Cultural Resource Assessment Survey

Florida Department of Transportation - District VII

County Line Road (C.R. 578)
Project Development and Environment Study
From U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45)

Work Program Item Segment Number: 257298 1
Federal-Aid Program Number: 7822 001 S
Pasco and Hernando Counties, Florida

The proposed project involves improving County Line Road (C.R. 578) to a multi-lane facility from U.S. 19 (S.R. 55) to east of U.S. 41 (S.R. 45) in Pasco and Hernando counties, a distance of approximately 12.0 miles (19.3 kilometers). The project includes a segment of roadway along a new alignment. This segment is referred to as the Ayers Road Extension and extends from the interchange of C.R. 578 and the Suncoast Parkway to east of U.S. 41, a distance of approximately 3.5 miles (5.6 kilometers).

Prepared by:

Janus Research

Final Report

May 2003

TABLE OF CONTENTS

Section **Page**

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

This Cultural Resource Assessment Survey (CRAS) of C.R. 578 (County Line Road) in Hernando and Pasco counties was conducted for the FDOT as part of the Project Development and Environment (PD&E) Study to evaluate capacity improvement alternatives for C.R. 578. The proposed project involves improving C.R. 578 from a primarily two-lane roadway to a multi-lane facility from the vicinity of U.S. 19 (S.R. 55) to east of U.S. 41 (S.R. 45), a distance of approximately 19.3 km (12 mi.). The CRAS is intended to comply with the *National Environmental Policy Act (NEPA)*; Section 106 of the *National Historic Preservation Act of 1966* (as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*); and Chapter 267, *Florida Statutes*. This project complies with Part 2, Chapter 12 (*Archaeological and Historic Resources*) of the Florida Department of Transportation (FDOT) *Project Development and Environment Manual* (January 1999, revision). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716). The objective of this survey was to assess all cultural resources in terms of their eligibility for listing in the **National Register of Historic Places (NRHP)** according to the criteria set forth in 36 CFR Section 60.4.

This project included initial testing of the preferred alignment for C.R. 578 and the proposed alternatives for the Ayers Road Extension, as well as additional testing of three archaeological sites to determine their potential eligibility for inclusion in the **NRHP**. The initial survey identified 13 archaeological sites and 15 historic resources within the project area. A Florida Master Site File (FMSF) form for each resource is provided in Appendix B. Of the 13 identified archaeological sites, 11 are newly identified (8PA1301, 8PA1302, 8HE419, 8HE420, 8HE421, 8HE422, 8HE423, 8HE425, 8HE426, 8HE428 and 8HE429) and two were previously recorded sites (8PA185 and 8HE284). Based on the initial survey, 10 of the identified archaeological sites (8PA1301, 8PA1302, 8HE419-8HE423, 8HE425, and 8HE428) were determined ineligible for listing in the **NRHP**. Nine of these sites (8PA1301, 8PA1302, 8HE419-8HE423, 8HE425, and 8HE428) are short-term campsites represented by small lithic scatters. These sites are not considered locally or regionally significant and, therefore, are considered not eligible for listing in the **NRHP**. No further work is recommended at these sites. Site 8HE429 is a cistern or drainage pond most likely dating from the turn-of-the-century. Although site 8HE429 provides useful information of historic studies of this area, no other artifacts were recovered from shovel testing within the project impact area, which indicates that the potential for recovering further important information is low. However, further testing was recommended for sites 8PA185, 8HE284, and 8HE426 to determine their eligibility for inclusion in the **NRHP**.

Of the three sites for which additional testing was recommended, one (8PA185) is situated within the main C.R. 578 project corridor. The other two sites (8H284 and 8HE426) are situated within the proposed Ayers Road Extension, which extends from the C.R. 578/Suncoast Parkway interchange to the vicinity of U.S. 41 and Ayers Road. Further testing of 8PA185 (Volkswagon Sinkhole) revealed that the Archaic component of the site had been mostly redeposited and has a relatively sparse artifact assemblage. Additionally, the Weeden Island component represents a short-term inland campsite, a common site type for this region. For the above reasons, site 8PA185 is considered ineligible for listing in the **NRHP**.

Further testing of site 8HE284 (Enville) demonstrated that most or all of the historic cultural deposits have been disturbed by modern activities. Although the town of Enville has some historical significance, the relatively sparse artifact assemblage, lack of subsurface features, and documented modern disturbance indicates that the potential for recovering additional important information is low. Therefore, site 8HE284 is considered ineligible for listing in the **NRHP**. However, since the Enville Cemetery has not been securely located, it is recommended that archaeological monitoring of construction activities be conducted within the Enville (8HE284) site boundaries along the easternmost of the Ayers Road Extension alternative to ensure that the cemetery is not disturbed.

Additional testing conducted on site 8HE426 (Alexsuk) revealed that the site represents multiple periods of occupation that were most likely seasonal in duration, indicating patterned use of the area in the Paleoindian, Middle-to-Late Archaic, and Formative periods. This site potentially contains data pertinent to research questions regarding the development of sedentism among pre-Columbian peoples in this region. Therefore, this site is considered potentially eligible for listing in the **NRHP** under Criterion D.

The historic resources survey conducted for the project resulted in the identification of 15 historic resources located in Hernando and Pasco counties. Fourteen resources were newly recorded during this survey (8HE408-8HE417; 8PA1297-8PA1300), and one resource (8HE384) was recorded during previous survey work. Based on their common designs and building types, compromised historic integrity, and lack of important historical associations, none of the 15 resources are considered eligible for listing in the **NRHP**.

One previously recorded historic resource was identified during a search of the FMSF. The historic resource, 14459 County Line Road (8HE378), was documented in 1995 as part of the Suncoast Expressway Re-evaluation conducted by Archaeological Consultants, Inc. While performing the CRAS for C.R. 578, it was determined that 14459 County Line Road (8HE378) was demolished sometime between 1995 and the present time, and it is no longer extant.

Testing of the proposed Ayers Road Extension Minimization Alternative identified new portions of sites 8HE426 and 8HE284 as well as four newly recorded historic resources (8HE454-456 and 8HE458) (see Appendix A). The relatively low density of this new portion of site 8HE426 indicates that the Minimization Alternative will cause the least impact to this site, which remains potentially eligible for inclusion in the **NRHP**. Site 8HE284 is highly disturbed and is not eligible for inclusion in the **NRHP**. Finally, due to their common designs and building types, compromised historic integrity, and lack of important historical associations, the four newly recorded historic resources (8HE454-456 and 8HE458) are considered not eligible for inclusion in the **NRHP**.

Section 1.0
INTRODUCTION

This cultural resource assessment survey (CRAS) of C.R. 578 (County Line Road) is intended to comply with the *National Environmental Policy Act (NEPA)*; Section 106 of the *National Historic Preservation Act of 1966* (as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*); and Chapter 267, *Florida Statutes*. This project complies with Part 2, Chapter 12 (*Archaeological and Historic Resources*) of the Florida Department of Transportation (FDOT) *Project Development and Environment Manual* (January 1999 revision). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716). The objective of this survey was to assess all cultural resources in terms of their eligibility for listing in the **National Register of Historic Places (NRHP)** according to the criteria set forth in 36 CFR Section 60.4.

1.1 PROJECT NEED

The need for improvements along the C.R. 578 corridor is based primarily on the evaluation of the following conditions:

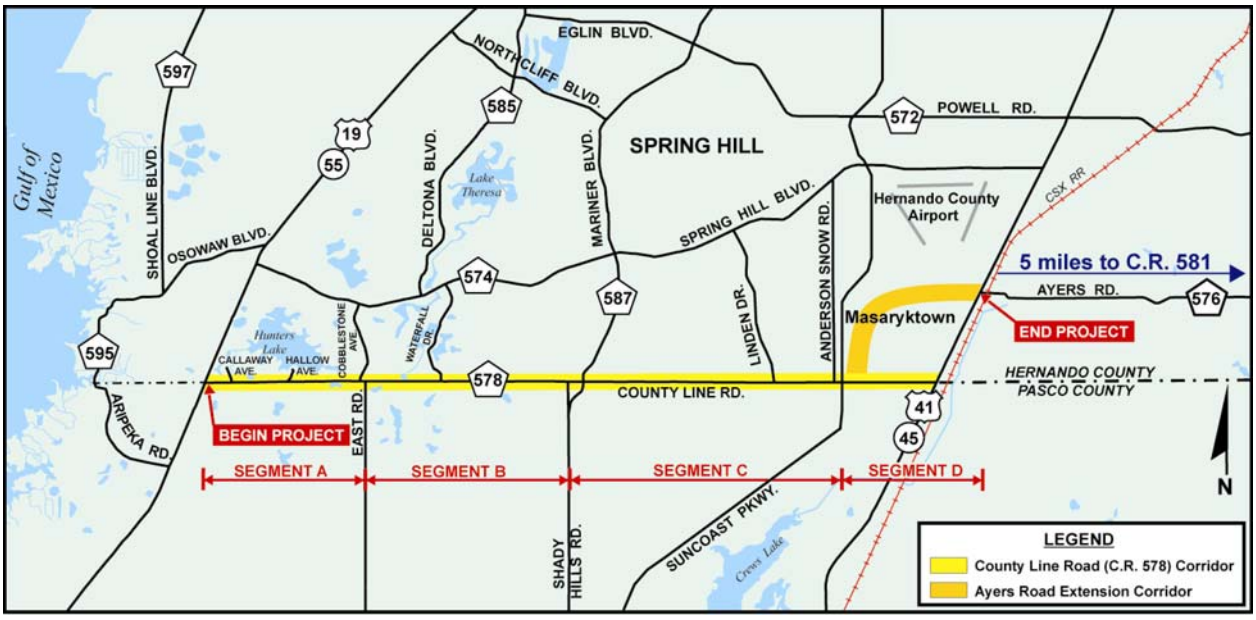
- Current substandard traffic operations within the study area;
- The expected future traffic demands along the C.R. 578 corridor, and the projected future socioeconomic growth in northwest Pasco and southwest Hernando counties;
- Substandard vertical sight distances;
- C.R. 578 is a designated evacuation route; and
- Need for adequate pedestrian and bicycle facilities.

The 2020 Average Annual Daily Traffic (AADT) volumes that were projected by the Tampa Bay Regional Planning Model (TBRPM) using the revised land use data for Pasco County indicate that a four-lane roadway will be required for C.R. 578 from U.S. 19 to U.S. 41 to provide acceptable levels of service.

1.2 PROJECT DESCRIPTION

The FDOT is conducting a Project Development and Environment (PD&E) Study to evaluate capacity improvement alternatives for C.R. 578 in Pasco and Hernando counties, as shown in Figure 1-1. The proposed project involves improving C.R. 578 from a primarily two-lane roadway to a multi-lane facility from the vicinity of U.S. 19 (S.R. 55) to the east of U.S. 41 (S.R. 45), a distance of approximately 19.3 km (12.0 mi.).

FIGURE 1-1
PROJECT LOCATION MAP



A segment of roadway on new alignment, referred to as the Ayers Road Extension, is being evaluated as one of the alternatives from the C.R. 578/Suncoast Parkway interchange to east of U.S. 41, a distance of approximately 5.7 km (3.5 mi.). The Ayers Road Extension provides continuous travel to the east of U.S. 41 and would improve access to the Hernando County Airport.

The C.R. 578 corridor is an east/west facility with a functional classification of a major collector. The project is located within Sections 1 through 6 of Township 24 South, Range 17 East and Sections 1 through 6 of Township 24 South, Range 18 East in Pasco County, and Sections 31 through 36 of Township 23 South, Range 17 East; Sections 25, 26, and 31 through 36 of Township 23 South, Range 18 East; and Section 30 of Township 23 South, Range 19 East in Hernando County.

C.R. 578 is currently a two-lane rural roadway from U.S. 19 to Callaway Avenue and from Hallow Avenue to U.S. 41. From the vicinity of Callaway Avenue to Hallow Avenue, C.R. 578 has been expanded to a four-lane divided suburban facility with an open drainage system. In addition, for 0.8 km (0.5 mi.) west and east of the interchange at the Suncoast Parkway, C.R. 578 is currently under construction to be expanded to a four-lane divided facility. The existing posted speed limit along C.R. 578 ranges from 60 to 90 kilometers per hour (kph) [40-55 miles per hour (mph)]. The existing right-of-way (ROW) width ranges from 15.24 meters (m) [50 feet (ft.)] to 51.82 m (170 ft.) except at the Suncoast Parkway interchange, where the ROW width is 77.42 m (254 ft.).

Primary land uses along C.R. 578 include numerous residential subdivisions, individual residences, commercial development, the Spring Hill Regional Hospital, the Suncoast Elementary School, the Hernando County Airport, and numerous religious facilities.

C.R. 578 was divided into the four study segments as follows due to existing land use patterns and future construction segments:

Segment A: U.S. 19 to East Road – A distance of 3.9 km (2.4 mi.).

Segment B: East Road to Mariner Boulevard/Shady Hills Road – A distance of 5.1 km (3.2 mi.).

Segment C: Mariner Boulevard/Shady Hills Road to Suncoast Parkway – A distance of 6.3 km (3.9 mi.).

Segment D: Suncoast Parkway to Ayers Road (Ayers Road Extension) – A distance of 6 km (3.5 mi.).

1.3 AREA OF POTENTIAL EFFECT

For the purpose of the CRAS, the APE was determined by evaluating the improvements that will be implemented and the possible effects that these improvements could have on historic resources. The determination of the APE also considered the character of the project area and the number of cultural resources that would be found in the region. The potential effects that may result from this proposed project include visual, noise, traffic, and vibration. Previous studies have shown that potential visual and noise effects often have the most impacts. The APE for the alignment options was defined as the area within which potential visual or noise effects for the improvements could be observed (Figure 1-2).

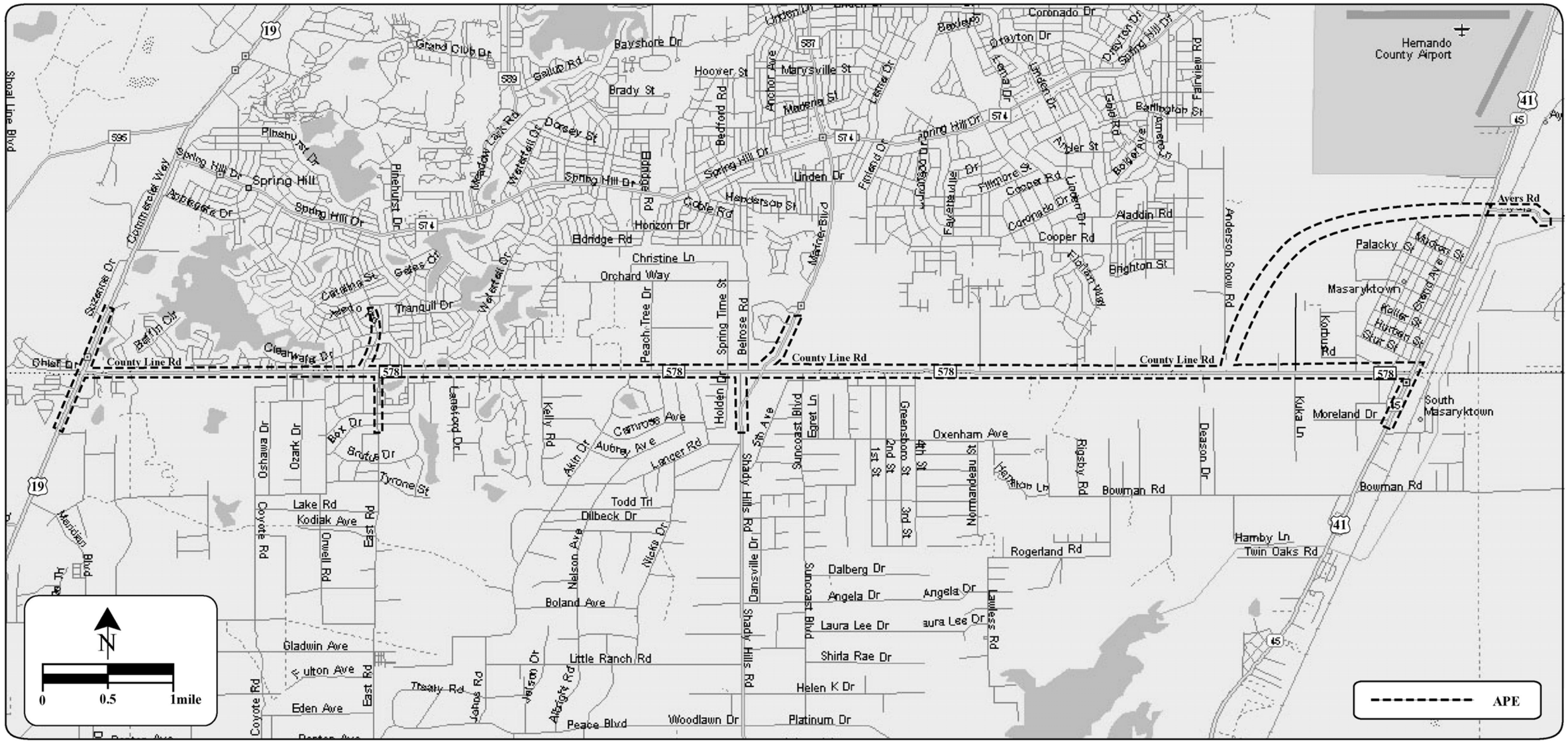
While conducting the archaeological survey, a linear project impact area was defined for this project. It was determined that the project impact area would be generally 30 m (100 ft.) for Segment A from either side of the alignment options' centerline for a total project impact area width of 60 m (200 ft.) and 36 m (120 ft.), and the same for Segments B and C from either side of the alignment options' centerline for a total APE width of 72 m (240 ft.). In addition, the project impact area extended north-south, 0.8 km (0.5 mi.) along U.S. 19, Cobblestone Avenue/East Road, Shady Hills Road/Mariner Boulevard, and U.S. 41 from their intersections with C.R. 578. In addition, 0.8 km (0.5 mi.) of Ayers Road, east of its intersection with U.S. 41, was also surveyed. The project impact area for these roads was defined as 30 m (100 ft.) from either side of the centerline for a total project impact area width of 60 m (200 ft.). Segment D, the Ayers Road Extension, had an archaeological project impact area width of 36 m (120 ft.) from the proposed centerline, for a total width of 72 m (240 ft.).

While conducting the historic resources survey, the APE for Segments A through C was generally 90 m (300 ft.) from each side of the centerline of C.R. 578, for a total width of 181 m (600 ft.). From approximately Callaway Avenue to Hallow Avenue, along C.R. 578, the APE only extends 90 m (300 ft.) to the north side of the road, based on the proposed improvements for this portion of C.R. 578. When evaluating the segment of the new roadway improvement, referred to as the Ayers Road Extension or Segment D, which extends through undeveloped land from the C.R. 578/Suncoast Parkway interchange to the vicinity of U.S. 41, the APE included a total width of 121 m (400 ft.). Throughout the project area, the size of the APE allowed for the

evaluation and recordation of historic resources located within or directly adjacent to the right-of-way that may be potentially impacted by proposed improvements.

FIGURE 1-2

AREA OF POTENTIAL EFFECT FOR THE PROPOSED IMPROVEMENT PROJECT



Section 2.0
ENVIRONMENTAL SETTING

Environmental and ecological factors through time had a direct influence on the choice of sites for occupation by precontact populations and early historic settlers. The geologic, hydrologic, and meteorological processes that may have affected the biotic resources of the project area are important elements in the formulation of a settlement/subsistence model for precontact and early historic peoples. Present-day environmental variables can be used to reconstruct past conditions that may have influenced early human occupation in the vicinity of the current study area and are thus included in this study.

The project area is located in western Pasco and Hernando counties, within the physiographic region known as the Gulf Coastal Lowlands (White 1970:1-B). The Gulf Coastal Lowlands are broad marine plains, which gently slope from the foot of the Brooksville Ridge on the east, down towards the Gulf of Mexico to the west. This area is relatively flat, with some topographic relief supplied by relict sand dunes of late Pleistocene age.

Prominent features of the topography of Florida are the step-like surfaces or terraces that were formed during interglacial periods by the advances and retreats of the Pleistocene seas (Healy 1975). The natures of the sediments and relative elevation of a particular terrace affect the occurrence and movement of groundwater (Healy 1975). Scanning from west to east, the current project area crosses three separate terraces: the Pamlico, Talbot, and Penholoway. The lowest elevations in the project area occur on the Pamlico terrace, which ranges from 2.4 to 7.6 m (8 to 25 ft.) in elevation. The Talbot terrace is located just to the east of Pamlico. Elevations here are slightly higher, ranging from 7.6 to 12.8 m (25 to 42 ft.). The Penholoway terrace is located just to the east of the Talbot and is marked by elevations ranging from 12.8 to 21.3 m (42 to 70 ft.).

The surface lithology of the project area is composed of undifferentiated deposits of sand and clay of Pleistocene and Recent age, which are underlain by the Tampa limestone of Miocene age, the Suwannee limestone of Oligocene age, and the Eocene series Crystal River Formation (Deuerling and MacGill 1981). There appear to be no well-defined drainage systems in the current project area. Most of the area is drained through numerous sinks, closed depressions and ponds.

Soil drainage characteristics have been used successfully by numerous researchers in the development of site location predictive models. There are a large number of soil types found within the project area, ranging from excessively well drained to poorly drained. These soil types are listed in Table 2-1.

TABLE 2-1
DRAINAGE CHARACTERISTICS OF SOILS FOUND WITHIN THE PROJECT AREA

Drainage Characteristic	Soil Type
Excessively-drained	Candler fine sand, 0-5% slopes
	Candler fine sand, 5-8% slopes
	Paola fine sand, 0-8% slopes
	Millhopper fine sand, 0-5% slopes
	Masaryk very fine sand, 0-5% slopes
Well-drained	Kendrick fine sand, 0-5% slopes
Moderately well-drained	Tavares sand, 0-5% slopes
Somewhat poorly-drained	Nobleton fine sand, 0-5% slopes
Poorly-drained	Pompano fine sand
	Basinger fine sand, depressional
	Blichton loamy fine sand, 2-5% slopes

Much of the study area has been cleared and modified for the construction of roadways, houses, businesses, improved pastures, and tree farms. Despite these recent modifications, the natural vegetation can be determined using historic documents, maps and soils information. The original vegetation of most of the project area would have consisted mostly of turkey oak scrub and hardwood hammocks. Portions of these ecosystems are still visible within the project area.

The dominant tree species in the scrub portions of the project area are bluejack, turkey and runner oak. Scattered longleaf and slash pine are also present, sometimes in small groups. Understory vegetation includes pineland threeawn, creeping bluestem and lopsided indiangrass (USDA 1982:22). The dominant tree species in the hammock portions of the project area are oak species, such as live oak. Understory vegetation includes saw palmetto and holly (Ilex sp.) (Platt and Schwartz 1990).

Puffer (1981) has compiled a list of native species that would have been available to Native American populations in the Little Manatee River basin. Her list includes those plants that are considered to be the most common or important for precontact use or consumption. Although the Little Manatee River is south of Tampa Bay, many of the species Puffer identifies are common in the current project area. The better-drained, sandy ridges support a number of species, such as longleaf pine, saw palmetto, oaks, gallberry, persimmon, gopher apple and prickly pear cactus, which were utilized for their fruits and/or wood. Hardwood hammocks would have provided excellent forage for deer, which, in turn, would have attracted Native American hunters. A variety of edible plants could have been collected, including persimmon, saw palmetto berries, oak and hickory nuts, pigeon plum, beautyberry, wild grapes, holly, arrowroot and wild coffee.

2.1 PALEOENVIRONMENTAL AND MACROVEGETATIONAL CHANGE

Since the close of the Pleistocene, at the end of the Wisconsin glaciation, roughly 13,500 years ago, Florida has undergone significant climatic and environmental change. Changes in climate, vegetation, and fauna often required that human groups alter their adaptive strategies. This resulted in changes in subsistence adaptation, settlement, and seasonal movement patterns, foraging strategies, and hunting patterns. These changes in social behavior are reflected in the archaeological

record as changes in site patterning, changes in midden composition or refuse disposal patterns, or changes in the kinds of stone tools manufactured or the kinds of pottery made.

An exhaustive paleoenvironmental reconstruction is beyond the scope of this study; however, a description of the gross climatic and hydrologic conditions since 31,000 BC summarized from published accounts will be provided. This description, drawn primarily from the work of W. A. Watts (1969, 1971, 1975, 1980; Watts and Hansen 1988), considers only large-scale environmental change. Carbone (1983) has suggested the reconstruction of local paleoenvironments, or small-scale environmental change, with an effort towards developing regional paleoenvironmental mosaics. Both vegetation and animals, humans included, adapt to local areas, or microhabitats. The descriptions given here cannot be used with any confidence to predict the specific pre-modern microhabitats that may have existed within the project vicinity. They can, however, provide a general indication of the natural surroundings confronting precontact groups, particularly the environmental limitations that would have influenced precontact settlement strategies.

Paleobotanical evidence (Watts 1969, 1975, 1980; Watts and Struiver 1980; Watts and Hansen 1988) has documented that the cypress swamp/mesic hammock environs that presently exist in the river basins of western Florida are a recent phenomenon (post-1000 BC). Prior to 3,000 years ago, the human groups inhabiting this region were adapted to environmental situations that have no analogue on the Florida peninsula today (Wright 1971, 1981; Long 1974; Carbone 1983). Since the beginning of the Holocene (ca. 13,500 years ago), the changes in climate and topography have been dramatic; both the environment and human exploitation of the environment have caused a continual state of change (Edwards and Merrill 1977).

Although glaciers never extended into the southern latitudes, the effects of glacial conditions and the extension of the Laurentide ice sheets affected the paleoclimate of Florida. Paleobotanical evidence suggests that during the period 31,000 BC to 11,500 BC Florida was dry, windy, and cool (Whitehead 1973). Pollen analyses of lake sediment cores performed by Watts (1969, 1971, 1975, 1980) suggest a mosaic of herb prairie and oak savanna covered central Florida at this time. Rosemary (Ceratiola ericodes), ragweed (Ambrosia), other composites, and grasses covered the dune ridges. Scattered stands of sclerophyllous oak scrub grew in the lower, more water-retentive areas. Pines were rare in Florida 35,000 years ago (Watts 1975:345), but increased in abundance toward the close of the Pleistocene (Watts 1980:400). Drier conditions are suggested by hiatuses in lake sediment cores obtained from Mud Lake in north central Florida (Watts 1969), Lake Louise in southern Georgia, Scott Lake in west-central Florida (Watts 1971), and Sheelar Lake in north-central Florida (Watts and Struiver 1980).

These breaks in the sedimentary record are the result of lower average rainfall and depression of the Floridan Aquifer and surficial (water table) aquifer. A lower mean sea level was partially responsible for the depression of these aquifers. Shallow perched lakes dried up, leaving only solution lakes with sufficient depth to tap water contained within the depressed Floridan Aquifer. Examples of such solution lakes (cenotes or sinkholes) include Lake Anne in Highlands County (Watts 1975), Warm Mineral Springs in Sarasota County (Clausen et al. 1975), Little Salt Spring (Clausen et al. 1979) in Sarasota County, and Devil's Den in Levy County (Martin and Webb 1974).

Evidence of cooler and drier conditions at the maximum of the Wisconsin Glaciation (16,500 BC) is also provided by Gates (1976). Using CLIMAP data, Gates has estimated the mean July temperature in the southeastern U.S. to be as much as 7° C to 10° C cooler than present mean July temperatures.

Roughly 13,500 years ago, the climate in central Florida had warmed and rainfall was probably more abundant. The shallow perched lakes again contained water. Watts (1980:400) states that by 8400 BC, oak pollen reached its highest levels. Pollen from dune cover vegetation, primarily rosemary, ragweed, and grasses, became less well represented in the pollen record. This indicates that the dunes were then stabilized by oak scrub, and local sclerophyllous oak forests had developed. Pines became more common, but large areas of open, prairie-like vegetation still remained (Watts 1980:400). Temperatures were probably warmer then present (Wright 1971; Watts 1975, 1980). Rainfall was probably greater at this time than during the preceding period (31,000 to 11,500 BC), but conditions were still drier than today.

By convention, the beginning of the Holocene has been set at roughly 8000 BC (Whitehead 1965), however recent palynological data has modified this view. Kukla (1969) postulates that the Holocene began as early as 11,500 BC. He has suggested that a series of minor climatic fluctuations has occurred since that time beginning with a warming trend, which lasted until 2600 BC, reaching a post-glacial climatic optimum at roughly 4000 BC. Cooling trends are suggested for the periods dating from 2600 to 2000 BC, 1450 to 700 BC, 100 BC to AD 400, and AD 1250 to 1940 (Kukla 1969:315). Associated with these cooler periods are drops in sea level from two and one-half to four meters below present levels. Warming trends are suggested for the periods 2000 to 1450 BC, 700 to 100 BC, and AD 400 to 1250. The most recent warming trend (AD 400 to 1250) is considered to have been slightly warmer than the others, and has been called the "little climatic optimum" (Kukla 1969:316). A rise in sea level to 0.5 m (1.6 ft.) above present level has been associated with this last period.

After 3000 BC, the environment in west-central Florida began to take on a more modern appearance. Large stands of slash pine (Pinus elliottii) became established, probably at the expense of oak in the wetter, low-lying areas. Rainfall increased and sea levels rose, creating wetter conditions. At Lake Annie, Watts (1980:400) reports that the pollen from bald cypress (Taxodium distichum) does not occur with any frequency until 630 BC. The development of cypress swamps, bayheads, and mesic hammocks has occurred over the last 3,000 years.

The availability of water to the Native American inhabitants of west-central Florida involved two groundwater systems: the Floridan Aquifer and the surficial aquifer. The Floridan Aquifer exists in Miocene and earlier age limestone, which lie beneath the Hawthorn Formation. This is the source of fresh water for many of the present-day inhabitants of this region. The surficial aquifer lies within the Recent age deposits, separated from the lower limestones by the sandy clay of the weathered Tampa Formation (Sinclair 1973:13). Water from the Floridan Aquifer is available in sinkholes, springs, and other natural openings where the lower limestones are not covered by Recent age materials. Water from the surficial aquifer is available in perched water ponds. Perched water ponds are generally shallow bodies of water, fed by rainfall and the surficial aquifer, which remain near the ground surface because of the almost impermeable clay stratum. The base level of both aquifers is greatly influenced by sea level (Dunbar 1982:77-80).

Because the level of the Floridan Aquifer is partially dependent on sea level, the projected level of the aquifer at any point in prehistory will largely depend on which of the Holocene sea level curves are used. Dunbar (1982) suggests the use of the sea level curve developed by Stapor and Tanner (1977). This sea level prediction is similar to those suggested by Fairbridge (1960, 1961, 1974) and Mörner (1969). What is important is the pattern of sea level fluctuations, not the absolute values of the measures above or below present sea level.

People in Florida during the Paleoindian and Early Archaic periods obtained a permanent water supply from solution lakes and ponds and a seasonal water supply from perched water ponds. Shallow water ponds and rivers fed by the Floridan Aquifer were dry during this period because of insufficient rainfall and the depressed level of the aquifer. Settlement appears to have been limited, or "tethered," to areas around sinkholes (Clausen et al. 1975, 1979), or areas within the Central Gulf Coast karst region, where both solution lakes and perched water were available (Dunbar and Waller 1983).

By 8000 BC, the previously dry perched water systems began to retain water for longer periods as rainfall levels increased. By 6500 BC, the water levels in the perched water systems approached modern levels, but the level of the Floridan Aquifer remained lower because of a lower sea level. Potable water was less restricted, but only available at perched water ponds and lakes, and in some deep sinkholes. During this period, the Hillsborough and Alafia Rivers probably flowed intermittently. For much of the period, these rivers were probably reduced to a series of discontinuous shallow ponds or pools.

By 4000 BC, the Floridan Aquifer reached modern levels (Dunbar 1982:98). This resulted in freshwater discharge from springs, and spring-fed rivers, like the Hillsborough and Alafia Rivers. Arid conditions caused many of the perched water ponds to dry up, restricting potable water to springs, rivers, and sinkholes (Dunbar 1982:98). Surface water was abundant during the period between 4000 and 3000 BC, as the Floridan Aquifer was about 1.5 m (4.9 ft.) above current levels (Dunbar 1982:101).

During the period from 3000 BC to 500 BC, the level of the Floridan Aquifer fluctuated roughly 3 m (9.8 ft.), from 1.5 m (4.9 ft.) above current levels at 3000 BC to 1.5 m (4.9 ft.) below present levels at 2200 BC (Dunbar 1982:102). This probably resulted in a decreased surface discharge from the aquifer, but increased rainfall maintained the levels in the perched water systems. From 500 BC to AD 1750, the level of the Floridan Aquifer rose. This rise, in combination with higher than present rainfall conditions, probably resulted in seasonal flooding of low-lying regions (Dunbar 1982:102). Potable water was abundant during this period. Site location was probably more dependent on the proximity of plant and animal resources than on the availability of water.

The climatic fluctuations that have occurred over the past 13,000 years have affected the way human groups were able to exploit the resources found along Florida's Gulf Coast. The Paleoindian and Early Archaic inhabitants would have found the area drier, and access to water restricted, possibly only seasonally available at perched water ponds, or in solution lakes (sinkholes). Mixed forests of oak and pine probably dominated the lower, water retentive areas, with the higher, drier locations covered with grasses and rosemary scrub.

The Holocene climatic optimum, a time of warmer and drier environmental conditions, occurred during the Middle Archaic period (5000 to 3000 BC). Pine was replacing oak as the dominant forest species (Watts 1975). This implies that the availability of acorns, and animals that feed on acorns (deer and raccoon), would have been more restricted. Water was more plentiful, but only in rivers and springs fed by the Floridan Aquifer, or at sinkholes.

By Late Archaic times, the environment of the Gulf Coast approached present conditions. With the development of swamps and wetlands, water was no longer the limiting factor to site and resource location. The choice of site location was probably more a matter of finding a reasonably dry spot rather than a nearby water supply (cf., Almy 1976, 1978; Grange et al. 1979). Even though sea levels were still fluctuating, they remained within 1 m (3.3 ft.) of current levels (Mörner 1969). Florida Transitional through Safety Harbor period groups exploited microhabitats that existed until modern logging, ranching, and land drainage practices were instituted.

2.2 LITHIC RESOURCES

Two kinds of lithic raw material were available to the precontact inhabitants of Pasco and Hernando counties: silicified coral and silicified limestone. Silicified coral is the replacement of the original coral aragonite skeletal material with quartz. Such replacement often preserves the fabric of the coral resulting in a distinctive "star" pattern in the stone. The fossil genus most commonly found silicified is *Siderastreas*, a fossil found in Oligocene and Miocene Formations in Florida and southern Georgia (Upchurch et al. 1982). The distribution of this material is widespread in Florida. Artifacts made from silicified coral cannot yet be assigned to any of the known coral quarry areas. Known coral quarry sources close to the project area are located on the northern end of Honeymoon Island in Pinellas County and within the Wesley Chapel/Green Swamp area of Hillsborough and Pasco counties (Upchurch et el. 1982; Goodyear et al. 1983). As silicified coral is difficult to flake in its unaltered state, it is often thermally altered to enhance its flaking qualities.

Silicified limestone is the replacement of limestone by quartz (Upchurch et al. 1982). This replacement usually retains both the fabric and the fossils contained within the limestone. Upchurch et al. (1982) have devised a way to differentiate silicified limestone materials based on their original geological strata. They have identified 19 quarry clusters for Florida based on these investigations (Upchurch et al. 1982:Figures 20B-20H). Each quarry cluster contains from one to several specific quarry locations, each containing silicified limestone with similar fabric and fossils. The three quarry clusters that are nearest to the project area are the Upper Withlacoochee, the Caladesi, and the Brooksville.

Section 3.0
NEED FOR IMPROVEMENT

The need for improvements along the C.R. 578 corridor is based primarily on the following conditions:

- Current substandard traffic operations within the study area;
- Future traffic demands along the C.R. 578 corridor, and the projected future socioeconomic growth in northwest Pasco and southwest Hernando counties;
- Inadequate driver sight distances;
- The need for adequate pedestrian facilities;
- Assistance in improving access to Hernando County Airport; and
- Providing a continuous route between U.S. 19 and C.R. 581.

The 2025 Average Annual Daily Traffic (AADT) volumes that were developed from the use of the 2020 Tampa Bay Regional Planning Model (TBRPM) using the revised land use data for Pasco County indicate that a four-lane roadway will be required for C.R. 578 from U.S. 19 to U.S. 41 to provide acceptable levels of service.

3.1 DEFICIENCIES

Capacity analyses were conducted to identify the roadway segments and intersections that presently or will in the future operate at a deficient Level of Service (LOS) if no improvements are constructed. Section 6.0 of the First Draft Preliminary Engineering Report (see FDOT December 2000) indicates that the portion of C.R. 578 from U.S. 19 to Mariner Boulevard/Shady Hills Road is currently operating at LOS E in both the a.m. and p.m. peak hour. The entire portion of the C.R. 578 corridor from Mariner Boulevard/Shady Hills Road to U.S. 41 is operating at LOS D in the p.m. peak hour. In the a.m. peak hour, the segment from Mariner Boulevard/Shady Hills Road to Linden Drive is operating at LOS D, while the remaining portion from Linden Drive to U.S. 41 is operating at LOS C. However, the results of the No-Build alternative analyses indicate that a majority of the existing two-lane undivided roadway is projected to operate at LOS F if no improvements are made to the facility.

3.2 SAFETY

3.2.1 CRASH EVALUATION

The evaluation of the crash data revealed that a total of 147 crashes have occurred over the 3-year period 1997 to 1999. These 147 crashes have involved 301 vehicles and resulted in 127 injuries along with two fatalities.

The crash evaluation also revealed that rear-end collisions are the most prevalent type of crash occurring in the corridor and represent approximately 45.6 percent of the total crashes reported between 1997 and 1999. In addition, right-angle collisions and left-turn collisions are the next most frequent types of crashes occurring in the corridor, accounting for approximately 17.0 percent and 12.9 percent of the total crashes, respectively.

3.2.2 HURRICANE EVACUATION

Evacuation is a critical issue for the coastal communities of Pasco and Hernando counties. Planning and preparation are the keys to successful evacuation of coastal areas. The primary sources of information for hurricane evacuation in Pasco County are the *Tampa Bay Region Hurricane Evacuation Plan* (see FDOT December 2000) and the *Tampa Bay Region Hurricane Study* (see FDOT December 2000), prepared by the Tampa Bay Regional Planning Council. In Hernando County, the primary source is the *Hurricane Evacuation Study for the Cedar Key Basin* (see FDOT December 2000), prepared by the U.S. Army Corps of Engineers.

Pasco County delineates five evacuation levels, Levels A through E. Level A is the most hurricane-vulnerable area encompassing the coastal areas lying west of U.S. 19. According to the hurricane evacuation plans, C.R. 578 is designated as a secondary evacuation route in Pasco County. In the event of an evacuation event, C.R. 578 may be utilized by nearby coastal communities in addition to the communities immediately adjacent to the roadway.

Hernando County has two evacuation zones: Zone A, which is everything west of U.S. 19, and Zone B, which is the area from U.S. 19 east to the vicinity of Deltona Boulevard. However, based on the hurricane evacuation plan, C.R. 578 is primarily used by those communities adjacent to it.

3.3 CONSISTENCY WITH TRANSPORTATION PLANS

The portion of the project from U.S. 19 to Mariner Boulevard/Shady Hills Road is included in the *Pasco and Hernando County Metropolitan Planning Organizations' (MPOs') 2020 Long Range Transportation Plans (LRTPs)* (see FDOT December 2000) and is recommended to be improved to a four-lane divided facility. The portion of C.R. 578 from Mariner Boulevard/Shady Hills road to U.S. 41 is not currently planned for expansion according to the *Pasco County and Hernando County 2020 LRTPs* (see FDOT December 2000). The proposed new roadway alignment, Ayers Road Extension from the interchange of C.R. 578 and the Suncoast Parkway to the vicinity of U.S. 41 and Ayers Road, is identified in the Hernando County 2010 Interim Plan as a two-lane facility and in the *Hernando County 2020 LRTP* (see FDOT December 2000) as a four-lane facility.

In addition, the *Hernando County 2020 LRTP* (see FDOT December 2000) has designated a portion of C.R. 578, from east of the Suncoast Parkway to U.S. 41, as a constrained facility. This constraint is based on the existing scenic and aesthetic characteristics associated with this canopied roadway segment. Consideration for improvements along this roadway segment will consist of providing for pedestrians and bicyclists. No multi-lane improvements are considered for this segment.

3.4 SOCIAL AND ECONOMIC DEMANDS

Pasco County encompasses 2,248 gross square kilometers (gr km^2) [868 gross square miles (gr mi^2)] including water bodies. Approximately 1,930 km^2 (745 mi^2) is land area. Hernando County encompasses 1,526 gr km^2 (589 gr mi^2) including water bodies. Approximately 1,238 km^2 (478 mi^2) is land area. The C.R. 578 corridor from U.S. 19 to U.S. 41 is primarily located in Census Tract 318 in Pasco County and Census Tracts 14 and 9 in Hernando County.

According to the 1990 Census of Population, Housing, and Employment, Pasco County's population was 281,131 in 1990, which was a 45 percent increase over the 1980 population of 193,661. Projected population for 2020 is 431,300, which represents a 53 percent increase over the 1990 population. The population growth in Pasco can be attributed to tourism, a second home market, an influx of retirees, and the retail industry. Due to lower taxes and other living expenses, Pasco County attracts the overflow population from Pinellas and Hillsborough counties to its south.

Hernando County's population was 101,115 in 1990, which reflected a 127 percent increase over the 1980 population. Projected population for 2020 is 197,200, which represents a 95 percent increase over the 1990 population. The rapid population growth in Hernando County can be attributed to tourism, a second home market, and the economic growth in Central Florida. Hernando County has become a residential community for Hillsborough, Pinellas, and Pasco counties.

Relevant socioeconomic information for both counties is presented in Tables 3-1 and 3-2.

TABLE 3-1
PASCO COUNTY SOCIOECONOMIC INFORMATION

Statistic	Value
Population 1990	281,131
Projected Population 2020	431,300
% Increase in Population 1980-1990	45
% Increase in Population 1990-2020	53
Median Age 1990	49
% 65 and Older	32.2
Persons per Household	2.26
Per Capita Income 1997	$20,629

Source: 1999 Florida Statistical Abstract

TABLE 3-2
HERNANDO COUNTY SOCIOECONOMIC INFORMATION

Statistic	Value
Population 1990	101,115
Projected Population 2020	197,200
% Increase in Population 1980-1990	127
% Increase in Population 1990-2020	95
Median Age 1990	50.8
% 65 and Older	30.6
Persons per Household	2.38
Per Capita Income 1997	$19,751

Source: 1999 Florida Statistical Abstract

Section 4.0
PREHISTORIC OVERVIEW

The following review of regional prehistory will serve as framework for understanding precontact occupation and land use within the study area. People have lived in Florida for at least 14,000 years. The earliest cultural periods were relatively similar throughout the southeast with cultural regionalism becoming more evident approximately 4,000 years ago with the advent of fired clay pottery. Milanich (1994) and Milanich and Fairbanks (1980) have synthesized the earlier research of Stirling (1930), Goggin (1947), Willey (1949), Bullen (1972), and others in the Gulf coastal area of Florida, and their chronology will be followed in this overview.

The project area is located near the interface of two environmentally and culturally similar areas. These are defined by Milanich (1994:xix) as the North Peninsular Gulf Coast and the Central Peninsular Gulf Coast cultural regions (Figure 4-1). These Gulf coastal areas extend from the Big Bend-Apalachee Bay area to just north of Charlotte Harbor. The eastern boundary is in the central interior portion of the state, but it has not been clearly defined because of a paucity of data. The boundary between these two culture areas is also poorly defined. A preliminary boundary has been suggested at the mid-line of Pasco County (Milanich and Fairbanks 1980:113).

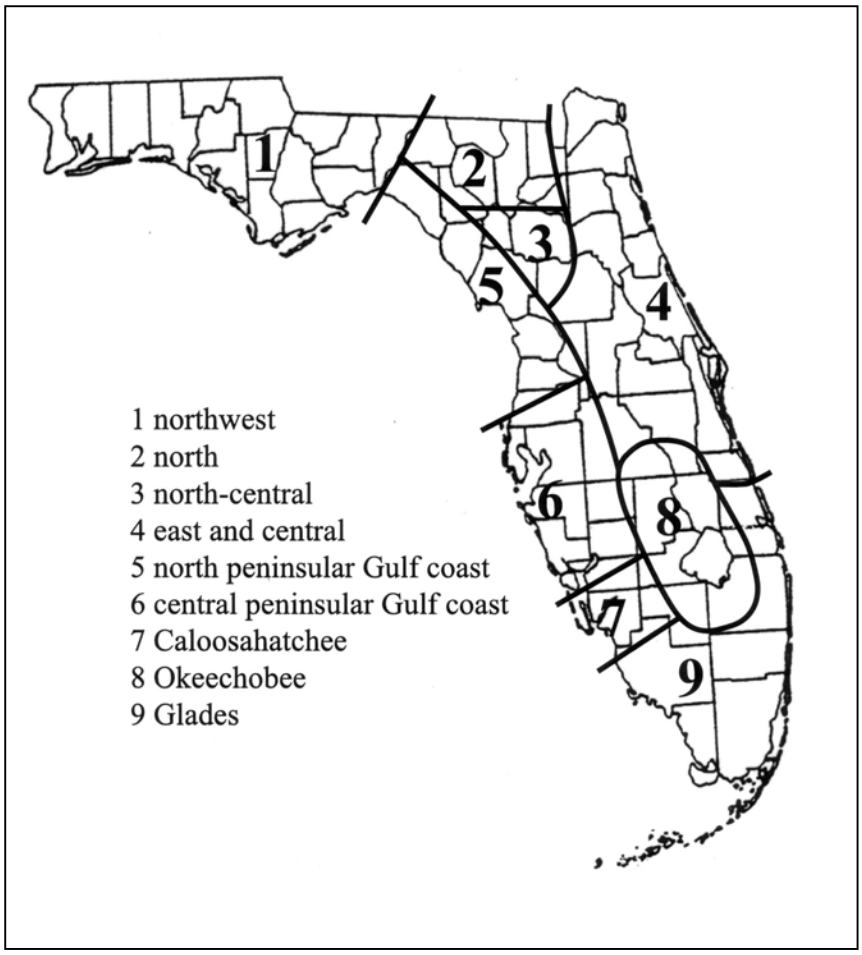
4.1 PALEOINDIAN PERIOD (12,000-7500 BC)

The earliest cultural manifestation recognized in Florida is the Paleoindian period, which dates from the arrival of the first human populations (about 12,000 BC) to roughly 7500 BC (Milanich 1994:37). Archaeological evidence for Paleoindian occupation consists primarily of scattered finds of diagnostic lanceolate projectile points associated predominantly with the rivers of north-central Florida (Waller 1969, 1970; Waller and Dunbar 1977). The climate of the region during this period was cooler and drier than at present and sea levels have risen as much as 35 m (115 ft.) since the Pleistocene. It is probable that many of the sites dating to this period now lie beneath the Gulf of Mexico (Scholl et al. 1969; Ruppe 1980). Evidence for this includes sites that were discovered as a result of dredging activities in the Gulf (Karklins 1970; Warren 1966, 1967, 1968, 1970).

Few Paleoindian sites in Florida have been subject to professional archaeological excavation. The earliest documented evidence for human occupation in the region comes from the Warm Mineral and Little Salt Spring sites in Sarasota County where radiocarbon dates of 10,000 BC have been obtained (Cockrell and Murphy 1978; Clausen et al. 1979). The Harney Flats site in Hillsborough County is a terrestrial site from this time period where extensive, controlled excavations have been conducted. Analysis indicates that this site was used as a quarry-related base camp (Daniel and Wisenbaker 1983; Ballo 1985; Daniel et al. 1986). Re-examination of other assemblages recovered during the I-75 Highway Salvage program indicates a wider distribution of terrestrial Paleoindian components than was previously suspected (Daniel et al. 1986:54).

Paleoindian artifacts have also been recovered from a disturbed portion of the Silver Springs site in Marion County. Although excavations were conducted at this site, there was little evidence for an *in situ* Paleoindian component (Neill 1958; Hemmings 1975). In Polk County, the Nalcrest site has produced evidence of a late Paleoindian (8000-6500 BC) microlithic tool complex (Bullen and Beilman 1973).

FIGURE 4-1
FLORIDA PREHISTORIC CULTURAL REGIONS



(*after Milanich 1994:xix*)

The prevailing view of Paleoindian existence, based on the uniformity of the known tool assemblage and the small size of most of the known sites, is that of a nomadic existence based on hunting and gathering, including hunting of the now extinct Pleistocene megafauna. Based on recent excavations in Hillsborough County, increasingly sophisticated models of early hunter-gatherer settlement have been developed (e.g., Daniel 1985; Chance 1983), which take into account the adaptive response of human groups to both short- and long-term environmental change. These models suggest that some Paleoindian groups may have practiced a more sedentary lifestyle than had previously been believed (Daniel 1985:264). Since the climate was cooler and drier than at present, it is likely that the presence of permanent sources of water, such

as springs, combined with the availability of certain fixed resources, such as chert for tool making, were important factors in Paleoindian site location.

4.2 ARCHAIC PERIOD (7500-500 BC)

The Paleoindian period is followed by the Archaic period (7500-1200 BC), which has been divided into three periods: Early Archaic (7500-5000 BC), Middle Archaic (5000-3000 BC) and Late Archaic (3000-500 BC) (Milanich 1994:63). The beginning of the Archaic period is marked by interrelated environmental and cultural changes. The establishment of increasingly modern climate and biota necessitated modifications in precontact settlement and subsistence patterns. Archaic populations hunted smaller game and learned to exploit their environment more efficiently than their Paleoindian predecessors. These adaptive changes resulted in a somewhat more sedentary lifestyle and an increase in the number and types of archaeological sites.

Early and Middle Archaic populations practiced a subsistence economy based upon hunting, fishing, shellfish collecting, and plant gathering. A seasonal migration pattern between the coast and interior was probably established to exploit the available resources more efficiently. Large permanent habitation sites, such as the Pinellas Point site (Goodyear 1968), tended to be located on the coast, or in marsh-riverine environments. Other types of sites include quarries, hunting camps, butchering sites, and cemeteries.

An increase in and variety of projectile point types, as observed in the archaeological record, is suggested to reflect different site functions. During the Early Archaic, both stemmed and non-stemmed varieties are found (Milanich and Fairbanks 1980:50-51). It is thought that Arredondo and Hamilton points were the prevalent types during the Early Archaic followed by the Florida Spike, Thonotosassa, Hardee Beveled, Kirk Serrated, Savannah River, Florida Morrow Mountain, and Sumter points (Milanich and Fairbanks 1980:51). The Middle Archaic period is distinguished by varieties of stemmed, broad bladed lithics. Special use camps predominate among Middle Archaic site types (Milanich and Fairbanks 1980).

Few Archaic sites in this region have been thoroughly excavated and analyzed. Many of these sites are located in Hillsborough County, including the Tampa Palms site (Austin and Ste. Claire 1982), Ranch House site (Estabrook and Newman 1984), 8HI450D (Daniel and Wisenbaker 1981), and the Wetherington Island site (Chance 1982). Few Archaic sites are known in the North Peninsular Gulf Coast cultural region, but numerous sites are recorded for the adjacent North-Central area, especially in Marion and Alachua counties. These include the Trisila Pond site (Neill 1964), Lake Kanapaha (Hemmings and Kohler 1974), the Newnans Lake site (Clausen 1964), the Senator Edwards site (Purdy 1975), the Johnson Lake site (Bullen and Dolan 1959), and the Bolen Bluff site (Bullen 1958).

The Orange phase of the Late Archaic, also known as the Ceramic Archaic, began around 3000 BC (Milanich 1994, 1995:35). Its inception was marked by the appearance of fiber-tempered ceramics. The subsistence technologies associated with this phase were similar to those practiced by earlier Archaic peoples; however, the use of ceramics indicates an increase in sedentism and food storage.

The introduction of crude fiber-tempered pottery into the artifact assemblage of the Archaic Native Americans marks the beginning of what is often referred to as the Norwood or Orange phases in Florida. The term Norwood is used in the northwestern and North Peninsular Gulf Coast cultural region of Florida to distinguish this area from the contemporaneous Orange phase in northeastern Florida. These phases occurred around 2000 BC; Bullen (1959, 1971) refers to the time period between the end of the Archaic period and the inception of the Woodland period as the Florida Transitional period, while Bense (1989) refers to the period as the Gulf Formational. Both view this period as a transition between the Archaic and Formative (Woodland) periods. The Florida Transitional phase is characterized by changes in ceramic form and tempering, an increasing trend toward sedentism, and the introduction of limited horticulture (Bullen 1959). The changes in adaptive strategies are thought to be due to a combination of factors including larger populations and increased interaction among different ethnic groups (Milanich and Fairbanks 1980). This was a dynamic period during which various ideas, techniques, and artifacts were moved or traded over substantial distances (Bullen et al. 1978:25). Evidence of trade and contact with members of the Poverty Point Complex in coastal Louisiana, for example, is suggested by the appearance of fired clay balls, diagnostic decorative motifs, and steatite vessels at such sites as Tick Island (Jahn and Bullen 1978) and Canton Street (Bullen et al. 1978). Evidence of village middens and inter-regional exchange with distant cultures is present during this period.

There is little data concerning this temporal period in the region and most sites are located along the coast (Milanich and Fairbanks 1980). Orange phase sites include the Canton Street site (Bullen et al. 1978) in Pinellas County and the Republic Groves site (Wharton et al. 1981) in Hardee County.

4.3 FORMATIVE PERIOD (500 BC – AD 800)

The Formative period in the Gulf coast region is comprised of three phases: Deptford (500 BC-AD 200), Manasota (500 BC-AD 800), and a Weeden Island-related phase (AD 200-800) (Milanich and Fairbanks 1980; Luer and Almy 1982; Milanich et al. 1984).

Even though Deptford phase sites (500 BC-AD 200) extended over a wide geographic range, they are poorly represented in the Tampa Bay region. Sand-tempered ceramics with simple, check, or linear check-stamped designs and burial mounds began to be adopted at this time. In the area extending from central Pasco County to the north, the use of limestone as a tempering agent in the manufacture of ceramics increased in popularity. The sand-tempered Deptford ceramics found at sites such as the Safford Mound (Bullen et al. 1970), Bay Pines (Gagel 1977), and Cypress Creek (Almy 1982) may actually be indicative of contact with the better-known Deptford cultures farther north rather than the presence of an indigenous Deptford population in the Central Gulf Coast region. However, the relative lack of evidence for Deptford occupation here may be due partially to the inundation of coastal sites such as the One Fathom site, located about 0.8 km (0.5 mi.) off the coast of New Port Richey in Pasco County (Neill 1978; Lazarus 1965). Deptford peoples had a subsistence economy based upon the exploitation of coastal resources supplemented by occasional hunting trips into the interior.

The Weeden Island phase succeeds Deptford in the North Peninsular Gulf Coast cultural region. The term "Weeden Island" is used to refer to several distinct, regional cultures that shared the same basic ceremonial complex dating from roughly AD 200-1000 (Milanich and Fairbanks 1980; Milanich et al. 1984). More extensive excavations are needed to establish regional chronologies, subsistence patterns, and social, political and ceremonial customs. Weeden Island groups led a mostly sedentary lifestyle with coastal and inland villages. Coastal sites are characterized by the presence of shell deposits and a sand burial mound. Since not all villages possessed a mound, it is likely that several communities shared a single continuous-use mound (Willey 1949). Although it has been suggested that horticulture played an increasingly important role in the subsistence technology of this period, no archaeological evidence has been found in this area to support this assumption. An increase in the number of artifacts made from exotic raw materials, such as galena and mica, has been documented for this period and often these items were interred with burials as grave goods.

