Cultural Resources Assessment Survey for 14 Preferred Pond Sites

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway, Osceola County

Financial Project ID (FPID) No. 436194-1-52-01

February 2023

Executive Summary

At the request of the Florida's Turnpike Enterprise (FTE), and in association with Moffit & Nichol, Janus Research prepared a cultural resources assessment survey (CRAS) for 14 preferred pond sites associated with the widening of the Turnpike (SR 91) between Partin Settlement Road and Osceola Parkway in Osceola County, Florida (Financial Project ID [FPID] No. 436194-1). There are 14 preferred pond sites associated with the Widen Florida's Turnpike Mainline (SR 91) between Partin Settlement Road and Osceola Parkway from 4 to 8 lanes between Mile Posts (MPs) 243.57 and 248.62. Ground disturbance is expected to range from 5.9–16.5 feet in depth below the seasonal high water elevation. The purpose of this survey was to locate, identify, and bound any previously recorded or unrecorded cultural resources within the project area of potential effect (APE) and to assess these resources in terms of their eligibility for listing in the National Register of Historic Places (National Register) according to the criteria set forth in 36 CFR Section 60.4.

This project is state funded and this assessment complies with the revised Chapter 267, *Florida Statutes* (*F.S.*); and the standards embodied in the Florida Division of Historical Resources (FDHR's) *Cultural Resource Management Standards and Operational Manual* (February 2003), and Chapter 1A-46 (*Archaeological and Historical Report Standards and Guidelines*), *Florida Administrative Code*. In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (*Archaeological and Historical Resources*) of the Florida Department of Transportation (FDOT) *PD&E Manual* (effective July 1, 2020). 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, as amended and annotated). Principal Investigators also meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The CRAS included a pedestrian survey and subsurface testing, where possible. During the current archaeological survey, 33 shovel tests were excavated in four pond locations (Ponds 4C, 5, 6, and 7). Six ponds (Ponds 9, 10A, 10B, 11A, 11B, and 11C) were included in a previous survey, the *Cultural Resource Assessment Survey of Florida's Turnpike Mainline PD&E Study From US 192 to SR 50 (Clermont), Orange and Osceola Counties* (Janus Research

2003; FMSF Manuscript No. 9230), and no cultural resources were identified within these pond locations during the previous survey effort. Pond 9 was inaccessible due to the combination of wet field conditions, fencing, locked gates in the surrounding area and the presence of ongoing construction blocking access from the roadway. However, as noted previously, this pond was surveyed in 2003 and no archeological sites or occurrences were identified within the pond location at that time (Janus Research 2013; FMSF Manuscript No. 9230). The four remaining ponds (Ponds 3B, 3C, 3D, and 4A) were in locations where subsurface testing was not feasible due to the presence of a wetland, retention area, or areas previously disturbed by roadway construction or underground utilities. Background research, the pedestrian survey, and the subsurface testing determined that the archaeological APE exhibited low probability for containing intact cultural deposits. All shovel tests were negative for cultural material, and no newly or previously recorded archaeological sites or archaeological occurrences were encountered.

Two unrecorded historic bridges were identified within the historic resources APE. FDOT Bridge Nos. 920075 and 920136 are components of the Florida's Turnpike (SR 91) system, and the State Historic Preservation Officer (SHPO) has previously determined they are exempt from recordation per the most recent guidelines provided by OEM within the *Historic Linear Resource Guide* (2022). No additional historic resources were identified within the APE during the current survey.

Cultural Resource Assessment Survey for 14 Preferred Pond Sites
Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway

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APPENDICES

1.0 Introduction

At the request of the Florida's Turnpike Enterprise (FTE), and in association with Moffit & Nichol, Janus Research prepared a cultural resources assessment survey (CRAS) for 14 preferred pond sites associated with the widening of the Turnpike (SR 91) between Partin Settlement Road and Osceola Parkway in Osceola County, Florida (Financial Project ID [FPID] No. 436194-1) (Figure 1.1). There are 14 preferred pond sites associated with the Widen Florida's Turnpike Mainline (SR 91) between Partin Settlement Road and Osceola Parkway from 4 to 8 lanes between Mile Posts (MPs) 243.57 and 248.62. Ground disturbance is expected to range from 5.9–16.5 feet in depth below the seasonal high water elevation. The purpose of this survey was to locate, identify, and bound any previously recorded or unrecorded cultural resources within the project area of potential effect (APE) and to assess these resources in terms of their eligibility for listing in the National Register of Historic Places (National Register) according to the criteria set forth in 36 CFR Section 60.4.

