Detential		
Site ID	Site Type with Aboveground Component		Potential NRHP Contributing Aboveground Component	NRHP Status	psf Threshold
8BR02054	Fac. 114-G: Lc-25 Warning	Building remains	No	Not	4
00000055	Horn Site		1	evaluated	
8BR02055	Facility 1212-Czr Camera Site U36r175	Building remains	No	Not evaluated	4
8BR02078	Pace's Landing	Building remains/ homestead	No	Not evaluated	2
8BR02160	Fim Van Site S-5	Building remains	No	Not evaluated	4
8BR02161	Facility 1209-Rate	Building remains	No	Not	4
ODNO2101	Antenna Pad A	Dulluling Terriains	110	evaluated	-
8BR02165	Facility 289 - Flame	Building remains	No	Not	4
05/102103	Attenuation Site	Banang remains		evaluated	
8BR02166	James W. Merchant	Building remains/	Unknown	Not	4
	Homestead	farmstead		evaluated	
8BR02167	Facility 1126: Telemetry Elsse	Building remains	No	Not evaluated	4
8BR02229	Clifton Schoolhouse	Agriculture/ Farm structure/ homestead	No	Insufficient Information	2
8BR01936*	Cabo Verde	Land-terrestrial	No	Ineligible	4
8BR02351	Murray Parcel	Farmstead/ homestead	No	Not evaluated	4
8BR02365	Fac. 1330b: Beat-Beat Dovap 12-110-Plm	Building remains	No	Eligible	4
8BR02396	Fac. 1343: East Compass Rose	Building remains	No	Eligible	4
8BR02400*	Ulumay Lagoon	Precontact mound(s)	No	Not evaluated	2
8BR02085*	Odyssey Street Remains	Precontact burial(s)	No	Not evaluated	4
8BR02513	Facility 1390: Theodolite Tower 1.40	Building remains	No	Not evaluated	6
8BR02514	Facility 1090 Security Police Bldg.	Building remains	No	Not evaluated	6
8BR02680	Klondike Beach Tower Ruins (2311.12)	Building remains	No	Not evaluated	4
8BR03048	Old Macdonald's Farm	Farmstead/ homestead	No	Insufficient Information	2
8BR03152	Clark Slough Earthwork	Precontact mound(s)	Yes	Not evaluated	6
8BR03274	The Dunal Ridge Midden	Precontact mound(s)	No	Not evaluated	4
8BR03279	Beachside Midden	Precontact shell mound(s)	No	Not evaluated	2

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Site ID	Site Name	Site Type with Aboveground Component	Potential NRHP Contributing Aboveground Component	NRHP Status	psf Threshold
8BR03335	Fac. 17200: Weather Theodolite Pad B	Building remains	No	Eligible	6
8BR03336	Fac. 1331: Telemetry Elsee 12-110-Pl	Building remains	No	Eligible	4
8BR03337	Fac. 1333b: Beat-Beat Dovap 14-110-Plm	Building remains	No	Eligible	6
8BR03338	Fac. 1333a: Beat-Beat Dovap 14-110-Pr	Building remains	No	Eligible	4
8BR03339	Fac. 1334: Telemetry Elsee 12-110-Prs	Building remains	No	Eligible	4
8BR03341	Facility 74610: Camera Pad	Building remains	No	Eligible	4
8BR03534	Former Naa Control Tower Site	Building remains	No	Eligible	6
8BR3998	CCAFS Facility 1430 - Shanicle Building	Building remains	No	Not evaluated	4
8BR4532	28th Street SE 1949 Homestead	Building remains	Yes	Not evaluated	4
8BR4656*	Klondike	Land-terrestrial	No	Not evaluated	2

<sup>\*</sup>Human remains are potentially present

## 6.2.1 Building Remains, Historic Structures, Homesteads, and Farms

There are 55 sites in the FMSF that have a site type indicating the potential existence of aboveground components related to historic-era activity, excluding sites that also contain mounds and the focus of significance is not the historic component. Of these sites, 33 appear to no longer be extant following review of the latest site visit results in the FMSF and modern aerial imagery. Of the remaining sites, 15 are documented to contain aboveground features that are low to the ground or at ground level (such as a concrete pad) that do not contribute to the site's eligibility and there is the potential for aboveground components that could contribute to NRHP eligibility to be extant at eight sites.

Site 8BR00078B is approximately 17.4 km (10.8 mi) northwest of LC-39A, potentially eligible, and is documented to contain a standing chimney structure. Site 8BR00239 is potentially eligible however, the aboveground components of the site are no longer extant and the eligibility is likely to be in the potential for subsurface deposits. Site 8BR01872 is approximately 18.9 km (11.7 mi) southwest of LC-39A and is an NRHP-eligible site with foundation remnants that could potentially retain aboveground components. Site 8BR4532 includes building remains of a twentieth century homestead that were exposed following a prescribed burn, and the site is unevaluated. Sites 8BR00082A, 8BR00221, and 8BR01933 are documented to contain aboveground components

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however, their NRHP-eligible status is due to the potential for subsurface precontact deposits and their aboveground components are no longer extant. Most of the remaining sites are not eligible on their own but contribute to NRHP-listed districts associated with historic activities on NASA KSC and their aboveground components are not extant or have a low profile and do not contribute to NRHP eligibility. Of these sites, six contribute to the Control Tower Tracking Sites District (8BR3433; Sites 8BR02365, 8BR03336, 8BR03337, 8BR03338, 8BR03339, and 8BR03341) and one Site (8BR03335) contributes to Skid Strip Historic District (8BR3186).