In the Central Gulf Coast region, the Manasota phase has been proposed as the post-Florida Transitional culture complex (Luer and Almy 1982). This phase (500 BC – AD 800) was contemporaneous with the Deptford and early Weeden Island-related phases to the north. Late Manasota is considered to be a Weeden Island-related culture that later evolved into the Mississippian period Safety Harbor phase (Milanich et al. 1984:18, 22). Manasota is characterized by a wide range of material cultural traits such as a well-developed shell and bone technology, sand-tempered undecorated ceramic vessels, and human burials in shell middens (Luer and Almy 1982:Table 1). The distribution of sites is directly related to the two major subsistence activities: fishing and shellfish collecting in the coastal estuaries, and hunting and plant gathering in the pine flatwoods (Luer and Almy 1982:43). The larger village sites were located in order to facilitate access to both marine and terrestrial resources (Luer and Almy 1982:39). The Trout Creek Ridge site (8PA184), located near Wesley Chapel, is believed to represent an intermittently occupied camp of the Manasota phase (Ste. Claire et al. 1985:47). The influence of the Weeden Island culture in the latter part of the Manasota phase is demonstrated by the occurrence of Weeden Island series ceramics and the construction of burial mounds (Luer and Almy 1982:47).

4.4 MISSISSIPPIAN PERIOD (AD 800-1513)

The Safety Harbor phase is the only Mississippian period manifestation and the last precontact cultural complex to appear in the central Gulf coast area. Initially, the northern extent of the Safety Harbor culture was set at Tarpon Springs. Current research has indicated that it may have extended at least as far north as the Withlacoochee River (Mitchem 1988; Mitchem et al. 1983; Mitchem and Weisman 1984). Milanich and Fairbanks (1980:210) describe this phase as a Mississippian adaptation to a specialized coastal environment.

Archaeological data and ethno-historical accounts suggest that these people possessed a complex socio-political and religious system indicative of chiefdom (Bullen 1978). The settlements clustered around ceremonial centers, or "temple towns" (Goodyear 1972; Luer and Almy 1981), which were reported to be the focus of religious and political activity. These ceremonial sites all have similar layouts; all contain a flat-topped pyramidal temple mound with an adjacent plaza and village midden. Many of these sites also contain burial mounds. The large ceremonial

centers tend to be located in coastal areas (Luer and Almy 1981). The northernmost of the reported Safety Harbor ceremonial complexes is the Anclote Temple Mound in southern Pasco County (Luer and Almy 1982). Burial mounds dated to the Safety Harbor phase have been located and excavated in central Citrus County (Mitchem and Weisman 1984; Mitchem et al. 1983; Mitchem 1988).

A preliminary phase definition for the Safety Harbor period has recently been proposed by Mitchem (1988). From his work with Safety Harbor period burial mounds and ceramic sequences, Mitchem has identified temporal and regional differences in Safety Harbor culture. The four temporal phases are the Englewood Phase (AD 800-1000), Pinellas Phase (AD 1000-1500), Tatham Phase (AD 1500-1567), and Bayview Phase (AD 1567-1725).

The Safety Harbor regional variant in Hillsborough, Pinellas, and southern Pasco counties is identified as the circum-Tampa Bay regional variant (Mitchem 1988:10).

Conflicts with the Spanish and the introduction of disease resulted in the disruption of precontact cultural systems, leading to the demise of Safety Harbor as an archaeological culture. Those Indians who remained in the area were eventually displaced or killed by bands of Creek Indians, later to be known as the Seminoles. Seminoles began moving into Florida in the early eighteenth century to escape the political and population pressures of the expanding American frontier. Those that survived may have joined up with the Creeks or Spanish fishermen, who occupied the excellent fishing and shellfishing locales along the coast (Neill 1968). Due to their late arrival to Florida, Seminole material culture displays both precontact and historic components. While some traditional tools and equipment were manufactured by Seminoles, most items were rapidly replaced with European trade goods, including flintlock muskets (Milanich and Fairbanks 1980:254). Due to the paucity of archaeological data regarding Seminole culture, these people are best understood through historical accounts.

Section 5.0
HISTORICAL OVERVIEW

The following overview traces the historical development of the general project area consisting of portions of Pasco and Hernando counties from the European settlement through the twentieth century. The intent of this historic overview is to serve as a guide to field investigations by identifying the possible locations of any historic sites within the project area and to provide expectations regarding the potential historic significance of any such sites. It also provides a context with which to interpret any historic resources encountered during the CRAS.

5.1 COLONIAL PERIOD (ca. 1513-1821)

During the First Spanish Period, the Tampa Bay region was the focus of early explorations. The earliest contacts between the native population and Europeans were slave-hunting expeditions. Spanish explorers Panfilo de Narvaez in 1528 and Hernando DeSoto in 1539 traveled northward through the peninsula, but their exact routes are unknown. It is uncertain if these early explorers traversed the project study area. The initial attempts to penetrate Central Florida on behalf of the Spanish crown were met with disappointment; thus, settlement focused in the northern portion of the peninsula. This trend continued through the first quarter of the nineteenth century (Tebeau 1971).

By the early eighteenth century, the native peoples of peninsular Florida were decimated by disease and conflict, and groups of Creek Indians from Georgia moved into Florida. These groups collectively became known as the Seminoles. They settled in northern Florida where they tended small farms and raised cattle. Their presence in Florida went unchallenged by the Spanish and British. However, as more Anglo-European settlers moved into Florida in the early nineteenth century, conflicts began with the Seminoles over choice grazing and agricultural lands. The first of the Seminole Wars commenced in 1818, when General Andrew Jackson invaded Spanish Florida to fight the Indians. The brief bouts that took place during this war were localized in northern Florida. Once Florida became a U.S. territory in 1821, the U.S. Government more aggressively dealt with the Seminoles, enacting a series of treaties detrimental to Seminole land holdings.

5.2 TERRITORIAL PERIOD (1821-1845)

The Treaty of Moultrie Creek, signed in 1823, restricted the Seminoles to 4,032,894 acres of land in the middle of the state, running south from Micanopy to just north of the Peace River (Mahon 1967:50). The eastern half of present-day Pasco County was included within the new reservation boundary (Mahon 1967:Rear fold-out map). The treaty was unpopular with the Seminoles, who recognized the agricultural inferiority of the reservation and were reluctant to move.

The treaties of Payne's Landing (1832) and Fort Gibson (1833) followed ten years after Moultrie Creek and were designed to remove the Seminoles from Florida entirely. Resentment quickly

escalated resulting in outbreaks of hostility that finally culminated in the Second Seminole War in 1835 (Mahon 1967:75-76, 82-83). The Seminoles quickly discovered that areas such as the Withlacoochee Swamp and Green Swamp provided safe hiding places from U.S. soldiers unfamiliar with Florida's swampy terrain. Seminole encampments within these massive wetlands were ephemeral, as frequent moves were necessary to escape capture by the military.

During the war, which lasted for seven years, several temporary military posts were established in Hernando County. Fort Dade was established in 1837 on the Withlacoochee River, but was later moved two miles southwest of present-day Dade City. Fort Cross was established in 1838 near Brooksville, and Fort DeSoto was established one and a half miles north of Brooksville.

The Second Seminole War severely reduced settlement in the area that now comprises Pasco and Hernando counties. Those settlers who had chosen to live in the region were often forced to leave their homes and take refuge in the nearest fort. In order to encourage settlement and overcome the Seminole threat by establishing outposts of settlers to work and hold the land, Senator Thomas Benton of Missouri introduced a bill called "The Armed Occupation Act" in 1840. This Act made available 200,000 acres of land south of Gainesville and north of the Peace River, excluding coastal areas and those locales within two miles of a fort. A head of a household could receive title to 160 acres of land by constructing a habitable dwelling, cultivating at least five acres of land, and residing on it for at least five years (Tebeau 1971:149). Settlers embraced this bill, but not until 1842 did congress approve the bill to become law. Settlers took advantage of this Act. Subsequently, cattle ranching became the major economic activity during the 1840s and 1850s in both counties (Hendley 1940:3).

5.3 STATEHOOD PERIOD (1845-1898)

By 1843, enough settlers had moved into the Gulf coastal area in southern Alachua to warrant the necessity for organized local government there. On February 24, 1843, Hernando County was established, and was named in honor of Hernando DeSoto, a Spanish explorer who had landed in Tampa Bay in 1539 and had marched north across the Withlacoochee River. However, within a year, the territorial legislature decided to change the county name to Benton, in honor of Senator Thomas Benton. Many felt that his bill was responsible for opening the surrounding area for settlement (Stanaback 1976:12-17).

Benton County, which comprised present-day Citrus, Hernando, and Pasco counties, had its first county seat in Bay Port. Many local commodities were exported out of Bay Port, and it was noted for its fishing and recreational qualities. Within two years, when people residing in the eastern portion of the county realized that it would take at least two days to travel to the county seat, the choice of Bay Port as the county seat was repealed. In October 1856 two prominent residents in Pierceville each donated 15 acres to the county seat site on a hilltop northeast of Pierceville in the middle of the county. The people of Hernando named the county seat "Brooksville" in honor of Representative Preston Brooks of South Carolina who had become a hero in the eyes of many southerners, when in may 1856, he came to the defense of the south in Congress (Stanaback 1976:22-24).

The pioneer immigrants of this period were generally of Anglo-American ancestry and the majority were southerners from the Carolinas and Georgia. A few were relatively wealthy and

brought slaves and capital with them. The majority, however, were poor "yeoman farmers" who homesteaded small tracts of land (U.S. Census 1850). Cattle production greatly increased during this time; however, wolves provided a constant threat to the herds of scrub cattle. The cattlemen, through hunting and poisoning, drove the wolves to extinction in Florida by the 1880s (Hendley 1940:3-4).

From 1848-1849, areas of Hernando and Pasco counties were first surveyed. The original plat maps for the project area show no Native American settlements or historic structures or trails in these townships. Early towns such as "Hopeville," now currently known as Port Richey, began in the 1850s within the counties. It was a plantation community established by the Hope Family. Other accounts suggest that Hopeville may not have been established until the 1870s. Hendley (1940:18) recounts a brief history of the town of Hopeville provided by J.B. Hudson, an early resident. This account recalls a time period of around 1880: "there was an office [post office] established east of Port Richey at old man Worley's place, the name of which was Hopeville." This account is supported by a published list of Florida post offices, which indicates that a post office at Hopeville, in Hernando County, was commissioned on 2 December 1878 and decommissioned on 21 November 1881 (Bradbury and Hallock 1962:23).

During the 1850s, the Third Seminole War (Billy Bowlegs War) began and was more a series of skirmishes rather than a full-fledged war due to the deportation of the majority of the Seminole population during the preceding decade. The Bradley Massacre, in which two members of the Bradley family were killed, took place near Darby in 1855 (Covington 1981; Hendley 1940:16). Captain Bradley considered this raid revenge for the killing of a Native American chief. During the time of these Native American raids, Fort Broome, located about 4 km (2.5 mi) south of Dade City, was used as a haven from the attacks (Dawson 1976). In the end, the settlers numbered too many, and the last major conflict involving the Seminoles ended two years later in 1858 when over 140 Seminoles, including Billy Bowlegs, were removed to the Oklahoma Indian Reservation (Stanaback 1976:26-27).

By the mid-1860s the relationship between the settlers and remaining Native Americans had improved, thereby encouraging additional settlers to move into the area. Hernando County's population had grown to 1,200 residents by the 1860s. Unfortunately, development was stalled by Florida's entry into the Civil War on January 11, 1861. The political situation caused residents to change the county's name from Benton to Hernando, due to Senator Benton's northern political sympathies. The county had a role in the war effort by providing salt and much needed cattle, which would prove important as the war wore on, especially after Texas, with all its cattle resources, was cut off from the rest of the Confederacy. The small port of Bay Port was important as a haven for blockade runners, and even was the focus of increased Union attacks from patrolling Federal gunboats and raiding parties to stop the flow of material goods from Florida to England (Stanaback 1976:31-34).

Following the conclusion of the Civil War, the Homestead Act of 1866 provided 80-acre tracts to freed African-American and loyal Anglo-American immigrants. The Freedmen's Bureau was established in 1865 to help provide needy blacks with food, clothes, and to find employment. There was resistance to these provisions for the newly freed slaves, even to the point of reversing Congressional law by passing Black Codes in many areas, to place freedmen back into a type of quasi-servitude environment. This was noticed by traveling bureau officials to the county in late

1865. Hernando was not alone in its shunning of the new system, as news of mistreatment of freedmen spread throughout the south. This would lead to the Radical Reconstruction Laws of 1867, in which local governments were replaced with military law (Stanaback 1976:38-39). Ex-Confederates were not allowed to participate in this homesteading until 1876 when this law was repealed. The lands were then opened for unrestricted sale for the next twelve years (Tebeau 1971:266, 294).

The Homestead Act and the arrival of the railroad lines in the late 1880s greatly helped spur growth in Hernando County. The post-reconstruction era of the 1870s saw population growth in the northern and southern portions of the county. Small towns started developing during this period including Crystal River, Homosassa, Aripeka, Hudson, and Port Richey. Interior towns also developed including Dade City, Inverness, and San Antonio. Brooksville was incorporated as a city in 1880 (Stanaback 1976:56).

Other settlements were aided by drainage developments negotiated by Hamilton Disston. The Florida Land and Improvement Company was a holding company for Hamilton Disston and his associates. Disston, son of a wealthy Philadelphia industrialist, contracted with the State of Florida in two large land deals: the Disston Drainage Contract and the Disston Land Purchase. Some of the land within the project area was purchased in the early 1880s as part of the Disston Land Purchase, an agreement between Disston and the state, in which Disston agreed to purchase Internal Improvement Fund lands at twenty-five cents an acre to satisfy the indebtedness of the fund. A contract was signed on June 1, 1881 for the sale of 4 million acres for a sum of $1 million, which was the estimated debt owed by the Internal Improvement Fund. Disston was allowed to select tracts of land in lots of 10,000 acres up to 3.5 million acres; the remainder was selected in tracts of 640 acres (Davis 1938:206-207).

Before he could fulfill the obligation, Disston sold half of this contract to a British concern, the British Florida Land and Mortgage Company, headed by Sir Edward Reed (Tischendorf 1954:123). Two years lapsed between the signing of Disston's original contract and the title transfers (3 February 1883) to allow squatters to acquire the land on which they had settled for $1.25 per acre (Lawson et al. 1981:17). Several people in inhabiting lands near the project area obtained title to the properties at the end of this two-year period.

The tract book records for the sections within Pasco and Hernando counties and the project area show that settlement in the region notably began in the 1880s, during the time of Disston's drainage and improvement projects. Table 5-1 includes information on the sections, property owners, and dates of sale or deed for the land homesteaded in the two counties. See Figure 5-1A-C for a project map showing the Township, Range, and Section boundaries and numbers.

TABLE 5-1
HISTORIC OWNERSHIP OF LAND WITHIN THE PROJECT AREA

Portion	Owner	Date of Deed
Township 23 South, Range 17 East, Section 31		
E 1/2	Florida Land & Improvement Co.	February 3, 1883
E 1/2 of NW 1/4	Florida Land & Improvement Co.	February 3, 1883

TABLE 5-1 (CONTINUED)
HISTORIC OWNERSHIP OF LAND ASSOCIATED WITHIN THE PROJECT AREA

Portion	Owner	Date of Deed
NW 1/4 of NW 1/4	Florida Land & Improvement Co.	February 3, 1883
SW 1/4 of NW 1/4	John Bassett	January 24, 1866
NE 1/4 of SW 1/4	Florida Land & Improvement Co.	February 3, 1883
NW 1/4 of SW 1/4	John Bassett	January 24, 1866
SW 1/4 of SW 1/4	Florida Land & Improvement Co.	February 3, 1883
SE 1/4 of SW 1/4	Robert Hill	July 12, 1883
Township 23 South, Range 17 East, Section 32		
All	Florida Land & Improvement Co.	February 3, 1883
Township 23 South, Range 17 East, Section 33		
All	Florida Land & Improvement Co.	February 3, 1883
Township 23 South, Range 17 East, Section 34		
E 1/2 of NE 1/4	Florida Land & Improvement Co.	February 3, 1883
W 1/2 of NE 1/4	Wm. Londerboyl	June 30, 1884
W 1/2	Wm. Londerboyl	June 30, 1884
W 1/2 of SE 1/4	Wm. Londerboyl	June 30, 1884
E 1/2 of SE 1/4	Florida Land & Improvement Co.	February 3, 1883
Township 23 South, Range 17 East, Section 35		
E 1/2	Wm. Londerboyl	June 30, 1884
W 1/2	Florida Land & Improvement Co.	February 3, 1883
Township 23 South, Range 17 East, Section 36		
All	Wm. Londerboyl	June 30, 1884
Township 23 South, Range 18 East, Section 25		
E 1/2 of NE 1/4	Joseph Hibbett	February 13, 1884
NW 1/4 of NE 1/4	Lillian Ayens	January 12, 1911
SW 1/4 of NE 1/4	Robert Reid	May 26, 1884
NW 1/4	Taylor Crosby	June 15, 1897
S 1/2	Edward Witherby	October 20, 1883
Township 23 South, Range 18 East, Section 26		
NE 1/4 of SW 1/4	Taylor Crosby	June 15, 1897
NE 1/4 of NW 1/4	John Morton	April 10, 1885
SE 1/4 of NW 1/4	Taylor Crosby	June 15, 1897
W 1/2 of NW 1/4	R.R. Bridgons	March 20, 1885
SW 1/4	Taylor Crosby	June 15, 1897
SE 1/4	Virgil Chisholm	June 7, 1898
Township 23 South, Range 18 East, Section 31		
NE 1/4	Henry Gosling	May 25, 1885
W 1/2	William Poici	June 16, 1888
SE 1/2	William Poici	June 16, 1888
Township 23 South, Range 18 East, Section 32		
All	Robert Dwaney & J. Golden	May 14, 1887
Township 23 South, Range 18 East, Section 33		
NE 1/4	Zeddie Johnson	June 16, 1888
NE 1/4 of NW 1/4	David Grauman	June 16, 1888
SE 1/4 of NW 1/4	Richard Packer	June 16, 1888
W 1/2 of NW 1/4	William Poici	June 16, 1888
S 1/2	Taylor Crosby	June 15, 1899

TABLE 5-1 (CONTINUED)
HISTORIC OWNERSHIP OF LAND ASSOCIATED WITHIN THE PROJECT AREA

Portion	Owner	Date of Deed
Township 23 South, Range 18 East, Section 34		
NE 1/4	Taylor Crosby	June 15, 1897
N1/2 of NW 1/4	Hampton Russell	May 25, 1885
S 1/2 of NW 1/4	John Morton	April 10, 1885
N 1/2 of SW 1/4	Taylor Crosby	June 15, 1897
SW 1/4 of SW 1/4	Taylor Crosby	June 15, 1897
SE 1/4 of SW 1/4	James Cribbett	February 19, 1885
W 1/2 of SE 1/4	James Cribbett	February 19, 1885
E 1/2 of SE 1/4	Thomas Pacetti	October 20, 1883
Township 23 South, Range 18 East, Section 35		
N 1/2	Richard Spalding	October 20, 1883
SW 1/4	Richard Spalding	October 20, 1883
SE 1/4	Thomas Floyd	June 17, 1891
Township 23 South, Range 18 East, Section 36		
NE 1/4	Tyson Melvin	June 27, 1904
NW 1/4	James Dunwoody	October 20, 1883
SW 1/4	Lucy Baggs	June 20, 1894
SE 1/4	James Baker	October 5, 1883
Township 23 South, Range 19 East, Section 29		
NE 1/4	Christopher Crawford	December 27, 1859
E 1/2 of NW 1/4	Christopher Crawford	December 27, 1859
W 1/2 of NW 1/4	Claude Quivell	November 18, 1882
SW 1/4	William Whitfield	May 29, 1858
N 1/2 of SE 1/4	Clara McDormatt	November 18, 1882
SW 1/4 of SE 1/4	Walter Clarkson & Duncan Fletcher	September 9, 1882
SE 1/4 of SE 1/4	Jacob Garrard	October 6, 1883
Township 23 South, Range 19 East, Section 30		
NE 1/4	Hugh McNatt	November 19, 1885
E 1/2 of NW 1/4	Henry Carter	June 5, 1890
NW 1/4 of NW 1/4	Porter Dean	December 27, 1895
SW 1/4 of NW 1/4	William Carter	March 26, 1892
NW 1/4 of SW 1/4	William Carter	March 26, 1892
SW 1/4 of SW 1/4	James Dunwoody	October 20, 1883
E 1/2 of SW 1/4	William Carter	March 26, 1892
SE 1/4	William Whitfield	May 29, 1863
Township 24 South, Range 17 East, Section 1		
All	Clement Haskell	August 2, 1885
Township 24 South, Range 17 East, Section 2		
E 1/2	John Hoover	August 4, 1883
E 1/2 of NW 1/4	John Hoover	August 4, 1883
W 1/2 of NW 1/4	William May	August 28, 1884
W 1/2 of SW 1/4	William May	August 28, 1884
E 1/2 of SW 1/4	John Hoover	August 4, 1883
Township 24 South, Range 17 East, Section 3		
E 1/2 of NE 1/4	Charles May	August 13, 1888
W 1/2 of NE 1/4	Frank Kuhn	August 25, 1883

TABLE 5-1 (CONTINUED)
HISTORIC OWNERSHIP OF LAND ASSOCIATED WITHIN THE PROJECT AREA

Portion	Owner	Date of Deed
E 1/2 of NW 1/4	Frank Kuhn	August 25, 1883
W 1/2 of NW 1/4	Major Sheard	January 28, 1903
W 1/2 of SW 1/4	Major Sheard	January 28, 1903
E 1/2 of SW 1/4	Travis Curts	July 21, 1886
SE 1/4	James Mearns	October 8, 1883
Township 24 South, Range 17 East, Section 4		
NE 1/4	Nicholas Summerball	May 9, 1885
NW 1/4	Nicholas Summerball	May 9, 1885
W 1/2 of SW 1/4	Nicholas Summerball	May 9, 1885
E 1/2 of SW 1/4	Herman Steinheimer	March 20, 1885
NW 1/4 of SE 1/4	Arthur Coilter	March 20, 1885
SW 1/4 of SE 1/4	Robert McCright	March 20, 1885
E 1/2 of SE 1/4	Nicholas Summerball	May 9, 1885
Township 24 South, Range 17 East, Section 5		
N 1/2 of NE 1/4	Robert Pine	April 22, 1891
S 1/2 of NE 1/4	Nicholas Summerball	May 9, 1885
N 1/2 of NW 1/4	Robert Pine	April 22, 1891
S 1/2 of NW 1/4	Alfred Culpitt	November 4, 1889
SW 1/4	Mary Shaney	June 27, 1900
NE 1/4 of SE 1/4	George Pine	July 21, 1888
NW 1/4 of SE 1/4	George Pine	November 30, 1888
S 1/2 of SE 1/4	George Pine	July 21, 1888
Township 24 South, Range 17 East, Section 6		
E 1/2 of NE 1/4	Alfred Culpitt	November 4, 1889
W 1/2 of NE 1/4	Ralph Cook	September 22, 1926
N 1/2 of NW 1/4	James Pinkerton	February 25, 1887
SW 1/4 of NW 1/4	James Pinkerton	April 10, 1887
SE 1/4 of NW 1/4	James Pinkerton	August 9, 1884
SE 1/4	F.L. Pinkerton	October 30, 1888
SW 1/4	Charles Kirk	May 9, 1885
Township 24 South, Range 18 East, Section 1		
N 1/2 of NE 1/4	Henry Fabian	September 28, 1863
S 1/2 of NE 1/4	William Hope	January 12 1860
NW 1/4	William Hope	January 12, 1860
W 1/2 of SW 1/4	William Hope	January 12, 1860
E 1/2 of SW 1/4	William Hope	January 12, 1860
N 1/2 of SE 1/4	William Hope	January 12, 1860
S 1/2 of SE 1/4	Florida Land & Improvement Co	February 3, 1883
Township 24 South, Range 18 East, Section 2		
NE 1/4	Archibald Baggs	March 9, 1891
NW 1/4	Willy Thompson	November 14, 1888
W 1/2 of SW 1/4	A.M. Campbell	February 13, 1884
E 1/2 of SW 1/4	William Jordan	January 21, 1893
W 1/2 of SE 1/4	William Jordan	January 21, 1893
E 1/2 of SE 1/4	Thomas Goethe	January 12, 1900
Township 24 South, Range 18 East, Section 3		

TABLE 5-1 (CONTINUED)
HISTORIC OWNERSHIP OF LAND ASSOCIATED WITHIN THE PROJECT AREA

Portion	Owner	Date of Deed
NE 1/4	Felix Wilham	June 21,1889
NE 1/4 of NW 1/4	Sallie Meacham	December 27, 1884
NW 1/4 of NW 1/4	Alexander Forte	January 11, 1886
S 1/2 of NW 1/4	Jesse Minor	June 4, 1885
N 1/2 of SW 1/4	Taylor Crosby	June 15, 1897
SW 1/4 of SW 1/4	Taylor Crosby	June 15, 1897
SE 1/4 of SW 1/4	Fred Springstead	March 14, 1884
N 1/2 of SE 1/4	James Cribbett	February 19, 1885
S 1/2 of SE 1/4	Isaac & Fred Springstead	March 1, 1884
Township 24 South, Range 18 East, Section 4		
All	Taylor Crosby	January 15, 1897
Township 24 South, Range 18 East, Section 5		
All	William Londonback	June 30, 1884
Township 24 South, Range 18 East, Section 6		
All	Lyman Phelps	October 15, 1854

The railroad arrived in the area in 1885. The Florida Southern Division of the Plant system built a railway through the eastern part of Hernando County and a spur that ran to Brooksville. The Seaboard line was built in 1886 and extended to the Withlacoochee River. The impact of the railroad on the area was immediate and dramatic. Hernando County's population increased to nearly 8,000 people (U.S. Bureau of the Census 1885).

The rapid growth was the primary cause of its partition into three counties on January 2, 1887. In 1887, settlers around Dade City wanted to separate from Hernando. This was met with opposition in Brooksville, but once the southeast portion of the county had voiced its opinion, then those dwelling in the northwest around Crystal River and Homosassa voiced their desire to split from Hernando as well (Stanaback 1976:53-33). On June 2, 1887, Pasco County separated from the southern portion of Hernando County. Dade City was chosen as Pasco County's seat, named for Samuel Pasco, a Confederate veteran and U.S. Senator from Florida (Tebeau 1971:299). The northern third of Hernando County became Citrus County.

5.4 THE TWENTIETH CENTURY (1898-PRESENT)

At the turn-of-the-century, lumbering became one of the biggest enterprises in the area. Many of the businesses were naval stores or manufacturers of lumber and timber products (U.S. Bureau of the Census 1905). In the interior of both counties, small towns developed around manufacturing businesses. The town of Enville (the remnants of which are located just north of Palacky Street within the project area) was established prior to 1901 and was apparently the location of a sawmill or molasses production facility. A 1901 map of Hernando County also shows that the small town had a post office. Additionally, development began to increase throughout Hernando and Pasco counties, especially along the coast.

Built in 1907, the Tampa Southern railroad connected Brooksville with Tampa; it passed just east of U.S. 41 outside of the project area. The railroads continued to bring a steady flow of

people who began to settle in and around Brooksville for its favorable climate and recreational advantages, especially the years following World War II when Northerners began to arrive in South Florida seeking retirement sites (Stanaback 1976:61). The surge of new people into the region increased the demand for land for farming and citrus groves.

Located within the eastern portion of the project area is the community of Masaryktown. Joseph Josack, editor of a Czechoslovakian newspaper in New York City, established this small town in 1924. He named the community after Thomas Masaryk, the first president of Czechoslovakia. Joseph and his Czechoslovakian partners formed the Hernando Plantation Company and then purchased 24,000 acres in Hernando and Pasco counties. The town was to occupy 10,000 acres and the remainder was to be sold off to help pay the mortgage. The first settlers arrived in 1925 and immediately began to build homes and a large hotel. A sawmill and rock crushing plant were also constructed. By mid-1926, the town's population had grown to 300 residents, but damaging freezes in the winters of 1926-27 and 1927-28 destroyed many of the citrus trees that had been planted. The result was that most people left the community, and only a few families that supported themselves by raising chickens and truck crops remained in the area. In 1941, only 36 families lived in Masaryktown. By the 1950s and 1960s, chicken farming and egg production emerged as a major economic endeavor and retirees also began to settle in the area. By 1963, retirees made up nearly half of the Masaryktown population.

Section 6.0
LITERATURE AND SITE FILE REVIEW

A search of the pertinent literature and records of the surrounding region was conducted including archaeological and historical assessments of other projects in close proximity to the C.R. 578 (County Line Road) PD&E improvement project in Hernando and Pasco counties. Numerous Cultural Resource Management (CRM) projects have been conducted in both Pasco and Hernando counties. Most have been related to commercial real estate development, city, or county planning projects. One survey conducted in the vicinity of the project APE is the Suncoast Expressway Re-evaluation, which was conducted by Archaeological Consultants, Inc. in 1995. This survey identified 14459 County Line Road (8HE378), which is discussed below.

The State of Florida Division of Historical Resources (FDHR) was contacted about the location of known archaeological sites and historic structures within or near the project APE. A search of the Florida Master Site File (FMSF) revealed two previously recorded archaeological sites (8HE284 and 8PA185) and two previously recorded historic structures (8HE378 and 8HE384) located within or immediately adjacent to the project corridor (Figure 6-1A-D).

Site 8HE284, the Enville site, is a Spanish American War-period (1898-1916) town site that is considered significant at a local level. The FMSF form records the location near the intersection of Sections 25, 26, 35, and 36 of Township 23 South, Range 18 East. The location of this site has not been field-tested and it is therefore considered approximate. The eligibility of this site for listing in the **NRHP** was not previously evaluated (FMSF form, 8HE284 1990).

Site 8PA185, the Volkswagon Sinkhole, is described as a Woodland-period (500 BC – AD 900) artifact scatter located in the northwest corner of Section 6 in Township 24 South, Range 18 East. According to the FMSF database, the eligibility of this site for listing in the **NRHP** was not previously evaluated.

The historic resource, 14459 County Line Road (8HE378), was documented in 1995 as part of the Suncoast Expressway Re-evaluation conducted by Archaeological Consultants, Inc. While performing the CRAS for C.R. 578, it was determined that 14459 County Line Road (8HE378) was demolished sometime between 1995 and the present time, and is no longer extant. The resource was a wooden Frame Vernacular building dating to circa 1936. It was a typical example of the style still evident throughout Hernando County and had no known historic significance. Therefore, it was determined to be not significant and therefore not eligible for listing in the **NRHP** by the SHPO in 1996 (FMSF form, 8HE378 1995).

The historic resource, 1219 U.S. 41 (8HE384), was documented in 1994 as part of the CRAS Technical Memorandum of U.S. 41 from County Line Road to south of the SWFMD entrance conducted by Janus Research. This residence has not changed from the initial survey. This building exhibits a common design and is considered not eligible for listing in the **NRHP**.

FIGURE 6-1A
PREVIOUSLY RECORDED SITES AND SITE POTENTIAL ZONES

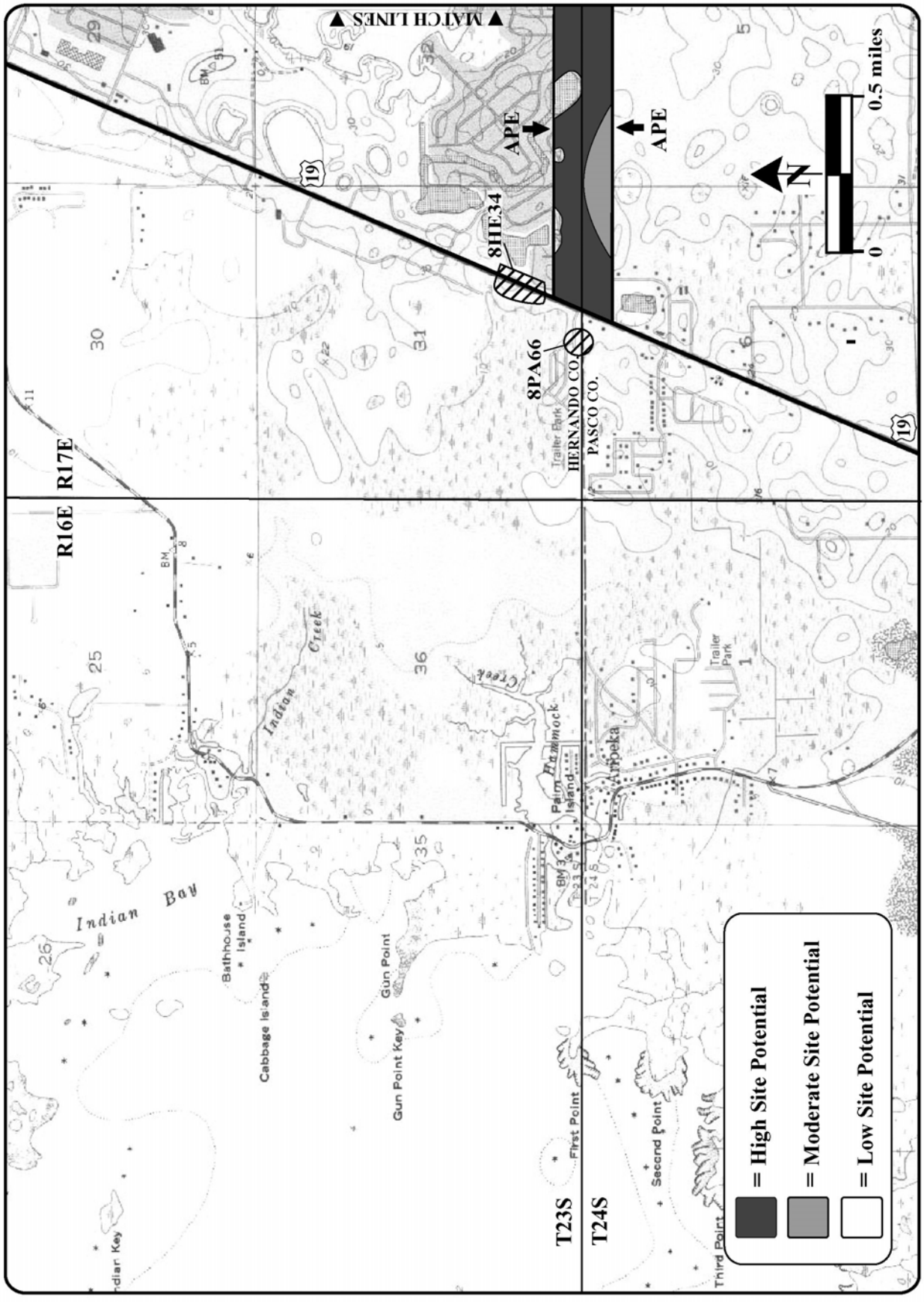


FIGURE 6-1B
PREVIOUSLY RECORDED SITES AND SITE POTENTIAL ZONES

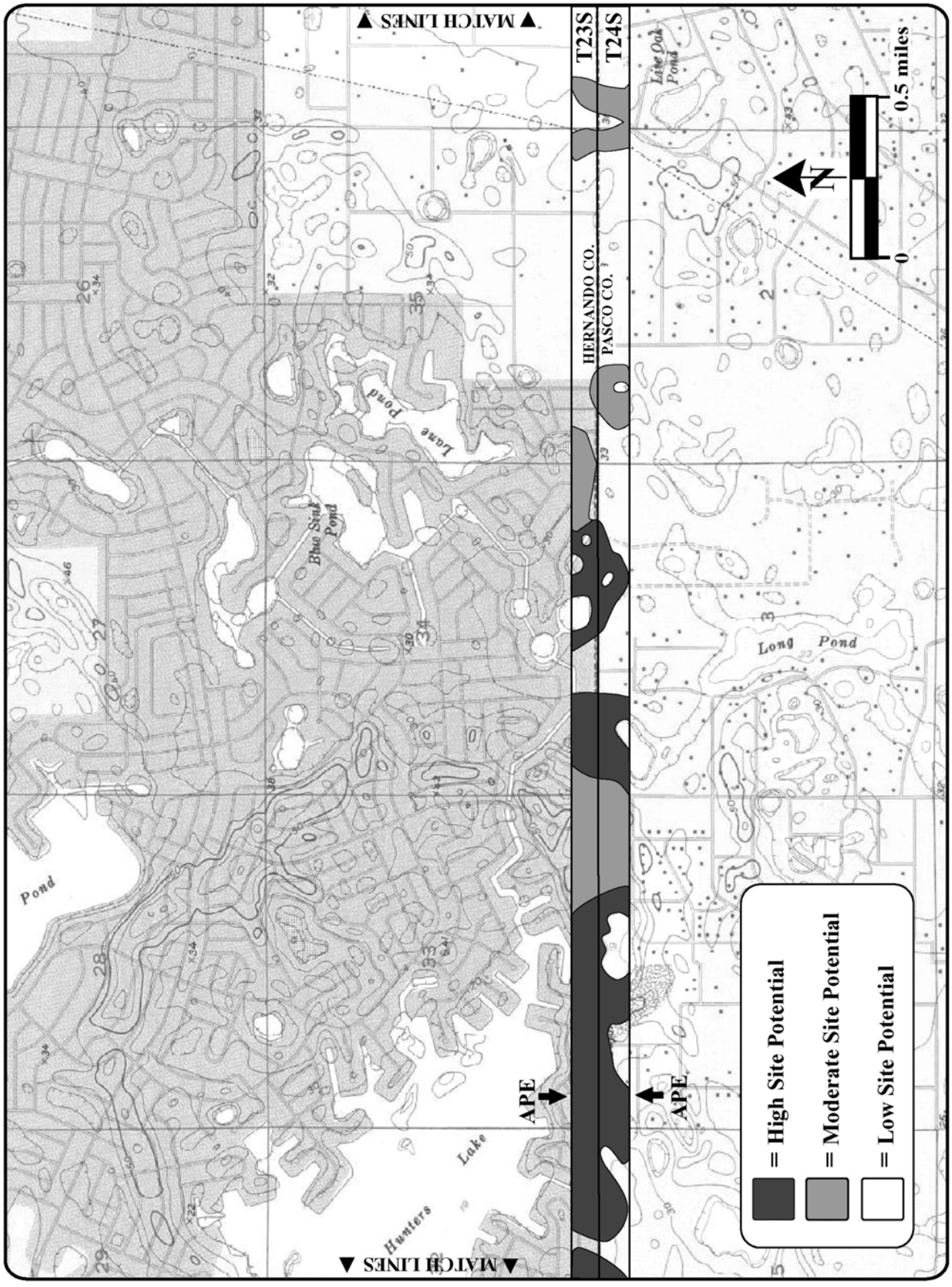


FIGURE 6-1C
PREVIOUSLY RECORDED SITES AND SITE POTENTIAL ZONES

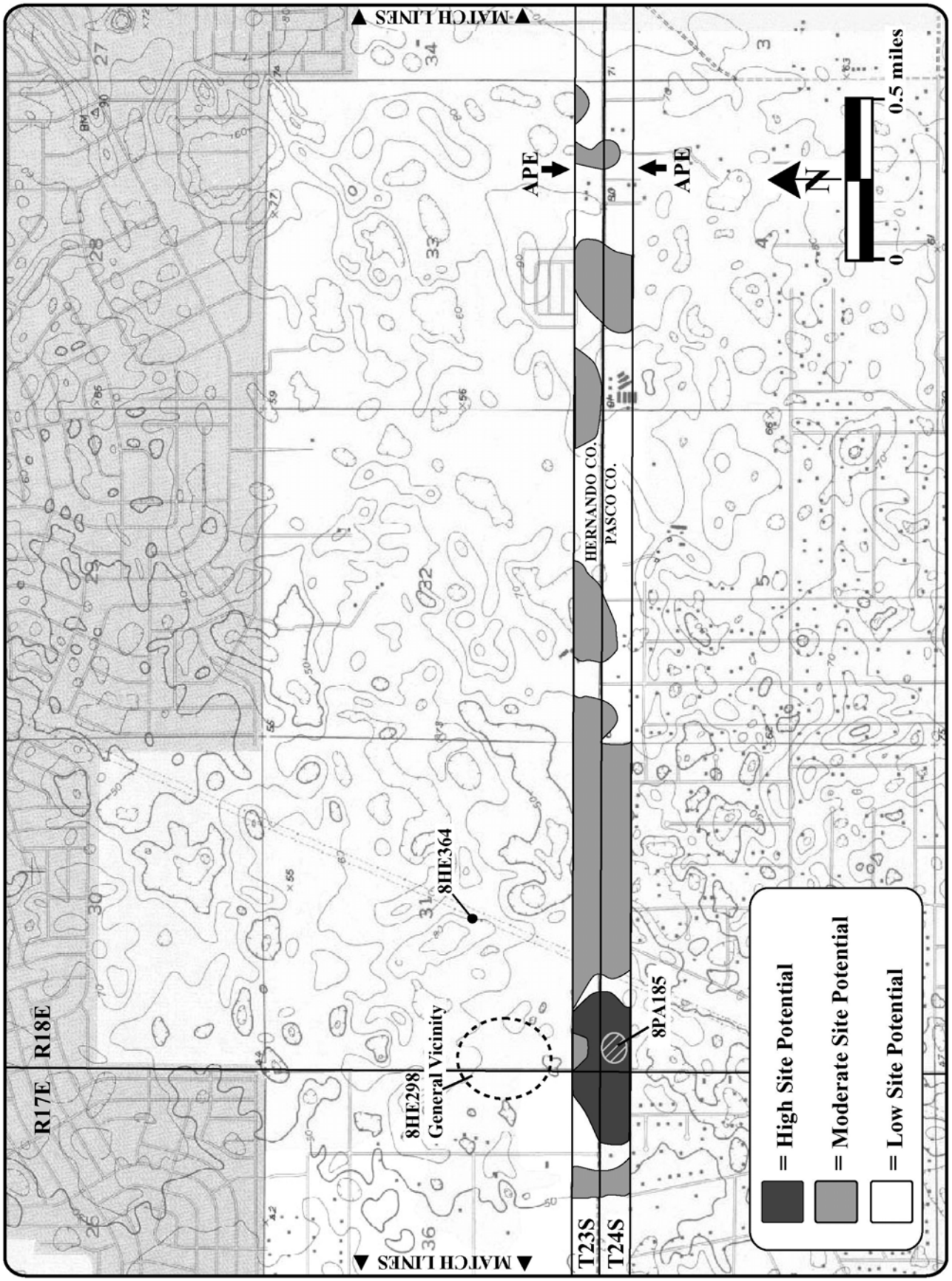
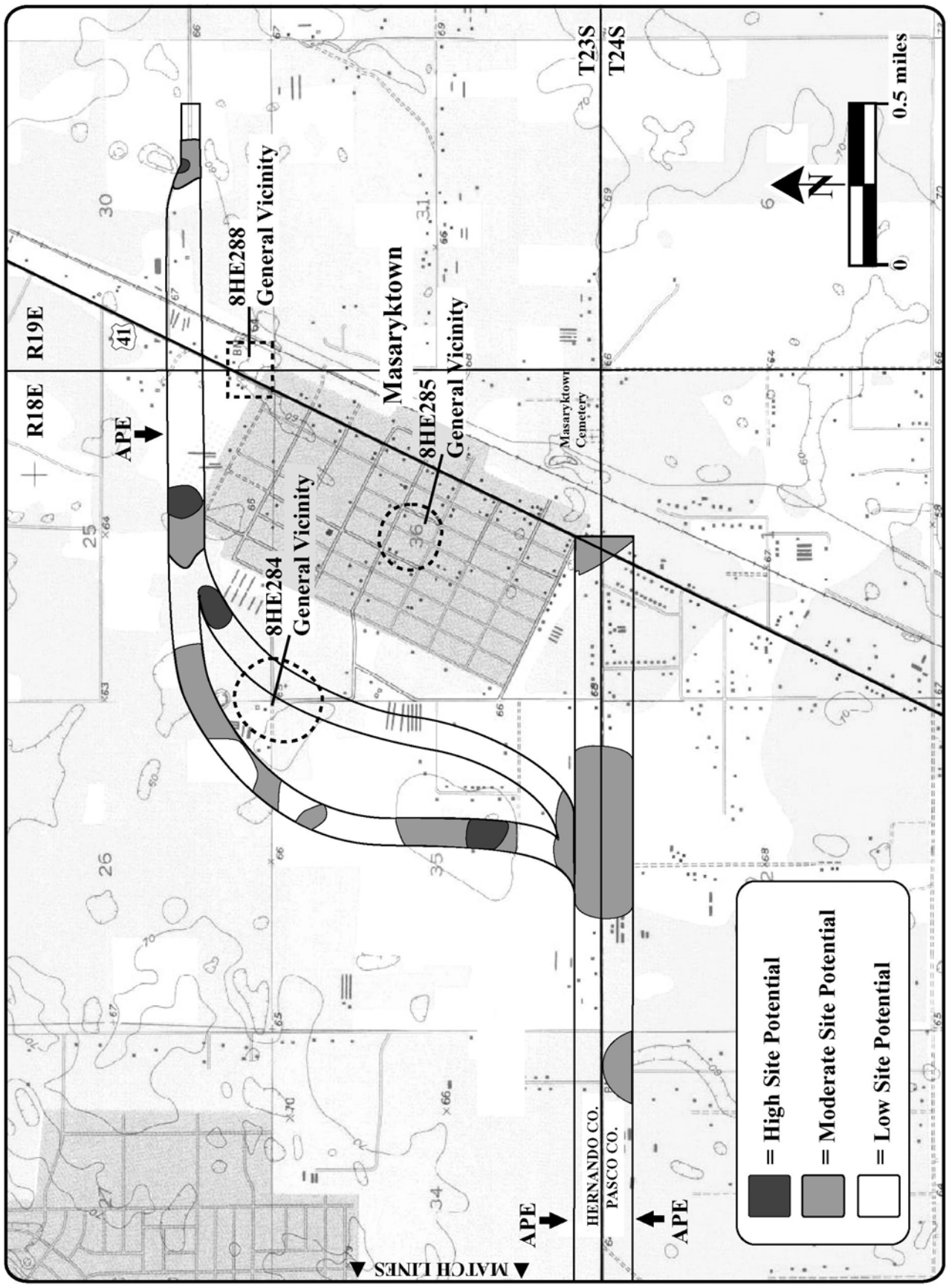


FIGURE 6-1D
PREVIOUSLY RECORDED SITES AND SITE POTENTIAL ZONES



In addition to these sites, six previously recorded archaeological sites (8HE34, 8HE285, 8HE288, 8HE298, 8PA66, and 8HE364) are located in the general vicinity of the project APE. Site 8HE34 is a large, post-Archaic midden and artifact scatter that lies in the southeastern quarter of Section 31, Township 23 South, Range 17 East, just north of the western end of the project corridor. It was considered not significant due to its small size and the amount of damage to the site by construction of U.S. Highway 19 (FMSF form, 8HE34 1979).

Site 8HE285 is a Civil War-period (1861-1865) fort located in the northeastern corner of Section 36, Township 23 South, Range 18 East. This site has been found to be significant at the local level, but since no subsurface testing was performed, more information is needed to determine this site's eligibility for listing in the **NRHP** (FMSF form, 8HE285 1990).

Site 8HE288 is described as a Spanish-American War-period village or town site with subsurface features. It lies in the southwest corner of Section 30, Township 23 South, Range 19 East, south of the Ayers Road Extension of the County Line Road PD&E project APE. Remote sensing identified some subsurface features, though no other subsurface testing was conducted. This site is considered significant at a local level, but there was insufficient information to determine its eligibility for listing in the **NRHP** (FMSF form, 8HE288 1990).

Site 8HE298 is another Spanish American War-period (1898-1916) habitation site which is located in the southeastern corner of Section 36, Township 23 South, Range 17 East. Site 8HE298 has been found to be significant at the local level, but since no subsurface investigation was performed, more research is recommended to determine the site's eligibility for listing in the **NRHP** (FMSF form, 8HE298 1990).

One of the precontact sites, 8PA66, was a Safety Harbor period (AD 900-1513) burial mound. It lies just west of the western end of the project corridor in the northwest corner of Section 6, Township 24 South, Range 17 East. Findings from this site include skeletal remains and artifacts such as ceramics, shell artifacts, and lithic artifacts. Due to development, site 8PA66 has unfortunately been destroyed and therefore is considered not eligible for listing in the **NRHP** (FMSF form, 8PA66 1980).

Site 8HE364, an early- to mid-twentieth century site, is located in the southeast corner of Section 31, Township 23 South, Range 18 East. Although one turpentine cup sherd was found, no cultural material was recovered. No further testing is recommended for site 8HE364 as it is considered not eligible for listing in the **NRHP** (FMSF form, 8HE364 1994).

Section 7.0
RESEARCH DESIGN AND SITE LOCATION MODEL

The background and literature review, in conjunction with pertinent environmental variables, have contributed to the formulation of project specific field methods designed to locate and evaluate previously unrecorded archaeological sites within the CRAS of C.R. 578 (County Line Road) PD&E improvement project in Hernando and Pasco counties. The designation of zones of site potential and decisions regarding site significance were based on previous research conducted within the Gulf coast region.

A major focus of anthropological research is the relationship between human social groups and their environment. Interpretations of observed settlement patterns are often dependent on the contextual/functional relationship between site location and the natural environment. The combination of different environmental and ecological variables such as topography, soils, hydrology, and climate, determined what types of resources would have been available for human exploitation. The particular settlement-subsistence strategies employed by precontact and early historic groups tend to reflect a least cost/least risk solution for the efficient exploitation of locally available resources (e.g., Smith 1975; Jochim 1976; Christenson 1980; Earle 1980). Changes in subsistence-settlement patterning, therefore, reflect changing solutions (adaptive strategies) for coping with the local environment through time.

Cultural resource assessment surveys in the North Peninsular Gulf Coast cultural region have demonstrated that certain environmental locales were preferred for precontact and early historic people. Predictive models enable the researcher to stratify the project area into zones of site potential based upon the co-occurrence of relevant environmental variables. The relative importance of each of these variables depends upon the composite environmental setting. In a sand hills environment, for example, a majority of the known sites are located near a water source on a ridge slope. If a water source is not located in the vicinity, the probability of site occurrence decreases dramatically. Water will not be the determining factor, however, if another resource with more limited distribution, such as stone for tool manufacture, is available (Deming and Almy 1984:17). In areas of relatively low relief and abundant wetlands, areas of higher elevation relative to the surrounding terrain would be considered more likely to contain sites (Wharton 1984; Almy et al. 1984; Ste. Claire et al. 1985).

Several authors have proposed models for subsistence-settlement patterns that area applicable to the North Peninsular Gulf Coast culture region. Several of these models deal with adaptation and settlement on a regional basis, while others, particularly those postulated for the later periods, are environment-specific. These models fall into two basic types: models based on the aggregate assemblages of lithic chipping debris and discarded stone tools (Waller and Dunbar 1977; Goodyear 1979; Dunbar and Waller 1983; Chance 1983; Daniel 1985) and those models developed from the analysis of coastal midden assemblages and from CRM surveys conducted

for areas of inland Hillsborough, Manatee, and Polk counties (Padgett 1974, 1976; Wharton and Williams 1980; Johnson 1981; Hardin and Piper 1984).

A distinction should be made between technological organization and mobility strategies (Binford 1978, 1979, 1982). Technological organization is defined as the way human groups use, organize, create, and distribute a given technology to exploit their effective environment. Technological organization of stone tool assemblages could be expressed in several ways: the use of a cryptocrystalline lithic resource, the use of highly-curated, functionally specialized stone tool assemblages, or the use of an "embedded" lithic procurement strategy to insure a dependable supply of lower quality, but easily replaced stone for making tools. Each of these examples of a technological organization would have produced a corresponding archaeological signature. Each strategy would have resulted in a distribution of chipping debris, broken and discarded tools across a landscape. The pattern of lithic discard characteristic of a given technological organization may or may not reflect the pattern of residential mobility employed by the group using that particular mode of technological organization.

The settlement models postulated for the earliest periods, the Paleoindian and Early Archaic, are pan-Florida and suggest a settlement pattern restricted by water availability and the availability of the high-quality stone from which the specialized Paleoindian and Early Archaic tool assemblages were made. These models clearly assume a high correlation between technological organization and residential mobility. Waller and Dunbar (1977) and Dunbar and Waller (1983), from their study of the distribution of known Paleoindian sites and artifact occurrences, have shown that most sites of these time periods are found near karst sinkholes or spring caverns. This suggests a somewhat more restricted settlement pattern than postulated for other Paleoindian groups in eastern North America. Paleoindian and Early Archaic settlement appears to have been restricted, or "tethered," to sources of fresh water (Daniel 1985:264; Daniel and Wisenbaker 1987:169) and cryptocrystalline lithic sources (Goodyear 1979; Goodyear et al. 1983).

Daniel (1985) has also proposed a settlement pattern for the Middle Archaic period. During the Middle Archaic, rainfall increased, water became much less restricted, and a new technology for producing high-quality stone-thermal alteration, came into widespread use (Ste. Claire 1987). Middle Archaic settlement patterns are believed to be associated with movements of groups along river basins (i.e., Hillsborough River, Alafia River), with bands or groups exploiting specific river drainage. Daniel (1985:265) postulated that a seasonal dichotomy existed between upland and lowland Middle Archaic sites. Aggregate base camps were located along the upland boundaries of the Polk Uplands and were occupied during the fall and winter months. These upland sites are thought to be larger, and contain a greater variety of functionally defined tools; moreover, these sites should also contain tools related to "maintenance" activities. Dispersed residential camps were occupied in the Coastal Lowlands physiographic zone during the summer months. Daniel predicts these lowland sites would be smaller, more numerous, and exhibit a smaller number, and a more limited variety, of tool types. These sites are thought to contain tools related to "subsistence" activities. The lack of tool forms at these sites may also reflect an orientation towards activities that did not require the use of stone tools.

Based on some of the first large-scale CRM surveys done in the 1970s, Padgett (1976) proposed a set of ideas that came to be called the "hinterland hypothesis." This model organized the extent of the southern central Gulf Coast cultural region into three environmental zones: coastal,

riverine, and hinterland (inland). Different socio-economic activities were proposed for each zone. Padgett proposed that the hinterland was exploited primarily as a hunting area only during the Late Archaic and Safety Harbor periods. Use of this area during the intervening cultural periods was thought to be lacking (1976:30-31). The projected site type for the hinterland zone was the small, limited-use extractive site. At the time, this equated with small, sparsely evidenced sites, usually lithic, that produced few tools and small flakes. More permanent village sites were thought to have been in better-drained, riverine, or coastal zones.

Wharton and Williams (1980) offered the antithesis to the hinterland model. They proposed that the advent of agriculture in the Peace River drainage resulted in the eclipse of the Gulf Coastal religious and political centers by new ones in the interior. At present, the available site distribution data appears to support their proposition; however, no evidence for domestic plants has been recovered from any site within the Central Peninsular Gulf Coast cultural region. Recent surveys and excavations have documented the presence of habitation sites, burial mounds, and at least one temple mound in this interior zone (e.g., Deming 1976, Wood 1976, Wharton 1977, Ellis 1977, Wharton and Williams 1980; Piper and Piper 1981; Piper et al. 1982), suggesting that this region functioned as more than just a procurement area for coastal dwelling groups.

Luer and Almy (1981:149) have proposed a culture trait/settlement model for the middle Woodland period. They take the hinterland hypothesis one step further, by stating that the Gulf coast and Peace River basin represent two "similar but distinct" cultural areas. They have identified the precontact culture group occupying the Gulf coast as the Manasota culture. As they define it (Luer and Almy 1979, 1982), the Manasota culture was principally a coastal adaptation which first appeared about 500 BC and continued until roughly AD 800 (Luer and Almy 1982:37).

According to Luer and Almy (1982:39-44), the Manasota/Weeden Island-related settlement pattern was one of permanent residence on the coast for most of the year with occasional, probably seasonal, forays into the interior to obtain game, plants, or other resources. The catchment or procurement area of these groups is thought to be 30 km (18 mi). They use the term "inland from the shore" to differentiate this area from interior regions such as the Peace River basin (Luer and Almy 1982:51).