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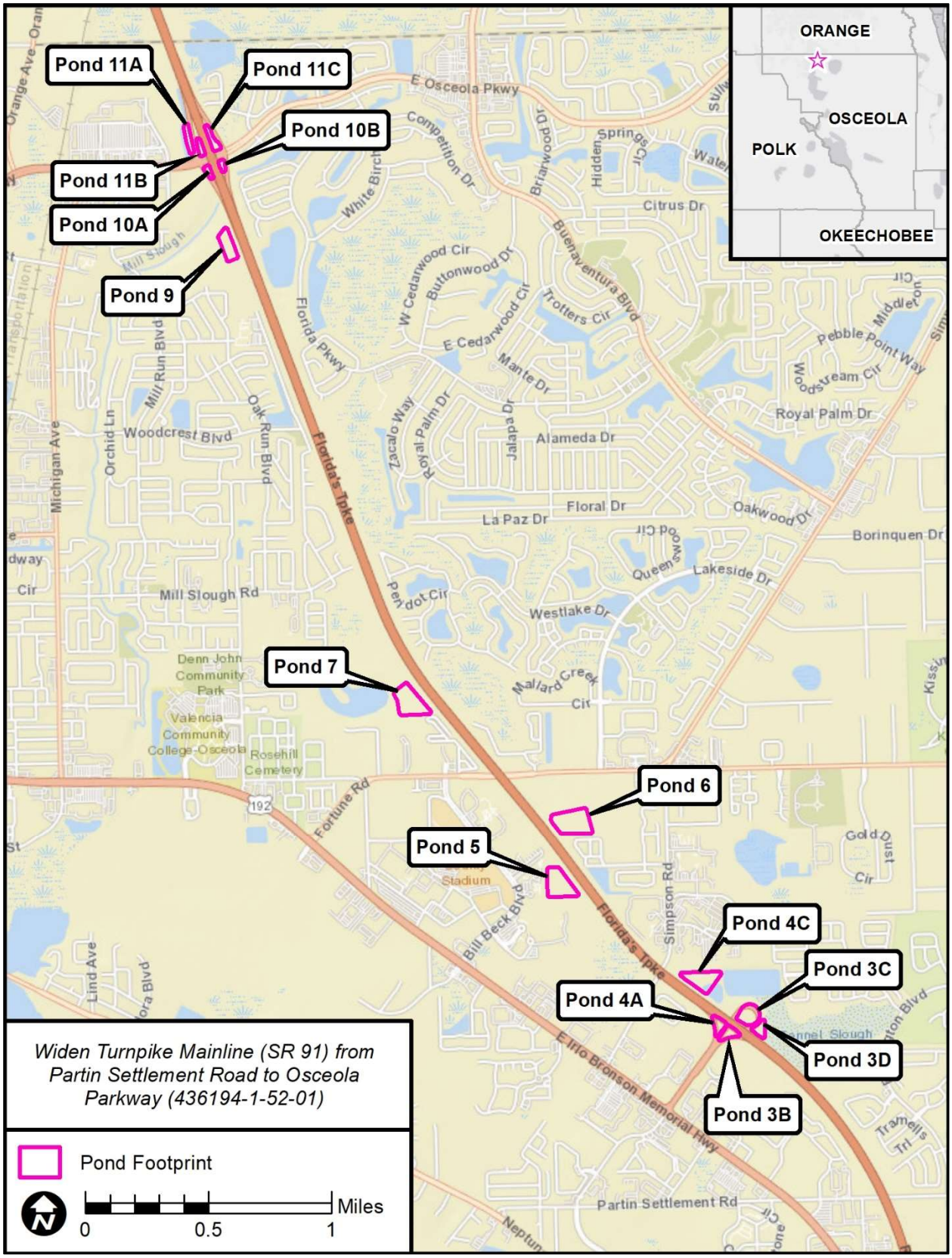

Figure 1.1: General Location of the Proposed Ponds

2.0 Area of Potential Effect

According to 36 CFR 800.16(d), the APE is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking as well as its geographical setting. The project APE, therefore, considers the improvements that will be implemented as part of the proposed project and the extent of potential ground disturbance as well as the setting and character of the project area.

The ponds are in existing retention areas within or adjacent to the Turnpike (SR 91) interchanges at Osceola Parkway and Cross Prairie Parkway, or on undeveloped land adjacent to the Turnpike (SR 91) right of way (ROW). The surrounding area is characterized by medium-density residential and commercial development with intermittent wetlands and areas of undeveloped land. Based on the nature of the improvements and the character of the surrounding area, the archaeological APE consists of the footprint of the ponds sites and any associated proposed ROW (Figures 2.1a–2.1d). The historic resources APE also includes the footprints of the proposed pond sites and proposed ROW, as well as a buffer of 150 feet extending from their edges, as shown in Figures 2.1a–2.1d.