#### **6.2.2 Sites Containing or Potentially Containing Human Remains**

The FMSF documents 33 sites within the APE that have the potential to contain human remains (see **Table 6-3**). Review of modern aerial imagery shows that many of these areas are densely vegetated with no apparent disturbances, but some sites have likely been destroyed by development including mound Sites 8BR00064, 8BR00069, 8BR00089–8BR00091, 8BR00093, 8BR00094, and 8BR02400 and Sites 8BR00223 and 8BR00239 that potentially contain historicera burials. In addition, Sites 8BR00077, 8BR00142 and 8BR00145 contain repatriated Native American remains.

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#### 7 CONCLUSION AND RECOMMENDATIONS

1924 SEARCH completed an intensive architectural history survey and NRHP evaluation for 97 1925 previously recorded resources, including 18 NRHP-listed resources or resource groups, 35 1926 resources or resource groups previously determined eligible or "potentially eligible" by SHPO, 1927 and 43 resources without SHPO determinations that were previously recommended "NRHP 1928 eligible." SEARCH determined during survey that seven of these previously recorded resources 1929 are no longer extant (8BR00681, 8BR00759, 8BR00946, 8BR00953, 8BR01762, 8BR1763, and 1930 8BR01764), and are therefore not eligible for NRHP inclusion. SEARCH recommends all 18 NRHP-1931 listed resources or resource groups retain sufficient integrity to remain listed in the NRHP. 1932 SEARCH recommends that 64 previously recorded resources are eligible for NRHP inclusion, that 1933 one previously recorded resource is eligible as a resource group contributor (8BR00703), and that 1934 six previously recorded resources are not eligible for NRHP inclusion. Additionally, one previously 1935 recorded resource (8BR01812) remains unevaluated for NRHP eligibility due to a lack of survey 1936 access.

1937 SEARCH completed an intensive architectural resource survey of 142 previously recorded 1938 resources that are within existing resource group boundaries, resources without determinations 1939 or recommendations, and cemeteries without determinations or recommendations. SEARCH 1940 determined during the survey that one resource (8BR02171/St. Mary's Church Rectory); and one 1941 resource group (8BR03345) are no longer extant, and are therefore not eligible for NRHP 1942 inclusion. SEARCH recommends that 122 resources are eligible as resource group contributors 1943 and that nine resources are eligible for NRHP inclusion. SEARCH recommends that six resources 1944 are ineligible for NRHP inclusion. Additionally, two previously recorded cemeteries (8BR01979 1945 and 8BR03334) and one previously recorded resource group (8BR02143) remain unevaluated for 1946 NRHP eligible due to a lack of survey access.

SEARCH conducted a windshield survey to identify architectural styles, distinguishing characteristics, and general development patterns in areas with a high concentration of unrecorded resources to reasonably analyze the effects on notable characteristics, such as stained-glass windows and decorative woodwork, as a result of the SSH launch and landing activities. Areas of concentration in Titusville North, Titusville South, and Merritt Island were identified to characterize architectural styles, distinguishing characteristics, integrity, and inform interpretations about development patterns.

SEARCH completed an archaeological desktop analysis of the 355 archaeological resources recorded in the FMSF within the operational APE. Of these resources, 93 are eligible for NRHP listing, are potentially eligible, or have not been evaluated by the SHPO and are recorded as site types that have the potential to contain above-ground or landscape features, or have the potential to contain human remains. There are 15 sites with the potential to retain above-ground components that may contribute to the sites' NRHP eligibility.

Within the construction APE, LC-39A is well documented, and no further identification or evaluation of LC-39A is proposed. Furthermore, it is anticipated that proposed new construction

associated with the operation of the SSH will be compatible with the characteristics of other launch-complex infrastructure and will not pose viewshed effects to historic properties. SEARCH recommends no additional cultural resources investigation or documentation within the construction APE.

Due to the size of the operational APE, this study is limited to the scope described herein.

Additional NRHP-eligible historic properties and unrecorded unevaluated resources may be present within the operational APE. Some of these resources may have character-defining features that could be vulnerable to effects resulting from vibratory and sonic-boom overpressure events associated with SSH activities. It is not possible at this time to determine whether adverse effects to these resources will occur.

Within the operational APE, SEARCH recommends that adverse effects resulting from the undertaking are not likely but are possible. Vibratory and sonic-boom events could result in window breakage, damage to character-defining plaster and masonry features, and structural damage to highly vulnerable or poorly maintained buildings. Although it is similarly unlikely—because the nature of longitudinal effects of vibratory and overpressure events on archaeological sites has not been studied thoroughly—adverse effects to such resources cannot be ruled out. The majority of documented resources outside of NASA KSC and CCSFS are within the 2 psf overpressure contour. However, resources located on KSC and CCSFS are within the 20, 10, 6, and 4 psf contours. Resources subjected to higher overpressure resulting from sonic booms may be more susceptible to adverse effects.

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#### 7.1.1 Programmatic Agreement Recommendations

Because a final determination of how SSH launch and landing activities will affect historic properties is not possible at this time, the development of a programmatic agreement to monitor for and mitigate potential adverse effects is recommended. Although the stipulations of the programmatic agreement will be negotiated among the consulting parties, SEARCH offers the following recommendations based on feedback received from FAA, NASA, and SHPO on early drafts of this report.

1990 Additional efforts to identify and evaluate historic properties. As discussed in **Section 5**, 1991 due to the size of the operational APE and the thousands of resources within its boundary, 1992 not all of the many thousands of previously recorded resources within the APE could be 1993 discussed within this document. Specifically, 164 previously recorded architectural history 1994 resources that have been evaluated by previous surveyors as "NRHP Eligible as Potential 1995 Resource Group Contributors" but not evaluated by SHPO were identified within the APE 1996 during background research and are omitted from this study. It is possible that these 1997 resources contribute significance to existing resource groups or comprise unrecorded 1998 resource groups or historic districts. Additional survey, documentation, and evaluation is 1999 necessary to determine if these resource groups contribute to existing or unrecorded

NRHP eligible historic districts.