Hardin and Piper (1984) have questioned the validity of the criteria used to define these boundaries, and in the process have raised questions about the entire Manasota settlement model. Citing data from several interior sites located within the Peace River drainage, they suggest that precontact groups possessing a Manasota material culture may have inhabited these interior areas on at least a temporary basis. As they observe, one of the problems with the Manasota concept is that the culture has been defined on the basis of patterned traits observed primarily at coastal sites. Little is known about how non-coastal sites articulated with the primary population centers on the Gulf. Because of their generally small size, it has been assumed that these sites represent short term, special-use campsites (e.g., Milanich and Fairbanks 1980:207; Luer and Almy 1982:43). However, as noted above, other researchers (e.g., Wharton and Williams 1980; Hardin and Piper 1984) have suggested that some of the larger, non-coastal sites may represent permanent or semi-permanent (seasonal) habitation sites.

Hardin and Piper (1984) also make a distinction between cultures and politics and suggest that two different political entities, one occupying the coast and the other the interior drainage of the Peace River, could share a similar material culture. The debate remains unresolved, in part, because of the lack of detailed studies of interior sites, particularly with regard to season of occupation, as well as the difficulty in identifying cultural differences in the plain ceramic wares that dominate the archaeological assemblages of southwest Florida sites.

Grange et al. (1977) have developed the concept of the "micro-hinterland" in an effort to understand the Native American utilization of marginal environments, like pine flatwoods. The "micro-hinterland" is an environmental zone characterized by flat relief and poor drainage that is located peripheral to environmental locations more conducive to permanent settlements (i.e., coastal areas or upland ridges). When sites are found in such environments, it has been assumed that the availability of food or other resources was the determining factor that influenced site location (Grange et al. 1977; Deming 1980; Piper et al. 1981). This implies that these areas were used primarily for extracting locally available resources. The types of sites found in these environments tend to support this.

Research suggests that, within the North Peninsular Gulf Coast cultural region, there appears to be both a coastal cultural and a separate hinterland cultural group. Kohler (1991) has suggested that within this region Alachua farmers were slowly moving down into the region and expanding into the hinterland areas. Meanwhile, Weeden Island-related cultures maintained their coastal manifestations. However, there is also evidence that in some areas the two cultures blended. An example of this is the recovery of Weeden island ceramics on Alachua sites.

There is also one kind of archaeological site occasionally found in wetland/swamp environments. Human burial interments from the Archaic period (7500 to 4000 BC) have been discovered in Florida wetland environments. The Bay West site (Beriault et al. 1981) in Collier County, the Hazeltine site in Sarasota County (Clausen et al. 1979), the Republic Groves site in Hardee County (Wharton et al. 1981), and the Windover site in Brevard County (Doran and Dickel 1988), are noted examples of Archaic wetland burials. Beriault et al. (1981) have suggested that Archaic wetland burials are more likely to occur adjacent to large, upland Archaic village sites.

Purdy (1991) has suggested that the kinds of wetland sites found in Florida may be more a result of their depositional environment than with their association to large village sites. Purdy (1991) has shown that certain environmental conditions must be present before these wet sites will preserve. The sites appear to be associated with inundated anaerobic peats and mucks. Anaerobic peat deposits that are underlain by limestone tend to be alkaline, and are likely to preserve wood, bone, and faunal remains. Peat deposits underlain by sand or clays tend to be acidic, which will preserve wood, but will destroy bone (Purdy 1991:11). Alternating drying and wetting of the deposit will result in the decomposition (oxidation) of the peat into muck, and will also result in the destruction of any organic cultural artifacts deposited within it.

7.1 PREHISTORIC ARCHAEOLOGICAL SITE LOCATION MODEL

The designation of zones of archaeological site potential were based on previous research conducted within the Central Peninsular Gulf Coast cultural region and in conformance with the guidelines set forth in the FDOT Cultural Resource Management Handbook (December 1995). Considerable discussion about the validity of site predictive models and the various environmental variables that can be used abounds in the archaeological literature (i.e., Almy 1978; Grange et al. 1979; Grange and Williams 1979; Deming 1980; Piper et al. 1982; de Montmollin 1983). A brief synthesis of these works will be presented here; the reader is directed to any or all of these works for an extended background discussion on the variables employed in this study.

Four environmental factors are employed in predicting precontact site potential: soil type (soil drainage), distance to fresh (potable) water, distance to hardwood hammocks, and relative elevation. Soil type and relative elevation deal with the water drainage pattern found in a particular area. Soils with an organic pan, with underlying marl or clays, and with slow to moderate internal drainage tend to retain water or be inundated. Areas with a low elevation relative to perched water systems tend to be wet or inundated. Although wet areas can contain abundant wildlife and plant resources, they make poorer habitation areas when better-drained locations are available.

Freshwater is an important resource and most portions of each project location are within the 100 m (305 ft.) distance to fresh water. This variable would have been of greater importance during the Paleoindian and Early Archaic periods (14,000 to 6000 BC), when the perched water system was much more restricted. Access to water during these early periods would have been from sinkholes and aquifer-fed rivers.

Hardwood hammocks (hydric, mesic, or xeric) provide a variety of resources that would have been exploited by the Native American inhabitants of this region. Hydric hardwood hammocks can contain abundant animal and plant life, particularly a variety of tubers. Mesic hardwood hammocks contain hickory and cabbage palms which produce edible results, also ash and elm, woods that are known to have been used for specific purposes, i.e., bows, canoes, mortars, dart shafts (cf., Newsom and Purdy 1983). Often areas of higher relative elevation correspond with better-drained soils or the presence of hardwood hammocks (xeric and mesic).

7.2 HISTORIC ARCHAEOLOGICAL SITE LOCATION MODEL

On the Gulf coast, historic period sites frequently co-occur with prehistoric archaeological sites. This is often the result of environmental conditions found desirable by both groups: well-drained or better-drained upland knolls near transportation routes (i.e., historic trails or military roads, major rivers, and coastal zones). Use of the project area during the earliest historic periods (First Spanish, English, and Second Spanish) was sporadic, at best. Groups of individuals may have passed through or by the project area, but none are known or suspected of having settled or camped within the project areas. During the Territorial, Civil War, and early Reconstruction

periods, historic settlement on the Gulf Coast tended to follow the isolated homestead or farmstead pattern. Individual families, or groups of related families, often built homesteads on the better-drained, hardwood oak hammocks. There were usually several miles between these settlements to allow room for farm fields and cattle. Better-drained locales adjacent to wetlands were also preferred during this period because citrus could be grown on the well-drained soils and sugarcane could be grown in the low-lying zones. During the 1880s, the areas between older homesteads were sometimes occupied, resulting in a "filling-in" of the available upland oak hammocks.

7.3 SITE POTENTIAL ZONES

Archaeological site potential zones are defined for the project area based on previously recorded sites and environmental factors; high to moderate site potential zones are areas of well-drained soils adjacent to wetlands and other bodies of freshwater (i.e., lakes, creeks, or sinkholes). High site potential zones were tested with 25-m (82-ft.) interval tests, moderate zones with 50-m (165-ft.) interval tests, and low probability zones were tested in 100-m (330-ft.) intervals. This testing was augmented with judgmental shovel tests and surface inspections at any locale that, in the opinion of the Project Archaeologist or Principal Investigator, was deemed likely to contain archaeological deposits. See Figures 6-1A-1D for the archaeological site potential zones identified within the C.R. 578 project impact area.

Section 8.0
METHODS

Field methods used in the CRAS of the C.R. 578 project corridor consisted of archaeological surface inspections, subsurface testing, and historical resource inspection and evaluation. The methods were employed to locate and evaluate archaeological sites and historic cultural resources in terms of their eligibility for listing in the **NRHP**.

8.1 ARCHAEOLOGICAL SURVEY FIELD METHODS

During the archaeological portion of the field survey, surface inspection and subsurface testing techniques were employed to locate and evaluate archaeological sites. Subsurface testing employed conventional shovel testing throughout the investigation. Prior to the start of the fieldwork, zones of archaeological site potential, soil drainage, and vegetation characteristics were designated on maps of the project areas.

High site potential zones are defined as those areas of extensively to moderately well-drained upland locates within 100 m (330 ft.) of a wetland or body of freshwater (i.e., lake, stream, or sinkhole). These zones were surface inspected; subsurface testing was spaced at roughly 25-m (82-ft.) intervals (see Figures 6-1A-1D). Moderate site potential zones are defined as those poorly drained locales within 100 m (330 ft.) of a wetland or body of fresh water and better-drained upland locales beyond 100 m (330 ft.) from a wetland or water source. These zones were surface inspected and tested at roughly 50-m (165-ft.) intervals; in areas within 100 m (330 ft.) of water, this interval was shortened to 25 m (82 ft.). Low site potential zones are defined as those areas of poorly to very poorly drained upland locales beyond 100 m (330 ft.) of a wetland or body of fresh water. Low site potential zones were surface examined and subjected to limited subsurface testing. Subsurface testing was conducted at roughly 100-m (330-ft.) intervals within these areas.

A total of 902 shovel tests were excavated during the initial testing of the project corridor. Shovel tests were circular, roughly 0.5 m (20 in.) in diameter. They were dug to a minimum depth of 1 m (3.3 ft.), and often reached 1.2 m (3.9 ft.) in depth. In a few instances, disturbed soil, obstructions, and pit slumping due to water intrusion inhibited excavation to 1 m (3.3 ft.). Had cultural materials been discovered during testing, measurements and careful notes would have been taken to record the level and context in which these materials were recovered.

Shovel tests were placed systematically along transects and judgmentally at intervals determined by the site potential zone of the particular area and by local conditions. Single transects were often employed, one on each side of the defined study area (north or south side of the road). Testing was usually performed at the specified interval unless obvious ground disturbance, such as buried utilities or standing water, was encountered. The field crews were instructed to place additional shovel tests in areas within the project area they deemed likely spots for sites, irrespective of the testing interval. All excavated soil was screened through 6.4-mm (¼-in.) hardware cloth suspended from portable wooden frames.

The number, location, stratigraphic profile, and soil descriptions were recorded for every shovel test performed. Field notes also included a count, provenience, and description of any cultural materials encountered. The location of all shovel tests was recorded on 1:200 aerial photographs. Had artifacts been discovered during the surface inspection, they would have been collected, bagged by area, and their location marked on the project aerial maps.

In areas of minimal vegetation and upturned soil such as drainage ditches, recent construction clearing, and building demolition, a careful surface inspection was undertaken. All were carefully inspected for the presence of historic and prehistoric artifacts.

During the additional testing of sites 8PA185, 8HE284, and 8HE426, 62 shovel tests, two 1x2 m test units, four 1x2 m test units, four 1x1 m test units, and five 50x50 cm test units were excavated. Combined with the initial testing of the corridor, a total of 964 shovel tests and 15 test units were excavated.

8.2 LABORATORY METHODS

Preliminary processing of artifacts included cleaning and assigning of Field Specimen (FS) numbers to all field labeled artifact bags by shovel test and level provenience. Some artifacts did not need cleaning, but those that did were washed or cleaned with a soft-bristle brush to remove extraneous surface debris, carefully rinsed with water, if necessary, and air-dried. Any organic samples collected were sorted, prepared for study or stored separately. All excessively dirty or broken provenience bags were replaced, with proper provenience data copied. Artifacts were divided into major classes (e.g., prehistoric ceramics, historic glass, etc.) for identification and analysis.

8.2.1 ARTIFACT ANALYSES

Several classes of artifacts and other remains were collected, including the following:

8.2.1.1 Lithics

Lithic analysis included the examination of materials with a hand lens or under low power (10x to 30x) magnification. It included the initial division of the lithic material into two categories: 1) tool forms/manufacture failures or rejects, and 2) debitage, or waste flakes.

Lithic tool forms and manufacture failures/rejects were described and classified according to basic morphological categories such as bifaces, unifaces, modified flakes/utilized flakes, blanks, preforms, cores, and hammerstones. Any diagnostic bifaces (projectile points) were classified according to commonly accepted standard types (e.g., Hernando point). Any observable wear patterns on finished tools, and fractures (e.g., lateral snap) on finished tools were described.

Debitage (waste flakes) was sorted by raw material type, and the presence or absence of thermal alteration was identified by number and percentage. At a minimum, debitage analysis included limited attribute analysis (e.g., flake size, amount of dorsal surface cortex). If collection size was sufficient, the period(s) of stone tool production was determined from the characteristics of the waste flake assemblage.

8.2.1.2 Ceramics

Careful attention to differences in vessel wall thickness, rim orientation, and absolute and relative occurrence of different types of aplastic materials, will aid in the identification of ceramic type, chronological placement, and site function.

Ceramic analysis was conducted in a manner sufficient to assign sherds to a currently recognized standard ceramic type. Chronological placement and functional attributes (utilitarian/burial) were determined, if possible. This was accomplished by examining sherds with a hand lens or microscope to identify the following:

- Aplastic inclusions;
- Exterior decoration and/or treatment; and
- Manufacturing technology (e.g., coil marks).

8.2.1.3 Historic Artifacts

The various types of historic artifacts were first sorted by raw material type, then identified and tabulated in order to determine a site's chronological placement and function. Standard references for historic artifacts as well as primary source materials, such as catalogues, manufacturer's production information, newspaper and magazine advertisements, and discussions with knowledgeable informants, were used to help identify artifacts.

Ceramics were classified by such attributes as ware type and morphology/function. Maker's marks were described and used to determine the manufacturer and date of manufacture. Similarly, glass was classified in reference to such attributes as color, vessel form and function, and manufacture marks such as seams and lip treatment. Embossments and maker's marks were also noted to help ascertain manufacturer and date of manufacture.

8.3 HISTORIC RESOURCES SURVEY FIELD METHODS

An architectural historian and at least one technical assistant conducted a historic resources survey in order to ensure that each pre-1952 resource within the project area was identified, properly mapped, and photographed. The historic resources survey used standard field methods to identify and record historic resources. All resources within the APE received a preliminary visual reconnaissance. Any resource with features indicative of 1950s or earlier construction materials, building methods, or architectural styles were noted on aerial photographs and a U.S.G.S. quadrangle map.

For each resource identified in the preliminary assessment, FMSF forms were filled out with field data, including notes from site observations and informant interviews. Site sketches of the resources were also made. The estimated date of construction, distinctive features, and architectural style were noted. The information contained on any FMSF Historical Structure Form completed for this project was recorded in a database at the office. Photographs were taken with a 35-mm camera using a 50-mm or 28-mm lens and 100 ASA black-and-white film and a

digital camera. A log was kept to record the resource's physical location and compass direction of each photograph.

Each resource's individual significance was then evaluated for its potential eligibility for listing in the **NRHP**. Historic physical integrity was determined from site observations, field data, and photographic documentation. Informant interviews with individuals knowledgeable about local history were conducted and local information was consulted to assist in the research for known significant historical associations.

Concentrations of historic resources along the project right-of-way were noted in terms of assessing the potential for historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for accurate assessment of **NRHP** Historic District eligibility. Additionally, historic research was conducted in order to evaluate the area's historic and architectural significance.

Section 9.0
RESULTS

A CRAS survey was conducted for the C.R. 578 project corridor in cooperation with URS Corporation at the request of the FDOT, District 7. The purpose of this survey was to identify and assess any cultural resources occurring within the APE of the proposed improvement project. Fourteen historic resources and 13 archaeological sites were identified within the project corridor.

9.1 ARCHAEOLOGICAL RESULTS

A total of 902 shovel tests were dug during the initial archaeological survey of the proposed project corridors. These tests were conducted primarily in areas of medium and high site potential within the project APE. From these tests, 13 archaeological sites were identified within the project area (Table 9-1 and Figures 9-1A-1C). A FMSF form for each site is provided in Appendix B. Testing was conducted at 25-, 50-, and 100-m (82-, 165-, and 330-ft., respectively) intervals, depending on the drainage characteristics of the deposits and/or the proximity of wetlands to the area being tested. Judgmentally placed tests were also conducted in areas determined by the field supervisor to have site potential. Positive tests were bounded at 12.5-m (41-ft.) intervals. This testing revealed that much of the ground within the project area had been heavily disturbed. Within the right-of-way corridor, there were numerous buried utilities such as power cables, phone cables, and water and sewer mains. Trenches dug for these utilities were largely responsible for the disturbance within the corridor.

TABLE 9-1
ARCHAEOLOGICAL RESOURCES IDENTIFIED WITHIN THE PROJECT IMPACT AREA

FMSF Number	Site Name/Address	Site Type	Time Period	NRHP Status
8PA1301	County Line Road #1	Short-term campsite	Prehistoric	Not eligible
8PA1302	County Line Road #2	Short-term campsite	Prehistoric	Not eligible
8HE419	County Line Road #3	Short-term campsite	Prehistoric	Not eligible
8HE420	County Line Road #4	Short-term campsite	Prehistoric	Not eligible
8HE421/ 8PA1387	County Line Road #5	Short-term campsite	Prehistoric	Not eligible
8HE422	County Line Road #6	Short-term campsite	Prehistoric	Not eligible
8HE423	County Line Road #7	Short-term campsite	Prehistoric	Not eligible
8HE425	County Line Road #8	Short-term campsite	Prehistoric	Not eligible
8HE428	Coral Snake Sink	Short-term campsite	Prehistoric	Not eligible
8PA185	Volkswagen Sinkhole	Periodically re-occupied logistical campsite	Weeden Island/ Safety Harbor	Further Work Recommended
8HE426	Alexsuk Site	Large habitation	Prehistoric	Further Work Recommended
8HE284	Enville	Historic townsite	Late 19th/early 20th century	Further Work Recommended
8HE429	The Cistern Site	Historic cistern	Late 19th/early 20th century	Not eligible

FIGURE 9-1A
LOCATIONS OF ARCHAEOLOGICAL SITES FOUND WITHIN C.R. 578 PROJECT IMPACT AREA

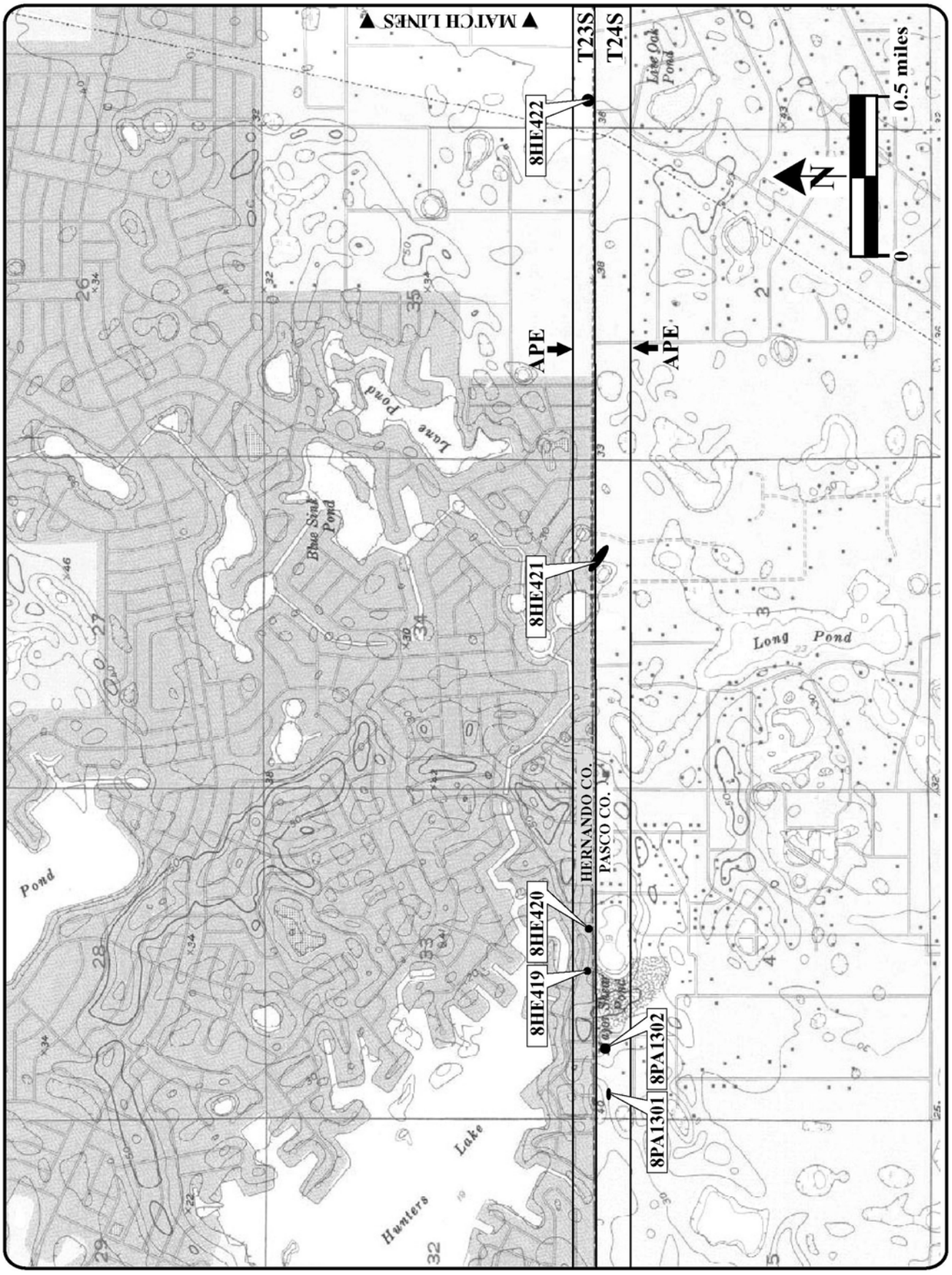


FIGURE 9-1B
LOCATIONS OF ARCHAEOLOGICAL SITES FOUND WITHIN C.R. 578 PROJECT IMPACT AREA

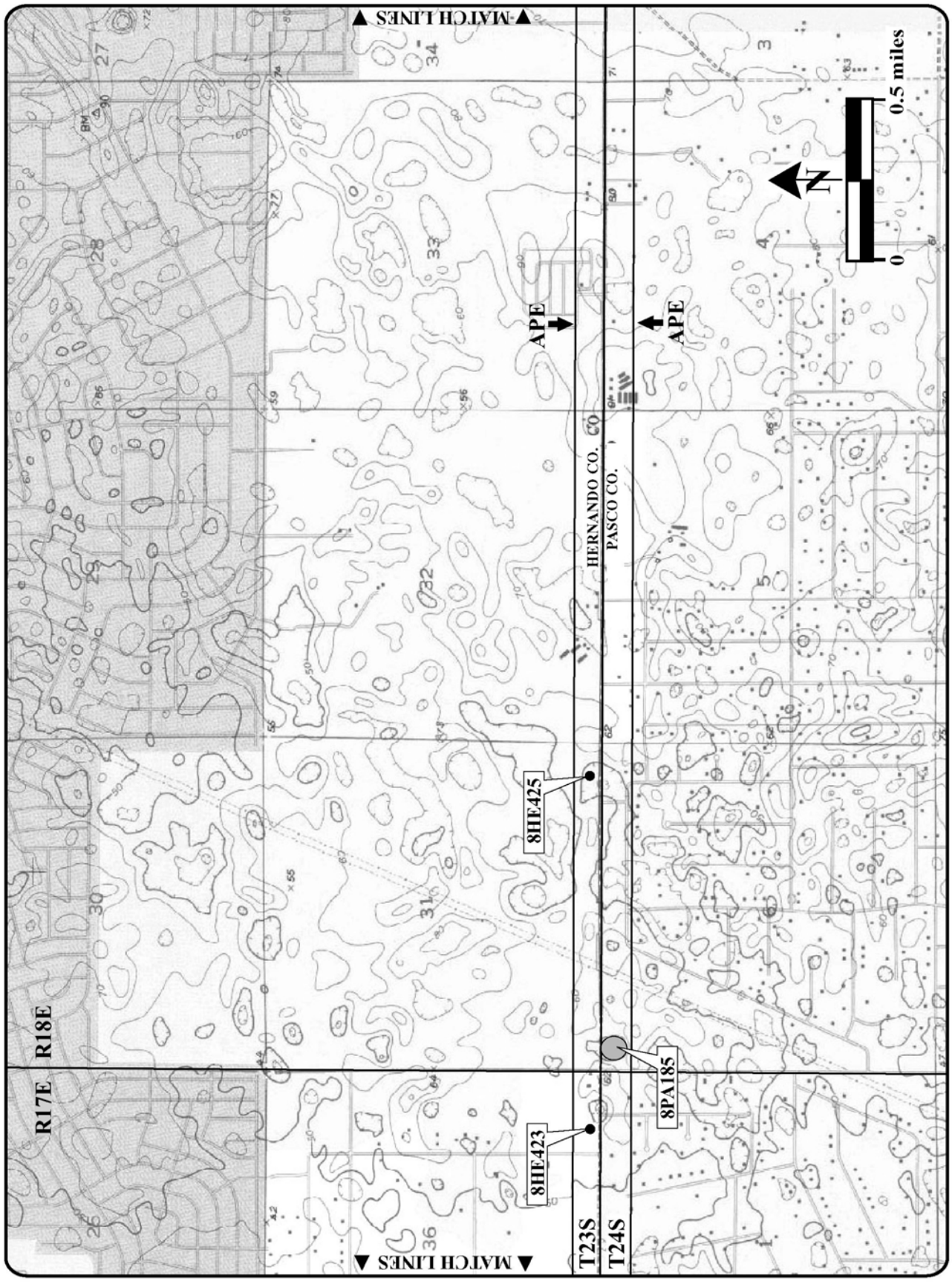
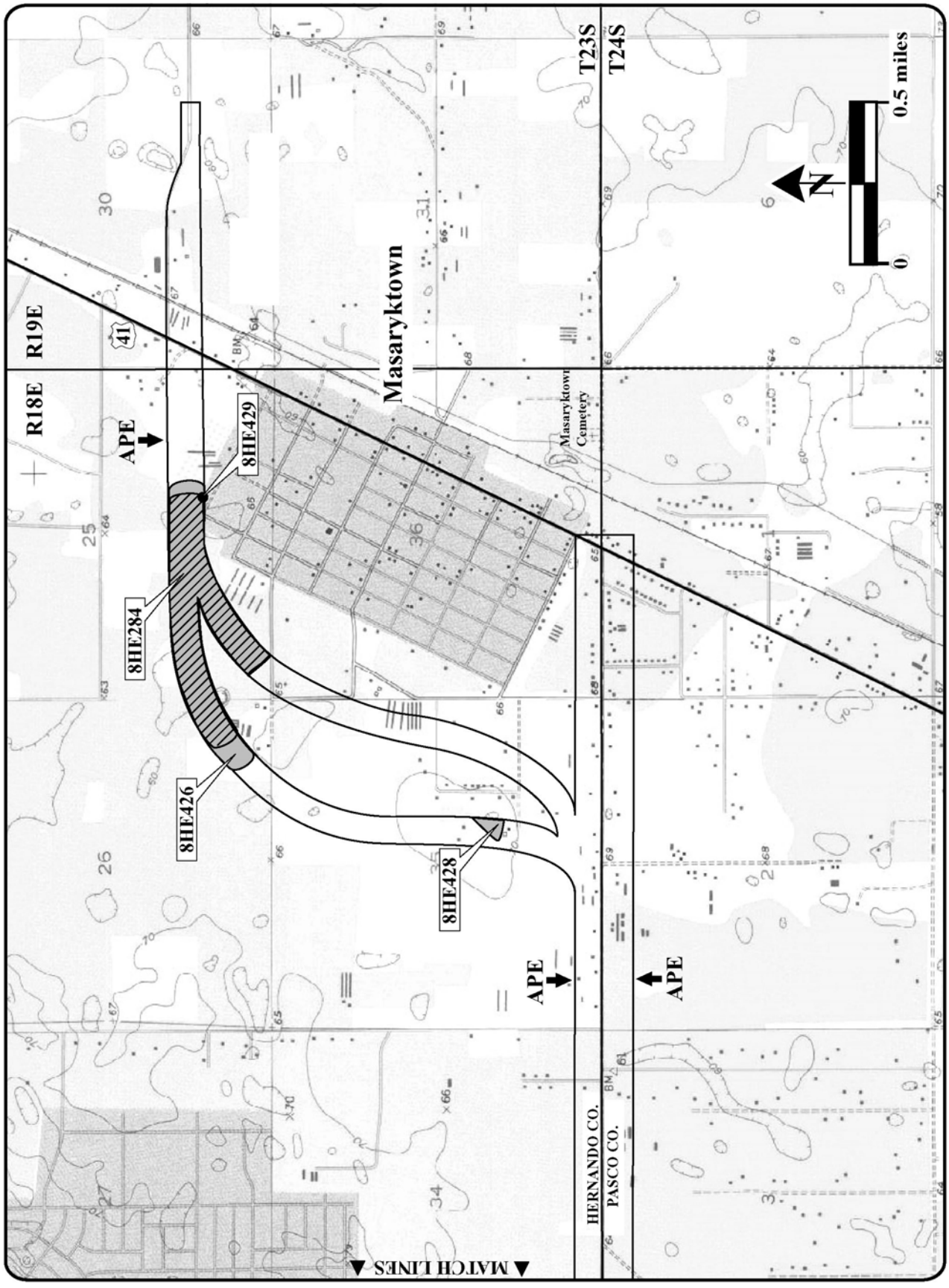


FIGURE 9-1C
LOCATIONS OF ARCHAEOLOGICAL SITES FOUND WITHIN C.R. 578 PROJECT IMPACT AREA



9.1.1 8PA1301: COUNTY LINE ROAD #1

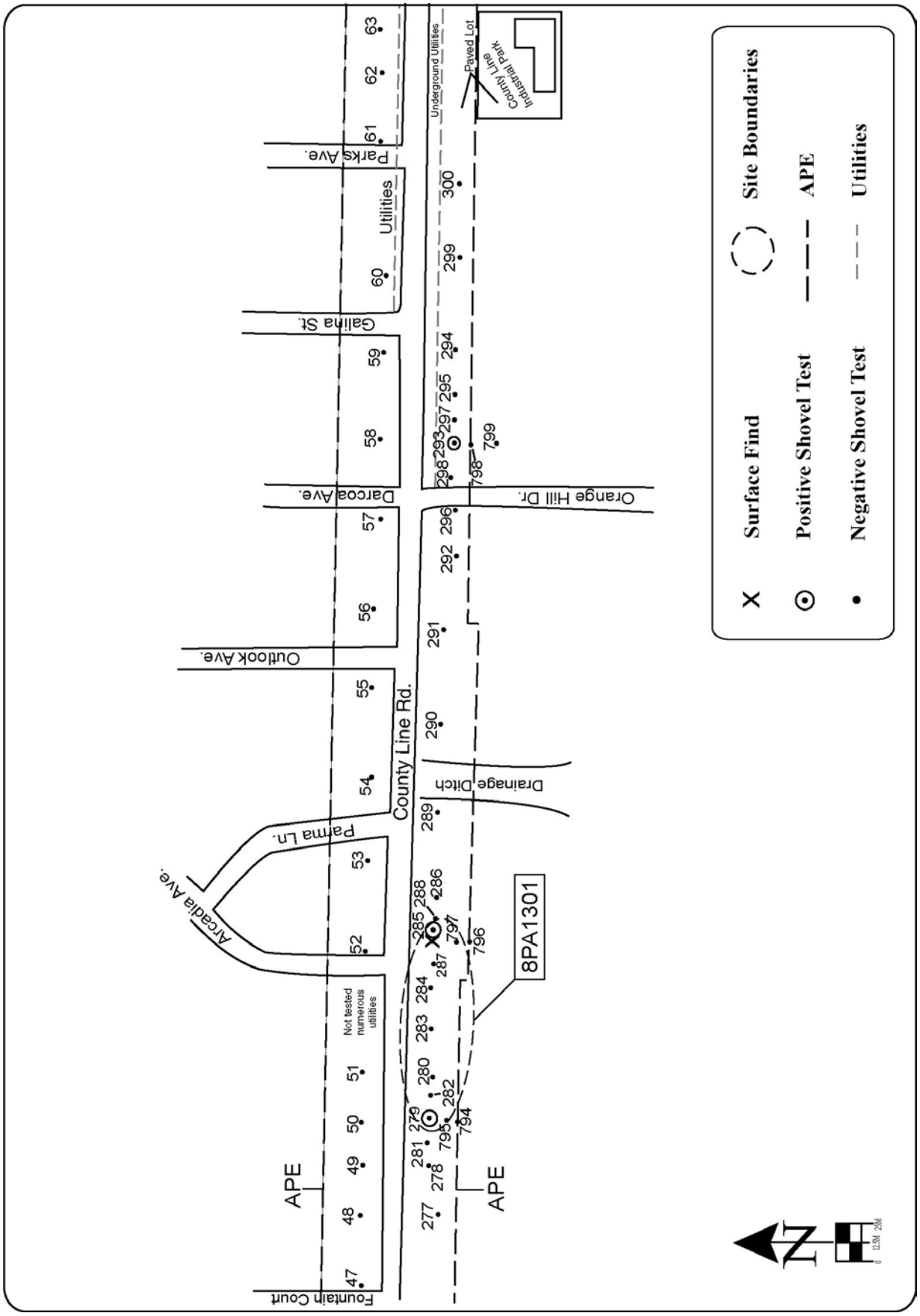
Site 8PA1301 is located immediately south of C.R. 578, approximately 3,280 m (1,000 ft.) west of Orange Hill Drive in Pasco County, Florida. It lies in the northwestern quarter of Section 4, Township 24 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing the proposed expansion of C.R. 578. The site lies in an area of xeric uplands at an elevation between 12 m and 18 m (39.4 ft. and 59 ft.) above mean sea level (amsl).

Site 8PA1301 was identified through two positive shovel tests in an area 100 m (330 ft.) east-west and 25 m (82 ft.) north-south for a total area of 2,500 m^2 (8,202 $ft.^2$) (Figure 9-2). This site was bounded by negative shovel tests at 12.5-m (41-ft.) intervals to the east, north and west. The presence of C.R. 578 to the north of the positive shovel tests necessitated the bounding of the site by shovel testing on the northern side of the road. The site was bounded to the north of C.R. 578 by negative shovel tests excavated about 37 m (141.4 ft.) to the north.

Artifacts recovered from the site include two lithic waste flakes. One of these flakes was recovered during a surface collection while the other was recovered from a depth of 30-40 cm below surface. One of the flakes is whole and is a possible retouch flake. It is composed of silicified limestone and falls within the 0-2 cm size class. Retouching refers to the removal of small flakes along an edge to produce a thicker and stronger edge. This is performed either to prepare a platform for thinning flake removal on preforms and bifaces or to produce a more reliable edge on tools (Whittaker 1994:19-20). The other flake is a distal fragment and is technologically unidentified. It is composed of silicified coral and falls within the 1-2 cm size class.

County Line Road #1 (8PA1301) most likely represents a short-term campsite related to the procurement of locally available resources. Based on the sparse lithic assemblage, middle- to late-stage projectile point manufacturing was probably the primary activity at this site. The artifacts collected here are probably remains of a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8PA1301 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-2
SITE SKETCH FOR 8PA1301



9.1.2 8PA1302: COUNTY LINE ROAD #2

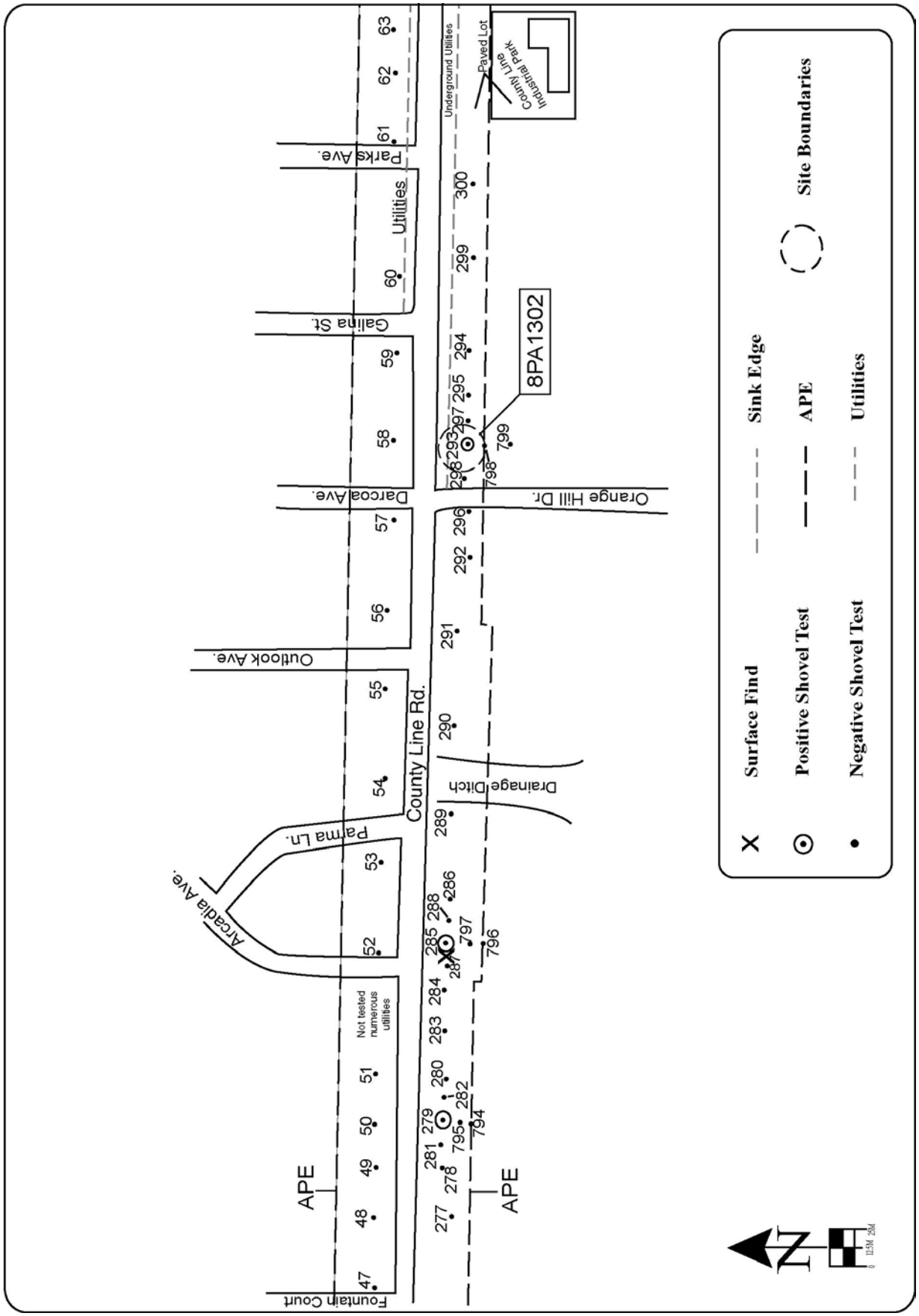
Site 8PA1302 is located immediately south of C.R. 578, approximately 30 m (100 ft.) east of Orange Hill Drive, in Pasco County, Florida. It lies in the northwestern quarter of Section 4, Township 24 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion of C.R. 578, which lies in an area of xeric uplands at an elevation between 12 m and 18 m (39.4 ft. and 59 ft.) amsl.

Site 8PA1302 consists of one positive shovel test in an area 25 m^2 (82 $ft.^2$) (Figure 9-3). This site was bounded by six negative shovel tests at 25-m (82-ft.) and 12.5-m (41-ft.) intervals to the south, east and west. The northern boundary could not be determined due to the presence of C.R. 578. The site may extend north of the proposed site boundaries, underneath what is now C.R. 578, but does not extend to the north side of C.R. 578.

Artifacts recovered from site 8PA1302 consist of one lithic flake that falls within the 0-1 cm size class. This flake was recovered from 0-10 cm below surface and is composed of silicified limestone that shows no evidence of heat treatment. The flake is not fragmented and is comprised entirely of cortex and thus is technologically unidentifiable and not temporally diagnostic.

The County Line Road #2 site (8PA1302) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8PA1302 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-3
SITE SKETCH FOR 8PA1302



9.1.3 8HE419: COUNTY LINE ROAD #3

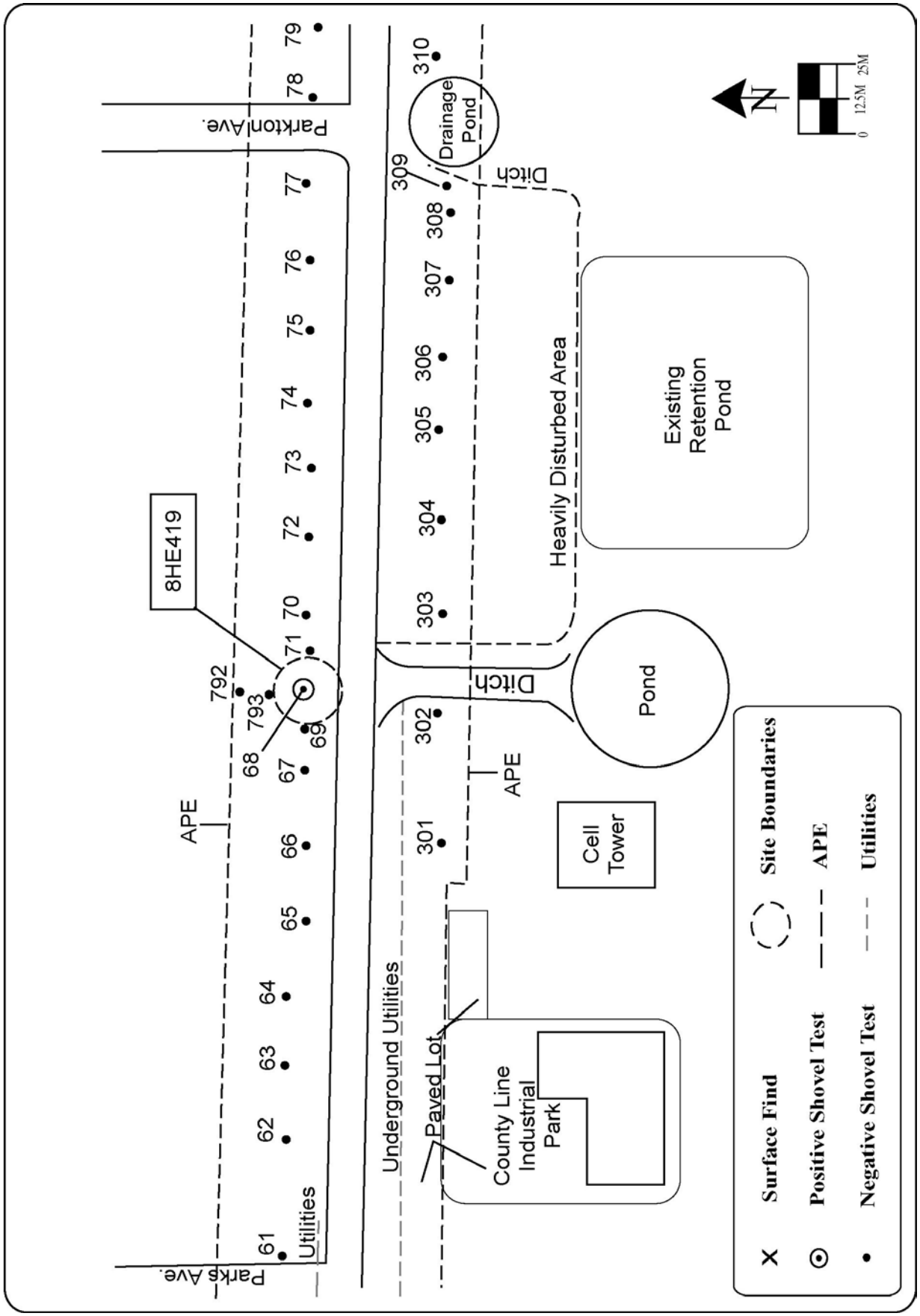
Site 8HE419 is located immediately north of C.R. 578, approximately 192 m (630 ft.) east of Parks Avenue, in Hernando County, Florida. It lies in the southwestern quarter of Section 33, Township 23 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion of C.R. 578, which lies in an area of xeric uplands at an elevation between 9 m and 12 m (29.5 ft. and 39.4 ft.) amsl.

Site 8HE419 consists of one positive shovel test in an area 25 m^2 (82 $ft.^2$) (Figure 9-4). This site was bounded by six negative shovel tests at 25-m (82-ft.) and 12.5-m (41-ft.) intervals to the north, east and west. The southern boundary of the site could not be determined due to the presence of C.R. 578. The site may extend south of the proposed site boundaries, underneath what is now C.R. 578, but does not extend to the south side of C.R. 578.

Artifacts recovered from site 8HE419 include one lithic flake that falls within the 0-1 cm size class. This flake was recovered between 40-60 cm below surface and is composed of silicified limestone that shows no evidence of heat treatment. This flake is a proximal fragment of a biface-thinning flake.

The County Line Road #3 site (8HE419) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE419 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-4
SITE SKETCH FOR 8HE419



9.1.4 8HE420: COUNTY LINE ROAD #4

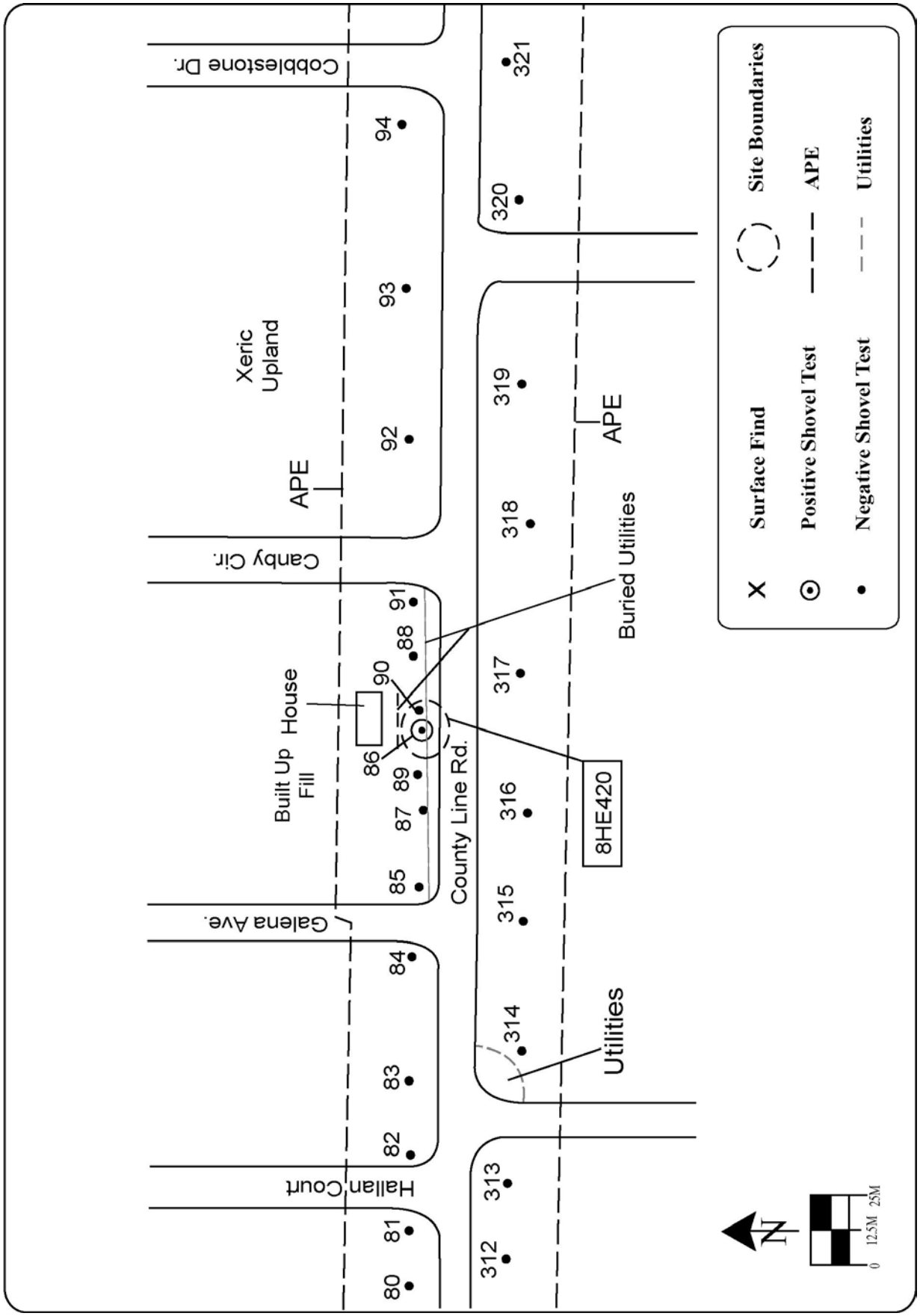
Site 8HE420 is located immediately north of C.R. 578, approximately 64 m (210 ft.) east of Galena Road, in Hernando County, Florida. It lies in the southeastern quarter of Section 33, Township 23 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion of C.R. 578, which lies in an area of xeric uplands at an elevation between 11 m and 12 m (36 ft. and 39.4 ft.) amsl.

Site 8HE420 consists of one positive shovel test in an area 25 m^2 (82 $ft.^2$) (Figure 9-5). This site was bounded by four negative shovel tests at 25-m (82-ft.) and 12.5-m (41-ft.) intervals to the north, east and west. The northern boundary of the site could not be determined due to the presence of a structure. The southern boundary of the site also could not be determined due to the presence of C.R. 578. The site may extend north of the proposed site boundaries underneath what is currently a building. The site may also extend south of the proposed site boundaries, underneath what is now C.R. 578, but does not extend to the south side of C.R. 578.

Artifacts recovered from site 8HE420 include one lithic flake that falls within the 0-1 cm size class. This flake was recovered from 40-60 cm below surface and is composed of silicified coral that shows no evidence of heat treatment. The lithic is a distal fragment of a flake with no evidence of cortex on the flake. No technological evidence can be gleaned from this site.

The County Line Road #4 site (8HE420) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE420 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-5
SITE SKETCH FOR 8HE420



9.1.5 8HE421/8PA1387: COUNTY LINE ROAD #5

Site 8HE421/8PA1387 is bisected by C.R. 578. It is located approximately 274 m (900 ft.) west of Randolph Avenue and extends across both sides of the Hernando-Pasco County line in Florida. The junction of Truce Circle and C.R. 578 is located to the west of the apparent northwest corner of the site. This site lies in the southeastern quarter of Section 34, Township 23 South, Range 17 East and Section 3, Township 24 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). County Line Road #5 was identified while testing the proposed expansion of C.R. 578. The site lies in an area of xeric uplands on the edge of a pond. The elevation of the site ranges at an elevation between 3 m and 6 m (9.8 ft. and 19.7 ft.) amsl.

Site 8HE421/8PA1387 was identified through three positive shovel tests in an area 75 m (246 ft.) east-west and 60 m (197 ft.) north-south for a total area of 4,500 m^2 (14,764 $ft.^2$) (Figure 9-6). Two of these tests were excavated to the north of C.R. 578 while the third test was excavated to the south. The site was bounded by negative shovel tests at 12.5-m (41-ft) intervals to the east, south and west. The location of Truce Circle and buried utility lines adjacent to it prevent further testing to the north of the positive shovel tests excavated to the north of C.R. 578. Thus, it is possible that the site extends to the north of the proposed limits of the C.R. 578 expansion.

Artifacts recovered from the site include four lithic waste flakes and one tool. All of the waste flakes were recovered from 90-110 cm below surface. The only tool recovered from this site is a non-fragmented blade composed of unaltered silicified coral. This blade appears to show signs of wear that could be a result of use. This blade falls within the 4-5 cm size class.

Two of the flakes are biface-thinning flakes that fall within the 1-2 cm size class. One of these is a whole flake composed of heat-treated silicified limestone. The other specimen is a medial flake composed of heat-treated silicified coral. Biface-thinning flakes are produced during the thinning stage, which consists of the removal of long, thin flakes from both faces of the projectile point preform. Soft-hammer percussion and pressure flaking are generally used during the thinning stage.

The other two specimens are a possible retouch flake and a retouch flake. The retouch flake is a non-fragmented flake, whereas the possible retouch flake is a medial fragment of a flake. One is composed of heat-treated silicified limestone and the other is composed of unaltered silicified limestone. Both flakes fall within the 0-1 cm size class. Retouching refers to the removal of small flakes along an edge to produce a thicker and stronger edge. This is performed either to prepare a platform for thinning flake removal on preforms and bifaces or to produce a more reliable edge on tools (Whittaker 1994:19-20).

County Line Road # 5 (8HE421/8PA1387) most likely represents a short-term campsite related to the procurement of locally available resources and middle- to late-stage projectile point manufacturing. The artifacts collected here are probably remains of a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE421/8PA1387 is not considered locally or regionally significant and, therefore, is not considered eligible for listing in the **NRHP**. No further work is recommended for this site.

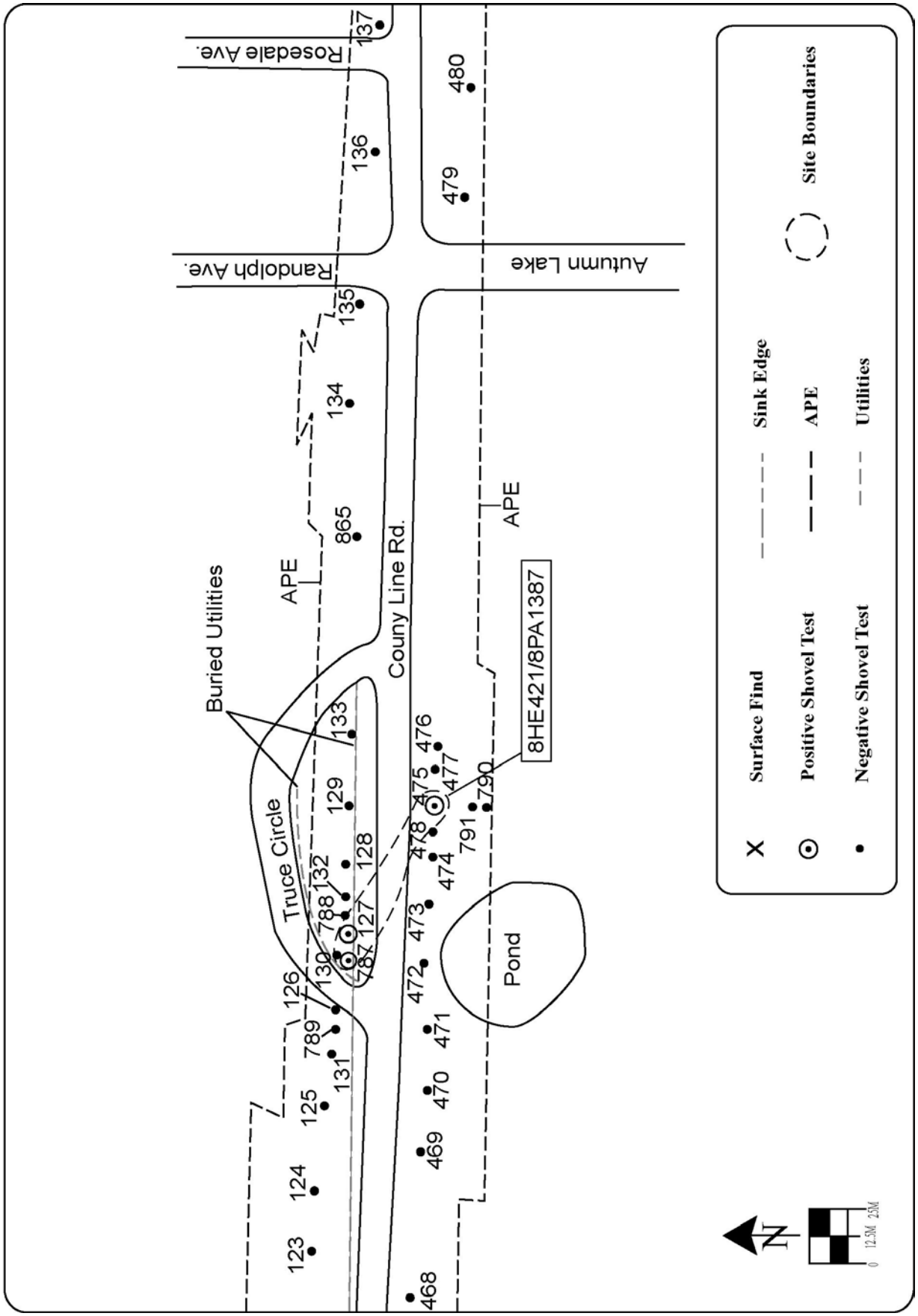


FIGURE 9-6
SITE SKETCH FOR 8HE421/8PA1387

9.1.6 8HE422: COUNTY LINE ROAD #6

Site 8HE422 is located just to the north of C.R. 578. It is located approximately 60 m (200 ft.) east of Ackson Street in Hernando County, Florida. This site lies in the southwestern quarter of Section 36, Township 23 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). County Line Road #6 was identified while testing for the proposed expansion of C.R. 578. The site lies in an area of xeric uplands. The elevation of the site is about 12 m (39.4 ft.) amsl.