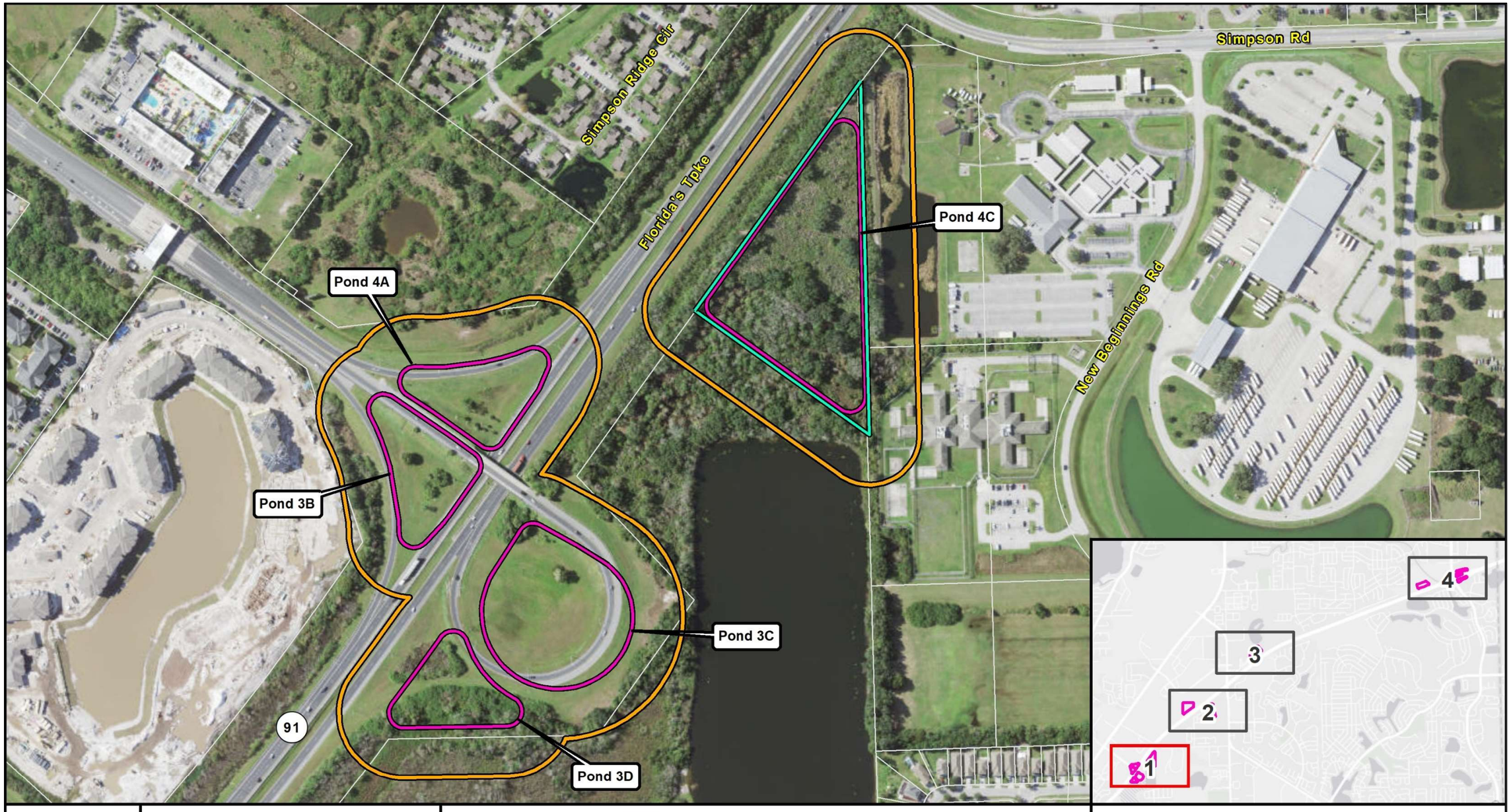

Figure 2.1a: Project APE (Map 1 of 4)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