Additionally, as discussed in **Section 5**, previously recorded architectural history resources that were determined by SHPO to be ineligible for listing in the NRHP were excluded from this study. Although the background research presented here does not capture these data at the individual resource level, some of these ineligible resources were surveyed and recorded in the FMSF more than 10 years ago. The Florida SHPO frequently recommends that properties determined ineligible more than 10 years ago be resurveyed and reevaluated for NRHP eligibility, as it is possible that they have developed significance individually or as contributors to resource groups in the intervening years. Similarly, additional field survey and updates to FMSF historic structure forms for buildings recommended eligible for NRHP listing either individual or as contributors to resource groups may support long-term efforts to assess effects to NRHP-eligible resource groups.

- Monitoring historic properties within different psf contours for effects. As discussed in Section 5, the potential for adverse effects to historic properties within the 2 psf is possible, though unlikely, based on existing data. While most historic properties in Titusville and outside of NASA KSC and CCSFS are within the 2 psf contour, several are within the 4 psf counter. However, numerous resources on NASA KSC and CCSFS are within the 4, 6, 10, and 20 psf contours. There is limited data on how historic buildings and structures may be effected by repeated exposure to sonic booms. A longitudinal study monitoring the effects of sonic boom and vibratory effects on historic properties over the long-term could inform consulting parties on the nature and severity of adverse effects to different property types and would serve as a resource for future studies evaluating the potential effects of future undertakings involving spacecraft launches and landings.
- Monitoring sonic boom overpressure and vibration at archaeological sites. As discussed in Section 5, previous studies on effects to archaeological sites resulting from sonic boom overpressure are limited in scope and make assumptions related to the lack of subsurface effects. Additionally, similar studies focused on resource types such as those within the APE (shell and snd mounds, for example) have not been conducted, and existing archaeological literature does not specifically note, describe, or discuss effects resulting from vibratory and sonic boom-related effects resulting from spacecraft launches (if any). A longitudinal study of surface and subsurface exposure to launch-related overpressure and vibratory events at archaeological sites, combined with targeted excavations to evaluate subsurface integrity of archaeological deposits, may inform whether such exposure results in effects to subsurface archaeological deposits. Additionally, such a study would serve as a resource for future studies evaluating the potential effects of future undertakings involving spacecraft launches and landings.

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# **APPENDIX A**

# PREVIOUSLY RECORDED CULTURAL RESOURCES AT NASA KSC AND CCSFS

# **APPENDIX B.**

# **HISTORIC MAPS AND AERIAL PHOTOGRAPHS**

#### APPENDIX C.

INTENSIVE ARCHITECTURAL SURVEY RESULTS FIGURES: RESOURCES DETERMINED NRHP ELIGIBLE OR POTENTIALLY ELIGIBLE BY SHPO OR RECOMMENDED NRHP ELIGIBLE OR POTENTIALLY ELIGIBLE WITHOUT SHPO DETERMINATIONS

### APPENDIX D.

# INTENSIVE ARCHITECTURAL HISTORY SURVEY RESULTS FIGURES: RESOURCES WITHIN EXISTING RESOURCE GROUP BOUNDARIES, THOSE WITHOUT DETERMINATIONS OR RECOMMENDATIONS, AND CEMETERIES WITHOUT DETERMINATIONS OR RECOMMENDATIONS

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# PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR00540	Daigle Place	Building remains	Not evaluated	6
8BR00541	Hughes Place	Building remains	Ineligible	6
8BR00542	Parsons Place	Building remains	Ineligible	4
8BR00543	Griffith Place	Building remains	Ineligible	6
8BR00544	Lopez Orchard	Building remains	Not evaluated	6
8BR00031	No name	Precontact mound(s)	Not evaluated	2
8BR00060	No name	Habitation (precontact)	Not evaluated	2
8BR00061	No name	Habitation (precontact)	Not evaluated	4
8BR00062*	Moore Mound	Precontact mound(s)	Not evaluated	4
8BR00063*	Sams Mound	Precontact mound(s)	Not evaluated	4
8BR00064*	Tiffin Mound	Precontact mound(s)	Ineligible	4
8BR00065	No name	Precontact mound(s)	Not evaluated	2
8BR00066	No name	Precontact mound(s)	Not evaluated	2
8BR00067	No name	Precontact shell midden	Not evaluated	2
8BR00068	No name	Precontact shell midden	Not evaluated	2
8BR00069*	No name	Precontact mound(s)	Not evaluated	2
8BR00070	No name	Precontact shell midden	Not evaluated	2
8BR00071	No name	Precontact shell midden	Not evaluated	2
8BR00076	Haulover	Land-terrestrial	Not evaluated	2
8BR00077*	Naumans Place	Precontact burial(s)	Not evaluated	4
8BR00078	Dummett's Place	Building remains	Not evaluated	4
8BR00078A	Dummett Midden	Land-terrestrial	Ineligible	4
8BR00078B	Dummett Homestead	Building remains	Potentially Eligible	4
8BR00078C	Duke's Castle	Building remains	Ineligible	4
8BR00078D	Dummett's Grove	Land-terrestrial	Potentially Eligible	4
8BR00079	Titusville Beach: Chester Shoals	Building remains	Ineligible	20
8BR00082	De Soto Grove Midden	Campsite (precontact)	Eligible	6
8BR00082A *	De Soto Grove Midden A	Homestead	Eligible	6
8BR00082B	De Soto Grove Midden B	Habitation (precontact)	Not evaluated	6
8BR00083*	De Soto Grove Burial Mound	Land-terrestrial	Eligible	6
8BR00084	No name	Historic fort	Not evaluated	10
8BR00085*	Burns	Precontact mound(s)/	Insufficient	4
8BR00086*	Holmes Mound	homestead  Precontact mound(s)/	Information Eligible	4
8BR00087	Gulbransen Mound	Precontact mound(s)/ homestead	Not evaluated	4
8BR00088A *	Hammock Mound A	Precontact mound(s)/ homestead	Not evaluated	4
8BR00088B	Hammock Mound B	Homestead	Not evaluated	4
8BR00088C	Hammock Mound C	Precontact shell midden/ possible mound(s)	Not evaluated	4
8BR00089*	Norris Mound	Precontact mound(s)/ homestead	Not evaluated	4