Site 8HE422 was identified through a positive shovel test and a surface collection in an area 45 m (150 ft.) east-west and 30 m (100 ft.) north-south for a total area of 1,350 m^2 (4,429 $ft.^2$) (Figure 9-7). The site was bounded by negative shovel tests at 12.5-m (41-ft.) intervals to the east, north, south and west.

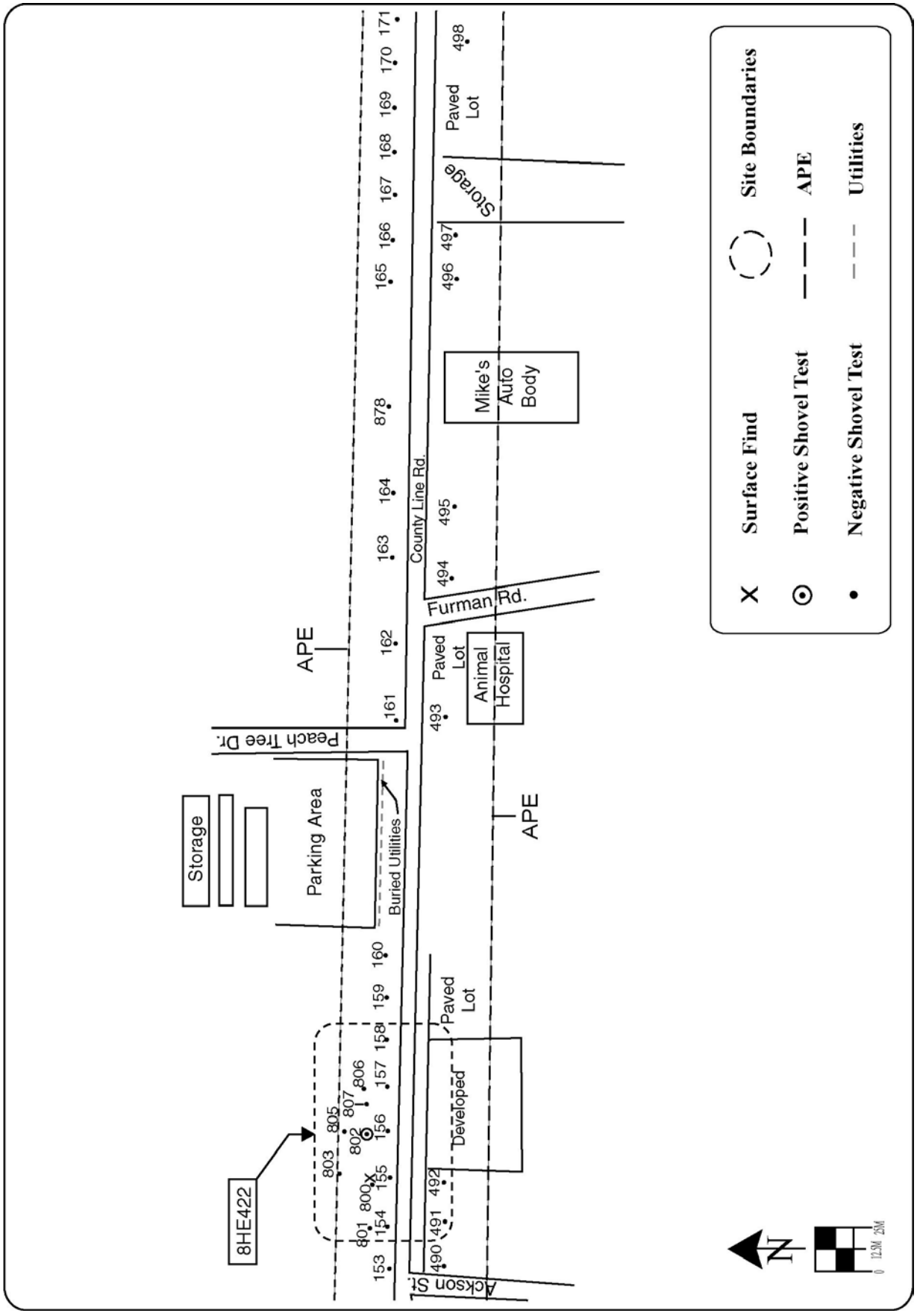
Artifacts recovered from the site include four lithic waste flakes. Three of these were recovered from the surface and one from a depth of 30-55 cm below surface. One flake specimen is an example of a biface-thinning flake that falls within the 2-3 cm size class. The flake is whole and composed of silicified limestone. Biface-thinning flakes are produced during the thinning stage, which consists of the removal of long, thin flakes from both faces of the projectile point preform. Soft-hammer percussion and pressure flaking are generally used during the thinning stage.

Another flake specimen is an example of a secondary core reduction flake. It is a proximal flake composed of heat-treated silicified coral and falls within the 1-2 cm size class. Secondary core reduction consists of the removal of flakes or blades, also called blanks. These blanks are eventually shaped, thinned and retouched to produce a tool. Secondary core reduction includes the necessary maintenance, or rejuvenation, of the core.

The third flake specimen is an example of a shaping point flake. It is a distal flake that is completely cortical and composed of silicified limestone. It falls within the 2-3 cm size class. Shaping point flakes are produced during the shaping stage of a preform, which is an unfinished, unused form of a projectile point. The final flake is a medial fragment and is technologically unidentified. It is composed of silicified coral and falls within the 0-1 cm size class.

County Line Road #6 (8HE422) most likely represents a short-term campsite related to the procurement of locally available resources. Based on the sparse lithic assemblage, middle- to late-stage projectile point manufacturing was probably the primary activity at this site. The artifacts collected here are probably remains of a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE422 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-7
SITE SKETCH FOR 8HE422



9.1.7 8HE423: COUNTY LINE ROAD #7

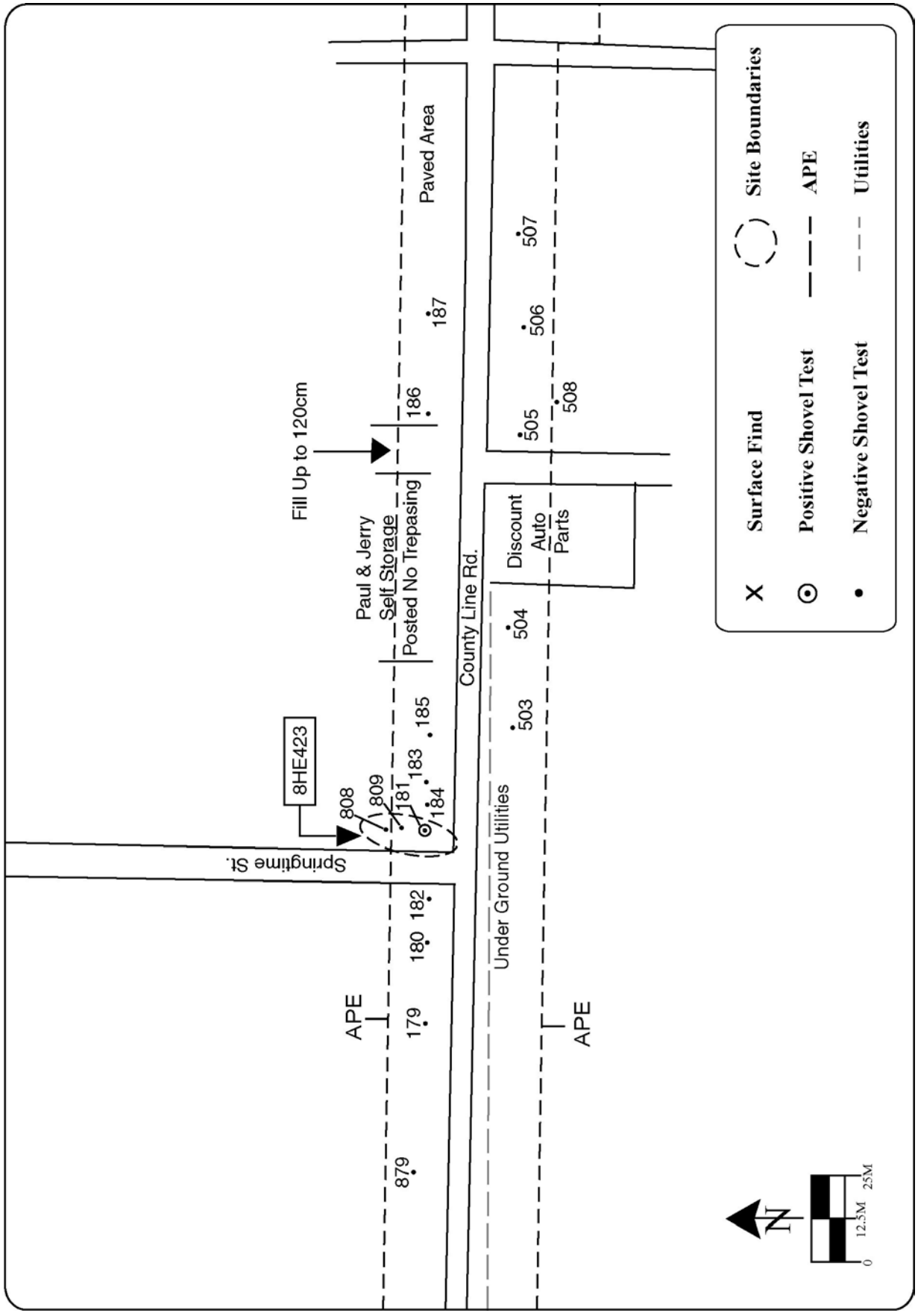
Site 8HE423 is located immediately north of C.R. 578 and just east of Springtime Street, in Hernando County, Florida. It lies in the southeastern quarter of Section 36, Township 23 South, Range 17 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion of C.R. 578, which lies in an area of xeric uplands at an elevation between 12m and 15 m (39.4 ft. and 49.2 ft.) amsl.

Site 8HE423 consists of one positive shovel test in an area 25 m^2 (82 ft^2) (Figure 9-8). This site was bounded by four negative shovel tests at 25-m (82-ft.) and 12.5-m (41-ft.) intervals to the north and east. The western boundary of the site could not be determined due to the presence of Springtime Street. The site may extend west of the proposed boundaries, underneath what is now Springtime Street. The southern boundary of the site also could not be determined due to the presence of C.R. 578. The site may extend south of the proposed site boundaries, underneath what is now C.R. 578, but does not extend to the south side of C.R. 578.

Artifacts recovered from site 8HE423 include one lithic flake that falls within the 3-4 cm size class. This flake was recovered between 45 and 55 cm below surface and is composed of silicified coral that shows evidence of heat treatment. This flake is a non-fragmented secondary core reduction flake.

The County Line Road #7 site (8HE423) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE423 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-8
SITE SKETCH FOR 8HE423



9.1.8 8HE425: COUNTY LINE ROAD #8

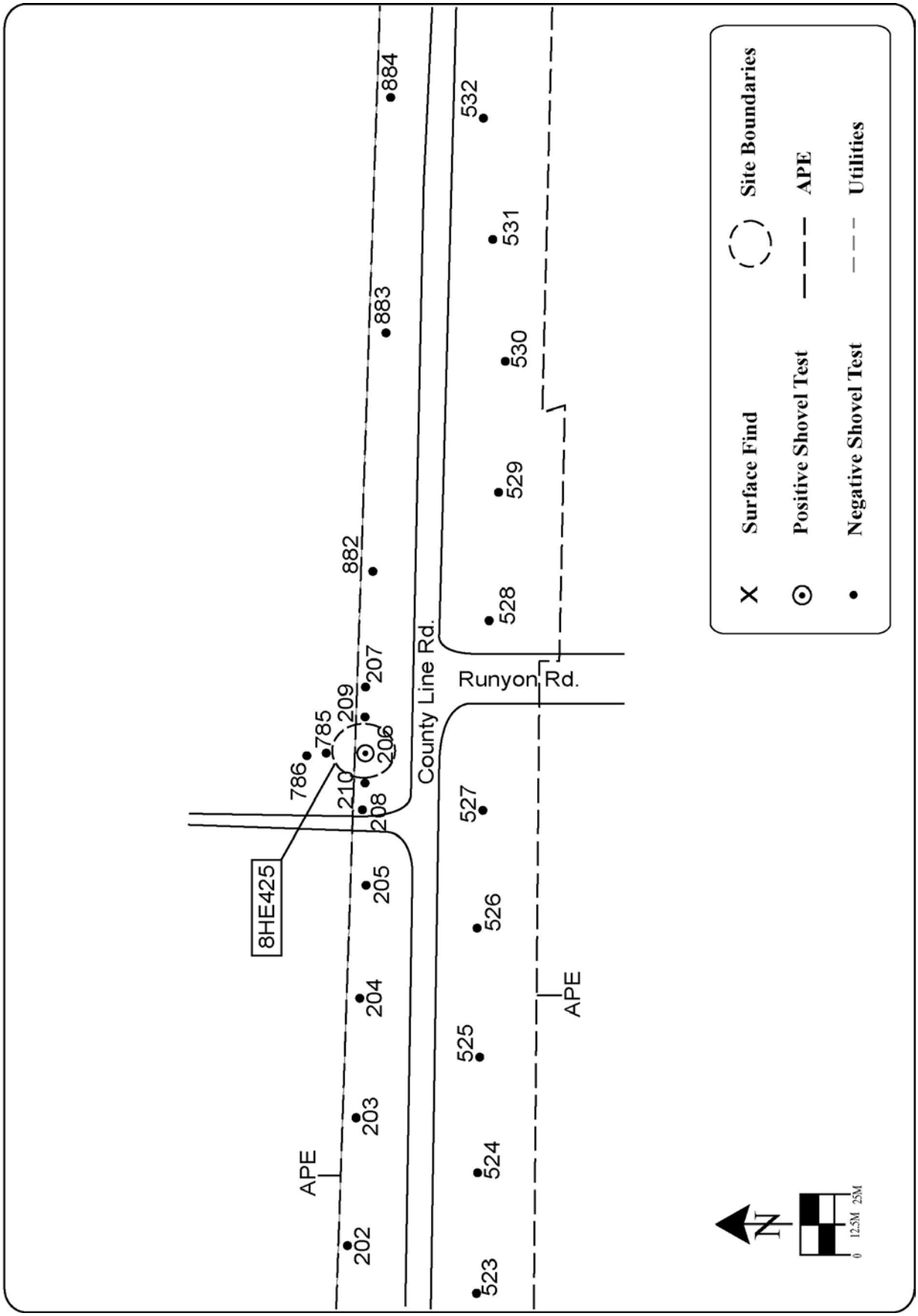
Site 8HE425 is located immediately north of C.R. 578, approximately 33 m (110 ft.) west of Runyon Road and 1,009 m (3,310 ft.) east of Mariner Boulevard, in Hernando County, Florida. It lies in the southeastern quarter of Section 31, Township 23 South, Range 18 East on the Port Richey NE Florida U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion of C.R. 578, which lies in an area of xeric uplands at an elevation between 18 m and 21 m (59 ft. and 68.9 ft.) amsl.

Site 8HE425 consists of one positive shovel test in an area 25 m^2 (82 ft^2) (Figure 9-9). This site was bounded by six negative shovel tests at 25-m (82-ft.) and 12.5 m (41-ft.) intervals to the north, east and west. The southern boundary of the site could not be determined due to the presence of C.R. 578. The site may extend south of the proposed site boundaries, underneath what is now C.R. 578, but does not extend to the south side of C.R. 578.

Artifacts recovered from site 8HE425 include one lithic flake that falls within the 1-2 cm size class. This flake was recovered 80 cm below surface and is composed of silicified limestone that shows no evidence of heat treatment. This lithic is a proximal fragment of a biface-thinning flake.

The County Line Road #8 site (8HE425) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE425 is not considered locally or regionally significant and, therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-9
SITE SKETCH FOR 8HE425



9.1.9 8HE428: CORAL SNAKE SINK

Site 8HE428 is located approximately 594 m (1,950 ft.) north of C.R. 578, approximately 283 m (930 ft.) northwest of Korbus Road. It lies in the southeastern quarter of Section 35, Township 23 South, Range 18 East on the Masaryktown U.S.G.S. Quadrangle (1954, PR 1988). This site was identified while testing for the proposed expansion for C.R. 578, which lies in an area of hardwood hammock at an elevation between 18 m and 21 m (59 ft. and 68.9 ft.) amsl.

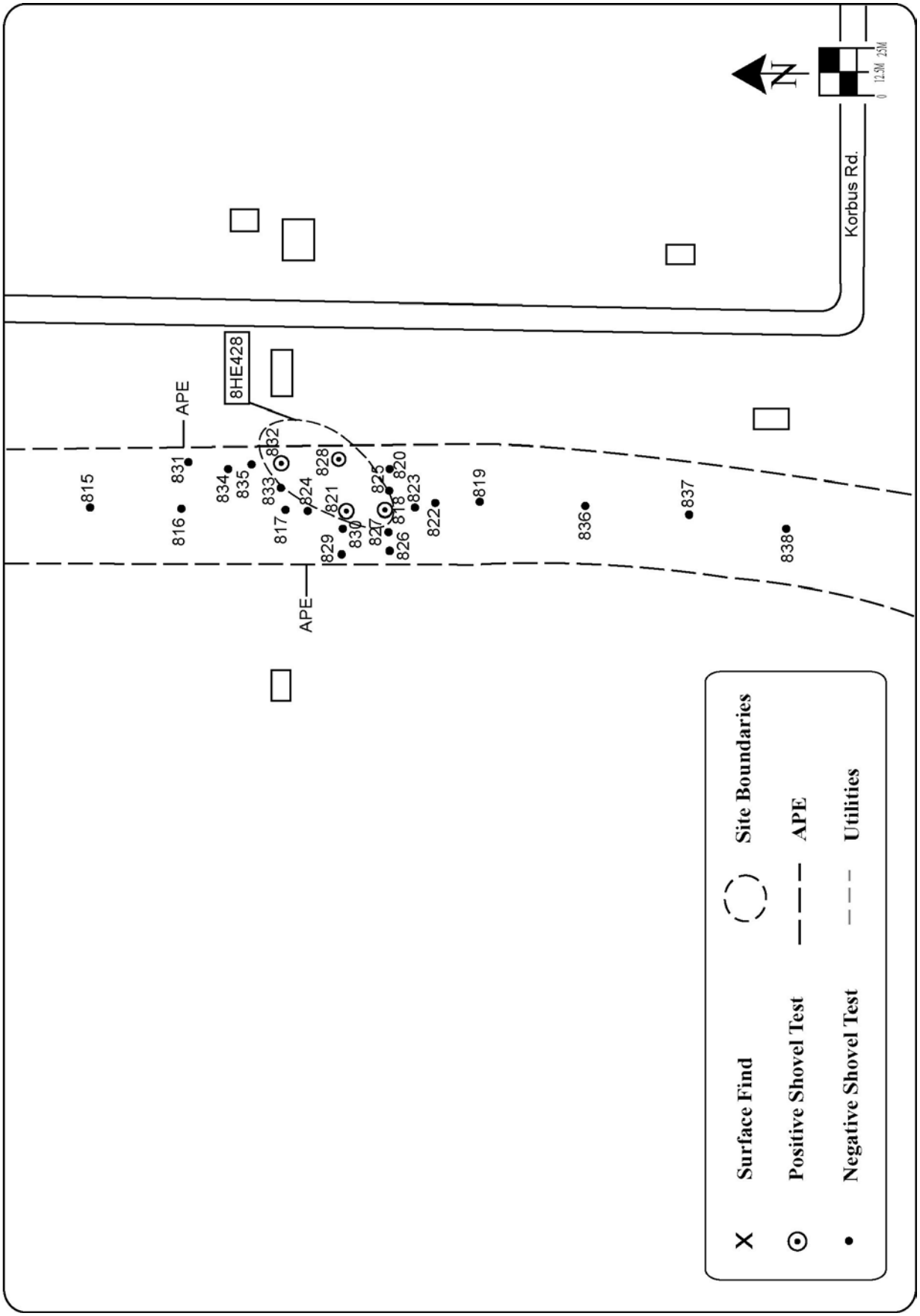
Site 8HE428 consists of four positive shovel tests in an area approximately 100 m (330 ft.) north-south and 50 m (164 ft.) east-west for a total area of 5,000 m^2 (54,120 $ft.^2$) (Figure 9-10). This site was bounded by 12 negative shovel tests at 25-m and 12.5-m (82-ft. and 41-ft., respectively) intervals to the north, south, and west. Six negative tests were conducted to the west, four negative tests to the north and two negative tests to the south. The eastern boundary of the site could not be determined as no tests were placed outside of the project impact area. This site likely extends to the east of the project impact area.

The artifact assemblage obtained from this site consists of seven lithic flakes. Three of the flakes are biface-thinning flakes, two are possible retouch flakes, and two are technologically unidentifiable flakes. The three biface-thinning flakes consist of two complete flakes and one proximal flake fragment. Two of the three lithics were recovered from 40-60 cm below surface; the third was found from 20-40 cm below surface. The proximal fragment has cortex present on the flake. All biface-thinning flakes fall within the 1-2 cm size class. Two of the three lithics are composed of unaltered silicified limestone and one is composed of unaltered silicified coral. Biface-thinning flakes are produced during the final stages of point reduction, and are the result of the final shaping of the projectile point preform. The biface-thinning process is a mid- to late-stage in the projectile point manufacturing sequence.

The two possible retouch flakes are both complete flakes and were recovered 40-60 cm below surface. One of these lithics is composed of heat altered silicified coral; the other is composed of unaltered silicified limestone. One flake falls within the 1-2 cm size class, while the other falls within the 0-1 cm size class. Retouching refers to the removal of small flakes along an edge to produce a thicker and stronger edge. This is performed either to repair a platform for thinning flake removal on preforms and bifaces or to produce a more reliable cutting edge on tools (Whittaker 1994:19-20).

The two technologically unidentified flakes consist of one whole and one proximal fragment of unaltered silicified limestone. One of the flakes falls within the 1-2 cm size class, and the other falls within the 0-1 cm size class. Both lithics were recovered between 40-60 cm below surface
.
The Coral Snake Sink site (8HE428) most likely represents a short-term campsite related to the procurement of locally available resources. It is probably a small hunting camp associated with a larger base camp. Although the recorded location of this site qualifies as important data for settlement pattern studies, the sparse and relatively unexceptional artifact assemblage recovered at this site indicates that the potential for recovering additional important information is low. Site 8HE428 is not considered locally or regionally significant and, therefore, is not considered eligible for listing in the **NRHP**. No further work is recommended for this site.

FIGURE 9-10
SITE SKETCH FOR 8HE428



9.1.10 8HE429: THE CISTERN SITE

Site 8HE429 is located directly north of Masaryktown. It is located approximately 25 m (82 ft.) south of the proposed Ayers Road Expansion area, but due to its close proximity to the project impact area, the site was identified visually and surveyed. The site is approximately 0.8 km (0.5 mi.) west of U.S. 41. It lies in the northwestern quarter of Section 25, Township 23 South, Range 18 East on the Masaryktown U.S.G.S. Quadrangle (1954, PR 1988). Site 8HE429 was identified while testing for the proposed expansion for C.R. 578. The site lies in an area of hardwood hammock directly adjacent to a sinkhole (Figure 9-11). The site also currently lies outside of the project impact area and will not be affected by the proposed expansion of C.R. 578. The elevation of the site is approximately 15 to 18 m (49.2 to 59 ft.) amsl.

Site 8HE429 was identified through the presence of an obvious feature of a cistern or drainage pond with concrete block and cemented limestone siding. The feature is approximately 3.65 m (12 ft.) long and 6.09 m (20 ft.) wide. This feature dates from the historic period, most likely the late 1800s or early 1900s. However, more precise dates are unknown at this time. Through an informant interview, it was learned that the structure is approximately 100 years old (Personal Communication, C. R. Roach, 2000).

Although site 8HE429 provides useful information of historic studies in this area, no cultural material associated with the stone-bottomed pond was found within the APE, which indicates that the potential for recovering further important information is relatively low. In addition, site 8HE429 lies outside the project APE, therefore, no shovel tests were conducted around the pond. As a result, site 8HE429 is not considered locally or regionally significant and therefore, is considered not eligible for listing in the **NRHP**. No further work is recommended for this site at this time.

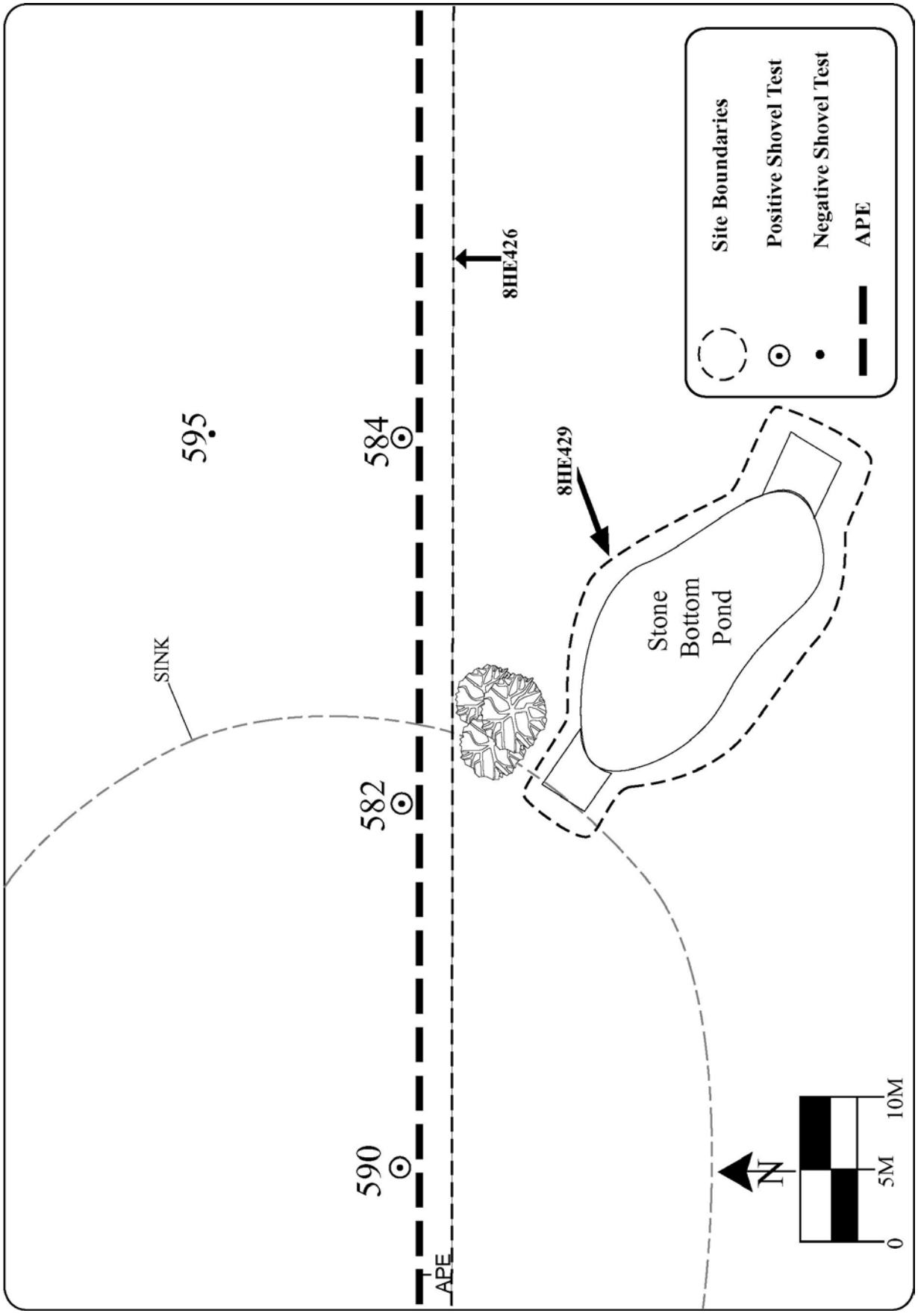


FIGURE 9-11
SITE SKETCH FOR 8HE429

9.1.11 8PA185: VOLKSWAGON SINKHOLE

Site 8PA185 is a previously recorded archaeological site that is bisected by C.R. 578. It is located just to the west of Shady Hills Road/Mariner Boulevard and extends across both sides of the Hernando-Pasco County line in Florida. This site lies in the northwestern quarter of Section 6, Township 24 South, Range 18 East on the Port Richey NE U.S.G.S. Quadrangle (1954, PR 1988). The site is located in a sinkhole and ranges in elevation from 6 to 17 m (19.7 to 55.8 ft.) amsl. Vegetation in this area consists mostly of scrub. It appears that C.R. 578 has probably crossed the northern edge of the sinkhole and that the northernmost edge of the sink is located to the north of C.R. 578. During the most recent investigations of the site, it was also noted that this portion of the sink north of C.R. 578 was in the process of being filled with sand. Volkswagen Sinkhole was originally identified as an artifact scatter outside the project impact area. Native American ceramics and lithic artifacts are listed on the original FMSF (1 December 1984) for the site. No determination of **NRHP** eligibility was previously made.

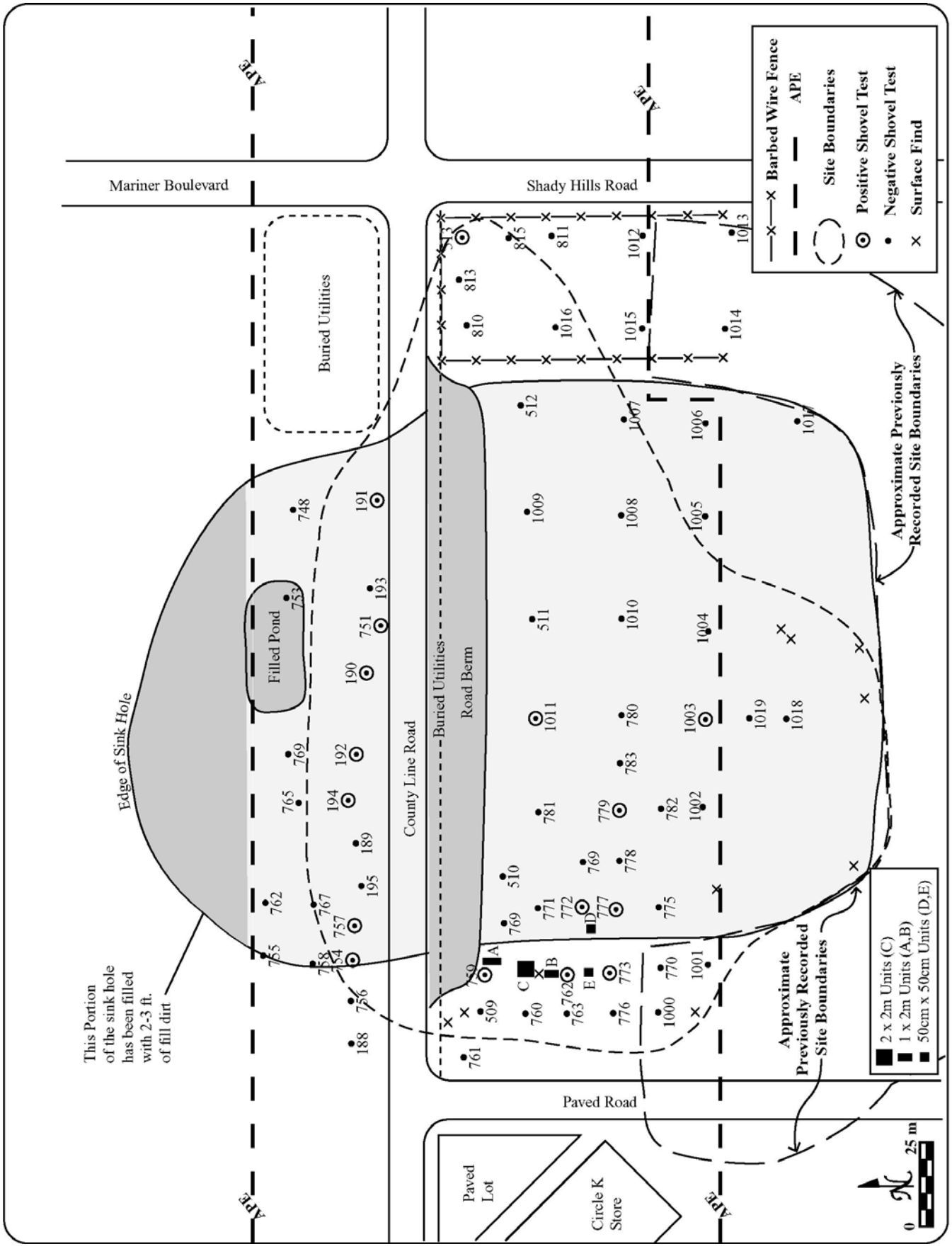
9.1.11.1 Initial Testing

The site was investigated further during testing of the proposed expansion of C.R. 578. A surface collection and 13 positive shovel tests were excavated here during initial testing (Figure 9-12). Positive tests were spaced out across an area measuring 200 m (656 ft.) east-west and 125 m (410 ft.) north-south for a total area of 25,000 m^2 (82,020 $ft.^2$). The site was bounded by negative shovel tests at 12.5-m (41-ft.) intervals to the north, south and west. Testing to the east of the site was prevented by the presence of Shady Hills Road/Mariner Boulevard and recent development immediately to the east of the road. Thus, it is possible that the site extends, or at least once extended, further to the east of the recorded limits of the site. The general stratigraphic sequence, as observed in the positive shovel tests, is as follows: 0-80 cm below surface is brownish-gray sand, and 80-150 cm below surface is light brown sand.

The artifact assemblage recovered from site 8PA185 during the current survey consists of 2 ceramic sherds and 23 lithic artifacts. Both sherds were recovered during surface collections. One is a Pasco Plain body sherd. Pasco Plain ceramics were used in the North Peninsular Gulf Coast cultural region from the late Deptford period (500 BC – AD 200) through the Safety Harbor period (AD 900-1500) (Milanich 1994:210-211, 389-393). The other is a St. Johns Check Stamped body sherd, with a maximum thickness of 0.6 cm. A soft, chalky feel and the presence of sponge spicules in the paste help to identify this type. The surface is also distinctive as it is decorated with a checkered pattern. This pattern is created by an impression with a carved wooden paddle before the firing of the pot (Milanich 1994:247). St. Johns Check Stamped pottery was used from the early Weeden Island (AD 200-900) through Safety Harbor (AD 900-1513) periods in the North Peninsular Gulf Coast cultural region (Milanich 1994:389-393).

The initial prehistoric lithic assemblage is composed of 3 tools and 19 lithic waste flakes. The three lithic tools consist of a projectile point/knife, a micro-drill and the partial blade portion of a projectile point/knife. The projectile point/knife was recovered from 100-120 cm below surface, and falls within the 6-7 cm size class. This specimen is composed of thermally altered silicified limestone and has an excurvate blade and poorly-defined shoulders and stem. The point is crudely chipped. The dimensions and shape of the point indicate that it falls under the Westo type, which dates to the Late Archaic period (3000-500 BC).

FIGURE 9-12
SITE SKETCH FOR 8PA185



The micro-drill, composed of thermally altered silicified limestone and in the 2-3 cm size class, was recovered from the surface of the site. The partial blade portion of the projectile point/knife, composed of thermally altered silicified limestone and in the 1-2 cm size class, was recovered from 30 cm below surface.

The flake assemblage consists of four biface thinning flakes, four possible retouch flakes, two retouch flakes, a secondary core reduction flake, and eight technologically unidentified flakes. Tables 9-2 through 9-5 characterize the lithic flake assemblage. The distribution of flake frequencies among the technological categories, as well as the presence of the core and three tool specimens, indicates that both core reduction and tool manufacturing activities were occurring at the site (see Table 9-2). Of the total assemblage, seven are complete flakes, seven are proximal flake fragments, five are distal fragments, and one is a medial flake fragment (Table 9-3).

TABLE 9-2
LITHIC FLAKES BY TECHNOLOGICAL CATEGORY
INITIAL TESTING OF SITE 8PA185

Technological Category	Count	Percentage
Primary core reduction flake	0	0.0
Secondary core reduction flake	1	5.3
Shaping point flake	0	0.0
Biface-thinning flake	4	21.1
Retouch flake	2	10.4
Possible retouch flake	4	21.1
Technologically unidentified	8	42.1
Total flakes	19	100.0

TABLE 9-3
LITHIC FLAKES BY FRAGMENT TYPE
INITIAL TESTING OF SITE 8PA185

Fragment Type	Count	Percentage
Proximal fragment	6	31.6
Medial fragment	1	5.3
Distal fragment	5	26.3
Complete flake	7	36.8
Total flakes	19	100.0

The flake assemblage primarily consisted of unaltered silicified limestone, although some silicified coral was present, as was limited evidence of heat treatment (Table 9-4). The heat treatment of silicified limestone and coral has been proven to increase the capacity of the material to be submitted to flaking, especially pressure flaking. Heat treatment in stone tool production reached its peak during the Middle to Late Archaic periods, and was commonly used in late-stage tool production, such as biface-thinning and retouching.

TABLE 9-4
LITHIC FLAKES BY MATERIAL COMPOSITION
INITIAL TESTING OF SITE 8PA185

Material	Count	Percentage
Unaltered silicified limestone	14	73.7
Heat-treated silicified limestone	1	5.3
Unaltered silicified coral	3	15.7
Heat-treated silicified coral	1	5.3
Total flakes	19	100.0

The majority of the flake assemblage is smaller than 3 cm, with the largest percentage falling within the 0-1 cm class size. However, three flakes fall within larger size classes (Table 9-5). This distribution supports the hypothesis that tool production was an important activity at the site, but some core reduction also occurred, as flakes produced during core reduction tend to be somewhat large.

TABLE 9-5
LITHIC FLAKES BY SIZE CLASS
INITIAL TESTING OF SITE 8PA185

Size Class	Count	Percentage
0-1 cm	8	42.0
1-2 cm	5	26.3
2-3 cm	4	21.1
3-4 cm	0	0.0
4-5 cm	1	5.3
5-6 cm	1	5.3
6-7 cm	0	0.0
7-8 cm	0	0.0
8-9 cm	0	0.0
Total Flakes	19	100.0

The Volkswagon Sinkhole site (8PA185) most likely represents a periodically re-occupied logistical campsite spanning from the Late Archaic (3000-500 BC) to the St. Johns IIc (AD 1513-1525) period. Occupation of this site was probably related to use of the area for procuring locally available resources to transport to a larger base camp. The location of the site within and around a sinkhole indicates the use of the site for procurement of resources, which centered on this freshwater source. As during the Paleoindian period, any body of water is an important resource for Native American groups. The importance of these freshwater resources did not diminish during later periods of occupation, particularly during the Archaic period when hunting and gathering was still the main method of subsistence. The presence of chronological artifacts and the evidence of multi-component use within the project impact area provide researchers with a good opportunity for testing of subsistence and settlement models over time. Due to the potential of this site to address these research questions, further investigation was performed for site 8PA185, as described below, to determine its potential eligibility for the **NRHP**.

9.1.11.2 Additional Testing

Additional testing of site 8PA185 was conducted to refine the site boundaries and to identify cultural features or concentrations of artifacts that may represent activity areas. This additional

testing was conducted only on the southern side of County Line Road, as the northern half of the sinkhole has been covered with several feet of fill dirt for new development. The additional testing consisted of 20 shovel tests (ST 1000-1019) placed within and along the southern edge of the sinkhole (see Figure 9-12). Only two of these additional shovel tests were positive (ST 1003 and 1011).

Although the shovel tests did not expand the site boundaries, surface inspection within the southernmost portion of the sinkhole recovered several artifacts, indicating that the site extends to the south beyond the project APE, as was originally reported for the location of the site (ACI 1984). Artifacts recovered during surface collection include one Pasco Plain ceramic sherd, one sand-tempered plain sherd with a possible red slip, and eight lithic waste flakes.

Based on the initial shovel testing, the western edge of the southern half of the sinkhole produced diagnostic artifacts and a scatter of flakes in higher density than was recovered from the rest of the site. Five test units were placed in this area and in the sinkhole adjacent to this area in order to identify any cultural features or artifact concentrations that may be present (see Figure 9-12). These units consisted of one 2x2 m unit (TU C), two 1x2 m units (TU A and B), and two 50x50 cm units (TU D and E).

All the test units were excavated to a depth of at least 110 cm below datum. In Test Units A, B, and C, a 50x50 cm test unit was placed in the floor to the larger unit and excavated to a depth of 160 cm below datum. Cultural material was recovered from all five test units.

Soils and Stratigraphy

Information on the stratigraphy was obtained during shovel testing. This provided a control against which to compare the strata encountered during excavation of the test units. The stratigraphic sequence observed within these units was typical of a xeric upland locale. Two stratigraphic zones were identified at this site and are described as follows:

> Zone 1 ranged from grayish brown (10YR5/2) to dark grayish brown (10YR4/2) to light brownish gray (10YR6/2) to light gray (10YR7/2) fine sand with small to fine roots. This zone represents an Ap-subhorizon, which is the result of disturbance from, in this case, all-terrain vehicle use. Variation in the color of the soils in this zone is likely due to this disturbance. A-horizons contain mineral material that is often stained black or brown from humified organic matter. The minimum depth of this zone ranged from 0-12 cm below datum, while the maximum depth ranged from 24-50 cm below datum. Artifacts recovered from this zone include a projectile point/knife (Florida Archaic Stemmed, possible Newnan subtype), four sand-tempered plain ceramic sherds, and four lithic flakes. The co-occurrence of the Florida Archaic Stemmed point and ceramic sherds indicates that a Middle to Late Archaic component was redeposited by the subsequent Weeden Island occupation. The point was probably curated by the later Formative-period (post-500 BC) inhabitants; the later group salvaged discarded tools from the earlier occupation site. This hypothesis is tenuous, however, due to the disturbed nature of this zone. Based on the temporally diagnostic artifacts recovered from Zone 2, the later occupation likely dates to the Weeden Island period.

Zone 2 ranged from brownish yellow (10YR6/6) to yellow (10YR8/6 to 10YR7/6) fine sand with small to fine roots. This zone represents the natural B-horizon, a layer in which material such as humified organic matter and minerals accumulate. The brown and yellow colors result from the admixture of oxygen with the iron coatings on the sand grains. The minimum depth of this zone ranged from 24-50 cm below datum, while the maximum depth extended beyond that of the unit floors, which ranged in depth from 110-160 cm below datum. Artifacts recovered from this zone included 2 Weeden Island Red ceramic sherds, one Weeden Island Plain sherd, 15 Pasco Plain sherds, 4 sand-tempered plain sherds, and 2 unidentified sand-tempered sherds. Based on the co-occurrence of the temporally diagnostic ceramic sherds, this zone most likely dates to the Early and Late Weeden Island (AD 100-900) periods. No vertical concentrations of artifacts or features were identified in this zone.

During the initial testing of the site, a Westo point was recovered from a shovel test from 100-120 cm below surface. As Test Unit C was placed near this shovel test, the strata from which the Westo point was found would correspond with Zone 2 of Test Unit C. Although Westo points date to the Late Archaic period (3000-500 BC), the fact that it was recovered from the same depth as three Pasco Plain sherds indicates the earlier Archaic component was redeposited by the subsequent Weeden Island-period occupation. The point was probably curated by the later inhabitants; the later group salvaged discarded tools from the earlier occupation site.

Artifacts

One hundred and thirty-six artifacts were recovered during additional testing of site 8PA185, including 30 ceramic sherds and 106 lithic artifacts. The 30 ceramic sherds, weighing a total 58.39 grams, were recovered from 0-130 cm below surface; two of these sherds were found on the surface. The ceramic sherds recovered include 1 Weeden Island Plain, 2 Weeden Island Red, 16 Pasco Plain, 9 sand-tempered plain, and 2 sherds of an unidentified sand-tempered ware. Table 9-6 summarizes the depths at which these sherds were recovered during the additional testing of site 8PA185.

TABLE 9-6
CERAMIC TYPES BY DEPTH
ADDITIONAL TESTING OF SITE 8PA185

Ceramic Type	Count	Depth Range Below Surface
Weeden Island Plain	1	60-70 cm
Weeden Island Red	2	70-80 cm
Pasco Plain	16	0-130 cm
Sand-tempered plain	9	60-100 cm
Unspecified sand-tempered ware	2	40-100 cm
Total	30	0-130 cm

The Weeden Island Plain ceramics consist of one body sherd recovered between 60 and 70 cm below datum in Test Unit C, Zone 2. The specimen weighs 7.04 grams and has a maximum thickness of 10.75 mm. It has smoothed interior and exterior surfaces. This ware typically has a compact, micaceous paste with common fine quartz sand. In the North Peninsular Gulf Coast

culture region, Weeden Island Plain was common during the Early and Late Weeden Island periods (AD 100-900) (Milanich 1994:211, 392).

The Weeden Island Red ceramics consist of two body sherds that cross mend. These sherds were recovered between 70 and 80 cm below datum in Test Unit C, Zone 2. These two specimens weigh a total of 10.19 grams and both have a maximum thickness of 7.75 mm. The specimens have a red slip on the exterior and a micaceous paste with abundant fine quartz sand inclusion (Milanich et al. 1997). Weeden Island Red is an elite ware that was common during the Early and Late Weeden Island periods (AD 100-900).

The Pasco Plain ceramics consist of 16 sherds, 15 body sherds, and 1 rim sherd. One of these sherds was recovered from the surface, four sherds were recovered from 40-80 cm below datum in Test Unit B (Zone 2), nine sherds were recovered from 50-130 cm below datum in Test Unit C (Zone 2), and one sherd was recovered from 40-50 cm below datum in Test Unit E (Zone 2). The 16 Pasco Plain specimens weigh 26.81 grams total and range in maximum thickness from 4.25-9.35 mm. The paste of these sherds typically contains common Fuller's earth and/or limestone inclusions, common quartz sand inclusions, and occasional ferruginous lumps. The rim sherd has a rounded lip, the top of which is decorated with ticks approximately 7 mm apart, oriented diagonally in relation to the rim. The specimen has an incurving vessel wall and the rim curvature provides an estimated vessel diameter of 21 cm. A slight bulge on the exterior surface may be a rudimentary lug. In the North Peninsular Gulf Coast culture region, Pasco Plain was utilized from the Early Weeden Island period through the Safety Harbor period (AD 100-1513) (Milanich 1994:211, 392).

The sand-tempered plain ceramics consist of nine sherds weighing 11.11 grams. One of these sherds was recovered from the surface, three were recovered from 10-20 cm below datum in Test Unit B (Zone 1), one was recovered from 30-40 cm below datum in Test Unit C (Zone 1), and four were recovered from 60-100 cm below datum in Test Unit C (Zone 2). In general, the sherds have a maximum thickness ranging from 2.85-8.35 mm. One of the specimens has a smoothed exterior surface and all the specimens have coarse quartz sand inclusions in the paste. The paste is dark gray and somewhat contorted with common to abundant medium-grained to coarse quartz sand inclusions. The sherd recovered from the surface is a rim sherd that has a possible red slip on its exterior surface. This specimen has a rounded lip and a vertical vessel wall orientation. In the North Peninsular region, sand-tempered plain was common from the Early Weeden Island period through the Safety Harbor period (AD 100-1513) at coastal as well as inland sites (Milanich 1994:211, 392).

Two sherds of an unidentified sand-tempered ware were recovered; one was recovered from 40-50 cm below datum in Test Unit B (Zone 2) while the other was recovered from 90-100 cm below datum in Test Unit C (Zone 2). The two specimens weigh 3.24 grams and are too fragmentary to measure maximum thickness.

One hundred and six lithic artifacts were recovered during additional testing of site 8PA185. The lithic artifacts consist of 1 tool, 2 biface-thinning flakes, 10 possible retouch flakes, and 93 technologically unidentified flakes. Tables 9-7 through 9-10 summarize the characteristics of the total flake assemblage from the additional testing of the site. Each technological category will be discussed separately below.

TABLE 9-7
LITHIC FLAKES BY TECHNOLOGICAL CATEGORY
ADDITIONAL TESTING OF SITE 8PA185

Technological Category	Count	Percentage
Primary core reduction flake	0	0.00%
Secondary core reduction flake	0	0.00%
Shaping point	0	0.00%
Biface thinning flake	2	1.90%
Retouch flake	0	0.00%
Possible retouch flake	10	9.52%
Technologically unidentified flake	93	88.57%
Total	105	100.00%

TABLE 9-8
LITHIC FLAKES BY FRAGMENT TYPE
ADDITIONAL TESTING OF SITE 8PA185

Fragment Type	Count	Percentage
Proximal	20	19.05%
Medial	17	16.19%
Distal	35	33.33%
Whole	33	31.43%
Total	105	100.00%

TABLE 9-9
LITHIC FLAKES BY SIZE CLASS
ADDITIONAL TESTING OF SITE 8PA185

Size Class	Count	Percentage
0-1 cm	54	51.43%
1-2 cm	34	32.38%
2-3 cm	11	10.48%
3-4 cm	5	4.76%
4-5 cm	1	0.95%
Total	105	100.00%

TABLE 9-10
LITHIC FLAKES BY MATERIAL COMPOSITION
ADDITIONAL TESTING OF SITE 8PA185

Raw Material	Count	Percentage
Unaltered silicified limestone	85	80.95%
Unaltered silicified coral	15	14.29%
Heat-treated silicified limestone	4	3.81%
Heat-treated silicified coral	1	0.95%
Total	105	100.00%

The tool, a Florida Archaic Stemmed point (possible Marion subtype), was recovered from 30-40 cm below datum in Test Unit D (Zone 1). This projectile point/knife is composed of unaltered silicified coral and measures 5.65 cm in maximum length, 2.95 cm in maximum width, and 0.75

cm in maximum thickness. The general morphology of this point differs from the classic Marion campsites related to the procurement of freshwater and food resources from the adjacent sinkhole. Lithic reduction activities were non-intensive at this site, and they consisted primarily of thinning of bifaces and sharpening of tools. The recovery of a micro-drill from the surface during the initial survey indicates that some domestic activities occurred at the site, such as drilling of wood or bone.

Based on the relatively sparse artifact assemblage recovered, the redeposited nature of the Archaic component of the site, and the commonality of Weeden Island-period inland campsites, this site is not considered regionally or locally significant. Site 8PA185, as it is currently known within the project APE, is considered not eligible for listing in the **NRHP**.

9.1.12 8HE426: ALEXSUK SITE

Site 8HE426 represents a large scatter of prehistoric ceramics and lithic artifacts that extends across multiple karst solution features within the proposed Ayers Road Extension alternatives. It is situated in an upland mixed forest natural community at an elevation between 18 m and 20 m (59 ft. and 65.6 ft.) amsl. This site is located in the southern half of Section 25 and the southeastern quarter of Section 26, Township 23 South, Range 18 East on the Masaryktown U.S.G.S. Quadrangle (1954, PR 1988) in Hernando County, Florida. There are several sinkholes located within the boundaries of the site that would have provided freshwater resources. This site is overlain and partially disturbed by the Enville site (8HE284), a late nineteenth to early twentieth century historic archaeological site representing a historic town.

9.1.12.1 Initial Testing

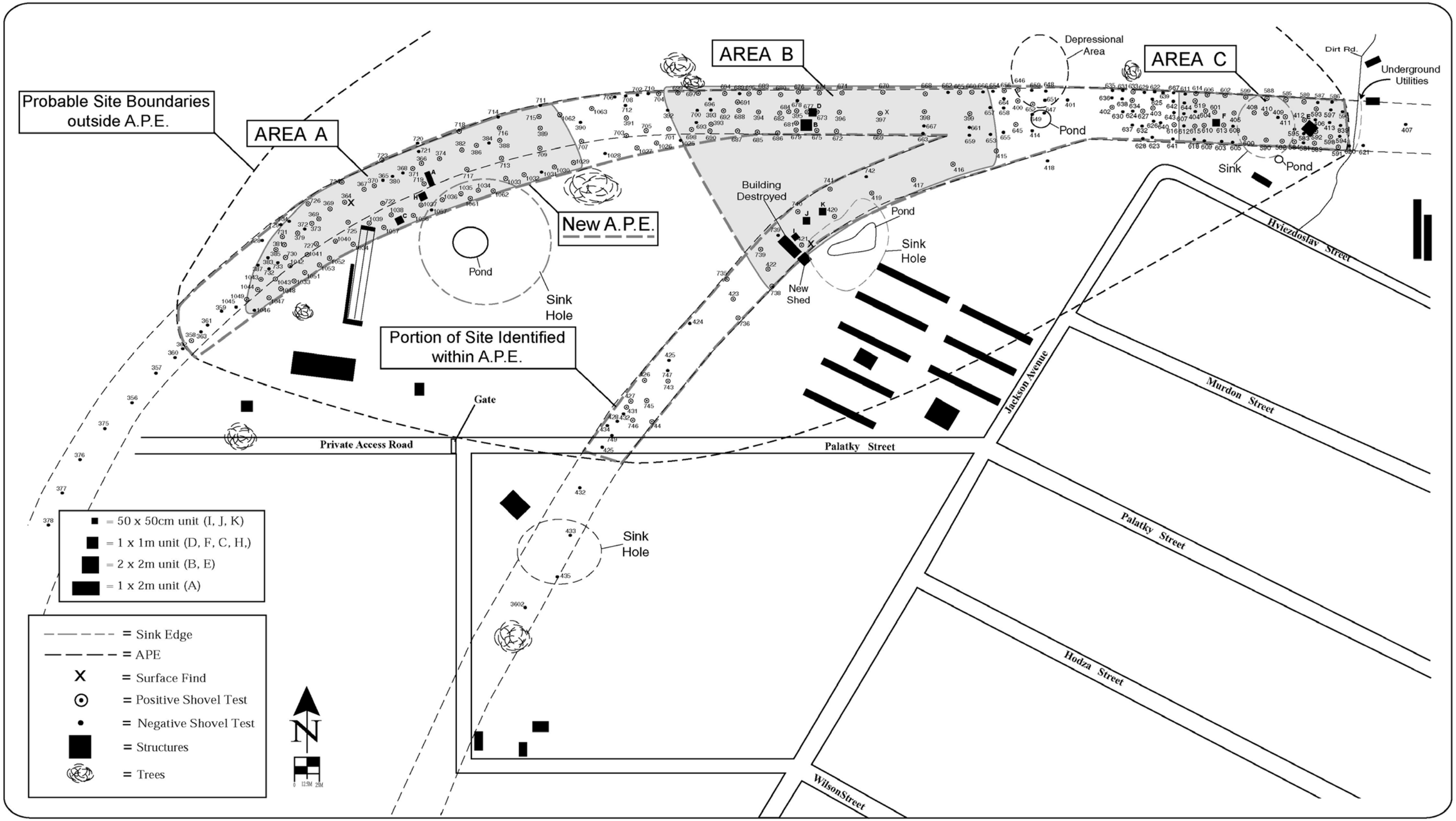
During initial testing, site 8HE426 was defined by 118 positive shovel tests and 2 surface finds. Preliminary testing of the project impact area established a southern boundary for the site (Figure 9-13). However, the northern, eastern, and western site boundaries could not be established, as it would have required testing outside of the project APE. The site measured 366 m (1,200 ft.) north-south and 1,463 m (4,800 ft.) east-west, for a total site area of 535 km^2 (397 acres). Two hundred and twenty-one shovel tests were placed within the vicinity of the site. The general stratigraphic sequence, as observed in the positive shovel tests, consists of gray sand from 0-24 cm below surface, and pale brown sand from 24-150 cm below surface. Cultural material was recovered between 0 and 150 cm below surface.