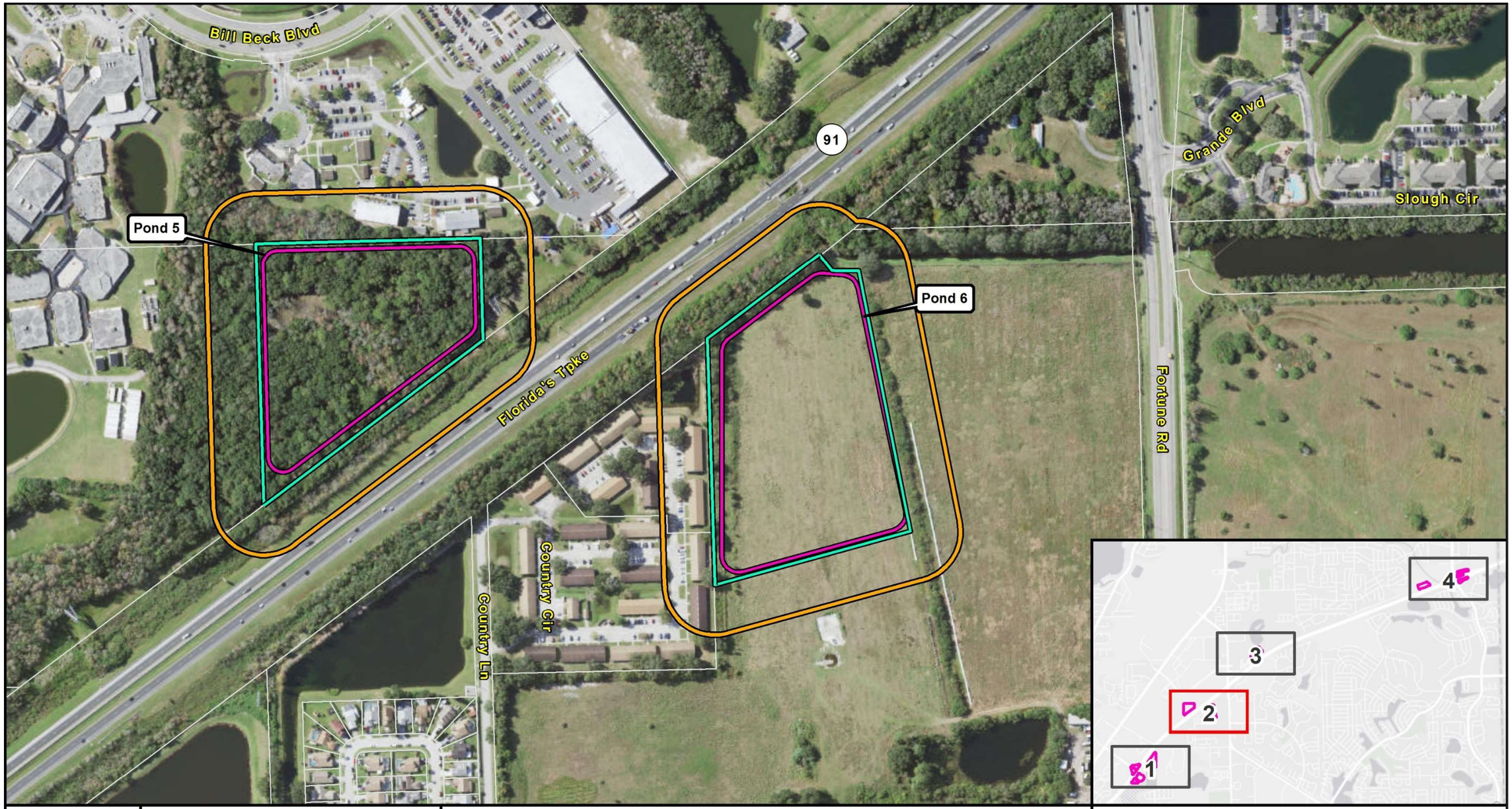

Figure 2.1b: Project APE (Map 2 of 4)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