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR00090*	Fuller Mound A	Precontact mound(s)	Not evaluated	4
8BR00091*	Fuller Mound B	Precontact mound(s)	Not evaluated	4
8BR00092	Fuller Mound C	Precontact mound(s)	Not evaluated	4
8BR00093*	Fuller Mound D	Precontact mound(s)	Not evaluated	4
8BR00094*	Fuller Mound E	Precontact mound(s)	Not evaluated	4
8BR00095	Fuller Mound F	Precontact mound(s)	Not evaluated	4
8BR00096	Carter Midden	Land-terrestrial	Not evaluated	4
8BR00243H	Pier Road Houses Site H	Habitation (precontact)	Not evaluated	4
8BR01857	Samela Site	Campsite (precontact)	Not evaluated	2
8BR01872*	Sam's Site	Agriculture/ Farm	Eligible	4
6BN01672	Sain's Site	structure	Liigible	
8BR01819	3 POINT PIECES	Precontact lithics only,	Ineligible	2
		but not quarry		
8BR02513	Facility 1390: Theodolite Tower 1.40	Building remains	Not evaluated	6
8BR02514	Facility 1090 Security Police	Building remains	Not evaluated	6
051102314	Bldg	Dunung remains	Not evaluated	, and the second
8BR02515	Cinetheodolite	Building remains	Ineligible	4
8BR02534	Navaho X-10 Drone Debris	Aircraft	Eligible	6
	Site	Wreckage/Crash Site		
8BR00139	Dummit Grove Ne	Land-terrestrial	Eligible	4
8BR00140*	Edwards	Precontact mound(s)/ destroyed	Not evaluated	2
8BR00142*	Butler Campbell's Mound	Precontact mound(s)	Not evaluated	2
8BR00143	Ragin Midden	Land-terrestrial	Eligible	2,4
8BR00144	No name	Precontact midden(s)	Insufficient	4
		, ,	Information	
8BR00145*	Clark Slough	Precontact burial(s)	Eligible	6
8BR00146	No name	Land-terrestrial	Insufficient Information	6
8BR00147	No name	Precontact shell midden	Not evaluated	6
8BR00148	No name	Precontact midden(s)	Not evaluated	6
8BR00149	No name	Precontact midden(s)	Not evaluated	6
8BR00150*	Oyster Prong Creek Mound	Precontact mound(s)	Not evaluated	6
8BR00151*	No name	Precontact mound(s)	Insufficient Information	10
8BR00152	No name	Precontact midden(s)	Not evaluated	2
8BR00153	Pardon	Precontact midden(s)	Not evaluated	2
8BR00154	Eddy Creek	Precontact shell midden	Not evaluated	6
8BR00155	Granny Cove	Precontact shell midden	Potentially Eligible	2
8BR00156	No name	Precontact mound(s)	Not evaluated	4
8BR00157	Kars Park	Campsite (precontact)	Ineligible	4
8BR00158*	Penny Plot	Precontact burial(s)/	Not evaluated	6
051100130	remy rioc	historic burial(s)/ homestead	Not evaluated	
8BR00159	No name	Artifact scatter-low density (< 2 per sq	Not evaluated	2

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR00160	Black Point Midden	Precontact midden(s)	Not evaluated	2
8BR00161*	Cocoa Beach Mound	Possible mound	Not evaluated	4
8BR00167	Payne's Midden	Precontact shell midden	Not evaluated	6
8BR00169	South Access Road	Campsite (precontact)	Ineligible	6
8BR00170	Opposite Futch Cove	Precontact mound(s)	Eligible	10
8BR00171	Stony Island	Single artifact or	Not evaluated	4
ODNOO171	Storry Island	isolated find	Not evaluated	
8BR00175	Fort Ann	Historic fort	Not evaluated	2
8BR00183	Pardon Island	Precontact shell midden	Not evaluated	6
8BR00184	Widgeon Bay	Specialized site for procurement of raw materials	Not evaluated	4
8BR00185	No name	Specialized site for procurement of raw materials	Not evaluated	4
8BR00197	Brock	Farmstead	Ineligible	6
8BR00200	Saurwalt-Shipwreck	Ceramic scatter	Eligible	2
8BR00205	Max Hoeck Mound And Midden	Precontact mound(s)	Not evaluated	10
8BR00206	Pepper Hammock	Precontact mound(s)	Insufficient Information	20
8BR00207	Jones Point	Artifact scatter-low density (< 2 per sq meter)	Not evaluated	2
8BR00217	20th Century Historic Deposit	Artifact scatter-low density (< 2 per sq meter)	Not evaluated	6
8BR00219	No name	Subsurface features are present	Insufficient Information	10
8BR00221*	No name	Homestead	Eligible	6
8BR00222	No name	Campsite (precontact)	Insufficient Information	6
8BR00223*	Quarterman	Building remains/ historic burial(s)/ farmstead	Insufficient Information	6
8BR00224	No name	Land-terrestrial	Not evaluated	6
8BR00225	No name	Land-terrestrial	Not evaluated	4
8BR00226	No name	Land-terrestrial	Not evaluated	4
8BR00227	No name	Specialized site for procurement of raw materials	Insufficient Information	4
8BR00228	No name	Land-terrestrial	Not evaluated	4
8BR00229	No name	Campsite (precontact)	Ineligible	4
8BR00230	No name	Land-terrestrial	Ineligible	4
8BR00232	No name	Habitation (precontact)	Eligible	4
8BR00234	Old Lighthouse	Building remains	Not evaluated	4
	Cloisters	Building remains	Ineligible	10
8BR00235				