The initial artifact assemblage recovered from site 8HE426 consisted of 1 ceramic sherd and 372 lithic artifacts. The ceramic sherd was a Pasco Plain body sherd recovered from 60-120 cm below surface in ST 677. Pasco Plain ceramics were used in the North Peninsular Gulf Coast cultural region from the late Deptford period (500 BC – AD 200) through the Safety Harbor period (AD 900-1500) (Milanich 1994:210-211, 389-393).

The lithic assemblage was comprised of 7 tools, 2 cores, and 363 lithic waste flakes. The seven lithic tools consisted of a projectile point/knife, two preforms, an incomplete biface, a biface fragment, a utilized blade, and a scraper fragment.

The projectile point/knife is a Florida Archaic Stemmed point, most closely resembling a Newnan point subtype. It was recovered from 20-80 cm below surface in Shovel Test 412. Florida Archaic Stemmed points date to the Middle Archaic period (5000-3000 BC) (Milanich 1994:76-77). This well-made specimen has a maximum length of 9.2 cm, a maximum width of 3.9 cm, and a maximum thickness of 0.8 cm and is composed of heat-treated silicified coral. It has an excurvate blade with a short stem and straight basal edges that are perpendicular to the stem. The stem is somewhat shorter than is typical for a Newnan point. Use wear is evident on one edge of the point in the form of heavy, retouch-like flake scars. This type of use wear suggests the specimen was probably used as a knife on hard material such as bone or wood.

FIGURE 9-13
SITE SKETCH FOR 8HE426



Two medium-sized preforms were found. One specimen was recovered between 50 cm below surface and 80 cm below surface in ST 679. This specimen, possibly composed of quartzite, has a maximum length of 8.3 cm, a maximum width of 4.0 cm, and a maximum thickness of 2.3 cm. No use wear is evident on this specimen. The second preform is an unfinished specimen that was recovered from 60-100 cm below surface in Shovel Test 719. This specimen has a maximum length of 6.9 cm, a maximum width of 3.0 cm, and a maximum thickness of 1.5 cm. It is composed of unaltered silicified limestone and has several terminal fractures that resulted in the formation of a step plateau on one side of the specimen. The tip of the preform exhibits some retouching, possibly indicating that it was used as a knife or a perforator.

The incomplete biface was recovered between 40 cm below surface and 50 cm below surface in ST 589. This specimen has a maximum length of 3.6 cm, a maximum width of 2.3 cm, and a maximum thickness of 0.7 cm. This incomplete biface is composed of heat-treated silicified limestone that is translucent gray in color. It has a thin layer of cortex on the basal end and along both faces. No use wear is evident on this specimen.

A biface fragment was recovered from the surface approximately 5 m (16.4 ft.) north of ST 509. This specimen is composed of unaltered silicified limestone and falls within the 2-3 cm size class. The fragment is a portion of an edge of a biface.

A fragment of a scraper was recovered between 30 cm below surface and 120 cm below surface in ST 692. This specimen is an edge fragment of a unifacial scraper. The fragment falls within the 3-4 cm size class and is composed of unaltered silicified limestone.

A utilized blade was recovered at 80 cm below surface in ST 697. This large blade is composed of unaltered silicified limestone and falls within the 7-8 cm size class. Use wear is evident along one edge in the form of small microflaking and scratches parallel to the edge. This use wear indicates the tool was used in a sawing motion on a hard surface like wood or bone (Whittaker 1994:283).

Two cores were recovered at the Alexsuk site. The first specimen was recovered from the surface approximately 10 m (32.8 ft.) east of Shovel Test 421. This core, which exhibits a small amount of cortex, is composed of unaltered silicified limestone and falls within the 3-4 cm size class. The second specimen was recovered from the surface near ST 364. It is composed of unaltered silicified limestone and falls within the 2-3 cm size class.

The flake assemblage consists of one primary core reduction flake, 24 secondary core reduction flakes, 18 shaping point flakes, 66 biface-thinning flakes, 36 retouch flakes, 60 possible retouch flakes, and 158 technologically unidentified flakes. Tables 9-11 through 9-15 characterize the lithic flake assemblage. Of the total assemblage of 363 flakes, 83 are proximal flake fragments, 61 are medial flake fragments, 80 are distal flake fragments, and 139 are complete flakes (Table 9-12).

The distribution of flake frequencies among the technological categories indicates that, although primary and secondary core reduction activities were occurring at the site, the relatively higher number of biface-thinning flakes, retouch flakes, and possible retouch flakes demonstrates that tool manufacturing and maintenance was the primary lithic reduction. The presence of seven

tools and tool fragments, including projectile point/knives and preforms, a biface, a scraper fragment, and a utilized blade, supports this hypothesis.

TABLE 9-11
LITHIC ARTIFACTS BY TECHNOLOGICAL CATEGORY
INITIAL TESTING OF SITE 8HE426

Technological Category	Count	Percentage
Primary core reduction flake	1	0.3
Secondary core reduction flake	24	6.6
Shaping point flake	18	5.0
Biface-thinning flake	66	18.2
Retouch flake	36	9.9
Possible retouch flake	60	16.5
Technologically unidentified	158	43.5
Total flakes	363	100.0

TABLE 9-12
LITHIC FLAKES BY FRAGMENT TYPE
INITIAL TESTING OF SITE 8HE426

Fragment Type	Count	Percentage
Proximal flake fragment	83	22.9
Medial flake fragment	61	16.8
Distal flake fragment	80	22.0
Complete flake	139	38.3
Total flakes	363	100.0

Of the total flake assemblage, the majority is smaller than 2 cm. Flakes in the 1-2 cm size class represent the largest group, while the 0-1 cm size class represents the second largest (Table 9-13). This distribution supports the hypothesis that tool manufacturing and maintenance was more important at this site than core reduction as primary and secondary core reduction flakes tend to be larger than those produced from thinning, shaping, and retouching tools.

TABLE 9-13
LITHIC FLAKES BY SIZE CLASS
INITIAL TESTING OF SITE 8HE426

Size Class	Count	Percentage
0-1 cm	141	38.8
1-2 cm	160	44.1
2-3 cm	42	11.6
3-4 cm	14	3.9
4-5 cm	3	0.8
5-6 cm	2	0.5
6-7 cm	0	0.0
7-8 cm	0	0.0
8-9 cm	1	0.3
Total Flakes	363	100.0

Although some silicified coral was documented, the flake assemblage primarily consists of silicified limestone, as listed in Table 9-14. The latter was concentrated near the sinkholes located within the site boundaries. Approximately 6% of the silicified coral was heat-treated, while only about 13% of the silicified limestone was heat-treated. The heat treatment of silicified limestone and silicified coral has been proven to increase the capacity of the material to be submitted to flaking, especially pressure flaking. Heat treatment in stone tool production reached its peak during the Middle to Late Archaic periods (5000-500 BC). This technique was commonly used in late-stage tool production (Purdy 1971, 1981:78).

TABLE 9-14
LITHIC FLAKES BY MATERIAL COMPOSITION
INITIAL TESTING OF SITE 8HE426

Material	Count	Percentage
Unaltered silicified limestone	281	77.4
Heat-treated silicified limestone	50	13.8
Unaltered silicified coral	10	2.7
Heat-treated silicified coral	22	6.1
Total flakes	363	100.0

This preliminary analysis indicates that the Alexsuk site (8HE426) represents a large habitation area with multiple occupations in varied habitational foci near multiple water resources. The site contains several large concentrations of lithic artifacts that are indicative of intensive lithic tool production as well as some core reduction activities. The two temporally diagnostic artifacts recovered indicate Middle Archaic and post-Archaic occupations. As a multi-component habitation site, site 8HE426 has high potential for yielding important data regarding settlement patterns, lithic resource procurement and utilization, and intra-site activity areas that could provide a better understanding of Middle Archaic and post-Archaic lifeways. Therefore, site 8HE426 is considered regionally significant and potentially eligible for listing in the **NRHP**. Further investigation was performed to determine the **NRHP**-eligibility of this site.

9.1.12.2 Additional Testing

Additional testing of site 8HE426 was conducted to refine the site boundaries within the new alternative of the Ayers Road Extension as well as to identify cultural features or concentrations of artifacts that may represent activity areas. This additional testing consisted of 42 shovel tests (ST 1026-1067) and 10 test units (TU A, B, C, D, E, F, H, I, J, and K) placed within the boundaries of the site (see Figure 9-13). Thirty of the 42 additional shovel tests were positive, recovering artifacts from 10-130 cm below surface.

These positive shovel tests were conducted within the new proposed alignment and served to establish site boundaries to the south and west within the new northern alternative for the Ayers Road Extension. It is very likely that the site extends to the north and south outside the project corridors. The additional testing, when combined with the initial shovel tests, delineated three areas of concentration within the site, designated Areas A, B, and C. These areas are associated with the adjacent sinkholes and, based on diagnostic artifact content and the horizontal distribution of artifacts, were thought to be several occupational episodes that may overlap within the site.

After the additional shovel testing, test units were placed in areas of the site that had concentrations of ceramic sherds, historic materials, or lithic artifacts identified in the previous shovel testing. These test units consisted of one 2x2 m test unit (TU B), two 1x2 m units (TU A and E), four 1x1 m units (TU C, D, F and H), and three 50x50 cm units (TU I, J, and K). The test units recovered pre-Columbian cultural material from 0-142 cm below datum. Historic material recovered during this testing will be described in the discussion of the Enville site (8HE284).

All test units were excavated to a depth of at least 110 cm below datum when possible. In Test Units B, D, E, and F, a 50x50 cm^2 test unit was placed in the floor of the larger unit and excavated to a depth of 135-160 cm below datum. Cultural material was recovered from all the test units.

Soils and Stratigraphy

Information on the stratigraphy was obtained during shovel testing. This provided a control against which to compare the strata encountered during excavation of the test units. The stratigraphic sequence observed within these units was typical of a xeric upland locale. Several stratigraphic zones were identified at this site. However, these zones will be discussed separately for Areas A, B, and C to enable the identification of potentially discrete occupations within each of these areas.

The stratigraphic sequence for Area A, as observed in Test Units A, C, and H, consisted of the following strata:

> Zone 1 ranged in color from very dark gray (10YR3/1) to dark gray (10YR4/1) to dark grayish brown (10YR4/2) fine sands with common fine to large tree roots. The lower boundary of this zone is clear and generally straight. This zone represents an Ap-horizon, which is the result of disturbances from agricultural activities such as land clearing and plowing. A-horizons contain mineral materials that are often stained a brownish color from humified organic matter. The minimum depth of Zone 1 ranged from 4-9 cm below datum, while the maximum depth ranged from 30-32 cm below datum. Artifacts were recovered from 10-32 cm below datum and consisted of 1 sand-tempered plain body sherd and 14 lithic waste flakes. Within this zone, the highest concentration of lithic material extended from 20-30 cm below datum. This zone represents a disturbed, Formative period component. During previous testing of this specific area of the site, a small lithic core was recovered from the surface adjacent to ST 364, indicating early-stage tool production activities. In Test Unit A, historic material was also recovered from 10-32 cm below datum. These historic artifacts are related to the Enville site (8HE284) and will be described in the discussion of that site.
>
> Zone 2 ranged in color from yellow (10YR6/6) to yellowish brown (10YR5/4) to pale brown (10YR6/3) fine sands with sparse charcoal flecks and occasional fine to coarse roots. This zone represents the B-horizon, a highly weathered soil that results from the chemical action of deposited materials through downward percolation of rainwater or in-place weathering, such as from an existing water table. Often, this horizon has a reddish brown color due to the accumulation of iron oxide. A pale brown or yellowish brown color indicates a well-aerated soil, allowing for the interaction of oxygen and iron mineral coatings to form iron oxide. The minimum depth of this zone ranged from 30-32 cm

below datum, while the maximum depth of this zone extended deeper than the floor of the units, all at a maximum depth of 110 cm below datum. Artifacts consisted of 316 lithic flakes, 1 silicified limestone core, 1 thin unifacial scraper, 1 side (oblong) scraper, 1 Marion subtype Florida Archaic Stemmed projectile point/knife, and 1 sand-tempered plain body sherd. The highest concentration of lithic material within this zone extended from 30-100 cm below datum. Based on the temporally diagnostic artifacts recovered, this zone represents a late Paleoindian (12,000-7500 BC) through Middle-to-Late Archaic period (5000-500 BC) component (see description of artifacts for a discussion of temporally diagnostic artifacts). During previous testing of this area, a projectile point/knife preform was recovered between 60 cm and 100 cm below surface, corresponding with Zone 2 and the lower part of the lithic concentration within this zone. The tip of this preform exhibits some retouching, possibly indicating that it was used as a knife or perforator.

The stratigraphic sequence for Area B, as observed in Test Units B, D, I, J, and K, consisted of the following strata:

Zone 1 ranged in color from dark gray (10YR4/1) to gray (10YR5/1 to 2.5Y5/1) to grayish brown (2.5Y5/2 to 10YR5/2) fine to fine silty sand with common fine to coarse roots. The lower boundary of this zone is clear and generally straight. This zone represents an Ap-horizon, which is the result of disturbances from agricultural activities such as land clearing and plowing. A-horizons contain mineral materials that are often stained a brownish color from humified organic matter. The minimum depth of Zone 1 ranged from 4-19 cm below datum, while the maximum depth ranged from 20-41 cm below datum. Artifacts were recovered from 10-30 cm below datum and consisted of 17 lithic waste flakes. During previous testing of this area of the site, a lithic core was recovered from the surface near ST 421, indicating early-stage lithic tool production activities (see Figure 2). Historic material was recovered from 0-41 cm below datum. These historic artifacts are related to the Enville site (8HE284) and will be described in the discussion of that site. No temporally diagnostic artifacts were recovered from this disturbed zone.

Zone 2 ranged in color from pale yellow (10YR7/3) to light brown gray (2.5Y6/2) to pale brown (2.5Y7/2) fine sand with common fine to coarse roots. This zone represents the B-horizon, a highly weathered soil that results from the chemical action of deposited materials through downward percolation of rainwater, or in-place weathering such as from an existing water table. Often, this horizon has a reddish brown color due to the accumulation of iron oxide. A pale brown or yellowish brown color indicates a well-aerated soil, allowing for the interaction of oxygen and iron mineral coatings to form iron oxide. The minimum depth of this zone ranged from 20-41 cm below datum, while the maximum depth of this zone ranged from 80 cm below datum to beyond 130 cm below datum. Artifacts were recovered from 20-130 cm below datum and consisted of 221 lithic waste flakes and 6 Pasco Plain body sherds. The Pasco Plain sherds, all six of which cross-mend together, were recovered between 90 cm and 100 cm below datum in Test Unit B. The occurrence of the ceramics at 90-100 cm below datum indicates that there is a preceramic component from 100-148 cm below datum. Within Zone 2, the highest concentration of lithic flakes occurs between 30 cm and 120 cm below datum. One lithic

blade flake was recovered from 80-90 cm below datum. Based on the recovery of the Pasco Plain sherds and the lack of pottery below 100 cm, it appears this zone may represent a lower Archaic component (7500-500 BC) and a later Formative component (Early Weeden Island through Safety Harbor periods, AD 100-1513). One historic artifact was recovered between 40 cm and 50 cm below datum in Test Unit B, indicating some minor disturbance in the upper portion of Zone 2, or downward migration of artifacts from Zone 1 into the upper portion of the undisturbed components represented by Zone 2. During previous testing of this area of the site, a scraper fragment and a utilized blade were recovered at depths corresponding to Zone 2. The utilized blade exhibited evidence of its use in working wood or bone.

Zone 3 was present in Test Units D and J. This zone ranged in color from pale yellow (2.5Y7/4) to pale yellow (2.5Y8/3) very fine sand with sparse charcoal flecks and occasional fine to coarse roots. Zone 3 represents a lower portion of the B-horizon that was described above. The difference in zone was identified by a change in soil coloration. This zone ranges in minimum depth from 30-80 cm below datum and a maximum depth that extends below the floor of the units, at a depth of 148 cm below datum in Test Unit D and 130 cm below datum in Test Unit J. Artifacts were recovered from 40-130 cm below datum and consisted of 43 lithic waste flakes and 1 possible projectile point/knife of unknown type. The lack of Formative period (post-500 BC) cultural material in this zone most likely indicates an Archaic period (7500-500 BC) context.

The stratigraphic sequence for Area C, as observed in Test Units E and F, consisted of the following strata:

Zone 1 ranged in color from light gray (10YR5/1) to light brownish gray (2.5Y6/2) fine sands with common fine to coarse roots. The lower boundary of this zone is clear and generally straight. This zone represents an Ap-horizon, which is the result of disturbances from agricultural activities such as land clearing and plowing. A-horizons contain mineral material that are often stained a brownish color from humified organic matter. The minimum depth of Zone 1 was 19 cm below datum, while the maximum depth was 41 cm below datum. Artifacts were recovered from 20-28 cm below datum and consisted of 1 lithic flake.

Zone 2 ranged in color from brownish yellow (2.5Y7/2) to pale yellow (2.5Y7/3) fine sands with common fine to coarse roots. This zone represents the B-horizon, a highly weathered soil that results from the chemical action of deposited materials through downward percolation of rainwater, or in-place weathering such as from an existing water table. Often, this horizon has a reddish brown color due to the accumulation of iron oxide. A pale brown or yellowish brown color indicates a well-aerated soil, allowing for the interaction of oxygen and iron mineral coatings to form iron oxide. The minimum depth of Zone 2 was 41 cm below datum; the maximum depth of Zone 2 extended below the floor of the unit in TU F. The maximum depth of Zone 2 in TU E was 60 cm below datum. Artifacts were recovered 30-110 cm below datum and consisted of 33 lithic flakes. Although no temporally diagnostic artifacts were recovered during excavation of these two test units, a Florida Archaic Stemmed (possible Newnan subtype) projectile point/knife was recovered from 20-80 cm below surface in ST 412, located adjacent to

Test Unit E (see Figure 2). The occurrence of this point type and the lack of ceramic sherds within Zone 2 indicates this component dates between the Middle and Late Archaic periods (5000-500 BC).

Zone 3 was only present in TU E. This zone was pale yellow (2.5Y8/2) coarse sand with sparse charcoal flecks and occasional fine to coarse roots. This zone also represents the B-horizon mentioned above. The difference in zone was identified by a change in soil coloration. The minimum depth of Zone 3 was 60 cm below datum, while the maximum depth of Zone 3 extended below the floor of the unit. Artifacts were recovered from 60-110 cm below datum and consisted of 29 lithic waste flakes. This likely represents a lower portion of the Archaic component described above.

Artifacts

Eight hundred and two pre-Columbian artifacts were recovered during additional testing of site 8HE426, including 8 ceramic sherds, 788 lithic flakes, 5 lithic tools, and 1 lithic core. The lithic artifacts were recovered from 0-110 cm below datum in 29 shovel tests (ST 1003-1066) and in Test Units A, B, C, D, E, F, H, I, J, and K. The eight ceramic sherds, weighing a total of 59.7 grams, were recovered from 20-110 cm below datum in Test Units A, B, and C. The ceramic types represented include six Pasco Plain and two sand-tempered plain sherds.

The Pasco Plain sherds consist of six body sherds that cross-mend. These sherds, which weigh a total of 53.75 grams, were recovered between 90 cm and 100 cm below datum in Test Unit B, located within Area B. Pasco Plain ceramics typically have a dark gray paste with Fuller's earth and limestone inclusions, and a maximum thickness of 9.00 mm. In the North Peninsular Gulf Coast culture region, Pasco Plain was utilized from the Early Weeden Island period through the Safety Harbor period (AD 100-1513) (Milanich 1994:211, 392).

The sand-tempered plain ceramics consist of two body sherds recovered from 20-30 cm below datum in Test Unit A and from 100-110 cm below datum in Test Unit C, both of which are located in Area A. These specimens weigh a total of 5.95 grams and have a maximum thickness ranging from 5.30-5.75 mm. One of the specimens has a smoothed interior surface. The paste is dark gray with common to abundant medium-grained to coarse quartz sand inclusions. In the North Peninsular region, sand-tempered plain was common from the Early Weeden Island period through the Safety Harbor period (AD 100-1513) at coastal, as well as, inland sites (Milanich 1994:211, 392).

The lithics from the additional testing include 5 tools or tool fragments, 1 core, and 788 lithic flakes. The five tools recovered from site 8HE426 include a Florida Archaic Stemmed (possible Newnan subtype) projectile point/knife fragment, an expedient scraper, an oblong (side) scraper, a Florida Archaic Stemmed (Marion subtype) projectile point/knife, and a possible projectile point/knife fragment. The possible Newnan point fragment was recovered from 40-100 cm below the surface in ST 1029, located in Area A. This fragment is composed of unaltered silicified coral and consists of a stem and shoulders of the projectile point/knife. This specimen is 2.45 cm in length, 3 cm in width, and 0.65 cm in thickness. A small portion of the blade is present and it appears the blade was excurvate in shape. The stem of the tool appears to have thinning flakes removed which may have aided in the hafting of the tool. No use wear was observed on the portion that would have been hafted.

The expedient scraper was recovered from 90-100 cm below datum in Test Unit A, located in Area A. This tool is composed of unaltered silicified limestone and is 3.59 cm in length, 2.90 cm in width, 0.65 cm in thickness, and weighs 5.35 grams. The tool was made from a large flake; however, only the proximal end of the tool was recovered. The distal end of the tool was not recovered during excavation. The cause of the tool fracture could not be determined due to the amount of weathering that has occurred near the point of the tool fracture. The specimen is composed of poor quality silicified limestone. Retouching has occurred on one lateral edge of the specimen to provide a working edge (bit) for the tool. One flake has been removed from the bulb of percussion on the ventral surface to provide a flattened surface. The poor quality of the silicified limestone used and crude nature of the tool production indicates that this is most likely an expedient tool.

The oblong (side) scraper was also recovered from 90-100 cm below datum in Test Unit A, located in Area A. This oval-shaped scraper is 7.92 cm in length, 3.81 cm in width, 1.82 cm in thickness, and weighs 39.3 grams. This specimen is composed of unaltered silicified limestone and appears to be plano-convex in cross-section. This profile correlates with oblong scrapers recovered at the Harney Flats site (8HI507) in a Paleoindian context (Daniel and Wisenbaker 1987:70). The tool appears to have a striking platform present parallel to the long axis suggesting that the specimen was produced from a thick flake. Marginal retouching is present along the lateral margin opposite the bulb of percussion. This retouching gives the tool its working edge (bit). A few flakes were removed from the ventral surface to flatten this area of the tool. No use-wear could be identified along the ventral surface to lend any indication of how the tool was utilized.

Similar forms of this oblong scraper have been recovered from various contexts in Florida. Purdy (1981:18-19) describes a collection of 33 specimens, which she refers to as "Hendrix Scrapers" and identifies them as being part of the Paleoindian "tool kit." Purdy's publication on Florida stone tool technology displays a photo of seven tools (1981:19, Figure 7-9) that are nearly identical to those recovered at the Harney Flats sites (Daniel and Wisenbaker 1987:72, Figure 24A). Daniel and Wisenbaker (1987:72) believe that the "Hendrix Scraper," as well as what Purdy refers to as the "snub-nosed scraper," are all variations of the oblong scraper. Additionally, Daniel and Wisenbaker (1987) agree with Purdy that these scrapers are a part of the Paleoindian tool assemblage. A scraper present in the Harney Flats report (Daniel and Wisenbaker 1987:72, Figure 24A) is nearly identical to the specimen recovered from TU A at the Alexsuk site. This would indicate that a discrete Paleoindian component is present in Area A of site 8HE426.

The Florida Archaic Stemmed (Marion subtype) projectile point/knife was recovered from 60-70 cm below datum in Test Unit A, located in Area A. This point is composed of thermally altered silicified limestone. The tool is 5 cm in length, 3.1 cm in width, and 0.65 cm in thickness. The point has excurvate blade edges, downward and inward sloping basal edges, and contracting tangs. Retouching has occurred on both blade edges of the projectile point. Some thinning has occurred on the stem of the point, possibly to aid in hafting the tool. The Florida Archaic Stemmed point is the most common projectile point found in Florida, and the Marion subtype was produced in the Middle and Late Archaic periods (5000-500 BC).

The possible projectile point/knife fragment was recovered from 100-110 cm below datum in Test Unit J, located in Area B. This specimen is composed of unaltered silicified coral and is 4.35 cm in length, 1.75 cm in width, and 0.75 cm thick. This fragment consists of a base and blade portion of a possible point. However, the general morphology of this specimen does not match any known point type in Florida. It is likely that this tool was abandoned before it was completed.

One core was recovered from 100-110 cm below datum in Test Unit C, located in Area A. This core is best described as a discoid type and is composed of unaltered silicified limestone. It falls within the 6-7 cm size class. Flakes were removed from the edges of the core using these edges as temporary striking platforms. The presence of this core within Area A indicates that tool blank production occurred within this area.

The 788 lithic flakes consist of 2 secondary core reduction flakes, 4 shaping point flakes, 16 biface thinning flakes, 24 retouch flakes, 54 possible retouch flakes, and 688 technologically unidentified flakes. Tables 9-15 through 9-18 summarize the characteristics of the total additional testing flake assemblage. Each technological category will be discussed separately below.

TABLE 9-15
LITHIC FLAKES BY TECHNOLOGICAL CATEGORY
ADDITIONAL TESTING OF SITE 8HE426

Technological Category	Count	Percentage
Primary core reduction flakes	0	0.00%
Secondary core reduction flakes	2	0.25%
Shaping point flakes	4	0.51%
Biface-thinning flakes	16	2.03%
Retouch flakes	24	3.05%
Possible retouch flakes	54	6.85%
Technologically unidentified flakes	688	87.31%
Total	788	100.00%

TABLE 9-16
LITHIC FLAKES BY FRAGMENT TYPE
ADDITIONAL TESTING OF SITE 8HE426

Fragment Type	Count	Percentage
Proximal fragment	218	27.66%
Medial fragment	184	23.35%
Distal fragment	168	21.32%
Complete flakes	218	27.66%
Total	788	100.00%

TABLE 9-17
LITHIC FLAKES BY SIZE CLASS
ADDITIONAL TESTING OF SITE 8HE426

Size Class	Count	Percentage
0-1 cm	398	50.51%
1-2 cm	288	36.55%
2-3 cm	83	10.53%
3-4 cm	16	2.03%
4-5 cm	2	0.25%
5-6 cm	0	0.00%
6-7 cm	1	0.13%
Total	788	100.00%

TABLE 9-18
LITHIC FLAKES BY MATERIAL COMPOSITION
ADDITIONAL TESTING OF SITE 8HE426

Fragment Type	Count	Percentage
Unaltered silicified limestone	673	85.41%
Unaltered silicified coral	90	11.42%
Heat-treated silicified limestone	21	2.66%
Heat-treated silicified coral	4	0.51%
Total	788	100.00%

The two secondary core reduction flakes consist of one complete flake and one medial flake fragment. Both specimens are composed of unaltered silicified limestone. One flake falls within the 2-3 cm size class, and the remaining flake falls within the 6-7 cm size class. One of the flakes was cortical on its distal end; the other was non-cortical. Secondary core reduction consists of the removal of flakes or blades, also called blanks. These blanks will be eventually retouched to produce a tool. It also includes the necessary maintenance, or rejuvenation, of the core.

The four shaping point flakes include three complete flakes and one proximal flake fragment. Two specimens are composed of unaltered silicified limestone, one specimen is composed of heat-treated silicified limestone, and the remaining specimen is composed of unaltered silicified

coral. All four lithic flakes fall within the 1-2 cm size class. Shaping point flakes are produced during the shaping stage of a preform, which is an unfinished, unused form of a projectile point.

The 16 biface-thinning flakes include 7 complete flakes, 8 proximal flake fragments, and 1 medial fragment. Ten flakes are composed of unaltered silicified limestone, two are composed of heat-treated silicified limestone, and four are composed of heat-treated silicified coral. Two flakes fall within the 0-1 cm size class, 2 fall within the 1-2 cm size class, 10 fall within the 2-3 cm size class, and 2 fall within the 3-4 cm size class. One of these flakes is cortical. Biface-thinning flakes are produced during the thinning stage, which consists of the removal of long, thin flakes from both faces of the projectile point perform. Soft-hammer percussion and pressure flaking are generally used during the thinning stage.

There are 24 retouch flakes and 54 possible retouch flakes in the artifact assemblage for the Alexsuk site. These specimens consist of 30 complete flakes, 21 medial flake fragments, 19 proximal flake fragments, and 8 distal flake fragments. Forty flakes are composed of unaltered silicified limestone, 33 are composed of unaltered silicified coral, 4 are composed of heat-treated silicified limestone, and 1 is composed of heat-treated silicified coral. Fifty-seven of the specimens fall within the 0-1 cm size class, 18 fall within the 1-2 cm size class, and 3 fall within the 2-3 cm size class. Retouching consists of the removal of small, curved flakes from the outer edges of a tool, the goal of which is to strengthen the cutting edge. However, during core reduction, it is often necessary to strengthen a platform for striking, which often results in the production of the same type of flakes as those produced by retouching edged tools. Thus, this category must be used with caution when interpreting a site.

The 688 technologically unidentified flakes include 172 complete flakes, 184 proximal flake fragments, 168 medial fragments, and 164 distal fragments. Six hundred twenty of the flakes are composed of unaltered silicified limestone, 52 are composed of unaltered silicified coral, 14 are composed of heat-treated silicified limestone, and 2 are composed of thermally altered silicified coral. Most of the specimens are small: 340 flakes fall within the 0-1 cm size class, 262 flakes fall within the 1-2 cm size class, 70 flakes fall within the 2-3 cm size class, 14 flakes fall within the 3-4 cm size class, and 2 fall within the 4-5 cm size class.

In comparing the lithic assemblages of Areas A, B, and C, testing of Area A produced the highest count of lithic flakes, with 472 (59.89% of the total flake assemblage), followed by Area B with 250 flakes (31.73% of the total flake assemblage). Testing of Area C recovered 66 flakes (8.38% of the total flake assemblage). However, it should be noted that significantly more shovel tests were excavated within Area A as the new proposed alignment passed primarily through this area. The majority of flakes were technologically unidentified, primarily due to the large number of small flake fragments.

A comparison of the relative frequencies of technologically identified flakes in Areas A, B, and C indicated that retouch flakes and possible retouch flakes were the most common in all three areas. This indicates that the primary lithic reduction activities in all three areas consisted of late-stage tool manufacturing and sharpening. However, a few secondary core reduction flakes, shaping point flakes, and biface-thinning flakes were recovered in Areas A and B, indicating that some core reduction and early- to middle-stage tool production occurred in these areas. In support of this hypothesis was the presence of a small core recovered in the Formative period

component and a preform recovered from the late Paleoindian through Middle-to-Late Archaic period component of Area A. Additionally, a small lithic core was recovered from the surface in Area B during the initial testing of the site. Some evidence of maintenance activities also was observed, as demonstrated by the presence of an expedient scraper and an oblong scraper in Area A, and a scraper fragment and a utilized blade in Area B.

In addition, some evidence of minor quarrying activities is present in Areas A and B. Chert outcrops were observed in the sinkholes within these two areas. A chert sample indicated that the chert was of fair quality, although somewhat grainy. Macroscopically, this material resembles that of the Brooksville Quarry Cluster of the Suwannee formation; it ranges from medium gray to pale brownish gray in color and is grainy in texture with abundant quartz sand inclusions. Flakes composed of similar, unaltered material were recovered in Test Units I, J, and K, located immediately adjacent to the sinkhole in Area B. Additionally, some possible removal scars were noted on some of the outcrops within the sinks, but these could not be positively identified due to severe weathering.

Finally, the two sinkholes in Areas A and B are partially water-filled and the sinkhole in Area B was reported by a local informant to be more than 200 feet deep. These two sinkholes have the potential of containing cultural material, especially the sinkhole in Area B.

In Area C, a biface-thinning flake was recovered, indicating that some minor middle-stage bifacial tool production had occurred. This hypothesis is supported by the recovery of a Florida Archaic Stemmed (Newnan subtype) point and an incomplete biface in Area C during the initial testing of the site. No chert outcrops were observed within this area. Additionally, no maintenance class tools were recovered from this area of the site.

9.1.12.3 Interpretation and Conclusion

Additional testing of site 8HE426 identified three occupation areas (A, B, and C), which may overlap. The locations of all three occupation areas appear to be related to the adjacent sinkholes, most likely for the procurement of available resources such as fresh water and usable chert for tool manufacturing. In general, it is hypothesized that the occupations represented by this site were seasonal logistical campsites that were repeatedly occupied. Diagnostic artifacts recovered from Areas A, B, and C indicated that these areas represent the different temporal components.

Area A, located around the westernmost sinkhole within the site area, represents at least two precontact occupations: one dating from the late Paleoindian (12,000-7500 BC) to the Middle or Late Archaic period (5000-500 BC) and a post-Archaic (post-500 BC) component. This latter component was disturbed by the historic period occupation of the town of Enville (site 8HE284), the location of which overlaps the Alexsuk site (8HE426). The Enville site (8HE284) is discussed separately from this site. Precontact activities represented within the area of the Alexsuk site included minor quarrying and core reduction, basic camp maintenance activities, and all stages of tool manufacturing, especially projectile point/knives.

Area B, situated around the middle sinkhole, represents two precontact occupations: one probable Archaic period (7500-500 BC) component and a Weeden Island-through-Safety Harbor period (AD 100-1513) component. As in Area A, this latter component was partially disturbed

by the historic-period occupation of Enville (8HE284). Precontact activities represented in this area of the site were identical to those represented in Area A. Both Area B and Area A appear to represent the primary occupation of the site.

Area C, situated around the easternmost sinkhole, represents a Middle or Late Archaic period (5000-500 BC) component. As in the previous two areas, the upper portion of this component was disturbed by the historic occupation of Enville (8HE284). Precontact activities represented in this area of the site included middle- and late-stage bifacial tool production.

A similar site, the Colorado site (8HE241) has been previously identified within Hernando County (Horvath 2000). The Colorado site also had distinguishable occupation areas, ranging in date from the Paleoindian period through the Middle Archaic and post-Archaic periods. This site was interpreted as a series of short-term occupations related to the procurement of chert from outcrops in adjacent sinkholes. Lithic reduction activities centered primarily on bifacial blank production and core manufacturing. A similar range of tools was found at the Colorado site as were found at site 8HE426, including oblong scrapers, cores, blanks, Florida Archaic Stemmed points, and expedient tools. Chemical analysis of the soils at the Colorado site indicated that it was not occupied for long periods of time (Horvath 2000:82-98).

The Alexsuk site (8HE426) is considered regionally significant as it represents multiple periods of occupation, although probably seasonal in duration, indicating patterned use of the area in the Paleoindian, Middle-to-Late Archaic, and Formative periods. This site contains data that could address regional research questions, such as how and why the relatively nomadic Paleoindian groups developed into semi-sedentary Late Archaic groups in peninsular Florida, and whether any variation in this development occurred in different regions of the state. Comparison of this site to similar sites in the interior of Central Florida and similar sites in other area may yield patterns indicating regional trends of the development of sedentism. Consequently, this site, including portions within the current project APE, is considered potentially eligible for inclusion in the **NRHP**.

9.1.13 8HE284: ENVILLE

The Enville site (8HE284) is a previously recorded archaeological site representing a late nineteenth through early twentieth century historic town site. It is situated on a flat upland area in the northwest quarter of Section 36 of Township 23 South, Range 18 East on the Masaryktown U.S.G.S. Quadrangle (1954, PR 1988) in Hernando County, Florida. This site overlays, and has partially disturbed, a precontact archaeological site (8HE426) that was recorded during the present survey.

The Enville site (8HE284) was previously recorded as part of the development of the Hernando County Comprehensive Plan (Hernando County Planning Department 1990). It was recorded as a town site with subsurface features. No field check was conducted at the time to verify the site extent, which were recorded as 0.01 km^2. The site was recorded as being within the general vicinity of the location plotted. It was considered significant at the local level (FMSF, 8HE284 1990).

9.1.13.1 Initial Testing

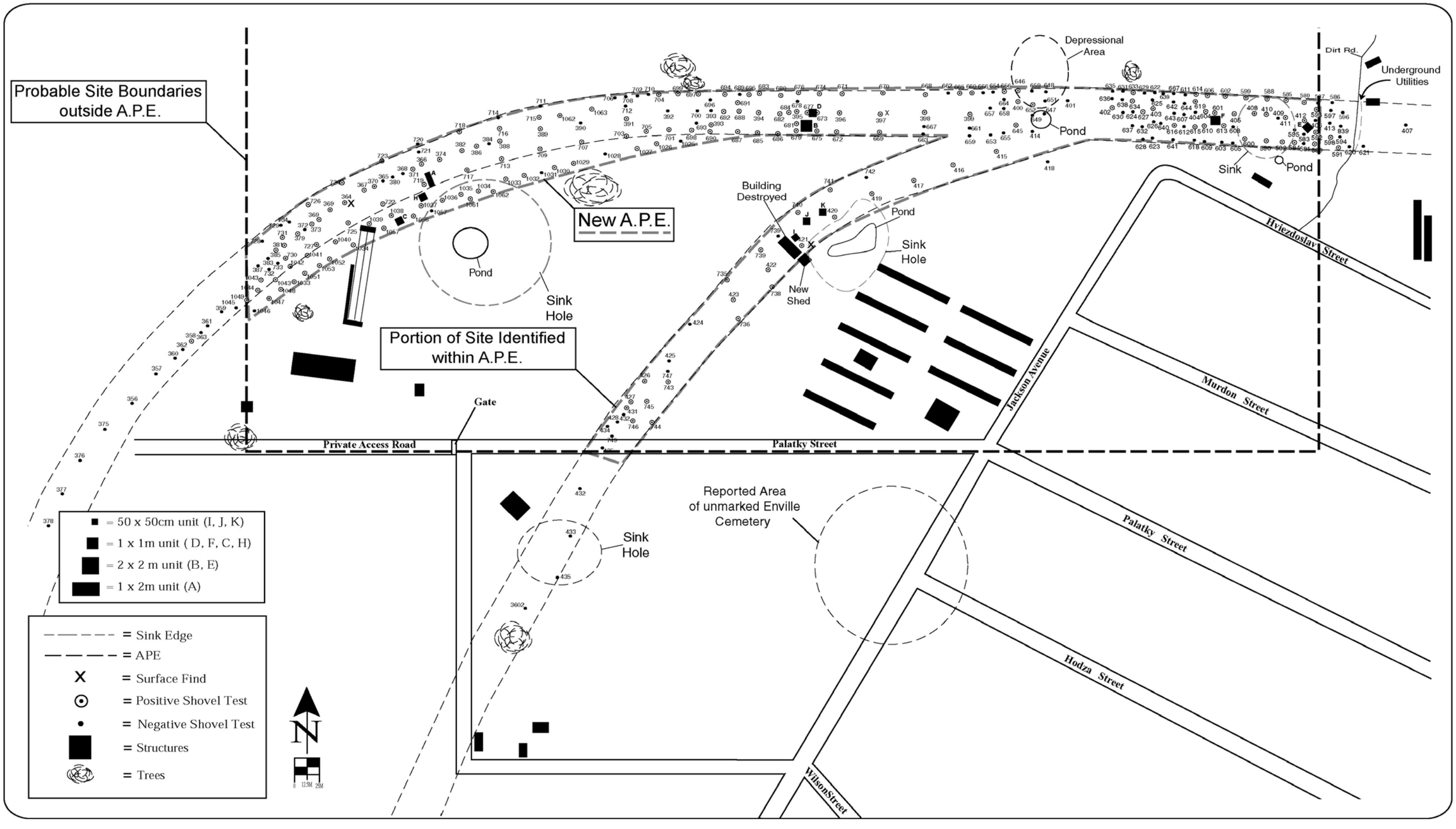
During initial testing, the location of site 8HE284 was confirmed by 26 positive shovel tests (Figure 9-14). As identified within one of the northern C.R. 578/Ayers Road Extension corridor alternatives, the site was defined as measuring approximately 305 m (1,000 ft.) east-west and 50 m (165 ft.) north-south, for a total site area of 15,250 m^2 (164,000 $ft.^2$). This preliminary testing of the site established eastern and western site boundaries with negative bounding tests. However, the northern and southern site boundaries could not be established because access for testing outside of the project APE was not available. Thirty-six shovel tests were placed in the vicinity of the site. The general stratigraphic sequence, as observed in the positive shovel tests, consists of: from 0-25 cm below surface is gray sand, and from 25-150 cm below surface is pale brown sand. Historical material was recovered between 0 and 120 cm below surface.

The artifact assemblage recovered from site 8HE284 consisted of 29 glass fragments, 23 historic ceramic sherds, 5 turpentine cup fragments, 8 iron nails, and 1 ceramic marble. The glass fragments included bottle glass and window glass fragments. The bottle glass fragments included amethyst glass, brown glass, clear glass, cobalt blue glass, and green glass. One specimen was a fragment of amethyst glass from a case bottle that dates to circa the early 1900s. The glass generally ranged in date from the early 1900s to late twentieth century, indicating that some modern materials had been mixed with the historical cultural deposit. The date of the amethyst glass correlates with the recorded time period for the town of Enville, around the turn-of-the-century.

The ceramic sherds consisted of salt-glazed stoneware, semi-porcelain (whiteware), porcelain, ironstone, brown-glazed stoneware, glazed earthenware and turpentine cups of red earthenware. These ceramic types range in date to between the late nineteenth century and the 1920s. The dates of this assemblage also correlate with the Spanish-American War period (1898-1916) context assigned to the town site on the FMSF form for site 8HE284.

FIGURE 9-14

SITE SKETCH FOR 8HE284



The turpentine cup fragments are made of unglazed red earthenware of the round Herty cup type. The Herty cup dates to between 1904 and about 1914, when galvanized iron cups gained widespread use (Forney 1985:277). Local informants reported that the town was involved in the turpentine industry, but the small number of turpentine cup fragments recovered during the present survey indicates that this was not a major industry for the town of Enville.

The iron nails included both square cut nails and wire cut nails. Square cut nails were produced between circa 1790 and the 1850s (Noel Hume 1969:253-254). Wire cut nails were manufactured after the 1850s and continue to be manufactured today. The ceramic marble is not chronologically diagnostic.

The present survey has verified the location of the Enville site (8HE284) and refined its eastern and western site boundaries. However, the northern and southern boundaries remain unknown at present. The artifact assemblage recovered indicates that the site dates to between the late nineteenth century and the 1920s. Additionally, modern disturbance of the site has resulted in a mixture of late twentieth century artifacts with the historic assemblage. Similarly, the artifact assemblage of site 8HE284 has become mixed with that of the precontact site 8HE426. The amount of disturbance at the site indicates that the potential for recovering additional important information by subsurface testing or excavation is low. However, further historical research is recommended to determine the significance of site 8HE284. The conclusions of such research would enable a determination of the eligibility of this resource for listing in the **NRHP**.

9.1.13.2 Additional Testing

Additional testing of site 8HE284 was conducted in order to refine the site boundaries within the new alternative of the Ayers Road Extension as well as to identify cultural features or concentrations of artifacts that may represent activity areas. This additional testing consisted of 42 shovel tests (ST 1026-1067) and 10 test units (TU A, B, C, D, E, F, H, I, J, and K) placed within the boundaries of the site (see Figure 9-14). Seven of the 42 additional shovel tests were positive for historic artifacts, which were recovered from 0-60 cm below surface. Precontact artifacts recovered from these test units and shovel tests are discussed in the description of the Alexsuk site (8HE426).

These positive shovel tests were conducted within the new proposed alignment and served to establish site boundaries to the south and west within the new northern alternative for the Ayers Road Extension. It is very likely that the site extends outside of the project corridors to the north and south.

After the additional shovel testing, test units were placed in areas of the site that had concentrations of cultural material identified in the previous shovel testing. These test units consisted of one 2x2 m test unit (TU B), two 1x2 m units (TU A and E), four 1x1 m units (TU C, D, F, and H), and three 50x50 cm units (TU I, J, and K). All test units were excavated to a depth of at least 110 cm below datum when possible. In Test Units B, D, E, and F, and a 50x50 cm^2 test unit was placed in the floor of the larger unit and excavated to a depth of 135-160 cm below datum. All test units recovered historic cultural material from 0-50 cm below datum except for Test Unit C, which recovered no historic artifacts.

Soils and Stratigraphy

Information on the stratigraphy was obtained during shovel testing. This provided a control against which to compare the strata encountered during excavation of the test units. The stratigraphic sequence observed within these units was typical of a xeric upland locale. The stratigraphy of this site is discussed below.

Zone 1 ranged in color from dark gray (10YR3/1) to dark gray (10YR4/1) to dark grayish brown (10YR4/2) to gray (2.5Y5/1) to light gray (10YR5/1) to light brownish gray (2.5Y6/2) to grayish brown (10YR5/2) fine sands with common fine to large roots. The lower boundary of this zone is clear and generally straight. This zone represents an Ap-horizon, which is the result of disturbances from agricultural activities such as land clearing and plowing. A-horizons contain mineral materials that are often stained a brownish color from humified organic matter. The minimum depth of Zone 1 ranged from 4-10 cm below datum, while the maximum depth ranged from 20-41 cm below datum. Artifacts were recovered from 0-32 cm below datum and consist of 1 whiteware sherd, 2 coins, 4 clear glass fragments, 9 amethyst glass fragments, 1 brown glass fragment, 1 unidentified iron fragment, and 466.55 grams of Herty cup fragments. Based on the presence of two coins dating to 1896 and 1908 and the presence of a whiteware sherd, this zone most likely dates from the 1890s to between 1910 and 1925. Other temporally diagnostic artifacts recovered in this zone overlap this time range. However, the presence of Herty cup fragments in Zone 2 indicates that Zone 1 dates between 1904 and 1914, which falls within the period documented for the occupation of Enville, circa 1898-1922. Modern artifacts recovered from shovel tests adjacent to the test units, including a post-1970s shotgun shell, indicate that this zone has been disturbed by modern activities. Historical material within this zone was also mixed with precontact material from the Alexsuk site (8HE426), the upper levels of which were disturbed by the occupation of Enville.

Zone 2 ranged in color from pale yellow (10YR7/3 to 10YR7/4 to 2.5Y7/3) to yellow (10YR6/6) to yellowish brown (10YR5/4) to yellowish brown (2.5Y7/2) to light brownish gray (2.5Y6/2) to pale brown (10YR6/3) fine sand with common fine to coarse roots. This zone represents the natural B-horizon, a highly weathered soil that results from the chemical action of deposited materials through downward percolation of rainwater, or in-place weathering such as from an existing water table. Often, this horizon has a reddish brown color due to the accumulation of iron oxide. A pale brown or yellowish brown color indicates a well-aerated soil, allowing for the interaction of oxygen and iron mineral coatings to form iron oxide. The minimum depth of this zone ranged from 20-41 cm below datum, while the maximum depth of this zone ranged from 60 cm below datum to beyond 130 cm below datum. Artifacts were recovered from 20-50 cm below datum and include 4 clear glass fragments, 1 tin-enameled earthenware sherd, and 234.95 grams of Herty cup fragments. The presence of Herty cup fragments in this zone indicates that it dates between 1904 and 1914. The upper portion of Zone 2 represents the bottom of the cultural deposits associated with the occupation of Enville. The presence of modern glass fragments within this historic component of Zone 2 indicates that it has been disturbed by modern activities. Additionally, historical material within this zone was also mixed with precontact material from the Alexsuk site (8HE426), the upper levels of which were disturbed by the later historical occupation.

Zone 3 was only present in TU E. This zone was pale yellow (2.5Y8/2) coarse sand with sparse charcoal flecks and occasional fine to coarse roots. This zone also represents the B-horizon mentioned above. The difference in zone was identified by a change in soil coloration. The minimum depth of Zone 3 was 60 cm below datum, while the maximum depth of Zone 3 extended below the floor of the unit. No historic artifacts were recovered from this zone. Zone 3 represents an undisturbed portion of the precontact era Alexsuk site (8HE426).

Artifacts

Additional testing of the Enville site (8HE284) resulted in the recovery of 23 glass container fragments, 8 historic ceramic sherds, 2 coins, 1 unidentified iron fragment, 1 modern shotgun shell, and 701.50 grams of Herty cup fragments. Artifacts from this site were recovered from 0-50 cm below surface in ST 1026, 1032, 1038, 1051, 1055, 1062, and from 10-50 cm below datum in Test Units A, B, D, E, J, and K.

The 23 glass container fragments include 9 clear glass fragments, 13 amethyst glass fragments, and a brown glass fragment. The clear glass fragments recovered are modern and represent post-1950s disturbance to the site. Brown glass is not a good chronological indicator as it dates from 1873 to present. However, the brown glass fragment has a mold seam and appears to have been part of a bottle made from an automatic bottling machine, which would date the specimen to post 1904. Amethyst glass dates to between 1880 and 1925, which corresponds with the reported period of occupation for Enville, circa 1898-1922. The amethyst glass fragments and four of the clear glass fragments were recovered between 10 cm and 20 cm below datum in Test Unit D, while the remaining five clear glass fragments were recovered from 20-40 cm below datum in Test Units D and K. The brown glass fragment was recovered from 20-30 cm below datum in Test Unit A.

The 8 historic ceramic sherds include 3 refined earthenware sherds, 2 ironstone sherds, and 3 whiteware sherds. Two of the three refined earthenware sherds have white slipped exteriors and brown salt glaze interiors; the third refined earthenware sherd has a dark brown slipped interior with a brown salt glaze exterior. These specimens are not considered good chronological indicators as they were produced for a long period. However, they were common in the late nineteenth and early twentieth centuries. The ironstone specimens include two fragments which both appear to part of the same ceramic pitcher. This type dates to as early as 1813, but it is still produced today. The whiteware specimens include two plain sherds, one with an embossed design. This type was produced from 1910 until the present.

The two coins include an “Indian Head” penny dating to 1896 and a “Liberty Head” nickel dating to 1908. Both of these specimens were recovered from 20-30 cm below datum in Zone 1, Test Unit A. Based on their issuance dates, these specimens are associated with the occupation of Enville.

The Herty cup fragments recovered from the site weigh a total of 701.50 grams. Herty cups are ceramic turpentine-collecting vessels that were used in Florida during the later half of the state’s major period of turpentine production, 1850-1950. In order to make this endeavor profitable, a turpentine producer had to have thousands of acres in production (Bond 1987). Consequently, turpentine-collecting cups are common throughout areas used for the turpentine industry. During

the period between 1905 and 1923, Florida was the leading producer of turpentine in the southern states (Campbell 1934:10-12). Herty cups, the most common style of turpentine-collecting cups, were produced from 1904 until 1914, when the advent of galvanized iron cups forced a decrease in the demand for ceramic cups (Forney 1985:277). The presence of large quantities of these artifacts indicates that the turpentine production was a predominant activity at Enville.

Additional Historical Research on Enville (8HE284)

Hernando County was involved in the production of two major products, lumber and turpentine, during the turn-of-the-century. Small towns such as Enville, Weeks, and Centralia were formed around sawmills and thrived until the early 1920s. Around 1922, Enville disappeared when the timber supply ran out, leaving few remnants of the town behind (Norman and Landers 2000:89).

The town of Enville (circa 1898-1922) was located approximately 14.5 km (9 miles) southwest of Brooksville in Hernando County, Florida. It was situated at the junction of Anclote and Tampa Roads, approximately 1.6 km (1 mile) west of the Tampa Northern Railroad (Brooksville & Hudson Line) (Polk 1907:145). Additional evidence for the existence of the town of Enville was the operation of the Enville Post Office from 1898-1922, according to *A Chronology of Florida Post Offices* (Bradbury and Hallock 1962:26). Enville was also listed in Polk's *Florida Gazetteer and Business Directory* as having a population of 200 during 1907-1908 (Polk 1907:145). Both 1914 and 1915 maps of Hernando County show Enville situated less than a mile west of the town of Weeks.

Like many towns in Hernando County around the turn-of-the-century, Enville supported the timber and turpentine industries. There were at least two lumber mills in Enville during the late 1890s through the early 1900s. The Enville Lumber Company, chartered in 1912 for $25,000 by J. W. Winters and R. L. Perkins, was the largest mill in the area (Stanabeck 1976:181). Henry Jackson, a Brooksville resident, served as foreman for the Enville Lumber Company, and his father, Jess Lisk furnished the produce for the mill workers (Jackson 2001). The lumber mill is believed to have employed both Anglo-American and African-American workers; however, the community of Enville was most likely comprised of African-American workers (Stanabeck 1976:181). Enville also supported at least two other sawmills at the turn-of-the-century. Aripeka Saw Mills had 20 years of timber rights in the area, and the Downing Company owned interest in a sawmill located in Enville (GCAC 1946; Polk 1907:145). In 1924, after the mills had closed, the Hernando Plantation Corporation purchased rights to the land and timber for construction purposes (GCAC 1946; Stanabeck 1976:182).

The turpentine industry also thrived in Hernando County in the early 1900s. Weeks & Company Turpentine operated in Enville from circa 1907-1916. The Weeks family owned a large portion of the land east of Enville, on the east side of the Brooksville and Hudson Railroad line (GCAC 1946). The towns of Weeks and Enville appear on a 1914 U.S. Department of Soils, Hernando County Map. The town of Weeks, which is also no longer in existence, became a ghost town when the timber supply was exhausted (Stanabeck 1976:182).

A cemetery also was associated with the town of Enville and most likely contained the remains of many of the deceased workers from the sawmills and turpentine camps that operated during the turn-of-the-century. However, the cemetery is no longer visible and lies outside the

boundaries of present-day Masaryktown. Directions to the Enville Cemetery are found in the *Florida Department of Military Affairs Special Archives Publication Number 36* (Works Progress Administration [WPA] 1940-1941). It was reported in the publication that there were no veterans buried in the Enville Cemetery (WPA 1940-1941:20). The directions are as follows:

> From the southwest corner of the courthouse in Brooksville, go south on State Road #5, for 9 and 5/10 miles to Masaryk Hotel. Turn west, go 5/10 mile, then turn north and go 1/10 mile; turn west and continue 3/10 mile to cemetery (WPA 1940-1941:20).

According to these directions, the cemetery is within the general vicinity of land owned by James Dunwooly in 1883 (Florida Department of Environmental Protection [FDEP] n.d.). This area lies south of the proposed Ayers Road Extension alternatives (see Figure 9-14). However, the cemetery itself was not located. Furthermore, local informant interviews produced little more knowledge about the cemetery.

Local informant interviews did result in the general location of two no longer extant structures associated with the turpentine and lumber industries of Enville. According to the *Abstract of Title to Certain Lands in Hernando County, Florida No. 4035* (n.d.:4), a turpentine still and sawmill were once located in the southwestern quarter of the southwestern quarter of Section 25, Township 23 South, Range 18 East. This information was originally obtained from a deed from Mae Chisholm to Taylor and Crosby dated October 23, 1897 (n.d.:4). Mae Chisholm may be a relation to Virgil Chisholm, who is recorded as owning the southeastern quarter of Section 26, Township 23 South, Range 18 East in 1898. Presumably, after homesteading the property, it came into the ownership of Virgil Chisholm (FDEP n.d.). The southeastern corner of Section 26 is included in the boundaries of the Enville site (8HE284) and lies within the current project APE. This portion of Section 26 is situated immediately east of the area reported to be the location of the turpentine still and sawmill. However, no surface or subsurface remains of these structures or cultural material specifically associated with them were identified during the survey of the project APE.

9.1.13.3 Interpretation and Conclusions

Additional testing of 8HE284 refined the site boundaries and demonstrated that most or all of the cultural deposits associated with the Enville site have been disturbed by modern activities. However, the majority of the temporally diagnostic artifacts correspond in date with the period of occupation documented for the town of Enville and with the activities associated with that occupation. The horizontal distribution of artifacts was variable, but generally sparse aside from the occasional concentration of Herty cup fragments. No subsurface features related to the occupation of Enville were identified.