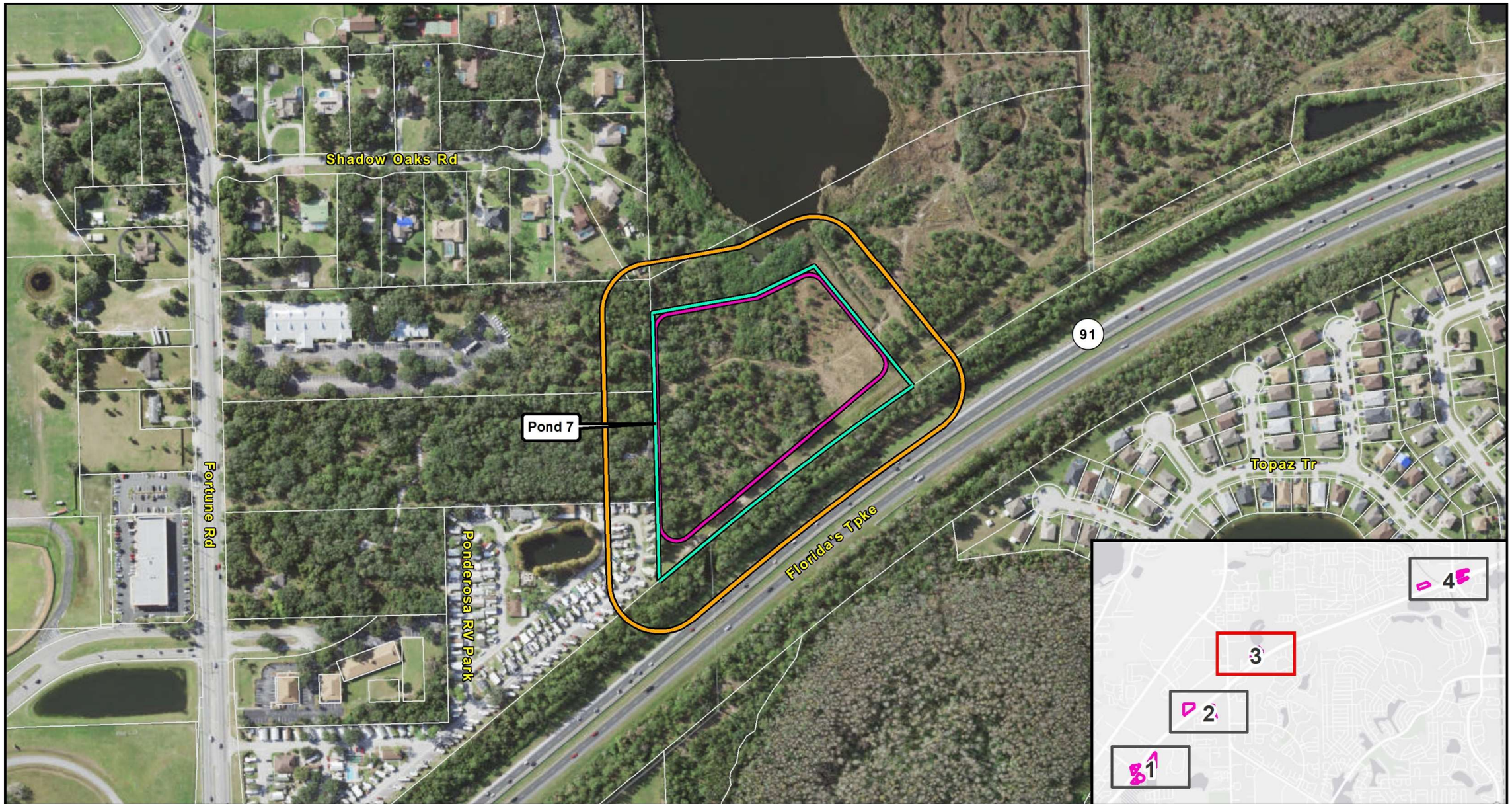

Figure 2.1c: Project APE (Map 3 of 4)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

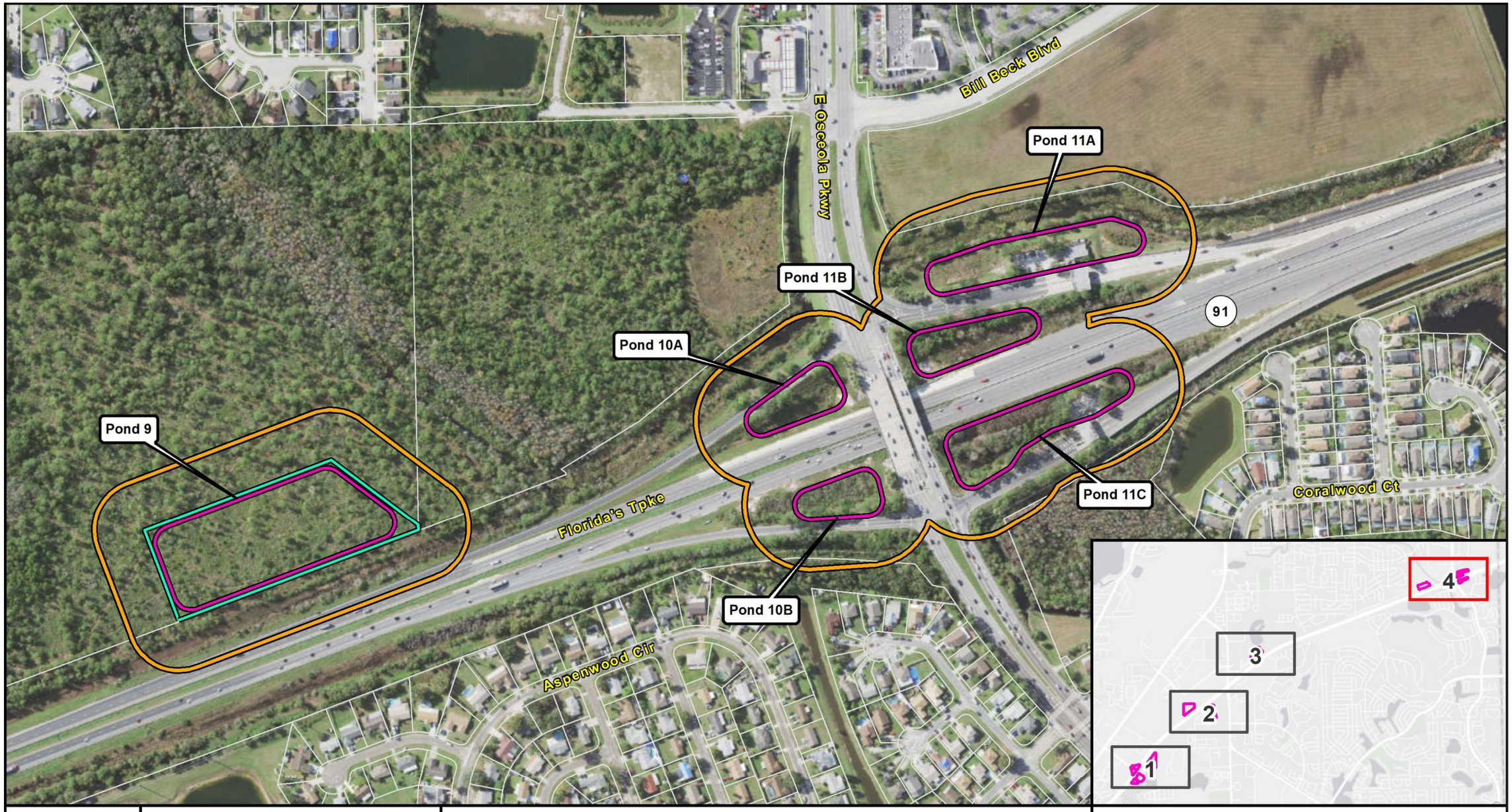

Figure 2.1d: Project APE (Map 4 of 4)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

3.0 Environmental Setting

Environmental and ecological factors influenced the choice of areas used and occupied by precontact and historic period populations. These factors change over time and are used to reconstruct past conditions that influenced early human occupation of the project area.