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR00237	Desoto Beach	Building remains	Ineligible	10
8BR00238A	Canaveral Town Site B	Building remains	Insufficient Information	4
8BR00238B	Canaveral Town Site C	Building remains	Not evaluated	6
8BR00238C	Canaveral Town Site D	Building remains/homestead	Insufficient Information	6
8BR00238D	Canaveral Town Site E	Building remains/homestead	Insufficient Information	6
8BR00239*	Stinktown And Jeffords	Building remains/ historic burial(s)	Potentially Eligible	4
8BR00240	Hotel	Industrial	Not evaluated	4
8BR00240A	Hotel Site A	Other	Not evaluated	4
8BR00240B	Hotel Site B	Habitation (precontact)	Not evaluated	4
8BR00241	No name	Habitation (precontact)	Ineligible	6
8BR00243	Pier Road Houses	House	Not evaluated	4
8BR00243A	Pier Road Houses Site A	Habitation (precontact)	Not evaluated	4
8BR00243B	Pier Road Houses Site B	Building remains	Not evaluated	4
8BR00243C	Pier Road Houses Site C	Building remains	Not evaluated	4
8BR00243D	Pier Road Houses Site D	Variable density scatter of artifacts	Not evaluated	4
8BR00243E	Pier Road Houses Site E	Historic refuse / dump	Not evaluated	4
8BR00243F	Pier Road Houses Site F	Habitation (precontact)	Not evaluated	4
8BR00243G	Pier Road Houses Site G	Habitation (precontact)	Not evaluated	4
8BR00550	Savannahs, The	Artifact scatter-low density (< 2 per sq meter)	Not evaluated	4
8BR00551	Sunset Hill	Building remains	Ineligible	4
8BR00553	Horti Point	Precontact shell midden	Not evaluated	2
8BR00555	Eddy Creek Boat Launch Area	Habitation (precontact)	Not evaluated	6
8BR00556	Playalinda Beach Parking Area No. 8	Campsite (precontact)	Not evaluated	6
8BR00557	AREA 55-1	Habitation (precontact)	Not evaluated	4
8BR00558	AREA 55-2	Habitation (precontact)	Not evaluated	4
8BR00566	UWF 2 & 4	Campsite (precontact)	Not evaluated	4
8BR00572	UWF 10	Single artifact or isolated find	Not evaluated	2
8BR00582	Dune and Swale	Lithic scatter/quarry (precontact: no ceramics)	Ineligible	10
8BR00773	Vip West	Land-terrestrial	Ineligible	6
8BR00774	Astronaut Road	Campsite (precontact)	Eligible	6,10
8BR00909	East Max Hoeck Creek Midden/Cana 78	Specialized site for procurement of raw materials	Not evaluated	10
8BR00910	Scorching Machete	Campsite (precontact)	Ineligible	10
8BR00911	Happy Creek One	Campsite (precontact)	Ineligible	10
8BR00912	Rotten Dock	Campsite (precontact)	Ineligible	10

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR00913	Landfill South	Campsite (precontact)	Eligible	6,10
8BR00914	LC 41 South	Campsite (precontact)	Eligible	10
8BR00915	TITUSVILLE BEACH WEST 1	Campsite (precontact)	Ineligible	20
8BR00916	Titusville Beach West 2	Campsite (precontact)	Ineligible	20
8BR00917	Gator Hole	Campsite (precontact)	Ineligible	20
8BR01608	Kars Park North	Campsite (precontact)	Ineligible	4
8BR01617	Dummit Place South	Artifact scatter-dense (> 2 per sq meter)	Ineligible	4
8BR01618	Minute Flake	Single artifact or isolated find	Ineligible	4
8BR01619	Dummitt Creek North Midden	Precontact shell midden	Eligible	4
8BR01620	Southeast Of Nauman's Place	Artifact scatter-low density (< 2 per sq meter)	Eligible	4
8BR01621	Granny Cove North	Artifact scatter-low density (< 2 per sq meter)	Ineligible	2
8BR01622	Allenhurst Midden	Precontact shell midden	Potentially Eligible	2
8BR01623	Duckroost Grove	Artifact scatter-low density (< 2 per sq meter)	Ineligible	2
8BR01625	Dike Access Road	Land-terrestrial	Ineligible	2
8BR01627	Patillo Creek	Single artifact or isolated find	Ineligible	2
8BR01632	Edgar/Campbell Midden	Precontact shell midden	Eligible	2
8BR01633	Apiary-53	Land-terrestrial	Insufficient Information	2
8BR01636	NS BR1	Campsite (precontact)	Not evaluated	6,10
8BR01637	NS BR 2	Habitation (precontact)	Not evaluated	6
8BR01638	NS BR 3	Habitation (precontact)	Not evaluated	6
8BR01639	NS BR 4	Building remains	Not evaluated	4
8BR01640	NS BR 5	Land-terrestrial	Not evaluated	4
8BR01641	NS BR 6	Land-terrestrial	Eligible	4
8BR01642	NS BR 7	Habitation (precontact)	Insufficient Information	4
8BR01659	Tea Hammock West	Campsite (precontact)	Ineligible	10
8BR01660*	New Lighthouse Site	Agriculture/ Farm structure/ building remains/ homestead	Ineligible	4
8BR01663	Orbiter Storage	Land-terrestrial	Ineligible	10
8BR01664	Archaic Surface Scatter Site	Land-terrestrial	Not evaluated	6
8BR01665	Old Canal Midden	Campsite (precontact)	Insufficient Information	2
8BR01666	Marsh Crossing Artifact Scatter Site	Land-terrestrial	Not evaluated	4
8BR01667	Thin Sand Ridge Site	Land-terrestrial	Not evaluated	4
8BR01668	Ceramic Surface Cluster Site	Land-terrestrial	Insufficient Information	4