The additional historical research conducted on this site revealed that Enville represented typical early twentieth century development of Hernando County, namely through its involvement in the lumber and turpentine industries. Evidence of turpentine industry-related activities was found during additional testing based on the presence of abundant Herty cup fragments. Although a sawmill and turpentine still were reportedly located near the project APE, no evidence of these

structures was found. Similarly, the Enville Cemetery was reportedly located south of the project APE, but the cemetery was not located.

Although the town of Enville had some significance historically, based on the information described above, the relatively sparse artifact assemblage recovered, the lack of subsurface features, and the documented modern disturbance to the site, the potential for recovering additional important data is low. Therefore, the Enville site (8HE284), as it is located within the current project APE, is not considered eligible for listing in the **NRHP**. However, since the Enville Cemetery has not been securely located, it is recommended that archaeological monitoring of construction activities be conducted within the Enville (8HE284) site boundaries along the easternmost Ayers Road Extension alternative to ensure that the cemetery is not disturbed.

9.2 HISTORIC RESOURCES RESULTS

The historic resources portion of the CRAS of the C.R. 578 (County Line Road) PD&E improvements project resulted in the identification of 15 historic resources located in Hernando and Pasco counties. Fourteen resources (8HE408-8HE417; 8PA1297-8PA1300) were newly recorded during this survey, and one resource (8HE384) was recorded during previous survey work. Of the 15 resources, none are considered eligible for listing in the **NRHP**, based on their common designs and building types, compromised historic integrity, and lack of important historical associations. The locations of each recorded historic resource are shown in Figure 9-15. The FMSF forms for each resource identified during this survey are provided in Appendix B.

One previously recorded historic resource was identified during a search of the FMSF. The historic resource, 14459 County Line Road (8HE378), was documented in 1995 as part of the Suncoast Expressway Re-evaluation conducted by Archaeological Consultants, Inc. While performing the CRAS for C.R. 578, it was determined that 14459 County Line Road (8HE378) was demolished sometime between 1995 and the present time and is no longer standing.

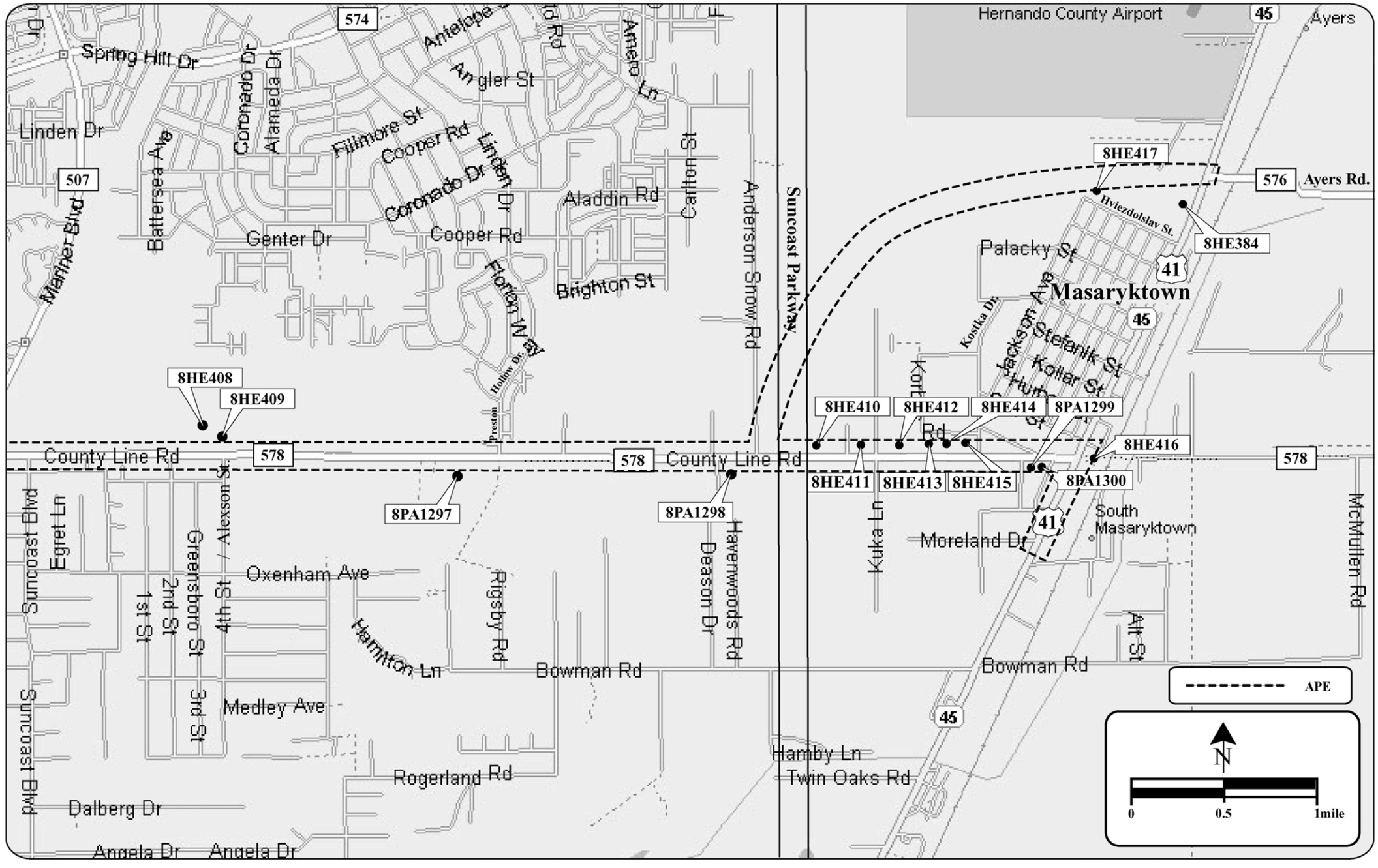
The dates of construction for the resources located within the project area range from 1935 through 1950. Based on the approximate dates of construction, six resources were constructed during the Depression/New Deal era from 1930 to 1940; five resources during the World War II and Aftermath era from 1941 to 1949; and four resources were erected during the Modern era starting in 1950. The resources represent a variety of uses, and all of the properties have a rural setting. Several resources are utilized in a residential capacity, and some of the residences have ancillary buildings, such as small sheds, on their property. A number of the identified resources are auxiliary buildings, including sheds and barns, that are no longer associated with the historic buildings that were formerly located on the same parcel of property. The architectural styles found in the project area include Masonry Vernacular and Frame Vernacular; these styles are briefly described below.

9.2.1 REPRESENTATIVE ARCHITECTURAL STYLES

9.2.1.1 Frame Vernacular

Nine recorded resources associated with the project were built in the Frame Vernacular style. Vernacular (or Folk) buildings are designed without imitating a specific style. Most often, these buildings are not designed by professionals and, in many cases, the occupants or owners themselves designed and constructed the building (McAlester 1993:5). These buildings tend to be simple, largely unornamented, and constructed out of readily available materials. Frame Vernacular buildings feature foundations comprised of concrete piers, brick piers, or continuous concrete. Gable is the most common roof type, and roofing materials are usually metal sheets or composition shingles. Exposed rafter tails are often located under the roof eaves. The wood frame structural systems are generally covered in wood siding, either drop or weatherboard. Some of the buildings in this project area also exhibit replacement plywood siding. Original windows are typically the double-hung wood sash types, and simple window surrounds are prevalent. Some of the Frame Vernacular buildings in the survey area feature modern, replacement metal windows.

FIGURE 9-15
LOCATIONS OF HISTORIC RESOURCES FOUND WITHIN C.R. 578 PROJECT APE



9.2.1.2 Masonry Vernacular

Six resources exhibit the Masonry Vernacular style. Like Frame Vernacular buildings, these are not designed by professionals and are modest in appearance. The style's guiding principle is the long tradition of simple masonry construction techniques used in Western architecture. The use of ready-mixed concrete revolutionized building techniques after 1920 (Rifkind 1980:293). Buildings constructed after this time typically used concrete blocks, which provided the same amount of strength as other traditional masonry units but were lighter and cheaper (McAlester 1993:38). Within the project area, the buildings constructed in this style predominantly exhibit concrete block structural systems set on slab or continuous concrete foundations. The exterior fabric varies from exposed concrete block to stucco. The roofs are covered in metal sheets or composition shingles. Decorative elements are minimal or nonexistent.

Table 9-19 lists the 15 historic resources identified during the survey. Following the table are narratives, which include a physical description and evaluation of significance for each identified historic resource.

TABLE 9-19
HISTORIC RESOURCES IDENTIFIED WITHIN THE PROJECT APE

FMSF #	Site Name/Address	Style	Construction Date	NRHP Status
8HE408	C.R. 578 Pole Barn/11395 C.R. 578	Frame Vernacular	c.1945	Ineligible
8HE409	11465 C.R. 578	Frame Vernacular	c.1940	Ineligible
8PA1297	+/- 11744 C.R. 578	Frame Vernacular	c.1945	Ineligible
8PA1298	C.R. 578 White House/None Observed	Masonry Vernacular	c.1949	Ineligible
8HE410	C.R. 578 Concrete Barn/None Observed	Masonry Vernacular	c.1950	Ineligible
8HE411	C.R. 578 Masonry Building/None Observed	Masonry Vernacular	c.1950	Ineligible
8HE412	15115 C.R. 578	Frame Vernacular	c.1940	Ineligible
8HE413	+/- 20555 C.R. 578	Frame Vernacular	c.1940	Ineligible
8HE414	+/- 20705 C.R. 578	Frame Vernacular	c.1940	Ineligible
8HE415	Shed at 75 Kostka Drive/75 Kostka Drive	Frame Vernacular	c.1935	Ineligible
8PA1299	21120 C.R. 578	Masonry Vernacular	c.1950	Ineligible
8PA1300	21220 C.R. 578	Masonry Vernacular	c.1950	Ineligible
8HE416	18952 U.S. 41	Frame Vernacular	c.1949	Ineligible
8HE417	Historic Outbuilding on Hviezdoslav Street/None Observed	Masonry Vernacular	c.1949	Ineligible
8HE384	1219 U.S. 41	Frame Vernacular	c.1935	Ineligible

9.2.2 8HE408: C.R. 578 POLE BARN

FIGURE 9-16
SITE 8HE408 C.R. 578 POLE BARN, FACING NORTH

This open pole barn is located on the north side of C.R. 578, between Medical Boulevard and Preston Hollow Road, in Township 23 South, Range 18 East, Section 32 (Port Richey NE Quadrangle 1954, PR 1988) in the general vicinity of Spring Hill, Hernando County, Florida (Figure 9-16). Built circa-1945, this rectangular pole barn has a wood frame structural system, but its foundation is unknown. The shed roof has a small gabled portion toward the center, and both are surfaced with 5-V crimp metal sheets. Wood siding is evident in the gable end. Ornamentation is limited to exposed rafter tails. This pole barn currently houses farm equipment. There are five other non-historic outbuildings scattered to the north and west of this structure, including one house, two sheds, and two pole barns.

This World War II and Aftermath-era structure remains in deteriorated condition and represents a common building type found throughout central Florida. No known historical associations with important persons or events were uncovered in connection with this structure. Subsequently, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.3 8HE409: 11465 C.R. 578

FIGURE 9-17
SITE 8HE409 11465 C.R. 578, FACING NORTHWEST

This one-story Frame Vernacular residence is located on the northwest corner of C.R. 578 and Alexson Street, in Township 23 South, Range 18 East, Section 32 (Port Richey NE Quadrangle 1954, PR 1988) in the general vicinity of Spring Hill, Hernando County, Florida (Figure 9-17). Built circa 1940, this rectangular house has a wood frame structural system that rests on a continuous brick foundation. The hipped roof is surfaced with composition shingles, and the exterior is clad in aluminum siding. A brick chimney is located on the north interior slope. There is a hipped roof entry portico with one bay that is supported by Ionic columns. The front door is wood and multi-paneled. Fenestration consists of wood double-hung sash windows with a one-over-one light configuration and modern jalousie windows. Faux metal shutters flank all windows. A non-historic hyphen connects the main house to the garage to the east. There are two non-historic outbuildings to the north: one is a concrete block shed and the other is a wood and metal pole barn. A chain-link fence surrounds the property.

This Depression-era private residence's original appearance has been altered, as the original exterior siding and windows have been replaced and a non-historic hyphen was added. Although the house remains in good condition, its common design and alterations limit its significance. In addition, there are no known historical associations with important persons or events. Consequently, based on a lack of significance this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.4 8PA1297: +/- 11744 C.R. 578

FIGURE 9-18
SITE 8PA1297 +/- 11744 C.R. 578, FACING SOUTH

This one-story Frame Vernacular building is located on the south side of C.R. 578, between Alexson Street and Preston Hollow Road, in Township 24 South, Range 18 East, Section 4 (Port Richey NE Quadrangle 1954, PR 1988) in the general vicinity of Spring Hill, Pasco County, Florida (Figure 9-18). Built circa 1945, this rectangular building has a wood frame structural system that rests on concrete block piers. The gabled roof is surfaced with 5-V crimp metal sheets, and the exterior is clad in drop siding. A shed-roofed porch supported by square wood posts is attached to the north elevation. The outside wall of the north elevation remains in an unfinished condition. Fenestration consists of metal awning windows with three lights apiece. There is a non-historic shed to the east and a non-historic trailer to the south of this building.

This post-World War II building is located on a large piece of property with several non-historic buildings and structures, including a house, sheds, and trailers. This building remains in a deteriorated condition, and its original appearance has been altered through the replacement of all original windows. These factors have contributed to this building's loss of integrity. In addition, there are no known historical associations with important persons or events connected to this building. Therefore, based on a lack of significance this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.5 8PA1298: C.R. 578 WHITE HOUSE

FIGURE 9-19
SITE 8PA1298 C.R. 578 WHITE HOUSE, FACING SOUTH

This one-story Masonry Vernacular building is located on the southwest corner of C.R. 578 and Anderson Snow Road in Township 24 South, Range 18 East, Section 3 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Pasco County, Florida (Figure 9-19). Built circa 1949, this rectangular building has a concrete block structural system that rests on a continuous concrete block foundation. The side-gabled roof is covered with 5-V crimp metal sheets. The concrete block exterior is painted white, and the window openings feature rounded corners and concrete sills. Windows consist of metal casement types with two or three lights. Decorative elements include exposed rafter tails and vertical wood siding in the gable ends. Situated to the south and east of this house are three non-historic metal and wood pole barns. A non-historic shed is also located to the east of the house. The house is currently vacant.

This late-1940s building exhibits no significant alterations and additions and remains in fair condition; however, it has a common residential design found throughout Florida. The building also lacks any known historical associations with important persons or events. Due to these factors, this building lacks significance and is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.6 8HE410: C.R. 578 CONCRETE BARN

FIGURE 9-20
SITE 8HE410 C.R. 578 CONCRETE BARN, FACING NORTHWEST

This one-story Masonry Vernacular barn is located just off an access road on the northeast corner of the Suncoast Parkway and C.R. 578 in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-20). Built circa 1950, this rectangular building has a concrete block structural system that rests on a continuous concrete block foundation. The front-gabled roof is surfaced with 5-V crimp metal sheets and plywood is evident in the gable ends. The roof has partially collapsed on the eastern half of the barn. The western end has a concrete block addition with a gabled roof surfaced with composition shingles. The only evident windows are fixed metal types with a single light each. The painted concrete block exterior features buttressed piers in regular intervals along its entire length, dividing the building into 15 bays. Exposed rafter tails are evident under the roof eaves. A non-historic house and trailer are located to the northwest of this building. A barbed wire fence delineates the parcel of property.

This Modern-era barn is in ruinous condition, as evidenced by the collapsed roof on the eastern half. This building has a non-historic addition attached to its western end. This building's physical integrity has been notably compromised. Furthermore, no known historical associations with important persons or events have been established in connection with this building. Due to the lack of significance, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.7 8HE411: C.R. 578 MASONRY BUILDING

FIGURE 9-21
SITE 8HE411 C.R. 578 MASONRY BUILDING, FACING NORTHWEST

This one-story Masonry Vernacular building is located on the north side of C.R. 578, 0.4 km (0.25 mi.) east of the Suncoast Parkway in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-21). Built circa 1950, this rectangular building has a concrete block structural system that rests on a continuous concrete block foundation. The side-gabled roof is covered with 5-V crimp metal sheets, and the exterior concrete blocks have been painted. All of the original doors and most of the windows have been replaced. Fenestration consists of metal casement windows with three lights apiece or metal awning windows with two lights apiece. All window openings feature rounded corners and concrete sills. Plywood is featured in the gable ends and rafter tails are evident under the eaves. A historic shed similar in appearance to the main building is located to the west.

This Modern-era building is currently vacant. It features three doors on the front façade, suggesting that it was formerly a multi-family residence. It remains in fair condition and represents a common design found throughout Florida. No known historical associations with important persons or events have been established in connection with this building. Due to these factors, this building has little significance; therefore, it is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.8 8HE412: 15115 C.R. 578

FIGURE 9-22
SITE 8HE412 15115 C.R. 578, FACING NORTHWEST

This one-story Frame Vernacular private residence is located on the north side of C.R. 578, between Kuka Lane and Kostka Drive, in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-22). Built circa 1940 and currently vacant, this rectangular building features a wood frame structural system and a pier foundation, which is obscured. The side-gabled roof is surfaced with 5-V crimp metal sheets, and the exterior is clad in pre-fabricated siding and plywood. The northern end of this building has a concrete block addition appended to it. An original wood paneled door, which is missing a large fixed pane of glass, is located on the east elevation. Fenestration consists of wood fixed windows with two lights apiece. Ornamentation is limited to rafter tails and wood window surrounds. To the east of the main house there is a historic wood frame garage. This rectangular outbuilding has a side-gabled roof surfaced with 5-V crimp metal sheets, and the exterior is clad in drop siding. The outbuilding's west elevation has two original sliding wood garage doors. In addition, there are fixed wood windows with four lights apiece, cornerboards, rafter tails, and wood vents. Both buildings are situated next to a large horse pasture.

This Depression-era building remains in fair condition and its original design has been altered, as the original exterior fabric has been replaced with a combination of plywood and pre-fabricated siding and a non-historic concrete block addition has been appended to its north elevation. This building exhibits a common design found throughout Florida and has no known historical associations with important persons or events. Subsequently, based on its lack of significance this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.9 8HE413: +/- 20555 C.R. 578

FIGURE 8-22
SITE 8HE413 +/- 20555 C.R. 578, FACING NORTHWEST

This one-story Frame Vernacular residence is located on the north side of C.R. 578, between Kuka Lane and Kostka Drive, in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-23). This rectangular building, constructed circa 1940, has a wood frame structural system that rests on concrete block piers. The roof is side-gabled on the eastern half and hipped on the western half; rafter tails are evident under the eaves. The roof is surfaced with composition shingles, and the exterior is clad in asbestos shingles. A concrete block chimney is featured on the roof's west interior ridge. There is a shed-roofed entry on the south elevation, which is supported by square wood posts. The front door is wood, and all windows are wood double-hung sash types with one-over-one light configurations. Windows are either singular or paired with wood window surrounds. One window opening on the south elevation has been enclosed. A non-historic addition has been appended to the north elevation, which exhibits a shed roof, composition shingle siding, and a sliding glass door. A non-historic flat-roofed wood frame shed is located to the east of the house.

This Depression-era private residence is currently occupied and remains in fair condition. The original design has been altered: a window opening has been enclosed, the original siding has been replaced with asbestos shingles, and an addition has been attached to the north elevation.

The building's integrity has been compromised by these modifications. Also, this building represents a common design and no known historical associations with important persons or events have been uncovered in connection with the building. Consequently, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.10 8HE414: +/- 20705 C.R. 578

FIGURE 9-24
SITE 8HE414 +/- 20705 C.R. 578, FACING NORTHEAST

Built circa 1940, this Frame Vernacular private residence is located on the north side of C.R. 578, between Kuka Lane and Kostka Drive, in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-24). This one-story rectangular building has a wood frame structural system. Due to dense vegetation, the foundation is not visible. The front-gabled and hipped roof is covered with composition shingles, and the exterior is clad in asbestos shingle siding. A concrete block chimney is featured on the roof's center interior ridge. There is a hipped roof porch on the south elevation, which has been enclosed, and non-historic wood-framed fixed windows have been added. Windows on the main house consist of wood double-hung sash types with one-over-one light configurations. Ornamentation is limited to exposed rafter tails and window surrounds. A non-historic gabled wood frame addition has been attached to the north elevation. To the north of the house is a wood framed shed with a gambrel roof and to the east are two sheds, one composed of concrete block and the other of metal. Each of the outbuildings is non-historic.

This Depression-era building's integrity has been compromised, as its original front porch has been enclosed, the exterior has been resurfaced with asbestos shingles, and a non-historic addition has been attached to the north elevation. The building represents a common design and remains in fair condition. No known historical associations with important persons or events were established in connection with this building. Therefore, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.11 8HE415: SHED AT 75 KOSTKA DRIVE

FIGURE 9-25
SITE 8HE415 SHED AT 75 KOSTKA DRIVE, FACING NORTHWEST

This one-story Frame Vernacular shed is an outbuilding to a non-historic residence located on the northeast corner of C.R. 578 and Kostka Drive in Township 23 South, Range 18 East, Section 35 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Hernando County, Florida (Figure 9-25). Built circa 1935, this shed has a wood frame structural system that rests on a concrete slab foundation. The front-gabled roof is surfaced with 5-V crimp metal sheets, and the exterior is clad in drop siding. Windows are wood-framed fixed types with either one or four lights. Details are limited to cornerboards and wood window surrounds. The historic residence once associated with this shed no longer exists.

This Depression-era building remains unaltered and in good condition. Its significance is diminished, however, due to the loss of the associated original residence. Furthermore, it exhibits a common design and no known historical associations with important persons or events were established in connection with this building. Due to these factors, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.12 8PA1299: 21120 C.R. 578

FIGURE 9-26
SITE 8PA1299 21120 C.R. 578, FACING SOUTHWEST

This one-story Masonry Vernacular building is located on the south side of C.R. 578, between Rosephil Street and Dvorak Drive, in Township 24 South, Range 18 East, Section 1 (Masaryktown Quadrangle 1954, PR 1988) in the general vicinity of Masaryktown, Pasco County, Florida (Figure 9-26). Built circa 1950, this private residence has a concrete block structural system that rests on a continuous concrete block foundation. The side-gabled roof is surfaced with 5-V crimp metal sheets, and drop siding is featured in the gable ends. A non-historic shed-roofed carport is attached to the south elevation. The roof is clad with 5-V metal and supported by concrete block posts. Fenestration consists of metal casement windows with four lights apiece. Ornamentation is limited to rafter tails and concrete sills. A non-historic shed is located to the south of the building.

This Modern-era building's original design is intact, and the building remains in fair condition. However, this building has represents a common design found throughout Florida. Also, no known historical associations with important persons or events were uncovered in connection with this building. Subsequently, this resource is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.13 8PA1300: 21220 C.R. 578

FIGURE 9-27
8PA1300 21220 C.R. 578, FACING SOUTHWEST

This one-story Masonry Vernacular building is located on the south side of C.R. 578, between Rosephil Street and Dvorak Drive, in Township 24 South, Range 18 East, Section 1 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Pasco County, Florida (Figure 9-27). Built circa 1950, this former private residence is presently used as a garage and storage facility. The rectangular building has a concrete block structural system that rests on a continuous concrete block foundation. The side-gabled roof is covered with 5-V crimp metal sheets, and the concrete block exterior has been painted. The front entrance and a garage opening are located on the east elevation. A small shed-roofed extension covers the front entrance. On the southwest corner of the west elevation is an integral porch with a single square wood post support. Large metal doors on this elevation open onto this porch. Fenestration consists of metal casement windows with three lights apiece. Ornamentation is limited to rafter tails, concrete sills, and wood siding in the gable ends. There is a wood and concrete block shed-roofed addition on the south elevation. Located to the south are two historic gabled wood-frame open sheds in poor condition.

This Modern-era building is located on a parcel of property with a non-historic house to the northeast. A shed-roofed addition has been appended to the south elevation and a garage opening has been added to the east elevation. This building represents a common design found throughout Florida and remains in fair condition. No known historical associations with important persons or events have been established in connection with this building. Due to the lack of significance, this building is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.14 8HE416: 18952 U.S. 41

FIGURE 9-28
SITE 8HE416 18952 U.S. 41, FACING NORTHEAST

This one-story Frame Vernacular private residence is located on the northeast corner of U.S. 41 and an unmarked dirt road in Township 23 South, Range 18 East, Section 36 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida (Figure 9-28). Built circa 1949, the original rectangular portion of the building has a wood frame structural system that rests on a continuous concrete block foundation. The hipped roof is surfaced with composition shingles, and the exterior is clad in asbestos shingles. A brick chimney is located on the roof's southern interior ridge. Two separate hipped roof concrete block additions have been appended to the original house. One is located on the south elevation and the other on the west elevation; both have separate entrances topped with metal awnings. Fenestration consists of wood double-hung sash windows with one-over-one light configurations, metal jalousie windows, and metal casement windows with four lights apiece. Ornamentation is limited to concrete sills. There is a historic garage to the east of the main house. It has a hipped roof covered with 5-V crimp metal sheets, concrete block structural system, garage opening on the north elevation with a wood door, and metal casement windows with four lights apiece and concrete sills.

This World War II and Aftermath-era private residence is surrounded by dense vegetation. It has two non-historic concrete block additions attached to its original wood frame structural system. In addition, some windows have been replaced with metal jalousie types. It exhibits a common design and remains in fair condition. The building lacks historical associations with important persons or events. Therefore, this building is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.15 8HE417: HISTORIC OUTBUILDING ON HVIEZDOSLAV STREET

FIGURE 9-29
SITE 8HE417 HISTORIC OUTBUILDING ON HVIEZDOSLAV STREET, FACING NORTHEAST

Built circa 1949, this one-story Masonry Vernacular building is located on the northwest corner of Hviezdoslav Street and Garfield Avenue in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida (Figure 9-29). This rectangular shed has a concrete block structural system that rests on a continuous concrete block foundation. The side-gabled roof is surfaced with 5-V crimp metal sheets, and the exterior concrete blocks have been painted. A concrete block shed-roofed addition has been attached to the south elevation. Windows consist of metal casements with three lights apiece. Ornamentation is limited to rafter tails, concrete windowsills, and asphalt shingles in the gable ends.

The original house associated with this late-1940s building no longer remains. There is a non-historic trailer located to the southeast of this historic outbuilding. This building is presently in a deteriorated condition and exhibits a common design. The loss of integrity, common design, lack of historical associations, and loss of the associated main building diminish this resource's significance. Subsequently, this building is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

9.2.16 8HE384: 1219 U.S. 41

FIGURE 9-30
SITE 8HE384 1219 U.S. 41, FACING NORTHWEST

This previously recorded one-story Frame Vernacular vacant residence is located on the west side of U.S. 41, between Ayers Road and Hviezdoslav Street, in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida (Figure 9-30). Built circa 1935, this rectangular building features a wood frame structural system that rests on a continuous concrete block foundation. The cross-gabled roof is surfaced with 5-V crimp metal sheets, and the exterior is clad with asbestos shingles. A brick chimney is located on the western interior slope. The original wood front door is still evident on the east elevation's central projecting bay. The house is obscured by dense vegetation. There is a shed-roofed portion along the entire width of the rear elevation, which rests on concrete block piers. Fenestration consists of wood-frame double-hung sash windows with one-over-one light configurations or fixed wood windows with two lights apiece. Ornamentation is limited to wood window surrounds, wood attic vents, and exposed rafter tails. There are two historic wood frame sheds located to the northwest and southwest of this house.

Built during the Depression era, this vacant residence has been enveloped by the surrounding vegetation. This residence was previously recorded in 1994 and remains in the same condition. It is largely unaltered; however, it remains in fair condition and shows signs of deterioration. In addition, this resource exhibits a common design and lacks any known historical associations with important persons or events. Consequently, this building is considered ineligible for listing in the **NRHP**, on an individual basis or as part of a district.

Section 10.0
CONCLUSIONS

This CRAS of C.R. 578 in Hernando and Pasco counties was conducted as part of the improvement project's PD&E Study. The CRAS is intended to comply with the *National Environmental Policy Act (NEPA)*; Section 106 of the *National Historic Preservation Act of 1966* (as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*); and Chapter 267, *Florida Statutes*. This project complies with Part 2, Chapter 12 (*Archaeological and Historic Resources*) of the FDOT *Project Development and Environment Manual* (January 1999). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716). The objective of this survey was to assess all cultural resources in terms of their eligibility for listing in the **NRHP** according to the criteria set forth in 36 CFR Section 60.4.

A total of 13 archaeological sites were identified within the project area. Eleven of the 13 archaeological sites are newly identified (8PA1301, 8PA1302, 8HE419, 8HE420, 8HE421, 8HE422, 8HE423, 8HE425, 8HE426, 8HE428, and 8HE429); two previously recorded sites (8PA185 and 8HE284) were revisited during testing. A Florida Master Site File (FMSF) form for each site is provided in Appendix B. Based on preliminary analysis, 10 sites are considered ineligible for listing in the **NRHP**. Nine sites (8PA1301, 8PA1302, 8HE419-8HE423, 8HE425, and 8HE428) are short-term campsites of small, limited lithic scatters associated with resource procurement. Site 8HE429 is a cistern or drainage pond most likely dating from the turn-of-the-century. Although site 8HE429 provides useful information of historic studies of this area, no other artifacts were recovered from shovel testing within the project impact area, which indicates that the potential for recovering further important information is low. These sites are not considered locally or regionally significant and, therefore, are considered not eligible for listing in the **NRHP**. No further work is recommended at these sites.

Additional testing was conducted on three archaeological sites (8PA185, 8HE426, and 8HE284) to determine their eligibility for listing in the **NRHP**. Two of these sites, 8HE426 and 8HE284, are situated within the proposed Ayers Road Extension, which extends from the C.R. 578/Suncoast Parkway interchange to the vicinity of U.S. 41 and Ayers Road. The third site, 8PA185, is situated within the main C.R. 578 project corridor. Further testing of 8PA185 (Volkswagon Sinkhole) revealed that the Archaic component of the site had been mostly redeposited and has a relatively sparse artifact assemblage. Additionally, the Weeden Island component represents a short-term inland campsite, a common site type for this region. For the above reasons, site 8PA185 is considered not eligible for listing in the **NRHP**.

Further testing conducted on site 8HE426 (Alexsuk) revealed that the site represents multiple periods of occupation that were most likely seasonal in duration, indicating patterned use of the area in the Paleoindian, Middle-to-Late Archaic, and Formative periods. This site potentially contains data pertinent to research questions regarding the development of sedentism among pre-Columbian peoples in this region. Therefore, this site is considered potentially eligible for listing in the **NRHP** under Criterion D.

Additional testing of site 8HE284 (Enville) demonstrated that most or all of the historic cultural deposits have been disturbed by modern activities. Although the town of Enville has some historical significance, the relatively sparse artifact assemblage, lack of subsurface features, and documented modern disturbance indicates that the potential for recovering additional important information is low. Therefore, site 8HE284 is considered not eligible for listing in the **NRHP**. However, since the Enville Cemetery has not been securely located, it is recommended that archaeological monitoring of construction activities be conducted within the Enville (8HE284) site boundaries along the easternmost Ayers Road Extension alternative to ensure that the cemetery is not disturbed.

The historic resources survey conducted for the project resulted in the identification of 15 historic resources located in Hernando and Pasco counties. Fourteen resources were newly identified during this survey (8HE408-8HE417; 8PA1297-8PA1300), and one resource (8HE384) was recorded during previous survey work. Of the 15 resources, none are considered eligible for listing in the **NRHP**, based on their common designs and building types, compromised historic integrity, and lack of important historical associations. The FMSF forms for each resource identified during the CRAS are provided in Appendix B.

One previously recorded historic resource was identified during a search of the FMSF. The historic resource, 14459 County Line Road (8HE378), was documented in 1995 as part of the Suncoast Expressway Re-evaluation conducted by Archaeological Consultants, Inc. While performing the CRAS for C.R. 578, it was determined that 14459 County Line Road (8HE378) was demolished sometime between 1995 and the present time, and is no longer extant.

Testing of the proposed Ayers Road Extension Minimization Alternative identified new portions of sites 8HE426 and 8HE284 as well as four newly recorded historic resources (8HE454-8HE456 and 8HE458). The relatively low density of this new portion of site 8HE426 indicates that the Minimization Alternative will cause the least impact to this site, which remains potentially eligible for inclusion in the **NRHP**. Site 8HE284 is highly disturbed and is not eligible for inclusion in the **NRHP**. Finally, the four newly recorded historic resources (8HE454-8HE456 and 8HE458) are considered not eligible for inclusion in the **NRHP** due to their common designs and building types, compromised historic integrity, and lack of important historical associations. The results of this survey are provided in more detail in Appendix A.

Section 11.0
REFERENCES CITED

Almy, Marion

1976 A Survey and Assessment of Known Archaeological Sites in Sarasota County, Florida. Master's thesis, Department of Anthropology, University of South Florida, Tampa.

1978 The Archaeological Potential of Soil Survey Reports. *The Florida Anthropologist* 31(3):75-91.

1982 Archaeological Excavations at the Cypress Creek Site (8HI471): An Inland, Short-term, Multi-Period Aboriginal Occupation in Northern Hillsborough County, Florida. *Interstate I-75 Highway Phase II Archaeological Reports*, No. 4. Florida Department of State, Division of Historical Resources, Tallahassee.

Almy, Marion M., Elizabeth A. Horvath and Joan Deming

1984 A Cultural Resources Survey of the U.S. Home Corporation Property (Northwood DRI) in Pasco County, Florida. Manuscript on file Archaeological Consultants, Inc., Sarasota.

Archaeological Consultants, Inc. (ACI)

1984 Cultural Resources Survey of the Seven Hills (DRI) Tract in Hernando County, Florida. Copies available from the Florida Division of Historic Resources, Tallahassee.

Austin, Robert J. and Dana Ste. Claire

1982 The Deltona Project: Pre-contact Technology in the Hillsborough River Basin. *University of South Florida, Department of Anthropology Archaeological Report* No. 12. Tampa.

Bagdade, Susan and Al Bagdade

1987 *Warman's English & Continental Pottery & Porcelain, 2nd Edition*. Krause Publications, Iola, Wisconsin.

Ballo, George R.

1985 Experiments in Use-wear Formation on Stone Tools Made From Florida Cherts: A Study Supporting a Microwear Analysis of Paleo-Indian Lithic Artifacts From the Harney Flats Site, Tampa, Florida. Unpublished Master's thesis, Department of Anthropology, University of South Florida, Tampa.

Bense, Judith A.

1989 Pensacola Archaeological Survey and Summary of Archaeology in the Pensacola Area of West Florida to 1988. *The Pensacola Archaeological Society Publications*, Pensacola.

Beriault, J., R. S. Carr, J. Stipp, R. Johnson, and J. Meeder

1981 The Archaeological Salvage of the Bay West Site, Collier County, Florida. *The Florida Anthropologist* 34:39-58.

Binford, L. R.
1978 Dimensional Analysis of Behavior and Site Structure: Learning from an Eskimo Hunting Stand. *American Antiquity* 43(3): 330-361.
1979 Organization and Formation Processes: Looking at Curated Technologies. *Journal of Anthropological Research* 35(3): 255-273.
1982 The Archaeology of Place. *Journal of Anthropological Archaeology* 1(1): 5-31.

Bond, Stanley C.
1987 The Development of the Naval Stores Industry in St. John's County, Florida. *The Florida Anthropologist* (3) 40:187-202.

Bradbury, Alford G and E. Story Hallock
1962 *A Chronology of Florida Post Offices: Handbook No. 2.* The Florida Federation of Stamp Clubs. Vero Beach, Florida.

Bullen, Ripley P.
1958 The Bolen Bluff Site on Payne's Prairie. Florida State Museum, Gainesville.
1958 Six Sites near the Chattahoochee River in the Jim Woodruff Reservoir Area, Florida. *Bureau of American Ethnology Bulletin* 169: 315-376.
1959 The Transitional Period of Florida. *Southeastern Archaeological Conference Newsletter* 6:43-53.
1971 The Safety Harbor Period: A brief Statement. *Southeastern Archaeological Conference Newsletter* 10:50-51.
1972 The Orange Period of Peninsular Florida. In *Fiber-tempered Pottery in Southeastern United States and Northern Colombia: Its Origins, Context, and Significance*, edited by Ripley P. Bullen and James B. Stoltman, pp. 9-33. *Florida Anthropological Society Publications* 6. Gainesville.
1975 *A Guide to the Identification of Florida Projectile Points*. Kendall Books, Gainesville, Florida.
1978 Tocobaga Indians and the Safety Harbor Culture. In *Tacachale: Essays on the Indians of Florida and Southeastern Georgia During the Historic Period*, pp. 50-58.

Bullen, Ripley P., Walter Askew, Lee M. Feder, and Richard McDonnell
1978 The Canton Street Site, St. Petersburg, Florida. *Florida Anthropological Society Publications* 9. Gainesville.

Bullen, Ripley P. and Lawrence E. Beilman
1973 The Nalcrest Site, Lake Weohyakapka, Florida. *The Florida Anthropologist* 26:1-22.

Bullen, Ripley P., and Edward M. Dolan
1959 The Johnson Lake Site, Marion County, Florida. *The Florida Anthropologist* 12:77-99.

Bullen, Ripley P., William L. Partridge, and Donald A. Harris
1970 The Stafford Burial Mound, Tarpon Springs, Florida. *The Florida Anthropologist* 23:81-118.

Campbell, A. Stuart
1934 *The Naval Stores Industry*, assisted by Robert C. Unkrich and Albert C. Blanchard. Bureau of Economic and Business Research Economic Series, Vol. 1, No. 5. University of Florida, Gainesville.

Carbone, V. A.
1983 Late Quaternary Environments in Florida and the Southeast. *The Florida Anthropologist* 26(1-2):3-17.

Chance, Marsha A.
1981 Wetherington Island: An Archaic Lithic Procurement Site in Hillsborough County. *The Florida Anthropologist* 34:109-119.
1982 Phase II Investigations at Wetherington Island: A Lithic Procurement Site in Hillsborough County, Florida. *Interstate 75 Highway Phase II Archaeological Reports* Number 3, Florida Division of Historical Research, Tallahassee.
1983 Climatic Influences on Maintenance Site Assemblages in the South Florida Archaic. Paper presented at the 35th Annual Meeting of the Florida Anthropological Society, Tallahassee.

Christenson, A. L.
1980 Change in the Human Food Niche in Response to Population Growth. In *Modeling Change in Prehistoric Subsistence Economies*, edited by T. K. Earle and A. L. Christenson, pp. 31-72. Academic Press, New York.

Clausen, C. J.
1964 The A-356 Site and the Florida Archaic. Department of Anthropology, University of Florida. Gainesville.

Clausen, Carl J., H. K. Brooks, and A. B. Wesolowsky
1975 Florida Spring Confirmed as 10,000-Year-Old Early Man Site. *Florida Anthropological Society Publications* 7:1-38. Gainesville.

Clausen, C. J., A. D. Cohen, C. Emiliani, J. A. Jolman, and J. J. Stipp
1979 Little Salt Spring, Florida: A Unique Underwater Site. *Science* 203:609-614.

Cockrell, W. A. and Larry Murphy
1978 Pleistocene Man in Florida. *Archaeology of Eastern North America* Vol. 6. Eastern States Archaeological Federation, Newark, Delaware.

Covington, James W.
1981 *The Billy Bowlegs War, 1855-1858: The Final Stand of the Seminoles Against the Whites*. Mickler House Publishers, Chuluota, Florida.

Daniel, I. Randolph
1982 Test Excavations at the Deerstand Site (8HI483A) in Hillsborough County, Florida. *Interstate 75 Highway Phase II Archaeological Reports* No. 2. Florida Department of State, Bureau of Archaeological Research, Tallahassee.

1985 A Preliminary Model of Hunter-Gatherer Settlement in Central Florida. *The Florida Anthropologist* 38:261-275.

Daniel, I. Randolph and Michael Wisenbaker
1981 Test Excavations at 8HI450D: An Inland Archaic Occupation in Hillsborough County, Florida. *Interstate 75 Highway Phase II Archaeological Reports* No. 1. Florida Division of Historical Resources, Tallahassee.
1983 A Preliminary Report on the Excavations at Harney Flats, Hillsborough County. *The Florida Anthropologist* 36(1-2):67-80.
1987 *Harney Flats: A Florida Paleo-Indian Site*. Baywood Press, Farmingdale, New York.

Daniel, I. Randolph, Michael Wisenbaker and George R. Ballo
1986 The Organization of a Suwannee Technology: The View from Harney Flats. *The Florida Anthropologist* 39:24-56.

Davis, T. Fredrick
1938 The Disston Land Purchase. *The Florida Historical Quarterly* 17(3):200–210.

de Montmollin, Wanda
1983 Environmental Factors and Prehistoric Site Location in the Tampa Bay Area. Master's thesis on file, Department of Anthropology, University of South Florida, Tampa.

Deming, Joan
1975 *An Archaeological and Historic Survey of Beker Phosphate Corporation Property in Eastern Manatee County*. Florida Division of Archives, History, and Records Management, Bureau of Historic Sites and Properties, Miscellaneous Project Report Series 33, Tallahassee.
1976 An Archaeological Survey of the Beker Phosphate Corporation Property in Manatee County, Florida, with a Research Design for Future Archaeological Surveys in the Manatee Region. Unpublished Master's thesis, Department of Anthropology, University of South Florida, Tampa.
1980 *The Cultural Resources of Hillsborough County: An Assessment of Prehistoric Resources*. Historic Tampa/Hillsborough County Preservation Board, Tampa.

Deming, J. and M. M. Almy
1984 A Cultural Resources Survey of the Seven Hills (DRI) Tract in Hernando County. Copies available from the Florida Department of State, Division of Historical Resources, Tallahassee.

Doran, G. H. and D. N. Dickel
1988a Multidisciplinary Investigations at the Windover Site. In *Wet Site Archaeology*, edited by Barbara A. Purdy. The Telford Press, Caldwell, New Jersey.

Duerling, Richard J., Jr. and Peter L. MacGill
1981 Environmental Geology Series, Tarpon Springs Sheet. *Florida Bureau of Geology Map Series* 99, Tallahassee.

Dunbar, James S.
1982 The Effect of Geohydrology and Natural Resource Availability on Site Utilization at the Fowler Bridge Mastodon Site (8Hi393c/uw) in Hillsborough County, Florida. In Report on Phase II Underwater Archaeological Testing at the Fowler Bridge Mastodon Site (8Hi393c/uw), Hillsborough County, Florida. *Interstate 75 Highway Phase II Archaeological Reports* No. 5. Florida Department of State, Division of Historical Resources, Tallahassee.

Dunbar, James and Ben I. Waller.
1983 A Distribution Analysis of the Clovis/Suwannee Paleo-Indian Sites of Florida—A Geographic Approach. *The Florida Anthropologist* 36(1-2):18-30.

Earle, T. K.
1980 A Model of Subsistence Change. *Modeling Change in Prehistoric Subsistence Economies*, edited by T. K. Earle and A. L. Christenson, pp. 1-29. Academic Press, New York.

Edwards, R. L., and A. S. Merrill
1977 A Reconstruction of the Continental Shelf Areas of Eastern North America for the Times 9,500 BP and 12,500 BP. *Archaeology of Eastern North America* 5:1-43.

Ellis, Gary D.
1977 8-Hi-426: A Late 19th Century Historical Site In the Ybor City Historic District of Tampa, Florida. Unpublished Master's thesis, Department of Anthropology, University of South Florida, Tampa.

Estabrook, Richard W. and Christine Newman
1984 Archaeological Investigations at the Marita and Ranch House Sites, Hillsborough County, Florida. *University of South Florida, Department of Anthropology Archaeological Report* No. 15. Tampa, Florida.

Fairbridge, Rhodes W.
1960 The Changing Level of the Sea. *Scientific American* 202(5):70-79.
1961 Eustatic Changes in Sea Level. In *Physics and Chemistry of the Earth*, Volume 4, edited by L. H. Ahrens et al., pp. 99-185.
1974 The Holocene Sea Level Record of South Florida. In *Environments of South Florida: Present and Past*, edited by P. J. Gleason. Miami Geological Society Memoir 2:223-229.

Florida Department of Environmental Protection (FDEP)
n.d. Tract Book Records. Found on the Board of Trustees Land Document System (BTLDS) Web page at: http://www.labins.org/deP_landdoc.htm.

Florida Department of Transportation (FDOT)
2000 First Draft Preliminary Engineering Report: Florida Department of Transportation – District VII. For the County Line Road (C.R. 578) Project Development and Environment Study From U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45), December. Copy on file at Florida Department of Transportation, District VII Office, Tampa.

Forney, Sandra Jo
1985 The Importance of Sites Related to the Naval Stores Industry in Florida. *The Florida Anthropologist* 38(4):275-280.
1986 Prehistoric Settlement and Subsistence Systems of the Apalachicola National Forest, Florida. *The Florida Anthropologist* 38: 98-103.

Gagel, Katherine
1976 A Prehistoric and Historic Survey of the Bay Pines Veteran's Administration Propoerty, Bay Pines, Pinellas County, Florida. Bureau of Historic Sites and Properties Miscellaneous Project Report Series. Division of Archives, History and Records Management, Tallahassee.

Gates, W. L.
1976 Modeling the Ice Age Climate. *Science* 191:1138-1144.

Goggin, John M.
1947 A Preliminary Definition of Archaeological Areas and Periods in Florida. *American Antiquity* 13: 114-127.

Goodyear, Albert C.
1968 Pinellas Point: A Possible Site of Continuous Indian Habitation. *The Florida Anthropologist* 21(2-3):74-82.
1972 Political and Religious Changes in the Tampa Bay Timucua: An Ethnohistorical Reconstruction. Manuscript on file, Janus Research, St. Petersburg.
1979 A Hypothesis for the Use of Cryptocrystalline Raw Materials Among Paleo-Indian Groups of North America. *Institute of Archaeology and Anthropology, University of South Carolina, Research Manuscript Series,* No. 156.

Goodyear, A. C., S. B. Upchurch, M. J. Brooks and N. N. Goodyear
1983 Paleo-Indian Manifestations in the Tampa Bay Region, Florida. *The Florida Anthropologist* 36:40-66.

Goodyear, Albert C. and Lyman O. Warren
1972 Further Observations on the Submarine Oyster Shell Deposits of Tampa Bay. *The Florida Anthropologist* 25(2, part 1):52-66.

Grange, Roger T., Jr., Mildred Fryman and J. Raymond Williams
1979 A Phase I Study of the Deltona Corporation Property on State Road 581 in Hillsborough County, Florida: Prepared for the Deltona Corporation. Manuscript on file, Florida Department of State, Division of Historical Resources, Tallahassee.

Grange, Roger T., Jr. and J. Raymond Williams
1979 A Cultural Resource Survey of the Brewster Mine Expansion Tract in Southwestern Polk County, Florida. Report prepared by the Department of Anthropology, University of South Florida, Tampa. Copies available from the Florida Department of State, Division of Historical Resources, Tallahassee.

Grange, Roger T., Jr., J. R. Williams and Marion M. Almy
1977 A Cultural Resource Survey of the Forest Lakes Residential Community, Pinellas County, Florida. Manuscript on file, Department of Anthropology, University of South Florida, Tampa.

Gulf Coast Abstract Company (GCAC)
1946 "Abstract of Title to Certain Lands in Hernando County, (the Home of the Tangerine) Florida, N. 4035." Prepared for John Alexsuk. Brooksville, Florida.

Hardin, Kenneth W. and Harry M. Piper
1984 Manasota: Which Way to the Border? Paper presented at the Florida Academy of Sciences, Boca Raton, Florida, March 1984.

Healy, Henry G.
1975 Terraces and Shorelines of Florida. *Florida Bureau of Geology* Map Series No. 71, Tallahassee.

Hemmings, E. Thomas
1975 The Silver Springs Site, Prehistory in the Silver Springs Valley. *The Florida Anthropologist* 28:141-58

Hemmings, E. T. and T. A. Kohler
1974 The Lake Kanapaha Site in North Central Florida. Tallahassee, Bureau of Historic Sites and Properties, Division of Archives, History and Records Management Bulletin**:** 45-64.

Hendley, J. A.
1940 *History of Pasco County*. Privately published, Dade City.

Hernando County Planning Department
1990 Hernando County Comprehensive Plan, amended November 14, 1990 (Ordinance 90-21). Adopted by the Hernando County Board of County Commissioners, Brooksville.

Horvath, Elizabeth A.
1986 Cultural Resource Assessment Survey of Forest Highway 13, Apalachicola National Forest, Northwest Florida. Report on file, Janus Research, St. Petersburg.
2000 Archaeological Investigations at the Colorado Site (8HE241) – A Lithic Workshop in Hernando County, Florida. *The Florida Anthropologist* 53(2-3): 82-97.

Jackson, Virginia
2001 Personal interview with Susan Hochberg Daniel of Janus Research, 26 April 2001.

Jahn, Otto and Ripley P. Bullen
1978 *The Tick Island Site, St. Johns River, Florida*. Florida Anthropological Society Publications No. 10.

Jochim, Michael A.
1976 *Hunter-Gatherer Subsistence and Settlement: A Predictive Model*. Academic Press, New York.

Johnson, J.
1981 Further Additional Biface Reduction Failures. *Lithic Technology* 10:26-28.

Karklins, Karlis
1970 The Fish Creek Site, Hillsborough County, Florida. *The Florida Anthropologist* 23 (2):62–80.

Kohler, T.
1991 The Demise of Weeden Island, and Post-Weeden Island Cultural Stability in Non-Mississippianized Northern Florida. *Stability, Transformation, and Variation: The Late Woodland Southeast.* M. S. Nassaney and C. R. Cobb. New York, Plenum.

Kukla, J.
1969 The Causes of the Holocene Climate Change. *Geologie en Mijnboun* 48(3):307-334.

Lawson, Stephen F., Robert P. Ingalls and Cathy Bayless
1981 Preserving for the Future: A History of the J. B. Starkey Wilderness Park. Manuscript on file, Department of History, University of South Florida, Tampa.

Lazarus, W. C.
1965 Alligator Lake, A Ceramic Horizon on the Northwest Florida Coast. *Florida Anthropologist* 18(2): 83-124.

Long, Robert W.
1974 Origin of the Vascular Flora of South Florida. In *Environments of South Florida: Present and Past*, edited by Patrick J. Gleason, *Memoir* 2: pp. 28-36. Miami Geological Society, Miami.

Luer, George M. and Marion M. Almy
1979 Three Aboriginal Shell Middens on Longboat Key, Florida: Manasota Period Sites of Barrier Island Exploitation. *Florida Anthropologist* 32:33-45.
1980 The Development of Some Aboriginal Pottery of the Central Gulf Coast of Florida. *The Florida Anthropologist* 33:207-225.
1981 Temple Mounds of the Tampa Bay Area. Florida Anthropologist 35:127-155.
1982 A Definition of the Manasota Culture. *The Florida Anthropologist* 35(1):34-58.

Luer, George, Marion Almy, Dana Ste. Claire, and Robert Austin
1987 The Myakkahatchee Site (8SO397), a Large Multi-period Inland from the Shore Site in Sarasota County, Florida. *The Florida Anthropologist* 40(2):137-153.

Mahon, John K.
1967 *History of the Second Seminole War, 1835–1842*. University of Florida Press, Gainesville.

Martin, R. A. and S. D. Webb
1974 Late Pleistocene Mammals From Devil's Den Fauna, Levy County. In *Pleistocene Mammals of Florida*, edited by S. D. Webb. University Presses of Florida, Gainesville.

McAlester, Virginia and Lee
1993 *A Field Guide of American Houses*, Alfred A. Knopf, Inc. New York, New York.

Milanich, Jerald T.
1994 *Archaeology of Precolumbian Florida*. University Press of Florida, Gainesville.
1995 *Florida Indians and the Invasion from Europe*. University Press of Florida, Gainesville.

Milanich, Jerald T., Ann Cordell, Vernon Knight, Jr., Timothy Kohler, and Brenda Sigler-Lavelle
1997 *Archaeology of Northern Florida, AD 200-900: The McKeithen Weeden Island Culture*. University Press of Florida, Gainesville.

Milanich, Jerald T. and Charles H. Fairbanks
1980 *Florida Archaeology*. Academic Press, New York.

Mitchem, Jeffrey M.
1988 Rethinking the Safety Harbor Culture: A Preliminary Phase Definition. Paper presented at the 40th annual meeting of the Florida Anthropological Society, Winter Park, Florida.

Mitchem, Jeffery M., Marvin T. Smith and Robert Allen
1983 Analysis of the Artifacts from the Weeki Wachee Burial Mound, Hernando County, Florida. Paper presented at the 46th Southeastern Archaeological Conference, Columbia.

Mitchem, Jeffery and Brent Weissman
1984 Excavations at the Ruth Smtih Mound (8CI200). *The Florida Anthropologist* 37:100-112.

Mörner, N. A.
1969 The Late Quaternary History of Kattegat Sea and Swedish West Coast: Deglaciation, Shoreline Displacement Chronology, Isostasy, and Eustacy. *Sveriges Geologiska Undersoknin* 640.

Neill, Wilfred T.
1958 A Stratified Early Site at Silver Springs, Florida. *Florida Anthropologist* 11:33-48.
1964 Trilisa Pond, an Early Site in Marion County, Florida. *Florida Anthropologist* 17:187-200.
1968 An Indian and Spanish Site on Tampa Bay, Florida. *The Florida Anthropologist* 21:106-116.

Newman, T. S.

1970 A Dating Key for Post-18th Century Bottles. *Historical Archaeology* 4:72-75.

Newsom, Lee Ann and Barbara A. Purdy

1983 Prehistoric Uses of Wood at Hontoon Island, Florida. Paper presented at the 40th Southeastern Archaeological Conference Annual Meeting, Columbia, South Carolina.

Noel Hume, Ivor

1969 *Historical Archaeology*. Knopf Books, New York.

Norman, Jennene and Dr. Roger R. Landers

2000 "Farming, Turpentine, Lumber and Oranges Thrive in Hernando." In *A Millennial History of Hernando County*, pp. 89-91. Hernando Today, Hernando County, Florida.

Padgett, Thomas J.

1974 An Archaeological and Historical Survey of the W.R. Grace Property in Hillsborough and Manatee counties, Florida, Bureau of Historic Sites and Properties.

1976 Hinterland Exploitation in the Central Gulf Coast-Manatee Region During the Safety Harbor Period. *The Florida Anthropologist* 29:39-48.

Piper, Harry M., Joan G. Deming, Marion M. Almy, Kenneth W. Hardin, Jacquelyn G. Piper and Mark M. Thomsen

1982 Archaeological and Historical Survey of the Proposed W. C. MacInnes Station Site and Transmission Line Corridors in Hillsborough and Manatee Counties, Florida. Manuscript on file, Janus Research, St. Petersburg, and Archaeological Consultants, Inc., Sarasota, and Tampa Electric Company, Tampa.

Piper, Harry M., Joan Deming and Jacquelyn G. Piper

1981 Archaeological Survey in the Corridor of the Tampa South Crosstown Expressway, Eastern Extension: Morgan Street to Nebraska Avenue, Hillsborough County, Florida. Manuscript on file, Tampa-Hillsborough County Expressway Authority, Tampa, and Janus Research, St. Petersburg.

Piper, Harry M. and Jacquelyn G. Piper

1981 Archaeological Testing and Evaluation of Seven Sites Located on AMAX Properties, Manatee and DeSoto Counties, Florida. Manuscript on file, Janus Research, St. Petersburg.

Platt, W. J. and M. W. Schwartz

1990 Evaluating pyrogenicity and Its Effects on the Longleaf Pine Savannas. *Proc. Tall Timbers Fire Eco. Conference*.

Polk, R. L.

1907 *Florida Gazetteer and Business Directory 1907-1908*. R. L. Polk & Co., Jacksonville, Florida.