3.1 Paleo-Environment

A brief description of the large-scale climatic and hydrologic conditions that have occurred since 31,050 BC is provided in the following pages. This description is drawn primarily from the work of W. A. Watts (1969, 1971, 1975, and 1980) and Watts and Hansen (1988). Carbone (1983) has promoted the reconstruction of local paleoenvironments, or small-scale environmental change, with an effort towards developing regional paleoenvironmental mosaic landscapes. Vegetation and animals (including humans) either adapt to local areas (micro-habitats) or move to preferred locations. The descriptions given here provide some indication of the ecological context of precontact groups at different times, in particular the environmental limitations.

Since the termination of the Pleistocene Epoch, approximately 11,550 BC, Florida has undergone significant climatic and environmental change. Notable changes in climate and subsequently in flora and fauna required human groups to adapt to their surroundings. These adaptations resulted in cultural changes in their hunting/foraging strategies and seasonal migration patterns. Within the archaeological record, these changes can be observed by differences in settlement patterns, midden composition, refuse disposal patterns, and the kinds of stone tools or pottery made.

Paleobotanical evidence (Watts 1969, 1975, 1980; Watts and Stuiver 1980; Watts and Hansen 1988) has documented that the cypress swamp/mesic hammock environs that presently exist in the river basins of central Florida are recent phenomena (post–1050 BC). Prior to this time, the human groups inhabiting this region had adapted to environments that have no analogues on the Florida peninsula today (Wright 1971, 1981; Long 1974; Carbone 1983). Since the termination of the Wisconsin glaciation, the changes in North American climate and topography have been dramatic; both the environment and human exploitation of the environment have been in continual flux (Edwards and Merrill 1977).

Although Florida was not glaciated, the glacial conditions associated with the Laurentide ice sheet affected the paleoclimates of Florida. Paleobotanical evidence suggests that between 31,050 and 11,550 BC, Florida was dry, windy, and cool (Whitehead 1973). Pollen analyses from lake sediment cores performed by Watts (1969, 1971, 1975, and 1980) suggest that a mosaic landscape of herb prairie and oak savanna covered central Florida at this time. Rosemary (*Ceratiola ericodes*), ragweed (*Ambrosia* sp.), grass species, and other composites covered the dune ridges. Scattered stands of sclerophyllous oak scrub grew in the lower, riparian areas. Pine species were rare in Florida 35,000 years ago (Watts 1975:345), but increased in abundance toward the end 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 Stuiver 1980).

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

By the early Holocene, roughly 11,550 BC, the climate in west-central Florida had warmed and it is likely that precipitation increased; as a result, the shallow, perched lake levels rose. Watts (1980:400) states that by 6450 BC, oak pollen frequency increased to its highest level, while the pollen from dune cover vegetation (primarily rosemary, ragweed, and grasses) decreased. Pines species became more common, but large areas of open prairie-like vegetation still remained (Watts 1980:400). Temperatures were probably warmer than present (Wright 1971; Watts 1975, 1980) and rainfall was probably greater relative to the preceding period (31,050 to 11,550 BC); however, conditions remained more arid than present.

Kukla (1969) has suggested that a series of minor climatic fluctuations occurred during the Holocene Epoch. He postulates that the Holocene began with a warming trend that lasted until about 2650 BC, reaching a post-glacial climatic optimum at roughly 4050 BC. Cooling trends are suggested for the periods 2650 to 2050 BC, 1500 to 750 BC, 150 BC to AD 350, and AD 1200 to 1350 (Kukla 1969:315). Associated with these cooler periods are drops in sea level from 2.5 to 4 meters below present levels. Warming trends are suggested for the periods 2050 to 1500 BC, 750 to 150 BC, and AD 350 to 1200. The most recent warming trend (AD 350 to 1200) 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 levels to 0.5 meters above present levels has been associated with this period.

After 3050 BC, the environment in 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 level rose, creating wetter conditions. At Lake Annie, Watts (1980:400) reports that bald cypress (*Taxodium distichum*) pollen does not occur with any frequency until 2630 Before Present (BP). The development of cypress swamps, bayheads, and mesic hammocks has occurred over the last 3,000 years.