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR01669	Spoon Bill Site	Campsite (precontact)	Insufficient	4
			Information	
8BR01670	Haulover Canal Midden	Building remains	Insufficient	2
			Information	
8BR01671	Haulover Artifact Scatter	Land-terrestrial	Insufficient	2
	Site		Information	
8BR01672	Haulover Pond Midden Site	Campsite (precontact)	Insufficient	2
00004672*		D 1 1 1/ 1	Information	
8BR01673*	Haulover Sand Mound And Midden (A,B)	Precontact mound(s)	Eligible	2
8BR01674	76th Street Nw Midden Site	Habitation (precontact)	Insufficient	2
		(	Information	
8BR01675	Little Midden Point Site	Habitation (precontact)	Insufficient	2
			Information	
8BR01677	Campbell/Jackson Sheet	Land-terrestrial	Insufficient	2
	Midden		Information	
8BR01678	Friable Sherds Site	Land-terrestrial	Insufficient	2
			Information	
8BR01679	Diffuse Ceramic Scatter Site	Land-terrestrial	Insufficient	2
00004600			Information	
8BR01680	Relic Grove Site	Habitation (precontact)	Insufficient	2
8BR01695	Dr. Zoom	Land-terrestrial	Information Not evaluated	4
8BR01696 8BR01714	Sonic Boom	Land-terrestrial Land-terrestrial	Not evaluated	2
	Sharpe		Ineligible	
8BR01715	Canal And Nicola	Land-terrestrial	Ineligible	2
8BR01716	Carol And Nicole	Land-terrestrial	Ineligible	2
8BR01717	Tower 176	Land-terrestrial	Ineligible	2
8BR01718	Tower 180	Land-terrestrial	Ineligible	2
8BR01719	Carol And Nicole Site B	Land-terrestrial	Ineligible	2
8BR01779	Woodward's Flat	Habitation (precontact)	Not evaluated	2
8BR01845	Muntz Metal Shipwreck Site	Historic shipwreck	Not evaluated	10
8BR01850	Jerome Road Ridge/Bull Snake Ridge	Land-terrestrial	Not evaluated	4
8BR01854	Provost Site	Campsite (precontact)	Not evaluated	2,4
8BR01890	Sams Creek Site	Land-terrestrial	Not evaluated	4
8BR01891	McDonalds Island	River/Stream/Creek-	Not evaluated	4
		riverine		
8BR01894	PPOF Site 1	Campsite (precontact)	Ineligible	4
8BR01895	PPOF Site 2	Campsite (precontact)	Ineligible	4
8BR01896	PPOF Site 3	Campsite (precontact)	Ineligible	4
8BR01897	PPOF Site 4	Campsite (precontact)	Ineligible	4
8BR01933*	Little Midden	Building remains	Eligible	4
8BR01935	Lone Cistern	Building remains/	Not evaluated	4
00004000*	Cala a Manul	farmstead/ homestead	La all all 1	1
8BR01936*	Cabo Verde	Land-terrestrial	Ineligible	4
8BR01942	No name	Specialized site for	Not evaluated	2
		procurement of raw materials		
		iliatellais		

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR01943	Dogs Cross	Specialized site for	Not evaluated	2
		procurement of raw		
		materials		
8BR01944	Dead Mangrove Island	Specialized site for	Not evaluated	2
	_	procurement of raw		
		materials		
8BR01945	Scorpion Dike	Specialized site for	Not evaluated	2.4
	· ·	procurement of raw		
		materials		
8BR01946	No name	Specialized site for	Not evaluated	2
		procurement of raw		
		materials		
8BR01947	Bay Head Midden	Specialized site for	Not evaluated	2,4
		procurement of raw		
		materials		
8BR01948	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01949	Long Shore Midden	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01950	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01951	North Mangrove Midden	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01952	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01953	Shell Dipper	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01954	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01955	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01956	Cut Corner Midden	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01958	No name	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01959	Canoer's Corner	Specialized site for	Not evaluated	4
		procurement of raw		
		materials		
8BR01964	Pritchard House	Campsite (precontact)	Not evaluated	2
8BR02029	False Cape Scatter	Land-terrestrial	Ineligible	10