Puffer, Cynthia
1981 Description of the Natural Environment. In Test Excavations at Curiosity Creek: An Inland, Short-term, Multi-period, Aboriginal Occupation in Southern Hillsborough County, Florida. *Interstate 75 Highway Phase II Archaeological Report* Number 1, Bureau of Historic Sites and Properties, Division of Archives, History and Records Management, Tallahassee.

Purdy, Barbara A.
1971 Investigation Concerning the Thermal Alteration of Silica Minerals: An Archaeological Approach. Ph.D. dissertation, University of Florida, Gainesville.
1975 The Senator Edwards Chipped Stone Workshop Site (MR-122), Marion County, Florida: A Preliminary Report of Investigations. *Florida Anthropologist* 28:178-189.
1981 *Florida's Prehistoric Stone Tool Technology*. University of Florida Press, Gainesville.
1991 *The Art and Archaeology of Florida's Wetlands*. CRC Press, Boca Raton.

Rifkind, Carole
1980 *A Field Guide to American Architecture*. New American Library, New York.

Roach, C. E.
2000 Personal Communication with Janus Research.

Ruppe, Reynold J.
1980 The Archaeology of Drowned Terrestrial Sites: A Preliminary Report. *Florida Bureau of Historic Sites and Properties Bulletin* 6:35-45. Florida Division of Archives, History and Records Management, Tallahassee.

Ste. Claire, Dana
1987 The Development of Thermal Alteration Technologies in Florida: Implications for the Study of Pre-Columbian Adaptation. *Florida Anthropologist* 40:203-208.

Ste. Claire, Dana, Robert J. Austin, Janice R. Ballo, and Jacquelyn G. Piper
1985 Cultural Resource Assessment Survey of the Proposed Saddlebrook Village Development Site, Pasco County, Florida. Copies available from the Florida Division of Historical Resources, Tallahassee.

Ste. Claire, Dana and Janice R. Ballo
1984 Cultural Resource Assessment Survey of the Major Realty Corporation Development Site, Tampa, Florida. Manuscript on file at the Florida Division of Historical Resources, Tallahassee.

Scholl, D. W., F. C. Craighead, Sr. and M. Stuiver
1969 Florida Submergence Curve Revised: Its Relation to Coastal Sedimentation Rate. *Science* 163:562-564.

Sinclair, W. C.
1973 Hydrologic Characteristics of the Surficial Aquifer in Northwest Hillsborough County, Florida. *Information Circular* No. 86, Florida Bureau of Geology, Tallahassee.

Smith, Bruce
1975 Middle Mississippi Exploitation of Animal Populations. Museum of Anthropology, University of Michigan, *Anthropological Papers* No. 57.

Stanaback, Richard J.
1976 *A History of Hernando County 1840-1976*. Bicentennial Committee, Brooksville, Florida.

Stirling, Matthew W.
1930 Prehistoric Mounds in the Vicinity of Tampa Bay, Florida. *Explorations and Field Work of the Smithsonian Institution in 1929*, pp. 183-186. Washington, D.C.

Tebeau, Charlton W.
1971 *A History of Florida*. University of Miami Press, Miami.

Tischendorf, A. P.
1954 Florida and the British Investor: 1880–1914. *Florida Historical Quarterly* 3(2):120–129.

United States Bureau of the Census
1850 *The 1850 Federal Population Census*. Washington, D.C.
1885 *Florida State Census of 1885*. Washington, D.C.
1905 *Florida State Census of 1905*. Washington, D.C.

United States Department of Agriculture (USDA)
1982 *Soil Survey of Pasco County*. USDA /Soil Conservation Service.

Upchurch, Sam B., Richard N. Strom, and Mark G. Nuckels
1982 Methods of Provenance Determination of Florida Cherts. Manuscript on file, Geology Department, University of South Florida, Tampa.

Waller, Ben I.
1969 Paleo-Indian and Other Artifacts from a Florida Stream Bed. *The Florida Anthropologist* 22:37-39.
1970 Some Occurrences of Paleo-Indian Projectile Points in Florida Waters. *The Florida Anthropologist* 23:129-134.

Waller, Benjamin I. and James Dunbar
1977 Distribution of Paleo-Indian Projectiles in Florida. *The Florida Anthropologist* 30:79-80.

Warren, Lyman O.
1966 A Possible Paleo-Indian Site in Pinellas County, Florida. *The Florida Anthropologist* 19:39-41.

1967 Two Dredged Sites on Bear Creek. *The Florida Anthropologist* 20:170–174.
1968 The Apollo Beach Site, Hillsborough County, Florida. *The Florida Anthropologist* 21:83-88.
1970 The Kellog Fill from Boca Ciega Bay, Pinellas County, Florida. *The Florida Anthropologist* 23:163-167.

Watts, William A.
1969 A Pollen Diagram from Mud Lake, Marion County, North-central Florida. *Geological Society of America, Bulletin* 80:631-642.
1971 Post-Glacial and Interglacial Vegetation History of Southern Georgia and Central Florida. *Ecology* 52:676-689.
1975 A Late Quaternary Record of Vegetation from Lake Anne, South-Central Florida. *Geology* 3:344-346.
1980 Late Quaternary Vegetation History at White Pond on the Inner Coastal Plain of South Carolina. *Quaternary Research* 13:187-199.

Watts, William A. and Barbara C. S. Hansen
1988 Environments of Florida in the Late Wisconsin and Holocene. In *Wet Site Archaeology*, edited by Barbara A. Purdy, pg. 307-323. The Telford Press, Caldwell, New Jersey.

Watts, W. A., and M. Stuiver
1980 Late Wisconsin Climate of Northern Florida and the Origin of Species Rich Deciduous Forest. *Science* 210:325-327.

Wharton, Barry R.
1977 Salvage Investigations at the Orchard Fenceline Site, 8Hr11, Hardee County, Florida. University of South Florida, Department of Anthropology, *Archaeological Report* No. 5, Tampa.
1984 Archaeological Resources of the Upper Hillsborough Flood Detention Area, Pasco and Polk Counties, Florida. Manuscript on file, Southwest Florida Water Management District, Brooksville.

Wharton, Barry R., George R. Ballo and Mitchell E. Hope
1981 The Republic Groves Site, Hardee County, Florida. *The Florida Anthropologist* 34:59-80.

Wharton, Barry R. and J. Raymond Williams
1980 An Archaeological and Historical Survey of an Extension Tract of the Hardee Phosphate Complex. Manuscript on file, Department of Anthropology, University of South Florida, Tampa.

White, William A.
1970 The Geomorphology of the Florida Peninsula. *Geological Bulletin* No. 51, Bureau of Geology, State of Florida Department of Natural Resources.

Whitehead, P. R.
1965 Palynology and Pleistocene Phytogeography of Unglaciated Eastern North America. In *The Quaternary of the United States*, edited by H. E. Wright, Jr. and D. G. Frey, pp. 417-432.
1973 Late Wisconsin Vegetational Changes in Unglaciated Eastern North America. *Quaternary Research* 3:621-631.

Whittaker, John C.
1994 *Flintknapping: Making and Understanding Stone Tools*. University of Texas Press, Austin.

Willey, Gordon R.
1949 *Archaeology of the Florida Gulf Coast*. Smithsonian Miscellaneous Collections 113. Smithsonian Institution, Washington, D.C.

Wood, Lewis N., Jr.
1976 An Archaeological and Historical Survey of the CF Industries, Inc. property in Northwestern Hardee County, Florida. Copies Available from the Florida Department of State Division of Historical Resources, Tallahassee.

Wright, H. E., Jr.
1971 Late Quaternary Vegetational History of North America. In *The Late Cenozoic Glacial Ages*, edited by K. K. Turekian. Yale University Press, New Haven.
1981 Vegetation East of the Rocky Mountains 18,000 Years Ago. *Quaternary Research* 15(2):113-125.

APPENDIX A

CRAS OF THE AYERS ROAD EXTENSION MINIMIZATION ALTERNATIVE

Memo

To: Ron Pscion, **URS Corporation**
From: John Whitaker, Project Archaeologist
CC: Amy Streelman, Preservation Planner, **Janus Research**
Rebecca Spain Schwarz, **PBS&J**
Rick Adair, **FDOT District 7**
Mike Seiffert, **FDOT District 7**
Date: 1/3/02
Re: Cultural Resource Assessment Survey of the Ayers Road Extension Minimization Alternative for the County Line Road (C.R. 578) PD&E Study

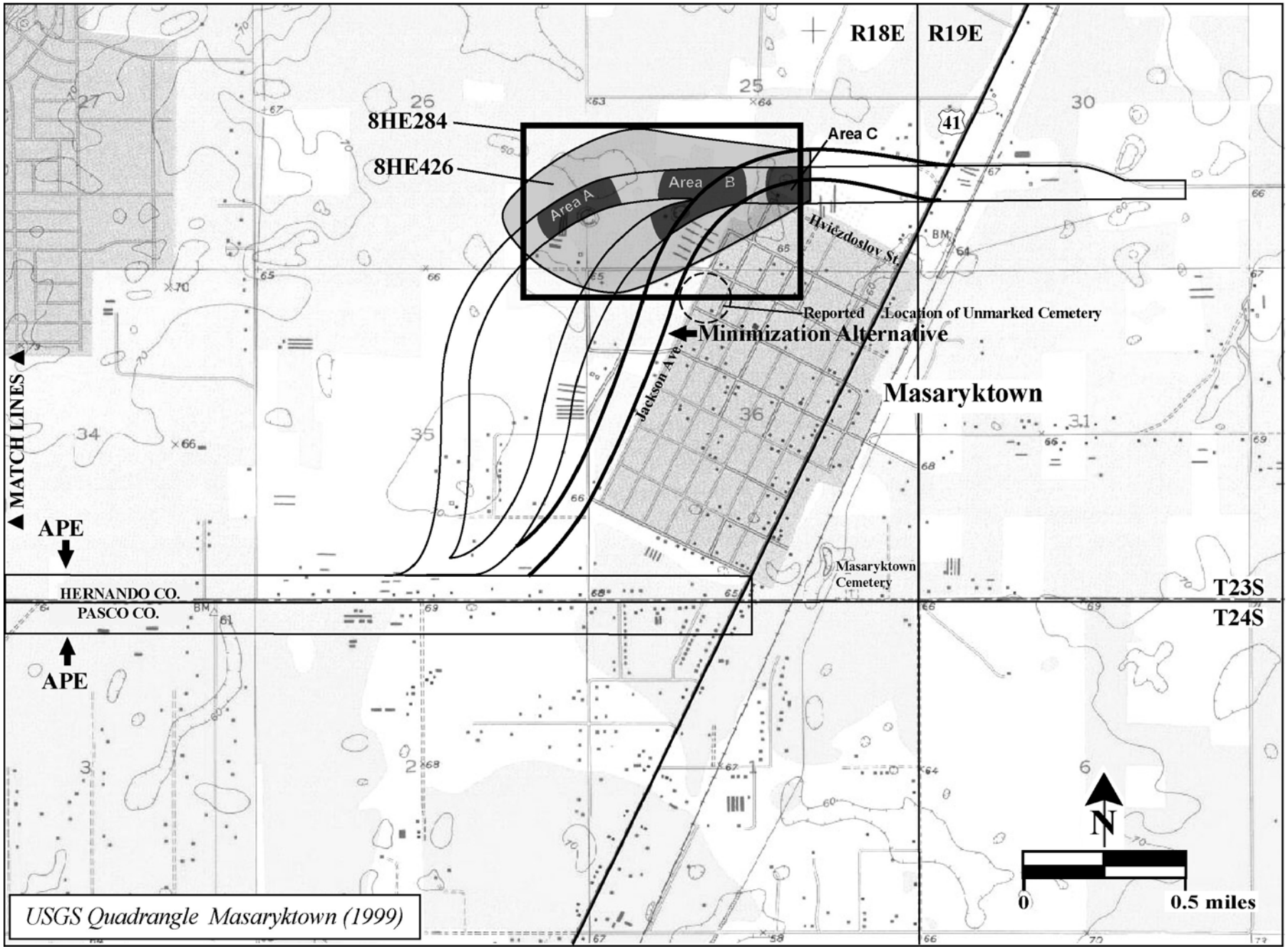
---

The cultural resource assessment survey (CRAS) of the Ayers Road Extension Minimization Alternative for the County Line Road (C.R. 578) PD&E Study was conducted in cooperation with the Florida Department of Transportation (FDOT), District Seven. The purpose of this survey was to identify and assess any cultural resources occurring within the proposed project Area of Potential Effects (APE) and assess them in terms of their eligibility for inclusion in the *National Register of Historic Places (NRHP)*. This assessment was designed and implemented to comply with the *National Environmental Policy Act (NEPA)*; Section 106 of the *National Historic Preservation Act of 1966* (as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*); and Chapter 267 of the *Florida Statutes*. This project complies with Part 2, Chapter 12 (*Archaeological and Historic Resources*) of the FDOT *Project Development and Environment Manual* (January 1999 revision). All work also conforms to professional guidelines set forth in the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716) and the minimum field methods, data analysis, and reporting standards embodied in the Florida Division of Historical Resources (FDHR) *Historic Compliance Review Program* (November 1990, final draft).

The proposed Minimization Alternative for the Ayers Road Extension is located east of the previously proposed routes. This new route extends from C.R. 578 northeast, paralleling Jackson Avenue, and turning east just north of Hviezdoslav Street to re-connect with the main Ayers Road Extension alignment (Figure 1). The project corridor runs through portions of Sections 25, 26, 35, and 36 of Township 23 South, Range 18 East on the Mazaryktown United States Geological Survey (USGS) Quadrangle (1999). The project APE for historic resources is the area included within 500 ft to either side of the centerline for the new proposed Minimization Alternative. The Alexsuk property was surveyed for historic resources as well.

Previous archaeological work on alternative routes for the Ayers Road Extension indicated that the Minimization Alternative would likely pass through two archaeological sites, 8HE426 (Alexsuk) and 8HE284 (Enville) (Janus Research 2001a, 2001b). More specifically, previous research indicates that the Minimization Alternative would bypass Area A, pass just to the east and south of Area B, and pass directly through Area C of the Alexsuk site. Additionally, historical

Figure 1: New Project Corridor for the Ayers Road Extension Minimization Alternative



research indicated that this proposed alternative would pass near the reported location of an unmarked cemetery associated with the town of Enville.

During the present survey, portions of two previously recorded archaeological sites (8HE426 and 8HE284) were identified. Sites 8HE426 and 8HE284 were initially recorded during the CRAS of C.R. 578 bordering Pasco and Hernando counties (Janus Research 2001a). Site 8HE426 was described as a large, multi-component habitation area. Three separate areas of artifact concentration, labeled Areas A, B, and C, were identified. Based on additional testing of site 8HE426, it is considered regionally significant as it represents multiple periods of occupation, although probably seasonal in duration, indicating patterned use of the area in the Paleoindian (12,000-7500 BC), Middle-to-Late Archaic (5000-500 BC), and Formative-to-Mississippian (500 BC – AD 1513) periods (Janus Research 2001b). Due to its potential for addressing regionally important research questions, site 8HE426 is considered potentially eligible for inclusion in the *NRHP*.

Site 8HE284 was described as a historic town site dating to the late nineteenth and early twentieth centuries (Janus Research 2001a). Additional testing of this site refined the site boundaries and demonstrated that most or all of the cultural deposits associated with the Enville site have been disturbed by modern activities. Although the town of Enville had some significance historically, the relatively sparse artifact assemblage recovered, the lack of subsurface features, and the documented modern disturbance to the site indicates that the potential for recovering additional important data is low (Janus Research 2001b). Therefore, site 8HE284 is considered ineligible for inclusion in the *NRHP*. However, historical research indicated that the Enville Cemetery was located near one of the previously proposed Ayers Road Extension alignments. Although the cemetery had not been securely located, historical documents indicate that it may be situated near the proposed Minimization Alternative.

Historic Resources Survey Methods

An architectural historian and at least one technical assistant conducted a historic resources survey in order to ensure that each resource built prior to 1952 and located within or directly adjacent to the project area was identified, properly mapped, and photographed. The historic resources survey used standard field methods to identify and record historic resources. All resources within the APE received a preliminary visual reconnaissance. Any resource with features indicative of 1950s or earlier construction materials, building methods, or architectural styles was noted on aerial photographs and a USGS Quadrangle map.

For each resource identified in the preliminary assessment, Florida Master Site File (FMSF) forms were filled out with field data, including notes from site observations. Site sketches of the resources were also made. The estimated date of construction, distinctive features, and architectural style were noted. The information contained on any FMSF Historical Structure form completed for this project was recorded in a database at the office. Photographs were taken with a 35-mm camera using a 50-mm or 28-mm lens and 100 ASA black-and-white film and a digital camera. A log was kept to record the resource's physical location and compass direction of each photograph.

Each resource's individual significance was then evaluated for its potential eligibility for inclusion in the *NRHP*. Historic physical integrity was determined from site observations, field data, and photographic documentation. Informant interviews with individuals knowledgeable about local history were conducted, and local information was consulted to assist in the research for known significant historical associations.

Concentrations of historic resources within the project APE were examined in terms of assessing the potential for historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for accurate assessment of *NRHP* Historic District eligibility. Additionally, historic research was conducted in order to evaluate the area's historic and architectural significance.

Archaeological Survey Methods

The field methods included both surface and subsurface testing techniques. A total of 90 shovel tests were excavated during the present survey. The northern portion of the project area was divided into moderate and high site potential, and the southern portion was determined to have moderate and low site potential. Shovel tests were placed at 25-meter (82-foot) intervals within the high site probability zones and at 50-meter (164-foot) intervals within the medium site probability zones. The remainder of the project area was determined to have low site potential and was therefore tested at 100-meter (330-foot) intervals. Positive shovel tests representing site edges were bounded at 12.5-meter intervals within the project APE. Areas not tested were subjected to a pedestrian survey to perform a visual inspection of exposed ground and to look for evidence of mounds, middens, or other structural evidence of human occupation.

Shovel tests were 0.5 m (20 in) in diameter and were dug to a minimum depth, subsurface conditions permitting, of 1 m (3.3 feet). All excavated soils were sifted through 6.4-mm (0.25-in) metal hardware cloth screen suspended from portable wooden frames. Recovered cultural materials were stored in plastic bags with provenience data recorded. Field notes were recorded for each test performed, and the locations of all tests were clearly marked on aerial photographs of the project area at a scale of 1"=200'.

Laboratory Methods

All artifacts recovered during the survey were processed at the laboratory facilities at Janus Research. Necessary laboratory procedures and analyses were employed to meet project objectives. These procedures were conducted and completed in the most cost efficient and effective manner possible. Initial sorting of the artifacts was performed during the re-bagging of materials after they had been allowed to dry. Analytical methods used for specific artifact classes are described in the CRAS draft report (Janus Research 2001a) and will be included in the final report.

Results: Historic Resources

The historic resources survey conducted for the Ayers Road Extension Minimization Alternative for C.R. 578 resulted in the identification of four historic resources (8HE454-456 and 8HE458). All four resources are newly recorded and are not considered eligible for listing in the *NRHP*, either on an individual basis or as part of a historic district. The resources surveyed were common architectural types for their period of construction or,

in one case, had lost all integrity due to its ruinous state. These resources do not maintain sufficient architectural significance to be individually listed in the *NRHP*. Additionally, associations with important persons or events have not been connected with these resources; consequently, they do not maintain historical significance. The resources within the project's APE are also considered ineligible as part of a potential historic district. The resources are not located within an area of substantial density of historic resources that would create a historic district.

This results section includes a table listing each identified historic resource (Table 1); a map with the locations of each historic resource within the project APE (Figure 2); and a brief description of the architectural styles represented in the project area. A physical description and an evaluation of *NRHP* eligibility are included in the narratives for each identified resource.

Table 1: Identified Historic Resources

FMSF #	Site Name/Address	Style	Const. Date (circa)	NRHP Status
8HE454	16095 Palacky Street	Masonry Vernacular	1950	Not eligible
8HE455	1125 Jackson Avenue	Frame Vernacular	c.1942	Not eligible
8HE456	1153 Jackson Avenue	Frame Vernacular	c.1930	Not eligible
8HE458	Ruins on Alexsuk Property	~Not applicable	c. 1935	Not eligible

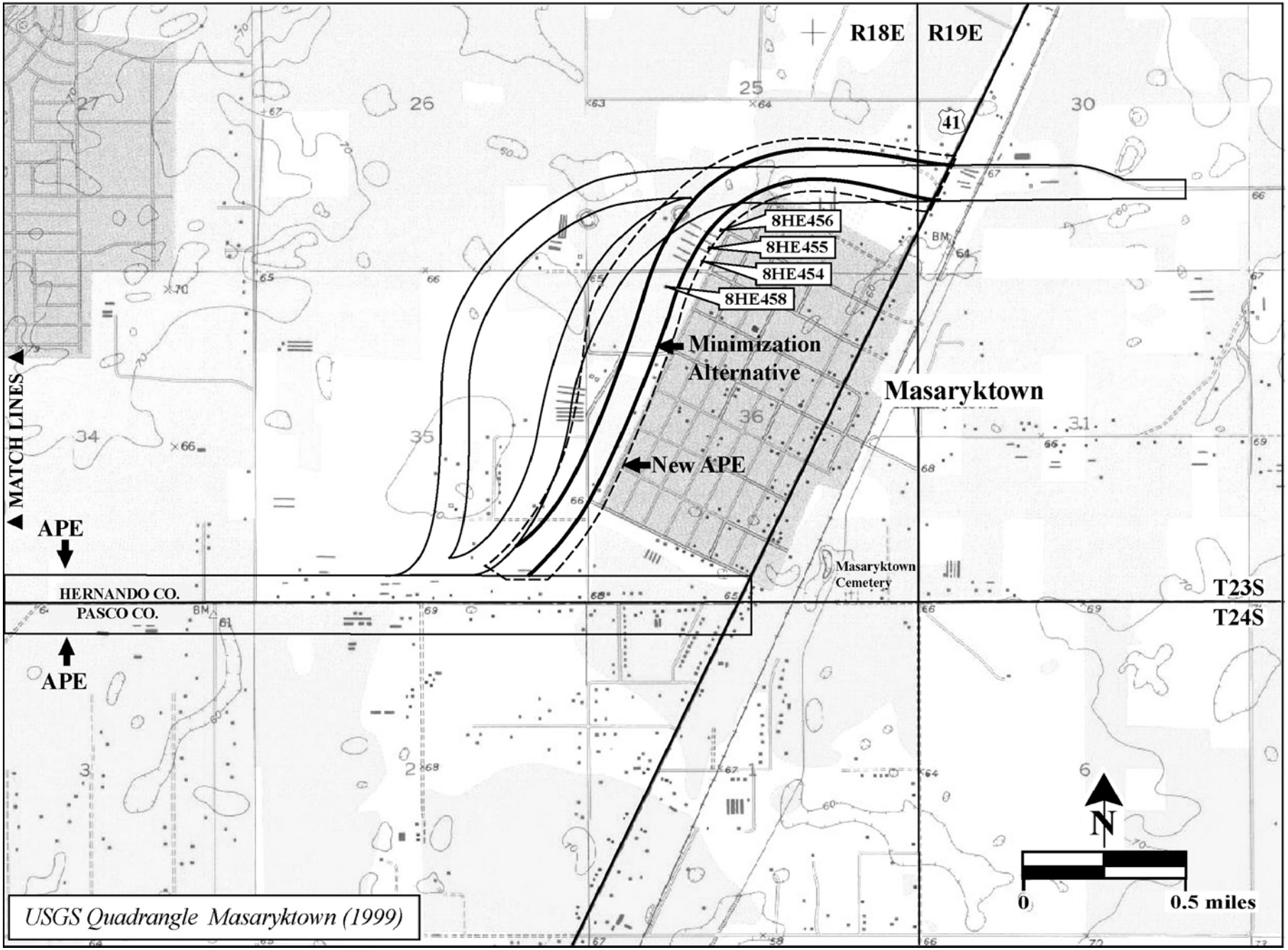
Representative Architectural Styles

Construction dates for the historic resources identified within the project area range from approximately 1930 to 1950. Two resources date from the Depression/New Deal era of the 1930s; one resource dates from the World War II and Aftermath era of the 1940s; and one resource was constructed during the Modern era of the early 1950s. The historic resources exhibit the Frame Vernacular and Masonry Vernacular styles. One resource, 8HE458, is in ruins and does not exhibit an architectural style.

Frame Vernacular. Two resources within the APE were built in the Frame Vernacular style. Vernacular (or Folk) buildings are designed without imitating a specific style. Most often, these buildings are not designed by professionals, and, in many cases, the occupants or owners themselves designed and built the building (McAlester 1993:5). These buildings tend to be simple, largely unornamented, and constructed out of readily available materials. In the project area, most of the Frame Vernacular buildings featured concrete block pier or continuous concrete foundations. Gabled roofs are the most common roof type, and roofing materials are usually 5-V crimp metal sheets. The wood frame structural systems are generally covered in wood or asbestos siding. Windows are typically the double-hung wood sash types.

Masonry Vernacular. One example of Masonry Vernacular architecture was identified in the project area. Typically, Masonry Vernacular buildings are not designed by professionals and are modest in appearance. The style's guiding principle is the long tradition of simple masonry construction techniques used in Western architecture. The use of ready-mixed concrete revolutionized building techniques after 1920 (Rifkind 1980:293). Buildings constructed after this time commonly used concrete blocks, which provided the same amount of strength as other traditional masonry units but were lighter and cheaper (McAlester 1993:38).

Figure 2: Historic Resources Identified Within the Project APE for the Ayers Road Extension Minimization Alternative



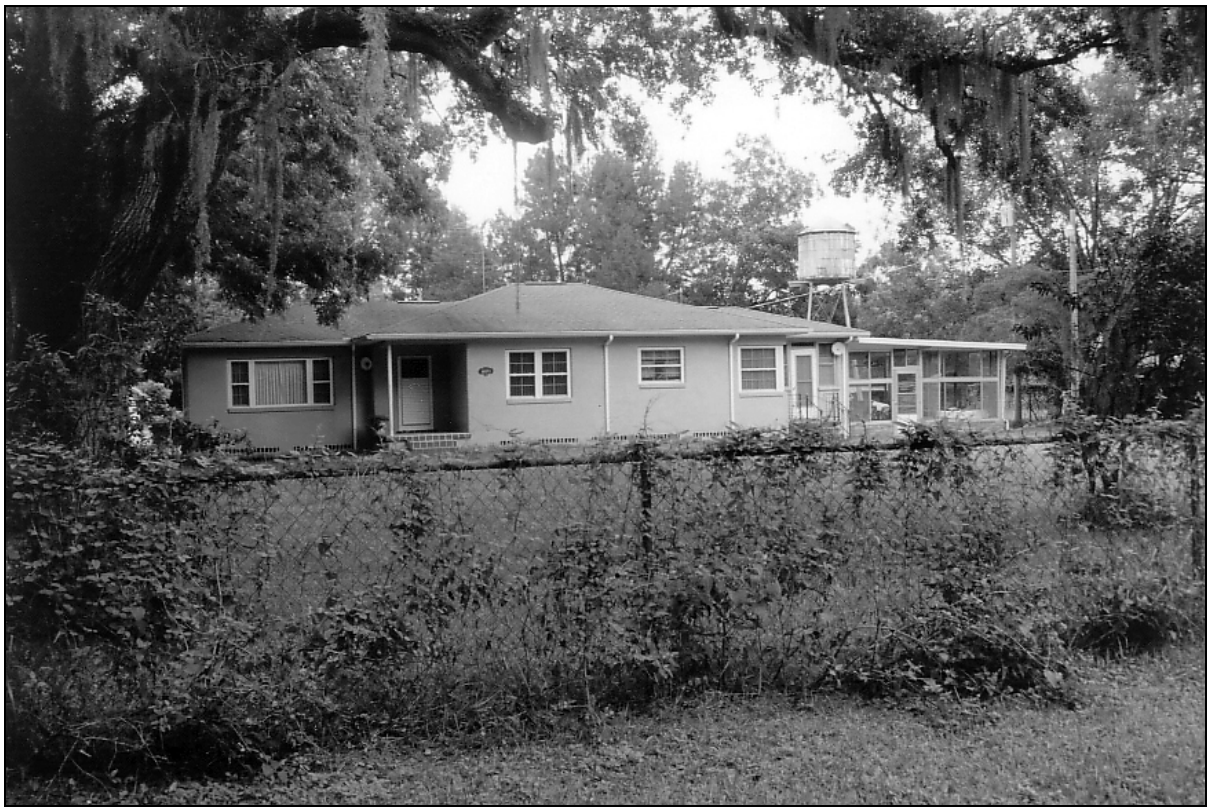


Figure 3: 8HE454 16095 Palacky Street

Constructed in 1950, this one-story Masonry Vernacular private residence is located on the northwest corner of Palacky Street and Jackson Avenue in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida. This house has a rectangular plan, concrete block structural system and rests on a continuous concrete block foundation (Figure 3). The hipped roof is surfaced with composition shingles and the exterior fabric consists of concrete block. A stucco-covered brick chimney is featured on the west interior slope. An integral entry stoop is featured on the south elevation and features a single metal pole support. Fenestration consists of metal single-hung sash windows with one-over-one, four-over-four, and six-over-six light configurations and metal fixed windows with single panes. All window openings have concrete sills. A nonhistoric screened-in enclosed porch has been appended to the east elevation. It has a shed roof and a low brick wall base.

This house is situated on a large parcel of land delineated by barbed wire fencing and is surrounded by nine ancillary agricultural structures. Three buildings are historic and six are nonhistoric. A historic one-story barn/shed is located to the east. This circa-1940s building has a side-gabled roof surfaced with composition shingles, a concrete block structural system and exterior fabric, wood double-hung sash windows with two-over-two light configurations, exposed rafter tails, and a full-length shed-roofed wood portico along the entire north elevation. Located to the northeast of the house is a historic late-1940s metal two-story water tower. This water tower has a metal frame and rests on concrete piers. The metal tank is surfaced with vertical wood siding and has a metal conical top. Situated on the far west boundary of the property is a historic late-1930s wood-framed one-and-one-half story front-

gabled barn, which rests on concrete block piers, has 5-V crimp metal roofing and vertical wood siding. It has been repaired in places with composition roll material. This building is dilapidated and in a ruinous condition. Directly behind the house is a nonhistoric one-story garage, and to the west of the house is a nonhistoric rectangular one-story side-gabled shed. Four nonhistoric metal and wood pole barns, ranging from fair to ruinous conditions, are situated to the northwest and north of the house.

This Modern-era private residence remains in good condition and has undergone only minor alterations to its original historic design. However, this building represents a common design and has no known historical associations with important persons or events. There are several historic ancillary structures associated with this residence, but these are in fair condition and represent common designs found throughout Florida. Subsequently, this resource is considered ineligible for listing in the *NRHP*, on an individual basis or as part of a district.

Figure 4: 8HE455 1125 Jackson Avenue

Built circa-1942, this one-story building is located on the west side of Jackson Avenue, between Palacky Street and Mudron Street, in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida. This rectangular Frame Vernacular house has a wood frame structural system and rests on a continuous concrete block foundation (Figure 4). The front-gabled roof is surfaced with a combination of corrugated sheet metal and composition roll, and the exterior fabric consists of asbestos shingle siding. The front door on the east elevation is original and is covered by a pent roof with corrugated sheet metal. The concrete landing has a metal balustrade. A shed-

roofed carport has been attached to the north elevation. This portico is surfaced with corrugated sheet metal, has wood pole supports, and exposed rafter tails. This house has wood double-hung sash windows with one-over-one light configurations and wood window surrounds. Exterior ornamentation is limited to cornerboards and exposed rafter tails. This house is situated close to the road and is located on a small lot delineated by a barbed wire fence.

This World War II & Aftermath-era building is currently vacant and remains in fair condition. Although there have been no major alterations to its original design, a carport was added to the north elevation. This house exhibits a common design and has no known historical associations with important persons or events. These factors diminish the resource's significance; consequently, this resource is considered ineligible for listing in the *NRHP*, on an individual basis or as part of a district.

Figure 5: 8HE456 1153 Jackson Avenue

Constructed circa-1930, this one-story Frame Vernacular building is located on the northwest comer of Jackson Avenue and Mudron Street, in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida. This rectangular building has a wood framed structural system and rests on a concrete block pier foundation (Figure 5). The front-gabled roof is surfaced with 5-V crimp sheet metal and the exterior, including the foundation, is covered with aluminum siding. The east elevation has an integral front porch supported by decorative metal supports. A new porch landing has been poured with concrete. The front door is original to the house and has a paneled folk

surround with a transom above. The windows on the front elevation are wood double-hung sash with folk multi-paned upper sashes over a single pane lower sash. The remaining windows are wood double-hung sash with one-over-one light configurations. All window openings have wood surrounds. This house is situated close to the road and is located on a lot delineated by barbed wire fencing.

This building has replaced its original exterior fabric with aluminum siding and soffits and has replaced the original porch columns with metal supports. A new porch landing has been poured with concrete. This Depression-era private residence is currently vacant and undergoing renovations, yet it remains in good condition. However, the various alterations and additions alter this building's original historic design, which diminishes its significance. Furthermore, this building exhibits a common design and has no known historical associations with important persons and events. Therefore, this resource is considered ineligible for listing in the *NRHP*, on an individual basis or as part of a district.

Figure 6: 8HE458 Ruins on Alexsuk Property

All that remains of this circa-1935 historic structure is a pile of debris and rubble. These ruins are located on the Alexsuk Property in a grove of trees a quarter of a mile to the southwest from the intersection of Jackson Avenue and Palacky Street in Township 23 South, Range 18 East, Section 25 (Masaryktown Quadrangle 1954, PR 1988) in Masaryktown, Hernando County, Florida. The remains of this structure suggest that it was formerly a wood framed building with weatherboard siding and composition roll for roofing material (Figure 6). Vegetation has grown around and up through the ruins, hiding any discernable foundation remains, but they most likely were piers.

Whether it was a residence or was utilized for agricultural purposes is not known. Located to the southeast is an iron water pump situated on a concrete footer. The pump has the date 1918 inscribed upon it.

This Depression-era historic structure is in ruinous condition. All that remains is a pile of wood timbers and roofing materials. Due to its ruinous condition and lack of any known historical associations with important persons or events, this resource is considered ineligible for listing in the *NRHP*, on an individual basis or as part of a district.

Results: Archaeology

Portions of both previously recorded sites, 8HE426 and 8HE284, were identified within the current proposed Minimization Alternative. Testing of these two resources during the present survey is discussed separately below.

Site 8HE426 – Alexsuk Site

A new portion of this site was identified by 26 positive shovel tests (Figure 7). Most of these positive shovel tests are located within the previously estimated site boundaries. However, one positive test (ST1121) extends the site boundaries 50 m (164 ft) to the south, and another (ST1181) extends the boundaries 12.5 m (41 ft) to the north. The current testing, combined with previous testing, indicates that the site measures at least 378.5 m (1,241 ft) north-south and 1,463 m (4,800 ft) east-west, for a total area of at least 398 acres. However, it is very likely that the site extends further east, north, and west of the tested alternatives of the Ayers Road Extension.

Artifacts. Artifacts recovered from 8HE426 during the testing of the Minimization Alternative include 302 lithic artifacts, including 2 tools, a tool fragment, 1 possible core, 1 primary core reduction flake, 10 secondary core reduction flakes, 6 shaping point flakes, 67 biface-thinning flakes, 9 retouch flakes, 34 possible retouch flakes, and 171 technologically unidentified flakes. Artifacts were recovered from 5-140 cm below surface. Tables 2-5 summarize the characteristics of the lithic flake assemblage.

Table 2. Lithic Flakes by Technological Category

Technological Category	Count	Percentage
Primary Core Reduction Flakes	1	0.34%
Secondary Core Reduction Flakes	10	3.36%
Shaping Point Flakes	6	2.01%
Biface-thinning Flakes	67	22.48%
Retouch Flake	9	3.02%
Possible Retouch Flake	34	11.41%
Technologically Unidentified Flakes	171	57.38%
Total	**298**	**100.00%**

Figure 7

Site Sketch for 8HE426

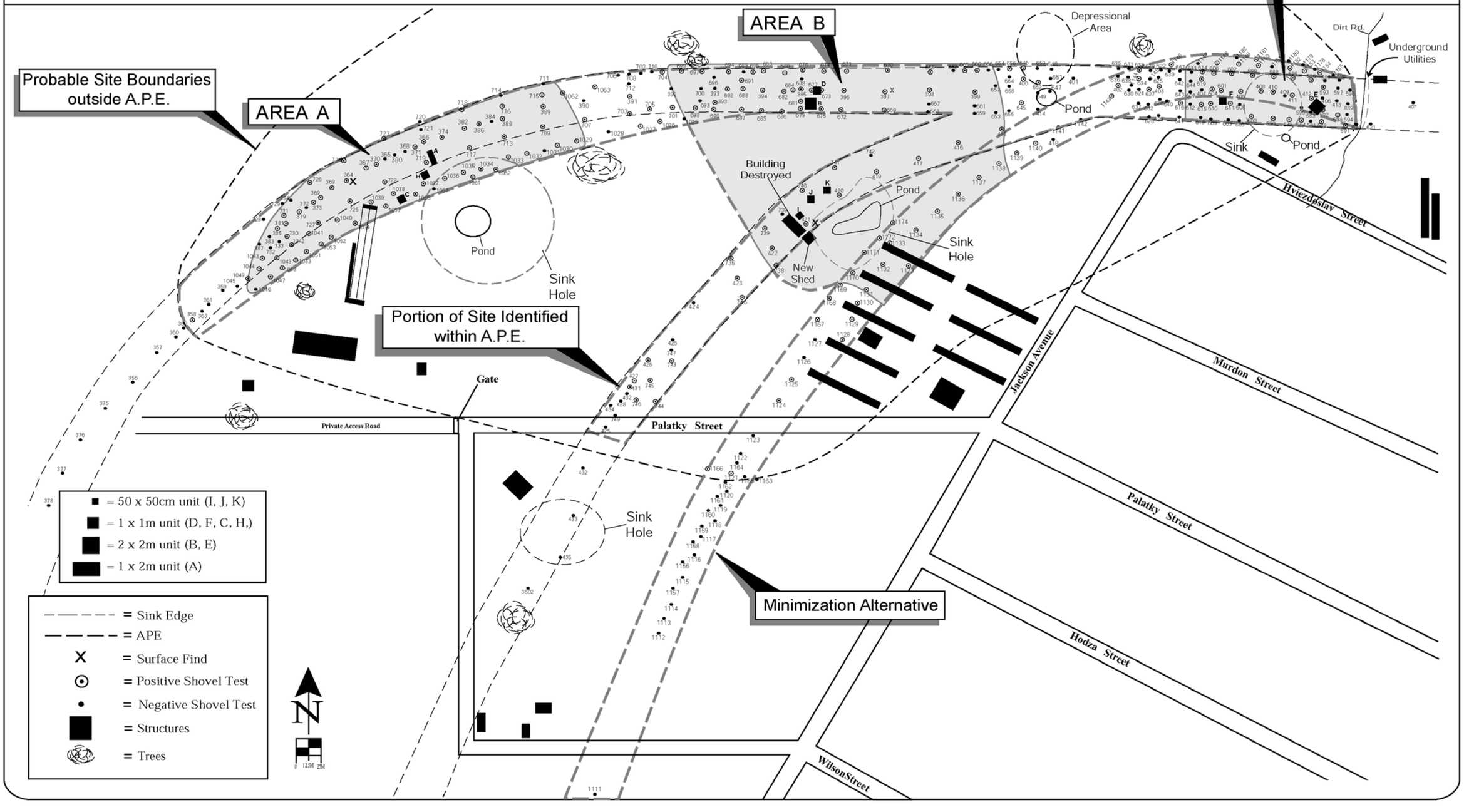


Table 3. Lithic Flakes by Fragment

Fragment Type	Count	Percentage
Proximal	72	24.16%
Medial	53	17.79%
Distal	38	12.75%
Whole	135	45.30%
Total	**298**	**100.00%**

Table 4. Lithic Flakes by Size Class

Size Class	Count	Percentage
0-1 cm	83	27.85%
1-2 cm	172	57.72%
2-3 cm	33	11.07%
3-4 cm	8	2.68%
4-5 cm	2	0.67%
5-6 cm	0	0.00%
6-7 cm	0	0.00%
7-8 cm	0	0.00%
8-9 cm	0	0.00%
Total	**298**	**100.00%**

Table 5. Lithic Flakes by Raw Material

Raw Material	Count	Percentage
Unaltered silicified limestone	226	75.84%
Heat-treated silicified limestone	19	6.38%
Unaltered silicified coral	36	12.08%
Heat-treated silicified coral	17	5.70%
Total	**298**	**100.00%**

The two tools and one tool fragment recovered from site 8HE426 include a projectile point tip and two scrapers. The projectile point tip was recovered from 10-100 cm below the surface in ST1128. This fragment is composed of unaltered silicified limestone and is 2.6 cm in length, 1.35 cm in width, and 0.7 cm in thickness. There is not enough of the projectile point present to identify the point type, but the specimen appears to be from a small lanceolate point. The blades of the point fragment exhibit retouching and the point of breakage is marked by a lipped fracture. This type of fracture indicates that the projectile point was fractured during pressure flaking (Whittaker 1994).

One of the scrapers was recovered from a depth of 10-110 cm below the surface in ST 1130. It is composed of unaltered silicified limestone and is 5.6 cm in length, 2.95 cm in width, and 1.2 cm in thickness. This artifact appears to consist of a large, utilized secondary reduction flake. There is no evidence of retouching present on the working edge of the tool, but the ventral surface exhibits evidence of use. The striated pattern on the ventral surface is a good indication that this tool was used as a scraper.

The other scraper was recovered from a depth of 40-70 cm below the surface in ST1138. It is composed of unaltered silicified limestone and is 2.65 cm in length, 2.0 cm in width, and 0.4

cm in thickness. This artifact is a unifacial scraper worked from a large utilized secondary reduction flake. Retouching has occurred along both edges of the tool to produce a steep edge angle. There is no use wear apparent on the ventral side of the tool. The steep edge angle of this scraper indicates that it was used for working hard objects, most likely wood.

The possible core was recovered from a depth of 20-140 cm below the surface in ST 1172. This specimen is composed of unaltered silicified limestone, falls within the 2-3 cm size class, and weighs 15.3 grams. The determination of the type of possible core represented by this artifact is not possible due to the specimen's extremely small size. Several small flakes have been removed from this artifact. This possible core may have been utilized in the production of microlithic tools. The presence of this possible core suggests that tool blank production may have occurred within the tested area.

The primary core reduction flake is a complete flake composed of unaltered silicified limestone. It falls within the 3-4 cm size class. Primary core reduction consists of the removal of the outside layer, or cortex, of the natural block. However, it can also include the initial shaping of the block. Both activities produce large cortical flakes.

The 10 secondary core reduction flakes include 7 complete flakes, 1 medial flake fragment, and 2 proximal flake fragments. Six specimens are composed of unaltered silicified limestone, 2 are composed of heat-treated silicified limestone, and the remaining 2 are composed of unaltered silicified coral. Three of the flakes fall within the 2-3 cm size class, five fall within the 3-4 cm size class, and two fall within the 4-5 cm size class. Six of the flakes are partially cortical. Secondary core reduction consists of the removal of flakes or blades, also called blanks. These blanks eventually are retouched to produce a tool. Secondary core reduction also includes the necessary maintenance, or rejuvenation, of the core.

The six shaping point flakes include three proximal flake fragments and three whole flakes. All six specimens are composed of unaltered silicified limestone. Five of the flakes fall within the 2-3 cm size class and one falls within the 3-4 cm size class. Shaping point flakes are produced during the shaping stage of a preform, which is an unfinished, unused form of a projectile point. This represents an early stage in the projectile point production sequence.

The 67 biface-thinning flakes include 40 complete flakes, 22 proximal flake fragments, 2 medial fragments, and 3 distal fragments. Eleven of the flakes are composed of unaltered silicified coral, 45 are composed of unaltered silicified limestone, 7 are composed of heat-treated silicified limestone, and 4 are composed of heat-treated silicified coral. Five flakes fall within the 0-1 cm size class, 53 fall within the 1-2 cm size class, and 9 fall within the 2-3 cm size class. Eight of the flakes are partially cortical. Biface-thinning flakes are produced during the thinning stage, which consists of the removal of long, thin flakes from both faces of the projectile point preform. Soft-hammer percussion and pressure flaking are generally used during the thinning stage.

Nine retouch flakes and 34 possible retouch flakes were recovered during the current survey. These specimens consist of 36 complete flakes, 5 proximal flake fragments, and 2 distal flake fragments. One specimen is composed of heat-treated silicified limestone, 7 are of heat-treated

silicified coral, 32 are of unaltered silicified limestone, and 3 are of unaltered silicified coral. Thirty-nine specimens fall within the 0-1 cm size class, while the remaining four fall within the 1-2 cm size class. Retouching consists of the removal of small, curved flakes from the outer edges of a tool, the goal of which is to strengthen the cutting edge. However, during core reduction, it is often necessary to strengthen a platform for striking, which often results in the production of the same type of flakes as those produced by retouching edged tools. Thus, this category must be used with caution when interpreting a site.

The 171 technologically unidentified flakes include 48 complete flakes, 40 proximal flake fragments, 50 medial flake fragments, and 33 distal flake fragments. One hundred and thirty-six of the flakes are composed of unaltered silicified limestone, 20 are composed of unaltered silicified coral, 9 are composed of heat-treated silicified limestone, and 6 are composed of heat-treated silicified coral. Most of the specimens are small, with 39 flakes in the 0-1 cm size class, 115 flakes in the 1-2 cm size class, 16 flakes in the 2-3 cm size class, and 1 flake in the 3-4 cm size class. Technologically unidentified flakes make up 57.38% of the total flake assemblage. Technologically unidentified flakes refer to those flakes that do not possess diagnostic features to allow for classification.

Discussion. During previous research on the Alexsuk site, Area B was defined as an area of high artifact concentration located to the west and north of the central sinkhole located on the Alexsuk property. Area C was defined as a similar area concentrated around the easternmost sinkhole on the Alexsuk property. Based on the results of the present survey, the boundaries of Area B have been extended east and south to include the entirety of the sinkhole as well as a portion of the Ayers Road Extension Minimization Alternative. The limits of Area C have not changed.

The extension of Area B is based on the high concentration of lithic artifacts recovered to the east and south of the central sinkhole. Artifacts recovered from Area B included the three lithic tools, the possible lithic core, and 287 lithic flakes, making up 96.31% of the total flake assemblage recovered from within the new proposed alternative project APE. The majority of flakes were technologically unidentified, primarily due to the large number of small flake fragments.

During the previous testing of the western and northern portions of Area B, most of the technologically identified flakes recovered consisted of retouch flakes and possible retouch flakes. Based on these artifact frequencies, the previous interpretation of Area B was that the primary lithic reduction activities there consisted of late-stage tool manufacturing and sharpening. However, as a few secondary core reduction flakes, shaping point flakes, biface thinning flakes, and a small lithic core were also recovered, it was also concluded that some early- to middle-stage production also occurred.

Of the technologically identifiable flakes recovered during testing of the newly defined eastern and southern portions of Area B, a fairly high percentage (34.75%) of the overall flake assemblage consists of retouch flakes and possible retouch flakes. However, in contrast to the previously tested western and northern portions of Area B, the majority (53.39%) of the technologically identifiable flakes recovered during the current survey consist of biface-

thinning flakes. This indicates that the most intensive lithic reduction activities in the eastern and southern portions of Area B consisted of middle- to late-stage tool manufacturing. Additionally, the presence of a primary core reduction flake and a few secondary core reduction flakes indicates that some minor core reduction activities also occurred in the eastern and southern portions of Area B. The recovery of a possible lithic core during the current survey supports this hypothesis. Some evidence of maintenance activities within Area B are also indicated by the recovery of the lithic scrapers during the current project and a scraper fragment and utilized blade during previous testing.

During previous testing of Area C, the majority of technologically identifiable flakes also consisted of retouch flakes and possible retouch flakes. Based on the artifacts recovered, the previous interpretation of Area C was that the most intensive lithic reduction activities there consisted of late-stage tool manufacturing and sharpening. However, as a biface thinning flake, a projectile point, and an incomplete biface were recovered, it was also concluded that some minor middle-stage bifacial tool production occurred there as well. Additionally, biface-thinning flakes have the highest frequency of technologically identifiable flakes recovered from Area C during the current survey. This supports the previous conclusion that mid-stage bifacial tool production occurred in Area C. No core reduction or camp maintenance activities were identified in this area of the site.

Interpretation and Conclusions. Previous testing of site 8HE426 identified three occupation areas (A, B, and C) that may overlap. The locations of all three occupations appear to be associated with the adjacent sinkholes, most likely for the procurement of available resources such as freshwater and usable chert for tool manufacturing. In general, it is hypothesized that the occupations represented by this site were seasonal, logistical campsites that were repeatedly occupied. Diagnostic artifacts recovered from Areas A, B, and C indicate that different temporal components are represented by these areas. Area A, which is located around the westernmost sinkhole within the site area, represents at least two precontact occupations: one dating from the late Paleoindian (12,000-7500 BC) to the Middle or Late Archaic period (5000-500 BC) and a post-Archaic (post-500 BC) component. The Ayers Road Extension Minimization Alternative will not impact Area A.

Area B, situated around the middle sinkhole, represents two precontact occupations: one probable Archaic-period (7500-500 BC) component and a Weeden Island-through-Safety Harbor-period (AD 100-1513) component. Data from the present survey indicates that the Weeden Island-through-Safety Harbor component of Area B may be limited to the northernmost portion of Area B. As with Area A, this latter component was partially disturbed by the historic-period occupation of Enville (8HE284). Precontact activities represented in this area of the site were identical to those represented in Area A, including minor quarrying and core reduction, basic camp maintenance activities, and all stages of tool manufacturing, especially projectile point/knives. However, data from the current survey indicates that lithic reduction activities in that portion of Area B contained within the APE for the Ayers Road Extension Minimization Alternative primarily consisted of middle- to late-stage tool manufacturing. By contrast, the primary lithic reduction activities in that portion of Area B located to the north and west of the sinkhole seem to have consisted

mainly of late-stage tool manufacturing and sharpening. All testing completed to date indicates that both Area B and Area A appear to represent the primary occupation of the site.

Area C, situated around the easternmost sinkhole, represents a Middle or Late Archaic-period (5000-500 BC) component. As with the previous two areas, the upper portion of this component was disturbed by the historic occupation of Enville (8HE284). Precontact activities represented in this area of the site included middle- and late-stage bifacial tool production.

The Alexsuk site (8HE426) is considered regionally significant as it represents multiple periods of occupation, indicating patterned use of the area in the Paleoindian, Middle-to-Late Archaic, and post-Archaic periods. This site contains data that has the potential to address regional research questions, such as how and why relatively nomadic Paleoindian groups developed into semisedentary Late Archaic groups in peninsular Florida, and whether any variation in this development occurred in different regions of the state. Comparison of this site to similar sites in the interior of Central Florida and similar sites in other areas may yield patterns indicating regional trends of the development of sedentism. Consequently, this site, including portions within the Ayers Road Extension Minimization Alternative APE, is considered potentially eligible for inclusion in the *NRHP*.

Including the current testing of the Ayers Road Extension Minimization Alternative, three separate routes for the Ayers Road Extension have been tested. All three routes will impact portions of site 8HE426, the Alexsuk site. However, several factors indicate that the Ayers Road Extension Minimization Alternative would cause the least impact to the site. Those portions of the Alexsuk site within the Minimization Alternative APE contain artifact concentrations that are much less dense than those of the previously tested routes. Additionally, no evidence of quarrying activities or diagnostic Paleoindian/Early Archaic artifacts was identified within the Ayers Road Extension Minimization Alternative.

Site 8HE284 – Enville

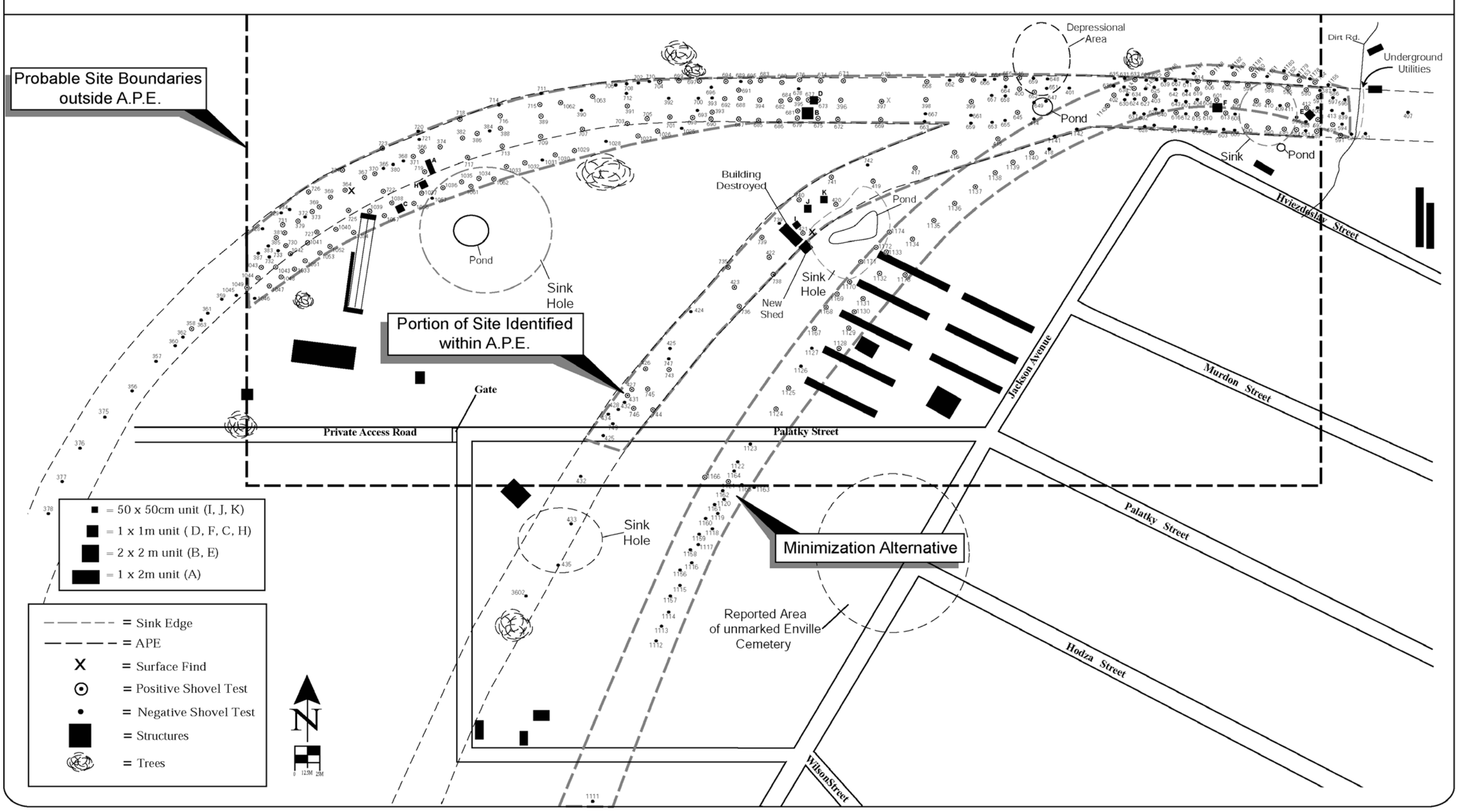
A new portion of this site was identified through 15 positive shovel tests (Figure 8). Most of these tests are located within the previously estimated site boundaries. However, one positive test (ST 1166) extends the site boundaries 50 m (164 ft) to the south. The current testing, combined with previous testing, indicates that the site measures at least 378.5 m (1,241 ft) north-south and 1,463 m (4,800 ft) east-west, for a total area of at least 398 acres. However, it is very likely that the site extends to the north outside the project boundaries.