The earliest inhabitants of Florida accessed a permanent water supply from a number of 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 due to insufficient rainfall and the depressed level of the Aquifer. Settlement appears to have been limited to areas around sinkholes that penetrated the Floridan Miocene age limestones (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 8050 BC, the previously dry perched water systems began to retain water for longer periods of time as precipitation increased. By 6550 BC, the water levels in the perched water systems approached modern levels; however, the level of the Floridan Aquifer remained depressed due to lowered sea levels. Therefore, potable water was less restricted, but remained only seasonally available at perched water ponds and lakes and permanently available only in some deep sinkholes. During this period, the major rivers in central Florida,

such as the Hillsborough, the Peace, and the Caloosahatchee Rivers, probably flowed intermittently. For much of the period, these rivers were probably reduced to strings of discrete shallow ponds or pools.

By 4050 BC, the Floridan Aquifer reached modern levels (Dunbar 1981:98). This resulted in fresh water discharge from springs, and spring-fed rivers. Arid conditions caused many of the perched water ponds to dry; thereby, restricting potable water to the deeper springs, rivers, and sinkholes (Dunbar 1981:98). Between 4050 and 3050 BC, surface water was abundant, as the Floridan Aquifer was about 1.5 m above current levels (Dunbar 1981:101). Between 3050 to 550 BC, the level of the Floridan Aquifer fluctuated 3 meters, from 1.5 meters above current levels at 3050 BP to 1.5 meters below present levels at 2250 BC (Dunbar 1981:102). This probably resulted in a decreased surface discharge from the Aquifer, but increased rainfall maintained the levels in the perched water systems.

Beginning about 2050 BC, a series of lakes were formed along the interface of the sandy sediments of the central peninsula and the bare limestone bedrock of the distal end of the peninsula. Fibrous peat, deposited from sawgrass and other plant growth, accreted and formed a rising dike that slowed the drainage of water. This widened the area of the Everglades Trough by the erosion of sand deposits and the dissolution of limestone bedrock along the perimeter of these peat marshes. The accretion of fibrous peat continued and raised the water level in the peripheral lakes throughout the area that would later become the Florida Everglades. Lake Okeechobee, in the extreme northeast of the Everglades Trough, was one of these peripheral lakes. The rising dike of fibrous peat allowed Lake Okeechobee's shallow waters to expand over the surrounding lowlands (White 1970:79). Between 550 BC and AD 1700, 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 1981:102). Potable water was abundant during this period. It is likely that pre-Columbian site location at this time was 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. 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). The Florida peninsula was wider as sea level was as much as 49 meters lower than present level (Milanich 1994:38). The continental shelf was exposed in what is now the Gulf of Mexico. Mixed forests of oak and pine probably dominated the lower, riparian areas and the higher, arid locations were covered with rosemary scrub and grass species.

The Holocene Climatic Optimum, a time of warmer and drier environmental conditions, occurred during the Middle Archaic period (5000 to 3000 BC). Pine species replaced oak as the dominant forest element (Watts 1975). This implies that the availability of acorns and the animals that fed on those acorns 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 region approached present conditions. With the incipient development of the Everglades, Lake Okeechobee, Lake Kissimmee, swamps, wetlands, and other drainages, 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 (Almy 1976, 1978; Grange et al. 1979). Sea levels were still fluctuating, but were within one meter of current levels (Widmer 1983). Woodland Period culture groups exploited microhabitats that existed until modern logging, ranching, and land drainage practices were instituted.

3.2 Regional Environment

The project area is within the Osceola Plain physiographic region (White 1970). The Osceola Plain is a broad, flat plain to the east of the Lake Wales Ridge with elevations that range between 7.6 and 24 meters (25 and 80 feet) above mean sea level (AMSL) (White 1970; USDA 1979:3). Soils are predominantly nearly level, wet, and sandy (USDA 1979:2, 3). The primary river system in the Osceola Plain is the Kissimmee River. Other systems include Crabgrass Creek, Canoe Creek, Reedy Creek, Davenport Creek, Blue Cypress Creek, and numerous small streams. The Floridan Aquifer is the primary source of groundwater for the area. Secondary sources include the shallow waters that overlie the Floridian Aquifer, including the surficial sands and the upper Hawthorn Formation. In addition to these water sources are numerous lakes, including Lake Kissimmee, Lake Tohopekaliga, East Lake

Tohopekaliga, Lake Marian, Cypress Lake, Alligator Lake, Lake Gentry, and Lake Hatchineha (USDA 1979:3).

3.3 Physical Environment

The following pages describe the physical environment of the APE. Descriptions are presented generally unless specific detailed environmental characteristics were available, in which case they are presented moving from south to north.

3.3.1 General Land Office Records

A review of the General Land Office (GLO) historic plat map and surveyor's notes (Florida Department of Environmental Protection [FDEP] 1848a, 1848b, 1849a, 1849b) was conducted to help determine the predevelopment environmental conditions within the pond sites. Most of the proposed ponds are located within an area described as containing 3rd rate pine and saw palmetto. The southernmost ponds (Ponds 3C and 3D) are depicted within a large sawgrass marsh Figure 3.1.