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR02052	Fac 1222 CZR Camera Pad U15R146	Building remains	Not evaluated	6
8BR02053	Fac 36900: GLOTRAC Site	Building remains	Not evaluated	4
8BR02054	Fac. 114-G: LC-25 Warning Horn Site	Building remains	Not evaluated	4
8BR02055	Facility 1212-CZR Camera Site U36R175	Building remains	Not evaluated	4
8BR02077	Sarah	Campsite (precontact)	Insufficient Information	10
8BR02078	Pace's Landing	Building remains/ homestead	Not evaluated	2
8BR02085*	Odyssey Street Remains	Precontact burial(s)	Not evaluated	4
8BR02087	Jupiter Missile Crash Site	Subsurface features are present	Eligible	4
8BR02160	FIM Van Site S-5	Building remains	Not evaluated	4
8BR02161	Facility 1209-Rate Antenna Pad A	Building remains	Not evaluated	4
8BR02165	Facility 289 - Flame Attenuation Site	Building remains	Not evaluated	4
8BR02166	James W. Merchant Homestead	Building remains/ farmstead	Not evaluated	4
8BR02167	Facility 1126: Telemetry ELSSE	Building remains	Not evaluated	4
8BR02174	Beach Trail	Specialized site for procurement of raw materials	Ineligible	4
8BR02175	97 Hammock	Land-terrestrial	Insufficient Information	4
8BR02229	Clifton Schoolhouse	Agriculture/ Farm structure/ homestead	Insufficient Information	2
8BR02243	Terryn Homestead	Homestead	Ineligible	4
8BR02246	Oyster and Pipe	Homestead	Not evaluated	10
8BR02256	Azusa Site	Building remains	Ineligible	6
8BR02276	Launch Complex 15 Theodolite Building	Building remains	Ineligible	6
8BR02314	Sherds in the Road	Land-terrestrial	Ineligible	4
8BR02315	Watermark	Habitation (precontact)	Ineligible	4
8BR02318	City of Vera Cruz	Historic shipwreck	Not evaluated	4
8BR02319	Fountain Shell Feature	Precontact shell midden	Ineligible	2
8BR02340	Halfway There	Land-terrestrial	Ineligible	6
8BR02341	Purple Glass	Homestead	Insufficient Information	4
8BR02343	Cape Point	Land-terrestrial	Ineligible	6
8BR02349	Artesian Well	Homestead	Ineligible	4
8BR02350	Cross the Line	Farmstead	Ineligible	4
8BR02351	Murray Parcel	Farmstead/ homestead	Not evaluated	4
8BR02364	Bottle Dump Site	Subsurface features are present	Ineligible	20

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR02365	Fac. 1330B: Beat-Beat DOVAP 12-110-PLM	Building remains	Eligible	4
8BR02367	Camera Pad D44R53	Building remains	Ineligible	4
8BR02396	Fac. 1343: East Compass Rose	Building remains	Eligible	4
8BR02400*	Ulumay Lagoon	Precontact mound(s)	Not evaluated	2
8BR02412	Gallinipper Basin #1	Specialized site for procurement of raw materials	Not evaluated	6
8BR02413	No name	Specialized site for procurement of raw materials	Not evaluated	4
8BR02414	No name	Specialized site for procurement of raw materials	Not evaluated	4
8BR02415	No name	Specialized site for procurement of raw materials	Not evaluated	4
8BR02416	Gallinipper Basin #2	Specialized site for procurement of raw materials	Not evaluated	6
8BR02672	CANA-180	Specialized site for procurement of raw materials	Ineligible	4
8BR02673	CANA-181	Specialized site for procurement of raw materials	Ineligible	4
8BR02675	Cactus Island Midden (2311.07)	Specialized site for procurement of raw materials	Not evaluated	2
8BR02676	Harrier Midden (2311.08)	Specialized site for procurement of raw materials	Not evaluated	2
8BR02677	Kestrel Midden (2311.09)	Specialized site for procurement of raw materials	Not evaluated	2
8BR02678	Plover Midden (2311.10)	Specialized site for procurement of raw materials	Not evaluated	2
8BR02679	Turnstone Midden (2311.11)	Specialized site for procurement of raw materials	Not evaluated	4
8BR02680	Klondike Beach Tower Ruins (2311.12)	Building remains	Not evaluated	4
8BR02953	Sharpes Train Station	Land-terrestrial	Insufficient Information	2
8BR03047	QB-17 Crash Site	Aircraft Wreckage/Crash Site	Eligible	4
8BR03048	Old MacDonald's Farm	Farmstead/ homestead	Insufficient Information	2

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR03050	River Shores	Building remains	Ineligible	2
8BR03076	TMDL Pond Site 1	Land-terrestrial	Ineligible	2
8BR03152	Clark Slough Earthwork	Precontact mound(s)	Not evaluated	6
8BR03176	Angy's Scatter	Farmstead	Ineligible	6
8BR03177	Atlas Debris	Land-terrestrial	Ineligible	6
8BR03178	Canaveral Rose's Garden	Specialized site for	Ineligible	6
		procurement of raw materials		
8BR03273	The Walker Midden	Habitation (precontact)	Not evaluated	2
8BR03274	The Dunal Ridge Midden	Precontact mound(s)	Not evaluated	4
8BR03276	The Brent Russell Midden		Not evaluated	4
8BR03279	Beachside Midden	Precontact shell mound(s)	Not evaluated	2
8BR03335	Fac. 17200: Weather Theodolite Pad B	Building remains	Eligible	6
8BR03336	Fac. 1331: Telemetry ELSEE 12-110-PL	Building remains	Eligible	4
8BR03337	Fac. 1333B:Beat-Beat DOVAP 14-110-PLM	Building remains	Eligible	6
8BR03338	Fac. 1333A:Beat-Beat DOVAP 14-110-PR	Building remains	Eligible	4
8BR03339	Fac. 1334: Telemetry ELSEE 12-110-PRS	Building remains	Eligible	4
8BR03341	Facility 74610: Camera Pad	Building remains	Eligible	4
8BR03359	Cocoa Prison Site	Land-terrestrial	Ineligible	2
8BR03370	1-5 G13	Agriculture/Farm structure	Ineligible	4
8BR03371	8-5 E6	Homestead	Ineligible	6
8BR03372	15-9 A9	Aircraft Wreckage/Crash Site	Ineligible	4,6
8BR03373	18-7 G22/Lansing Beach School	Homestead	Ineligible	4
8BR03374	11-22.5 E20	Land-terrestrial	Ineligible	4
8BR03375	31-3 T6	Agriculture/Farm structure	Ineligible	6
8BR03376	10-3 G1	Homestead	Ineligible	6
8BR03379	17.5-11-E21	Land-terrestrial	Ineligible	4
8BR03380	32-1-E25	Land-terrestrial	Ineligible	4
8BR03381	31-6.5-E24	Homestead	Ineligible	4,6
8BR03390	Bronze Cannon Wreck	Saltwater submerged site	Not evaluated	6
8BR03534	Former NAA Control Tower Site	Building remains	Eligible	6
8BR03557	CR11	Habitation (precontact)	Ineligible	6
8BR03558	ICBM Concrete Pad	Building remains	Ineligible	6
8BR03560	Hurricane Irma Canoe	Log Boat - Historic or Precontact	Not evaluated	2
8BR03711	Luna Trails Site	Land-terrestrial	Ineligible	2