Artifacts. Artifacts recovered from 8HE284 during the testing of the Ayers Road Extension Minimization Alternative include 80 historic period artifacts: 36 glass container fragments, 16 historic ceramic sherds, 3 unidentified iron fragments, 3 buttons, 2 pieces of plastic, 14 cut nails, 4 wire nails, 1 iron hack blade, and 1 iron hook.

The 36 glass container fragments include 17 clear glass fragments, 14 amethyst glass fragments, 3 brown glass fragments, and 2 “milk” glass fragments. Most of the clear glass fragments recovered are modern and represent post-1950s disturbance to the site. However, at least one clear bottle glass fragment may date to a period ranging from 1890 to 1920,

Figure 8

Site Sketch for 8HE284



which corresponds with the reported period of occupation for Enville, circa 1898-1922. This specimen is the neck of a medicine bottle with a tooled lip and was constructed with a two-piece mold. Another clear glass specimen was recovered in eight fragments from the neck and lip of a bottle with the following embossed lettering:

HENRY BURKHADT
8TH & JEFFERSON STS.
CHICAGO

This specimen also exhibits a tooled lip. Brown glass is not a good chronological marker as it dates from 1873 to the present. Likewise, "milk" glass is also not a good chronological marker, as it has been in use since at least the early-sixteenth century and has been in use ever since. However, amethyst glass dates to a period ranging from 1880-1925, which corresponds to the Enville period. Most of the amethyst glass fragments are fairly small, although two are large enough to indicate that they are basal fragments from small, square medicine bottles. The "milk" glass was recovered from depths ranging from 0-35 cm below surface, whereas the clear glass was recovered from depths ranging from 5-110 cm below surface. The brown glass was recovered from depths ranging from 5-100 cm below surface, and the amethyst glass was recovered at depths ranging from 10-110 cm below surface.

The 16 historic ceramic sherds include 8 ironstone sherds, 3 whiteware/semi-porcelain sherds, 4 glazed coarse earthenware sherds, and a possible early electrical insulator fragment. Three of the glazed coarse earthenware sherds have a brown glaze whereas the fourth exhibits a thin gray salt glaze on the exterior and a brown glaze on the interior. These specimens are not considered good chronological markers as they may date from the Enville period or more modern times. The ironstone fragments include six plain white sherds as well as two that exhibit blue patterns on white backgrounds. Ironstone dates to as early as 1813, but it is still produced today. The three whiteware/semi-porcelain sherds all vary slightly. One is a plain white sherd. Another exhibits a raised blue design on a white background. The third is a portion of a plate that exhibits two letters, an "E," and a possible second "E." Whitewares were produced as early as 1820 and are still made today. However, beginning in 1910, the term semi-porcelain has also been used to describe this type (Manson and Snyder 1997). Historic ceramic sherds were recovered from 5-100 cm below surface.

One of the buttons is metallic whereas the other two are composed of hard plastic. None of these specimens are chronologically diagnostic. While the plastic buttons are obviously modern, the metal button is not chronologically diagnostic. All three buttons were recovered from 20-90 cm below surface.

The metal nails recovered during this project include 14 cut nails and four wire nails. Depths of recovery for both types range from 5-100 cm below surface. Cut iron nails were produced most commonly between circa 1830 and 1900. The wire nails represent later historic activity. This type dates from circa 1890 to the present and is used for a variety of purposes (Fontana and Greenleaf 1962:54-55).

The iron hook was recovered from 0-30 cm below surface. This specimen appears to have been mounted, probably for hanging items on. It is not temporally diagnostic as such hooks are still made today.

The iron hack blade was recovered from 15-30 cm below surface in ST 76. Hacks were important tools used in the turpentine industry during the nineteenth and early twentieth centuries. The term "hack" refers to a common chipping tool that was attached to a handle, usually wooden. They were used to cut a streak into a pine tree in order to drain sap from it. This tool type replaced axes and single bevel hatchets in the first half of the nineteenth century (Forney 1985:277; 280; Gerrell 1998:49). During the period between 1905 and 1923, which corresponds to the Enville period, Florida was the leading producer of turpentine in the southern states.

Several Herty cup fragments were also observed in the field during the current project but were not collected. Herty cups are ceramic turpentine-collecting vessels that were used in Florida during the latter half of the state's major period of turpentine production, 1850-1950. Herty cups, the most common style of turpentine-collecting cups, were produced from 1904 until 1914, when the advent of galvanized iron cups forced a decrease in the demand for ceramic cups (Forney 1985:277). As demonstrated by previous historical research, one of the primary industries of the town of Enville was turpentine production (Janus Research 2001b).

Interpretations and Conclusions. Previous testing of 8HE284 refined the site boundaries and demonstrated that most or all of the cultural deposits associated with the Enville site have been disturbed by modern activities. However, the majority of the temporally diagnostic artifacts correspond in date with the period of occupation documented for the town of Enville and with the activities associated with that occupation. Within the current Minimization Alternative APE, the horizontal distribution of artifacts was variable, but generally sparse, aside from the occasional concentration of Herty cup fragments. No subsurface features related to the occupation of Enville were identified. Although artifacts likely associated with Enville were recovered during the testing the of Ayers Road Extension Minimization Alternative, the concentration of these artifacts was much less dense than in the testing of the previously tested alternatives for the Ayers Road Extension.

Previous historical research conducted on this site revealed that Enville represented typical early twentieth century development of Hernando County, namely through its involvement in the lumber and turpentine industries. Evidence of turpentine industry-related activities was found during additional testing based on the presence of abundant Herty cup fragments (Janus Research 2001b). Although a sawmill and turpentine still were reportedly located near the project APE, no evidence of these structures was found. Similarly, the Enville Cemetery was reportedly located southeast of the project APE, but the cemetery was not located. Additionally, no evidence of this cemetery was identified during the testing of the Ayers Road Extension Minimization Alternative.

Although the town of Enville had some significance historically, based on the information described above, the relatively sparse artifact assemblage recovered during both previous and current research, the lack of subsurface features, and the documented modern disturbance to

the site indicates that the potential for recovering additional important data is low. Therefore, the Enville site (8HE284), as it is located within all proposed routes for the Ayers Road Extension, including the Ayers Road Extension Minimization Alternative, is not considered eligible for inclusion in the *NRHP*.

Including the current testing of the Ayers Road Extension Minimization Alternative, three separate routes for the Ayers Road Extension have been tested. All three routes will impact portions of site 8HE284, Enville. However, the fact that those portions of Enville that are within the currently proposed alignment APE contain artifact concentrations that are much less dense than the previously tested routes indicates that the Ayers Road Extension Minimization Alternative would cause the least amount of impact to the site.

Despite the lack of evidence produced by shovel testing for the Enville Cemetery within the currently proposed alignment, its location has not been secured. Therefore, it is recommended that archaeological monitoring of construction activities be conducted in the vicinity of the cemetery's reported location along the Ayers Road Extension Minimization Alternative to ensure that the cemetery is not disturbed.

Summary

The survey of the Ayers Road Extension Minimization Alternative identified four newly recorded historic resources (8HE454-456 and 8HE458) and new portions of archaeological sites 8HE426 and 8HE284. All four historic resources are considered ineligible for inclusion in the *NRHP*. One archaeological site (8HE426) is considered potentially eligible for inclusion in the *NRHP*, whereas the other site archaeological site (8HE284) is considered not eligible for inclusion in the *NRHP*.

Site 8HE426 is considered regionally significant as it represents multiple periods of occupation, although probably seasonal in duration, indicating patterned use of the area in the Paleoindian, Middle-to-Late Archaic, and Formative periods. This site contains data that could address regional research questions, such as how and why the relatively nomadic Paleoindian groups developed into semi-sedentary Late Archaic groups in peninsular Florida, and whether any variation in this development occurred in different regions of the state. Comparison of this site to similar sites in the interior of Central Florida and similar sites in other areas may yield patterns indicating regional trends in the development of sedentism. Consequently, this site, including portions within the current Minimization Alternative APE, is considered potentially eligible for inclusion in the *NRHP*. However, both previous research and the current survey indicate that the Ayers Road Extension Minimization Alternative would cause the least amount of impact to the site.

Previous research on the Enville site (8HE284) has demonstrated that most or all of the cultural deposits associated with the Enville site have been disturbed by modern activities. Although the town of Enville had some significance historically, the relatively sparse artifact assemblage recovered, the lack of subsurface features, and the documented modern disturbance to the site indicates that the potential for recovering additional important data is low. Therefore, the Enville site (8HE284), as it is located within the current Minimization Alternative APE, is considered ineligible for inclusion in the *NRHP*. Additionally, both

previous research and the current survey indicate that the Ayers Road Extension Minimization Alternative would cause the least amount of impact to the site.

However, since the Enville Cemetery has not been securely located, it is recommended that archaeological monitoring of construction activities be conducted within the Enville (8HE284) site boundaries along the Ayers Road Extension Minimization Alternative to ensure that the cemetery is not disturbed.

References

Archaeological Consultants, Inc. (ACI)
1984 Cultural Resources Survey of the Seven Hills (DRI) Tract in Hernando County, Florida. Copies available from the Florida Division of Historic Resources, Tallahassee.

Bagdade, Susan and Al Bagdade
1987 *Warman's English & Continental Pottery & Porcelain*, 2nd Edition. Krause Publications, Iola, Wisconsin.

Bradbury, Alford G and E. Story Hallock
1962 *A Chronology of Florida Post Offices: Handbook No. 2*. The Florida Federation of Stamp Clubs, Vero Beach, Florida.

Bullen, Ripley P.
1975 *A Guide to the Identification of the Florida Projectile Points*. Kendall Books, Gainesville.

Daniel, I. Randolph and Michael Wisenbaker
1987 *Harney Flats*. Baywood Publishing Company, Farmingdale.

Ellis, Gary D.
1977 8-Hi-426: A Late 19th Century Historical Site In the Ybor City Historic District of Tampa, Florida. Unpublished Master's thesis, Department of Anthropology, University of South Florida, Tampa.

Fontana, Bernard L. and J. Cameron Greenleaf
1962 Johnny Ward's Ranch: A Study in Historic Archaeology. *Kiva* 28 (1-2).

Forney, Sandra Jo
1985 The Importance of Sites Related to the Naval Stores Industry in Florida. *The Florida Anthropologist* 38(4):275-280.

Gerrell, Pete
1998 *The Illustrated History of the Naval Stores (Turpentine) Industry*. Southern Yellow Pine Publishing, Crawfordville, Florida.

Gulf Coast Abstract Company (GCAC)
1946 "Abstract of Title to Certain Lands in Hernando County, (the Home of the Tangerine) Florida, N. 4035." Prepared for John Alexsuk, Brooksville, Florida.

Horvath, Elizabeth A.
2000 Archaeological Investigations at the Colorado Site (8HE241) – A Lithic Workshop in Hernando County, Florida. *The Florida Anthropologist* 53(2-3): 82-97.

Jackson, Virginia
2001 Personal Interview with Susan Hochberg Daniel of Janus Research. 26 April 2001.

Janus Research
2001a Cultural Resource Assessment Survey of County Line Road (C.R. 578) PD&E Study from U.S. 19 (S.R. 55) to U.S. 41(S.R. 45) Draft Report. Manuscript on file, Janus Research, St. Petersburg.
2001b Additional Testing of Sites 8PA185, 8HE426, and 8HE284 along the Ayers Road Extension Alternatives for the County Line Road (C.R. 578) PD&E Study from U.S. 19 (S.R. 55) to U.S. 41(S.R. 45). Manuscript on file, Janus Research, St. Petersburg.

Milanich, Jerald T.
1994 *Archaeology ofPrecolumbian Florida.* The University Press of Florida, Gainesville.

Milanich, Jerald T., Ann Cordell, Vernon Knight, Jr., Timothy Kohler, and Brenda Sigler-Lavelle
1997 *Archaeology of Northern Florida, AD* 200-900: *The McKeithen Weeden Island Culture*. University Press of Florida, Gainesville.

Newnan, T. S.
1970 A Dating Key for *Post-18th* Century Bottles. *Historical Archaeology* 4:72-75.

Norman, Jennene and Dr. Roger R Landers
2000 "Farming, Turpentine, Lumber and Oranges Thrive in Hernando." In *A Millennial History of Hernando County*. Hernando Today, Hernando County, Florida. Pages 89-91.

Polk, R. L.
1907 *Florida Gazetteer and Business Directory 1907-1908*. R. L. Polk & Co., Jacksonville, Florida.

Stanabeck, Richard J.
1976 *A History of Hernando County 1840-1976*. Bicentennial Committee, Brooksville, Florida.

Whittaker, John C.
1994 *Flintknapping: Making and Understanding Stone Tools*. University of Texas Press, Austin.

Works Progress Administration (WPA)
1940 *Florida Department of Military Affairs Special Archives Publication Number 36: WPA Veteran's Grave Registration 1940-1941 Reprint, Citrus, Hernando, Lake, Pasco, and Sumter*. State Arsenal, St. Augustine, Florida.

APPENDIX B

NATIVE AMERICAN COORDINATION ACTION

NATIVE AMERICAN COORDINATION ACTION

Florida Department of Transportation - District VII

County Line Road (C.R. 578)
Project Development and Environment Study
From U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45)

Work Program Item Segment Number: 257298 1
Federal-Aid Program Number: 7822 001 S
Pasco and Hernando Counties, Florida

The proposed project involves improving County Line Road (C.R. 578) to a multi-lane facility from U.S. 19 (S.R. 55) to east of U.S. 41 (S.R. 45) in Pasco and Hernando counties, a distance of approximately 12.0 miles (19.3 kilometers). The project includes a segment of roadway along a new alignment. This segment is referred to as the Ayers Road Extension and extends from the interchange of C.R. 578 and the Suncoast Parkway to east of U.S. 41, a distance of approximately 3.5 miles (5.6 kilometers).

Prepared by:

URS Corporation Southern

July 2002

TABLE OF CONTENTS

Section 1.0
INTRODUCTION

Development of this action plan is intended to identify the remaining actions needed to satisfy coordination with appropriate Native American tribes on the possible adverse effects resulting from construction of a roadway segment associated with the County Line Road PD&E Study located within both Hernando and Pasco counties. This proposed roadway segment (Segment D) along the new alignment is known as the Ayers Road Extension and is located within Hernando County, Florida. This proposed roadway extends from the Suncoast Parkway to Ayers Road at U.S. 41, and passes through the NR-eligible Alexsuk Site (8HE426) (See Figure l.)

The action plan summarizes development history of the proposed project and steps taken to ensure Section 106 (of the National Historic Preservation Act of 1966) coordination with Native American tribes concerning archaeological or historic resources possibly eligible for listing in the National Register of Historic Places. The plan also identifies measures taken as part of the PD&E Study to avoid or minimize encroachments on such resources identified within the project area and steps to be taken to complete the coordination process with Native Americans.

FIGURE 1
LOCATION MAP

Section 2.0
PROJECT HISTORY

During the PD&E Study various roadway alternates were developed and cultural resource surveys were conducted for each alternative. As result of these surveys, the *NR*-eligible Alexsuk Site was discovered. Upon discovery of this site, additional and more intense archaeological surveys were conducted to better determine its extent. In an effort to avoid or minimize encroachment of this site, an alternative alignment for the Ayers Road Extension (S-8) was developed in lieu of the recommended alignment (S-5) which was preferred by the local community at the Alternative Public Workshop conducted in December 2000. Upon development of the S-8 alignment, an additional archaeological survey was performed and it was determined that this alignment would still encroach upon this resource.

Consequently, the Cultural Resource Assessment and Section 106 Case Study Report was completed and forwarded by the FHWA to the SHPO for review and concurrence. Additionally, FHWA transmitted copies of the Cultural Resource Assessment to the various tribes representing Native Americans for their review and comment.

Section 3.0
EVALUATION FACTORS

In an effort to determine selection of the most appropriate alternate for the Ayers Road Extension (Segment D) a comparison of evaluation factors for alignment S-5 and S-8 was performed and is shown below in Table 1. The results of this comparative analysis found that most evaluation factors were similar. The one major difference is associated with the number of potential residential relocations. Alignment S-S will require nine (9) relocations versus three (3) relocations for alignment S-5. Minor differences between the two alignments find that the number of potential noise sensitive receivers for alignment S-8 is four (4) versus five (5) for S-5.

3.1 OTHER CONSIDERATIONS

In addition to the development of the minimization alternate (S-8) and the factors considered in Table 1, other factors associated with the Alexsuk Site and addressing other identified Native American concerns were considered. These factors included:

- Area affected by the proposed roadway for each alignment
- Future Land Use and Development Requirements
- Sinkhole avoidance

Section 4.0
AREA OF EFFECT

The area of potential effect (APE) identified for the Alexsuk Site (8HE426) was determined. Also, the roadway area for alignments S-5 and S-8 within the APE was determined. The resulting calculations found the APE to be approximately 95.6 acres in size. Alignment S-5 affected 18.8 acres, or 20%, of the APE, while alignment S-8 affected 12.1 acres, or 13%, of the APE.

4.1 LAND USE

In addition to the evaluation factors shown in Table 1, it was determined that a comparison of current and future land use should be applied relative to future private development disturbing the *NR*-eligible Alexsuk Site. This factor considers that private property owners are not subjected to the same requirements as federal or state agencies and may develop their properties without being required to recover the history of cultural resources, such as the Alexsuk site.

Prior to development of the Suncoast Parkway, which is located at the western end of Segment D, the properties within the project area were primarily zoned Agricultural. Since opening to traffic, many of the proper-ties immediately adjacent to County Line Road have been re-zoned as commercial and private development is expected to occur within a few years. Consequently, the same trend is expected to occur along the new alignment for the Ayers Road Extension once construction has been completed. Additionally, this future trend will be reinforced by continued development of the Hernando County Airport, which plans to construct additional access to the newly constructed Ayers Road Extension.

4.2 CURRENT LAND USE

The land use along segment S-8 is approximately 65 percent agricultural (AG) [green], 20 percent low-density single-family residential (R-1C), 10 percent mobile homes (MH) and 5 percent vacant land. Most properties are several acres or larger. To the east of the project area is Masaryktown, consisting of small mixed conventional and mobile home lots. There is a small commercial area at the intersection of US 41 and Ayers Road, and at County Line Road and the Suncoast Parkway.

The land use along segment S-5 is approximately 75 percent agricultural, 15 percent residential, and 5 percent each of mobile home and vacant land with commercial at the intersection of US 41 and Ayers Road.

TABLE 1
EVALUATION MATRIX FOR ALTERNATIVES S-5 & S-8

EVALUATION FACTORS	AYERS ROAD EXTENSION SEGMENT D					
POTENTIAL RELOCATIONS						
Businesses	0			0		
Individual Residences	3			9		
CULTURAL RESOURCES	0			0		
Potential Historic Structures	0			0		
Archaeological Sites *NRHP* Eligible	1			1		
Parks [Section 4(f)]	0			0		
NATURAL/PHYSICAL ENVIRONMENTAL EFFECTS						
Wetlands Acres (Hectares)	0.00 (0.00)			0.00 (0.00)		
Potential T&E Species Involvement (L/M/H)	M			M		
Noise Sensitive Sites	5			4		
Potential Contamination Sites (L/M/H)	1	1	0	1	1	0
PROJECT COSTS ($ millions)						
Construction Cost	$12.99			$12.36		
R/W Cost	$6.54			$8.44		
Engineering Cost	$1.95			$1.85		
Construction Engineering and Inspection Cost	$1.95			$1.85		
TOTAL COST PER ALIGNMENT	$23.43			$24.50		

L/M/H = Low/Medium/High.

4.3 FUTURE LAND USE

The future land use as depicted in the Hernando County Comprehensive Plan for segments S-5 and S-8 is designated as 96 percent residential with the exception of 2 percent commercial on the four corners at the intersection of US 41 and Ayers Road, and 2 percent commercial at the intersection of County Line Road and the Suncoast Parkway.

4.4 APPROVED ZONING

Approved zoning along both segments is approximately 65 percent agricultural and 30 percent low-density single-family residential (R-1C), and 5 percent medium-density single family residential (R-IA), consisting of both mobile homes and conventional houses. There are no new approved developments along the proposed S-5 and S-8 alignments at this time.

4.5 SINKHOLE AVOIDANCE

Project proximity to sinkholes was identified as an area of concern by the Miccosukee Indian Tribe, which considers such geological features to be sacred. As a result of this concern, potential effects of the proposed roadway improvements on the cultural resource site identified as the Volkswagen Sinkhole (8PA185) was reviewed in an attempt to avoid encroachment on this site. The sinkhole is located in the southwest quadrant of the County Line Road/Shady Hills Road intersection. The results of this review found the encroachment could be avoided by constructing an MSE wall in lieu of earthen fill. Consequently, a cost estimate of the differences between roadway fill and constructing an MSE wall was performed. This estimate found that the MSE wall would increase the project cost by $67,000.

Section 5.0
NATIVE AMERICAN COORDINATION

In recognition of the need that Native American issues and concerns be treated in a manner that is consistent with current federal and state legislation, this Native American Consultation action plan addresses the pertinent legislation and identifies specific steps to be taken. It is important to note that tribal entities represent sovereign nations, and that any coordination process will take place between representatives of two distinct governments.

5.1 PERTINENT LAWS, REGULATIONS AND MEMORANDA

- **Office of the White House Memorandum Government-to-Government Relations with Native American Tribal Governments (April 29, 1994)**

As contained within the text of the memorandum, all executive departments and agencies were directed to:

- "Operate within a government-to-government relationship with federally recognized tribal governments";
- "Consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments"; and
- "Assess the impact of federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs and activities."

- **36 CFR 800 Implementing regulations of Section 106 of the *National Historic Preservation Act*, as amended 1999.**

As set forth at 36 CFR 800.1(c)(2)(iii), the agency official shall:

- Afford an Indian tribe the opportunity to participate when the undertaking may affect properties of historic value to an Indian tribe when it is located on non-Indian land.

- **Chapter 872, F.S.: Offenses Concerning Dead Bodies and Graves**

The law pertains to any human burials, human skeletal remains, and associated burial artifacts on public or private lands in the state. The law's intent is to accord equal treatment to human burials regardless of ethnic origin, cultural background or religious affiliation. The implementing rule for this law (Chap. 1A-44) specifies the procedures to follow in the event that unmarked burials

are encountered during a project, the criteria to be used by the State Archaeologist in determining whether the Florida Division of Historical Resources (FDHR) will assume jurisdiction over an unmarked burial, and the responsibilities of the State Archaeologist and others in the event that FDHR does assume jurisdiction.

5.1 ACTION PLAN CONSULTATION

Advance Notification letters were sent to the following five tribes with cultural affiliations in Florida: The Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Seminole Nation of Oklahoma, the Poarch Band of Creek Indians, and the Muscogee Creek Nation of Oklahoma. In addition, copies of all cultural resource reports were sent to representatives of each of the five federally recognized Native American tribes of nations. This information described the project, its location, and the archaeological sites identified during the archaeological survey as potentially eligible for listing in the *National Register of Historic Places*. To date, one response from the Miccosukee Tribe of Indians has been received expressing their concern regarding the sinkhole located within the project area (see attached letter).

Following the notification letters, telephone calls will be placed to the representatives of the five federally recognized tribes in an attempt to set up a meeting to discuss the project and seek information and recommendations from the tribes. Included in this meeting will be a tour of the archaeological site and the sinkholes.

APPENDIX A
AREA OF POTENTIAL EFFECT

FIGURE 1-2

AREA OF POTENTIAL EFFECT FOR THE PROPOSED IMPROVEMENT PROJECT

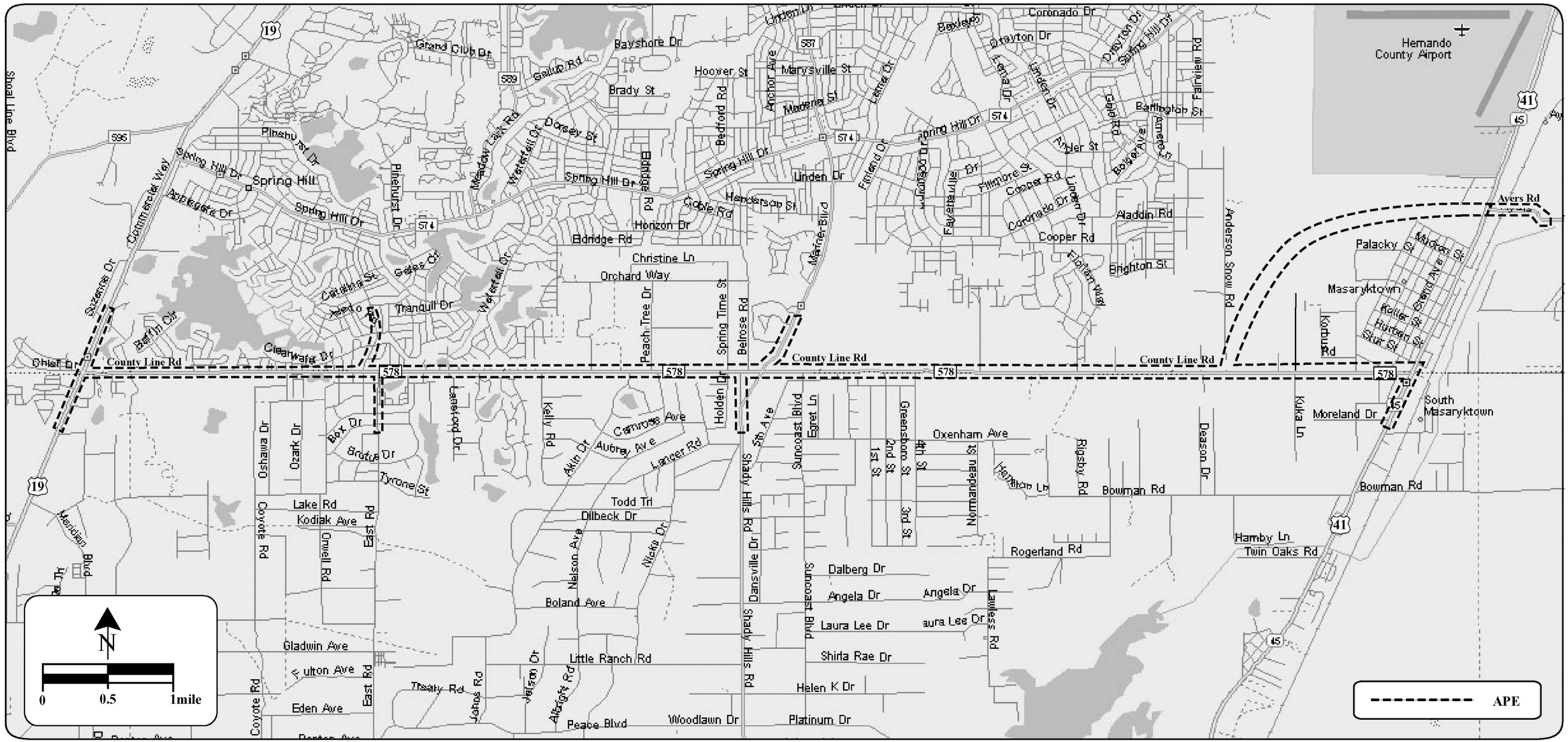


FIGURE 9-13
SITE SKETCH FOR 8HE426

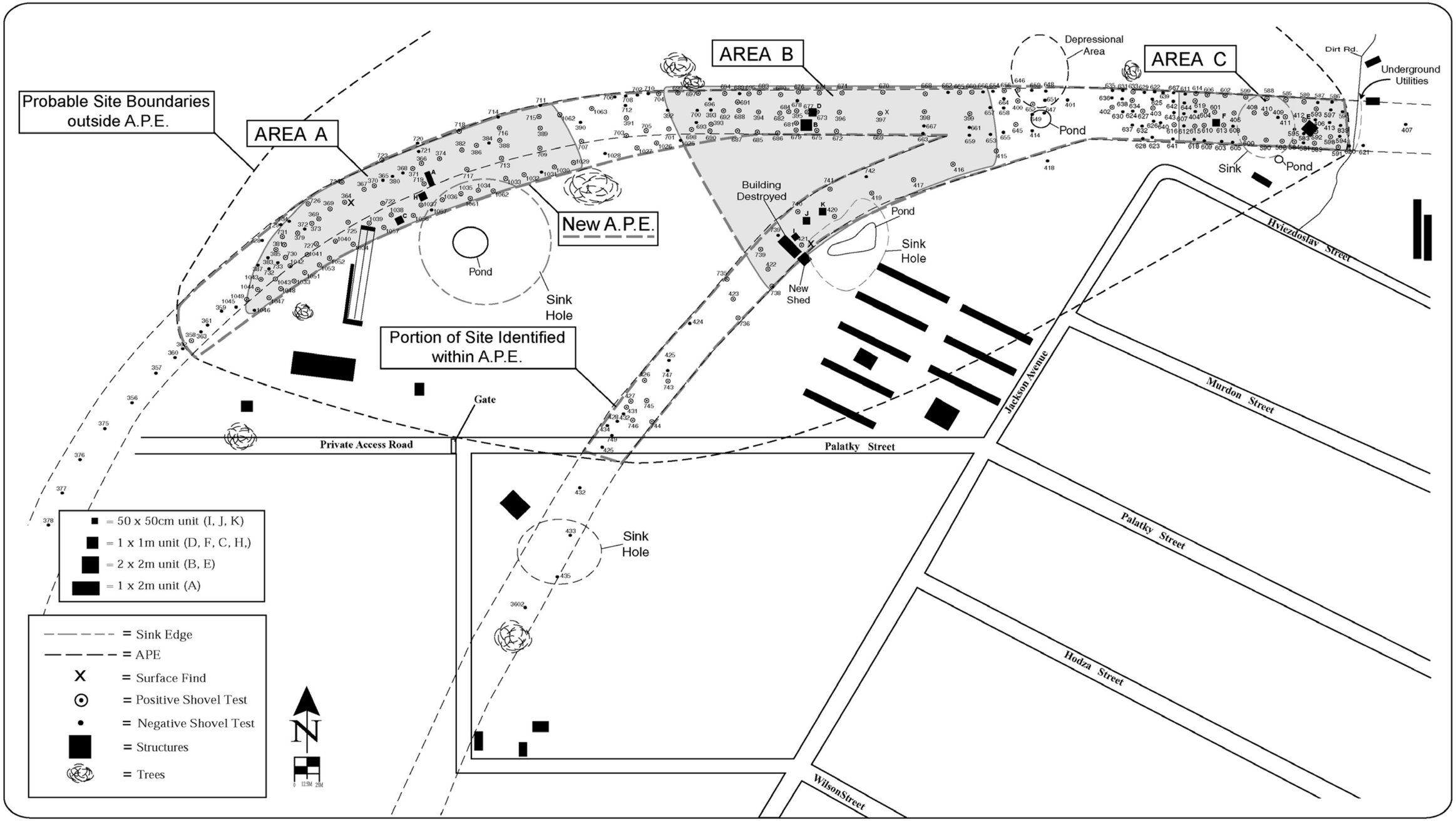


FIGURE 9-14

SITE SKETCH FOR 8HE284

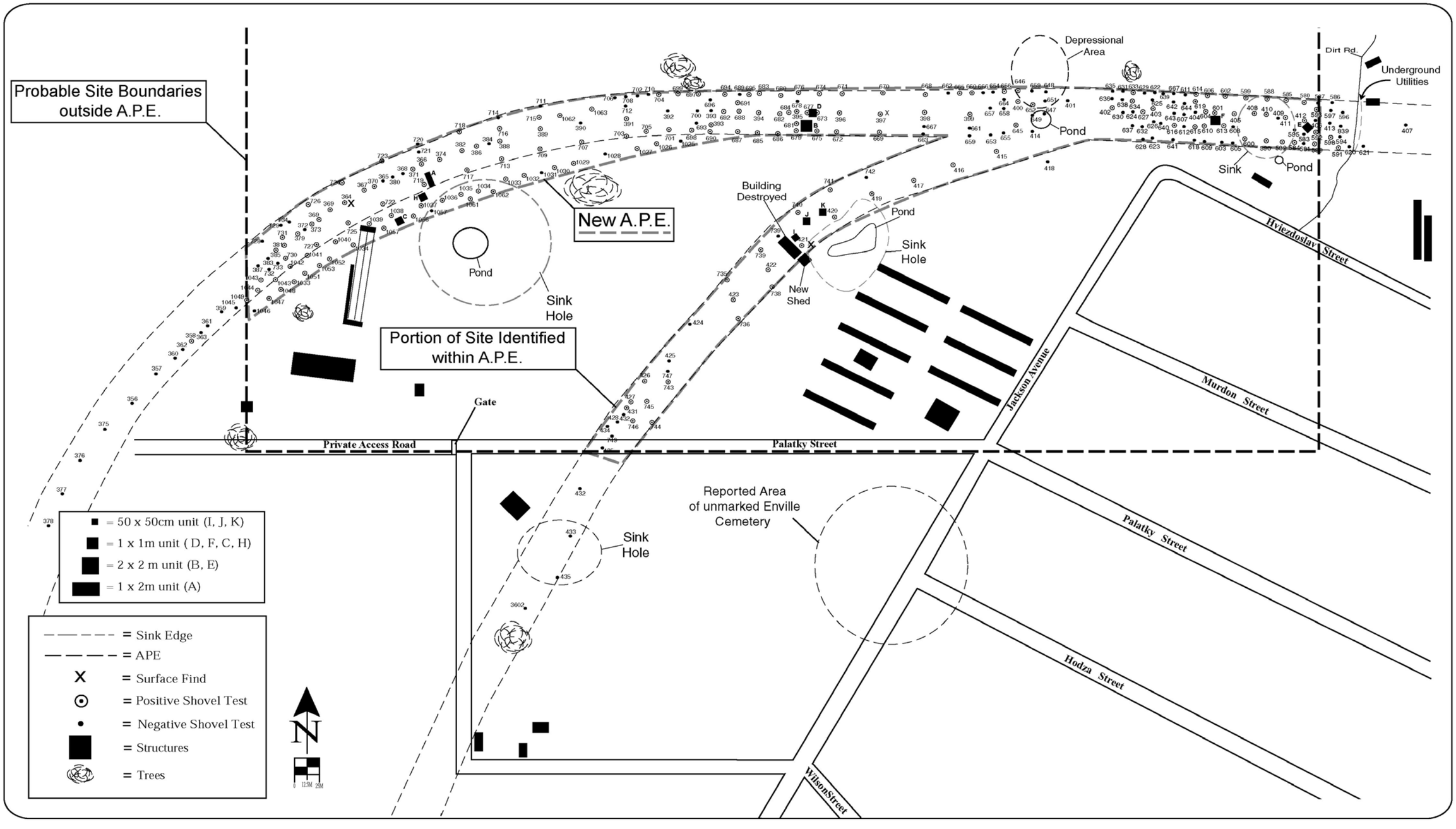


FIGURE 9-15
LOCATIONS OF HISTORIC RESOURCES FOUND WITHIN C.R. 578 PROJECT APE

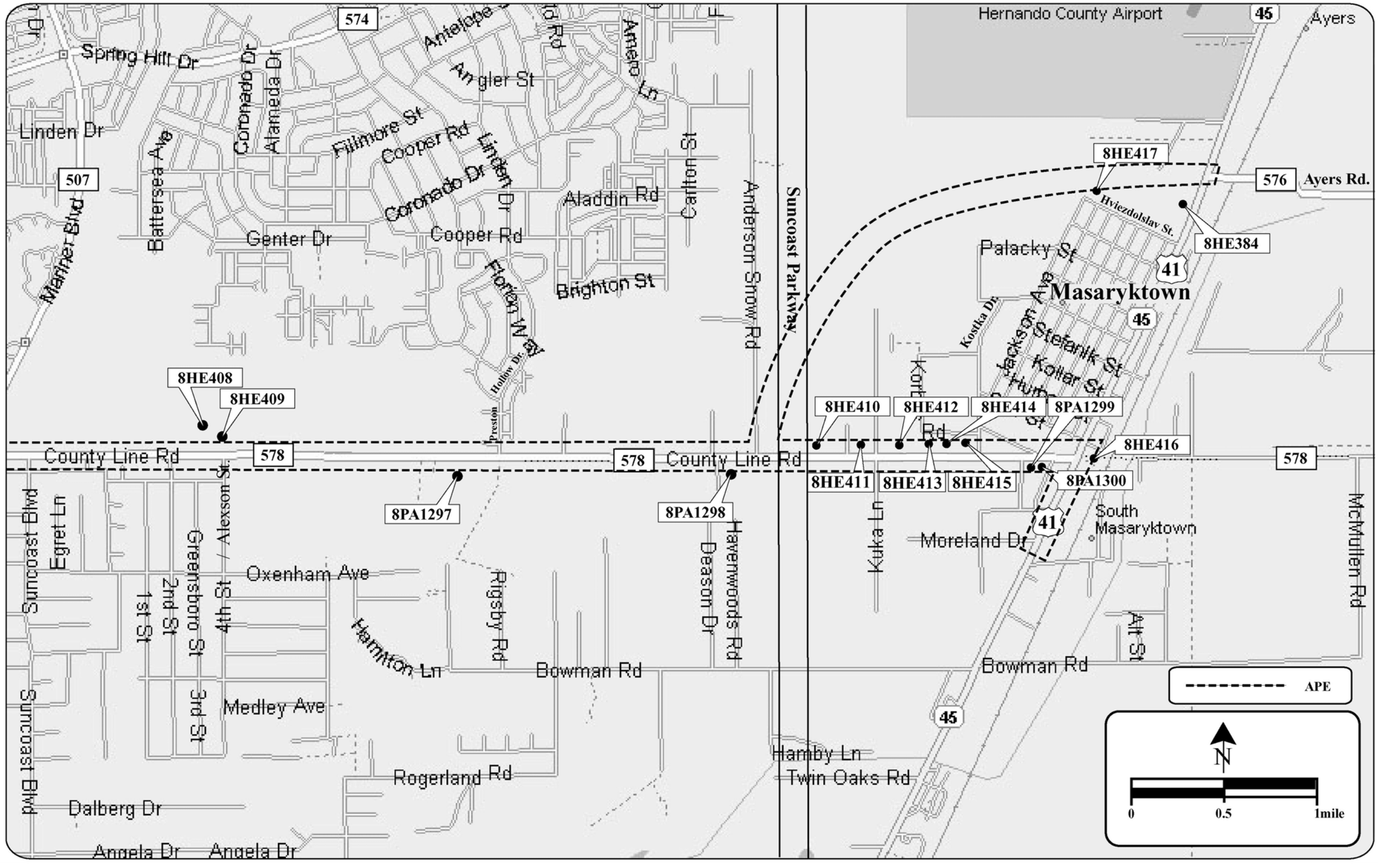


Figure 7

Site Sketch for 8HE426

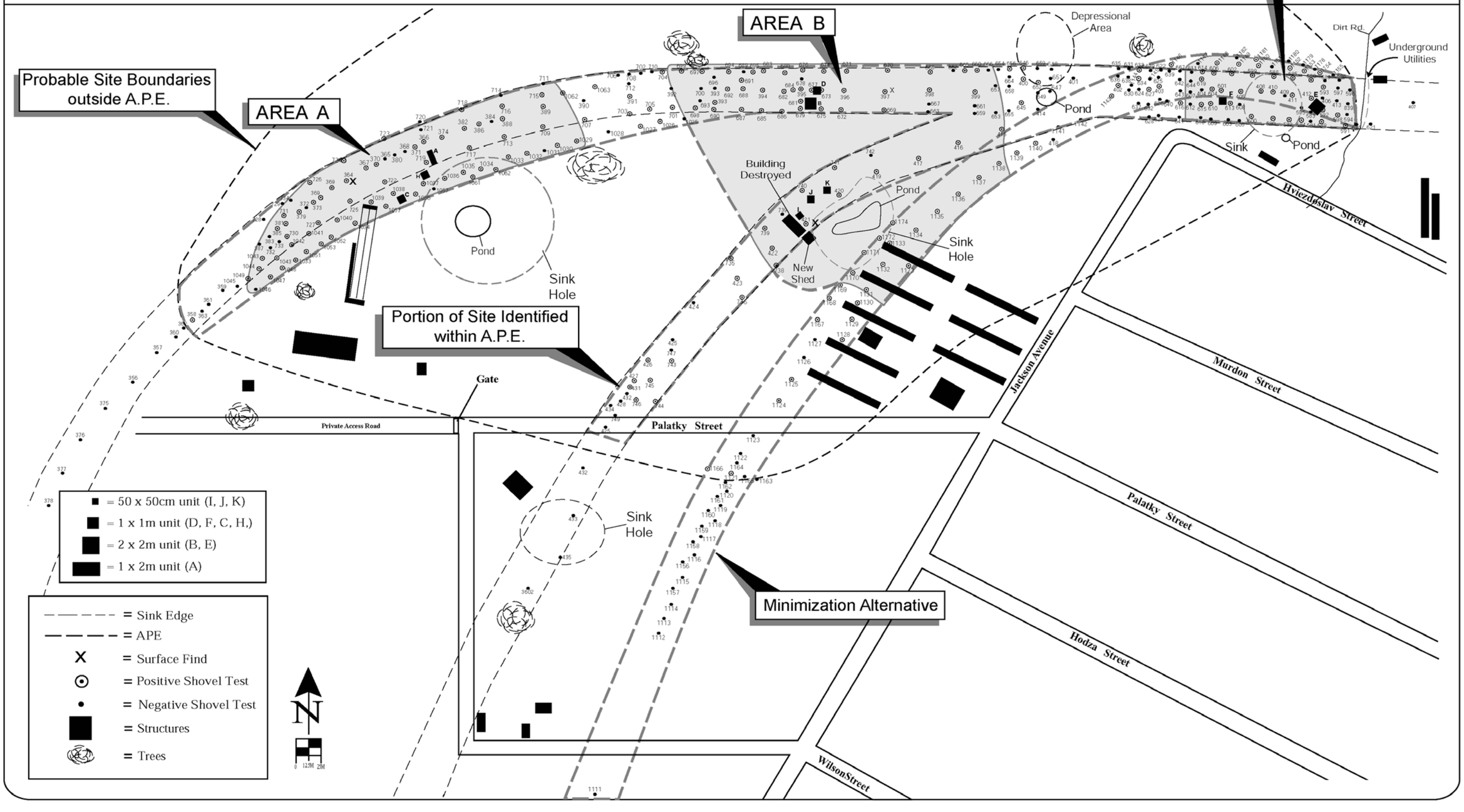


Figure 8

Site Sketch for 8HE284

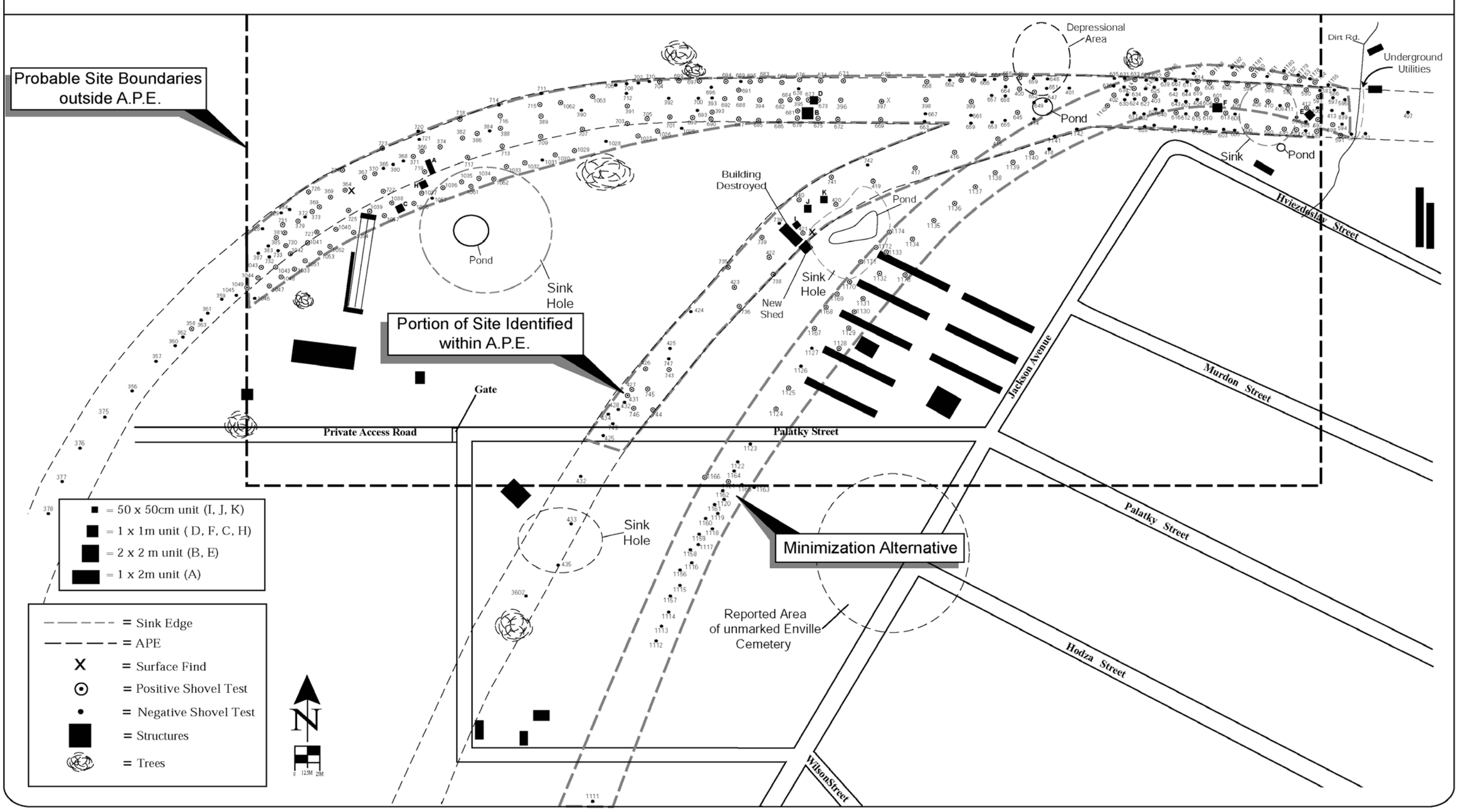
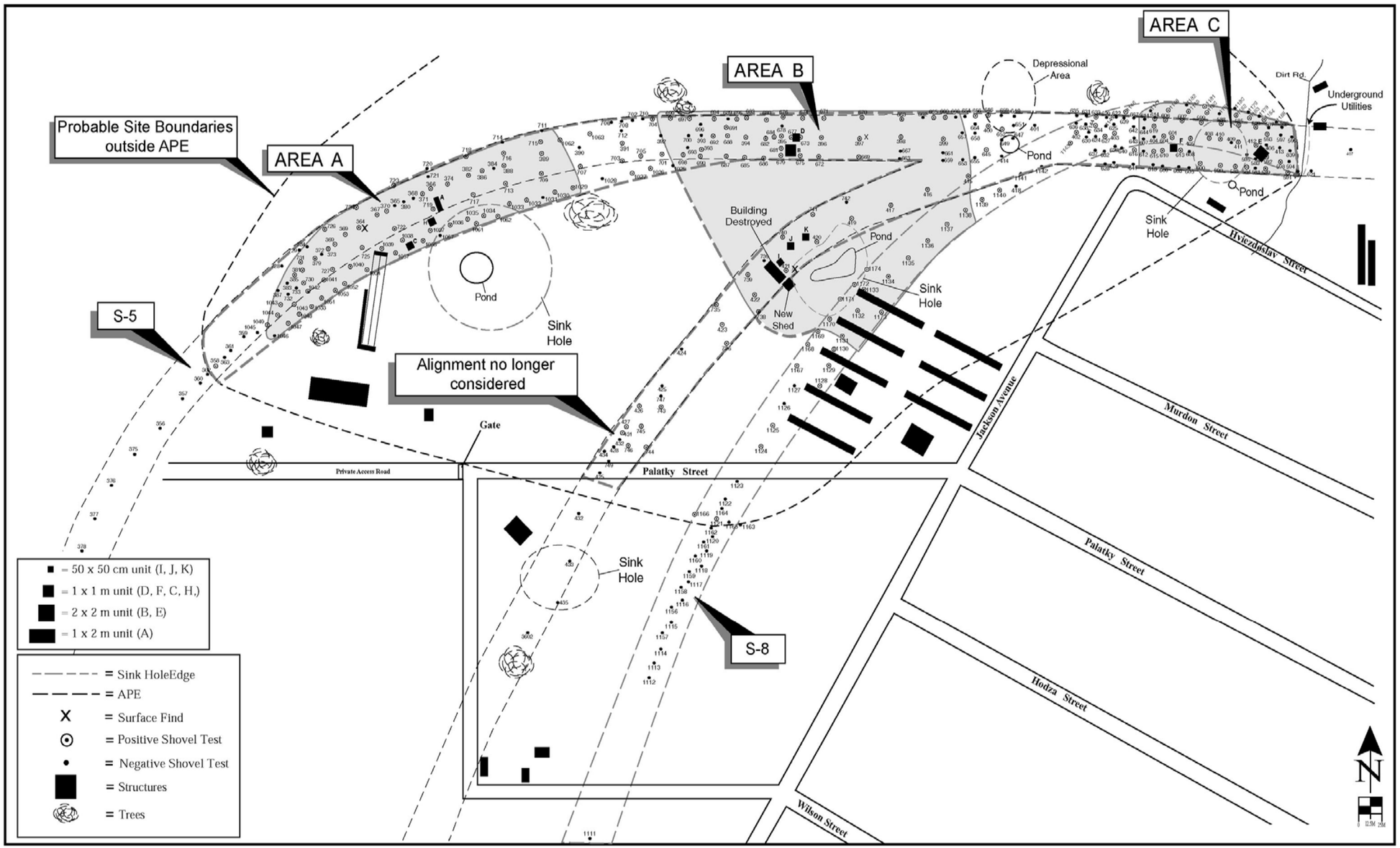


FIGURE 3-1
SITE SKETCH FOR 8HE426



APPENDIX D

MEMORANDUM OF AGREEMENT

Memorandum of Agreement

Florida Department of Transportation - District VII

County Line Road (C.R. 578)
Project Development and Environment Study
From U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45)

Work Program Item Segment Number: 257298 1
Federal-Aid Program Number: 7822 001 S
Pasco and Hernando Counties, Florida

The proposed project involves improving County Line Road (C.R. 578) to a multi-lane facility from U.S. 19 (S.R. 55) to east of U.S. 41 (S.R. 45) in Pasco and Hernando counties, a distance of approximately 12.0 miles (19.3 kilometers). The project includes a segment of roadway along a new alignment. This segment is referred to as the Ayers Road Extension and extends from the interchange of C.R. 578 and the Suncoast Parkway to east of U.S. 41, a distance of approximately 3.5 miles (5.6 kilometers).

Prepared by:

Janus Research
for
URS Corporation Southern

December 2002

MEMORANDUM OF AGREEMENT

Between the Federal Highway Administration and the State Historic Preservation Officer

Pursuant to 36 CFR Part 800.6(b)(1) (revised, 2001)

The Alexsuk Site (8HE426)

WHEREAS, the United States Department of Transportation, Federal Highway Administration (FHWA) proposes to provide financial assistance to the Florida Department of Transportation (FDOT) for improvements to County Line Road (C.R. 578) from U.S. 19 (S.R. 55) to U.S. 41 (S.R. 45) in Hernando and Pasco counties, including the proposed Ayers Road Extension from the Suncoast Parkway to the U.S. 41/Ayers Road intersection, designated Work Program Item Segment Number: 257298-1 and Federal Aid Program Number: 7822-001-S; and,

WHEREAS, the FHWA has consulted with the Florida State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the *National Historic Preservation Act* (16 U.S.C. 470[f]), as amended January 2001, and has determined that the design and location of the selected project alignment will have an adverse effect on the Alexsuk Site (8HE426), which is eligible for listing in the *National Register of Historic Places* (*NRHP*) under Criterion D; and,

WHEREAS, the FDOT has participated in the consultation and has been invited to concur in this Memorandum of Agreement; and,

NOW, THEREFORE, the FHWA, FDOT, and the Florida SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effect this undertaking will have on the historic property.

STIPULATIONS

FHWA will ensure that the following stipulations are implemented:

1. Archaeological excavation and data recovery (Phase III) will be conducted at those portions of the Alexsuk Site (8HE426) affected by FHWA activities. The FHWA shall ensure that this work is conducted in accordance with the data recovery plan determined pursuant to Stipulation 2 to be sufficient to mitigate adverse effects to the historic property.

2. The FHWA shall ensure that the data recovery plan entitled, "Archaeological Data Recovery at the Alexsuk Site (8HE426)," is implemented prior to and in coordination with those project activities that could disturb Site 8HE426. The FHWA shall ensure that the data recovery plan is developed in consultation with the SHPO for the recovery of archaeological data from Site 8HE426, and it shall ensure that the data recovery plan is sufficient to mitigate adverse effects to Site 8HE426. The plan shall be consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeological*

Documentation (48 FR 44734-37), and it will take into account the publication by the Advisory Council for Historic Preservation, *Protection of Historic Properties* (revised January 2001), subject to any pertinent revisions the Council may make in the publication prior to the completion of the data recovery plan.

The Data Recovery Plan will specify, at a minimum,

- The portion of Site 8HE426 where data recovery will be carried out;
- Any portions of Site 8HE426 that will be affected, either altered or destroyed without data recovery;
- The research questions to be addressed through the data recovery, with an explanation of their relevance and importance;
- The field methods to be used, with an explanation of their relevance to the research questions;
- The methods to be used in analysis, data management, and dissemination of data, including a schedule;
- The proposed disposition of recovered materials and records;
- The proposed methods for disseminating results of the work to the interested public;
- A proposed schedule for the submission of progress reports to the FHWA and the FDOT.

The data recovery plan shall be submitted by the FHWA to the SHPO for a 30-day review. Unless the SHPO objects within 30 days after receipt of the plan, the FHWA shall ensure that it is implemented. Any objections shall be governed by Stipulation 6 below.

3. The FHWA shall ensure that all historic preservation work carried out pursuant to this agreement is carried out by or under the direct supervision of a person or persons meeting at a minimum the professional qualifications for an archaeologist set forth in 36 CFR Part 66, Appendix C, "Professional Qualifications."

4. The FHWA shall ensure that all materials and records resulting from the data recovery at Site 8HE426 are curated by the SHPO or another state agency or organization that is able to provide curation in accordance with 36 CFR Part 79 or curation of recovered materials by other methods acceptable under historic preservation law.

5. Any proposed modification of the selected project right-of-way and other lands potentially impacted by the proposed action that may affect Site 8HE426 must be reviewed in consultation with the SHPO to determine if the effect will be adverse and, if so, what modifications should be made to the data recovery plan.

6. Should the SHPO object within 30 days after receipt of the data recovery plan provided for review pursuant to this Agreement, or to the manner in which the data recovery plan or this agreement is being implemented, the FHWA shall consult with the SHPO to

resolve the dispute. If the FHWA determines that the objection cannot be resolved, the FHWA shall request the comment of the Advisory Council pursuant to 36 CFR 800.6(b)(1)(v). Any Council comments provided in response to such a request will be taken into account by the FHWA with reference only to the subject of the dispute; the FHWA responsibility to carry out all actions under this agreement that are not subjects of the dispute will remain unchanged.

7. Following data recovery and analysis, an Executive Summary will be submitted for review.

8. A final report describing the methods and results of the data recovery will be completed and submitted for review.

FHWA has afforded the Advisory Council on Historic Preservation an opportunity to comment on the Project and its effects on historic properties. Execution of this Memorandum of Agreement, by FHWA, FDOT, and the Florida SHPO, and the implementation of its terms, evidences that FHWA has taken into account the effects of the Project on historic properties and satisfied the requirements of Section 106 of the National Historic Preservation Act (16 U.S.C. Section 470[f]). A copy of this MOA will be forwarded to the Advisory Council on Historic Preservation.

Approved: Federal Highway Administration

By: _____ Date: _____
James E. St. John, Division Administrator

Concurred: Florida Department of Transportation

By: _____ Date: _____
Kenneth A. Hartmann, P.E., District Secretary

Approved: State Historic Preservation Officer

By: _____ Date: _____
Janet Snyder Matthews, Ph.D., SHPO