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR03912	SCT 1	Campsite (precontact)	Insufficient	2
			Information	
8BR03913	SCT 2	Campsite (precontact)	Insufficient	2
			Information	
8BR03931	Thule's Rise	Campsite (precontact)	Insufficient	2
			Information	
8BR03956	No name	Campsite (precontact)	Not evaluated	6
8BR03995	CCAFS LMU 87 Missile Crash	Land-terrestrial	Not evaluated	4
8BR03996	CCAFS LMU 142 Missile	Land-terrestrial	Not evaluated	4
	Crash Site			
8BR03997	CCAFS Facility 1485 -	Land-terrestrial	Not evaluated	4
	Camera Pad Site (D			
8BR03998	CCAFS Facility 1430 - SHANICLE Building	Building remains	Not evaluated	4
8BR04001	No name	Land-terrestrial	Ineligible	10
8BR04002	No name	Subsurface features are present	Ineligible	10
8BR04003	No name	Land-terrestrial	Ineligible	10
8BR04004	No name	Building remains	Ineligible	10
8BR04005	No name	Land-terrestrial	Ineligible	10
8BR04006	No name	Land-terrestrial	Ineligible	10
8BR04007	No name	Land-terrestrial	Ineligible	6
8BR04008	No name	Campsite (precontact)	Ineligible	4
8BR04009	No name	Land-terrestrial	Ineligible	4
8BR04010	No name	Building remains	Ineligible	4
8BR04011	No name	Building remains	Ineligible	10
8BR04012	No name	Land-terrestrial	Ineligible	10
8BR04013	No name	Building remains	Ineligible	10
8BR04014	No name	Campsite (precontact)	Ineligible	4
8BR04185	CCAFS Facility 19110 Camera Site U142L62	Land-terrestrial	Ineligible	6
8BR04188	CCAFS LMU 53 Concrete Pads	Building remains	Ineligible	6
8BR04189	CCAFS LMU 61 Concrete Remains	Building remains	Ineligible	6
8BR04190	Camera Road E Artifact Scatter	Land-terrestrial	Ineligible	6
8BR04221	Cocoa Hill	Land-terrestrial	Insufficient	2
			Information	
8BR04231	Whaley's Farmstead	Farmstead	Ineligible	4
8BR04364	The Granite Rock Homestead	Building remains	Ineligible	4
8BR04368	Site One	Saltwater submerged site	Not evaluated	6
8BR04369	Site Two	Saltwater submerged site	Not evaluated	6
8BR04370	Site Three	Saltwater submerged site	Not evaluated	6

Site ID	Site Name	General Site Type	NRHP Status	psf Threshold
8BR04371	Site Four	Saltwater submerged	Not evaluated	6
		site		
8BR04442	Wydra Canoe	Log Boat - Historic or	Not evaluated	2
		Precontact		
8BR04532	28th Street SE 1949	Building remains	Not evaluated	4
00004570	Homestead	Land tampatrial	La all'allalla	
8BR04579	Surface Scatter 1	Land-terrestrial	Ineligible	4
8BR04656*	Klondike	Land-terrestrial	Not evaluated	2
VO09281	Teal Midden (2311.02)	Specialized site for procurement of raw	Not evaluated	2
		materials		
VO09282	Mallard Midden (2311.03)	Specialized site for	Not evaluated	2
1003202	Wallard Wilddell (2311.03)	procurement of raw	Not evaluated	_
		materials		
VO09283	Preacher's Island (2311.04)	Specialized site for	Not evaluated	2
		procurement of raw		
		materials		
VO09284	Merganser Midden	Specialized site for	Not evaluated	2
	(2311.05)	procurement of raw		
V000305	C Midden (2244 06)	materials	Niet erelieted	
VO09285	Caracara Midden (2311.06)	Specialized site for procurement of raw	Not evaluated	2
		materials		
VO00151	Cat Hammock	Precontact shell midden	Not evaluated	2
VO00158	No name	Precontact shell midden	Not evaluated	2
VO00159	Vann's Island	Precontact shell midden	Not evaluated	2
VO06786	Kuhl Midden	Habitation (precontact)	Eligible	2
VO08885	Target Rock	Land-terrestrial	Not evaluated	2
VO08977	Vann's Slough Midden	Specialized site for	Not evaluated	2
		procurement of raw		
		materials		
VO08978	Northwest of Vann's	Specialized site for	Not evaluated	2
		procurement of raw		
<u> </u>		materials		

<sup>\*</sup>Human remains are potentially present