3.3.2 Aerial Photographs

Historic Aerials from 1944, 1951, 1959, 1968, 1973, and 1982 (Florida Department of Transportation (FDOT), Office of Surveying and Mapping; University of Florida, George A. Smathers Libraries 2022) were reviewed to facilitate an understanding of the change in environment seen within the APE over time. A representation of the proposed ponds within the 1944, 1951, 1968, and 1982 historic aerial images are depicted within Figures 3.2a–3.2d, 3.3a–3.3d, 3.4a–3.4d, and 3.5a–3.5d. The review of aerial photographs from 1944 (see Figures 3.2a–3.2d) determined that the majority of the APE was undeveloped with an environment consisting of mixed pine flatwoods amongst intermittent swamps, streams, creeks, and wetlands. Agricultural development is concentrated to the west, south, and east.

Agricultural development within the surrounding regions of the ponds expanded between the mid-1940s and the 1950s, as evidenced by the presence of numerous drainage canals, the development of multiple agricultural fields or groves, and the addition of field roads. Minimal change is noticeable within the proposed ponds themselves, which are mostly located in lower, wetter areas. The APE is illustrated on aerial imagery from 1951 in Figures 3.3a–3.3d.

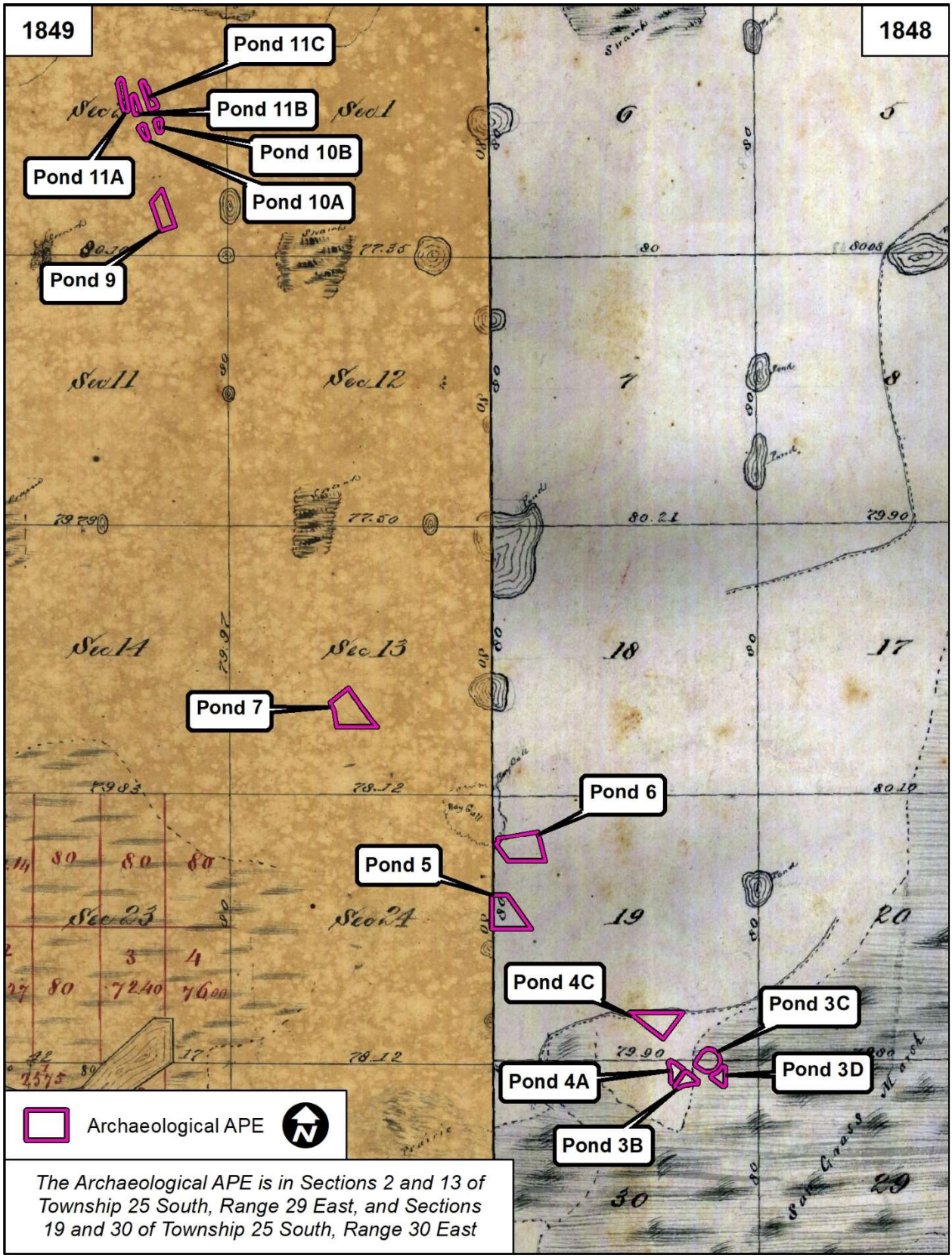

Figure 3.1: Archaeological APE Illustrated on 1848 and 1849 GLO Plat Maps

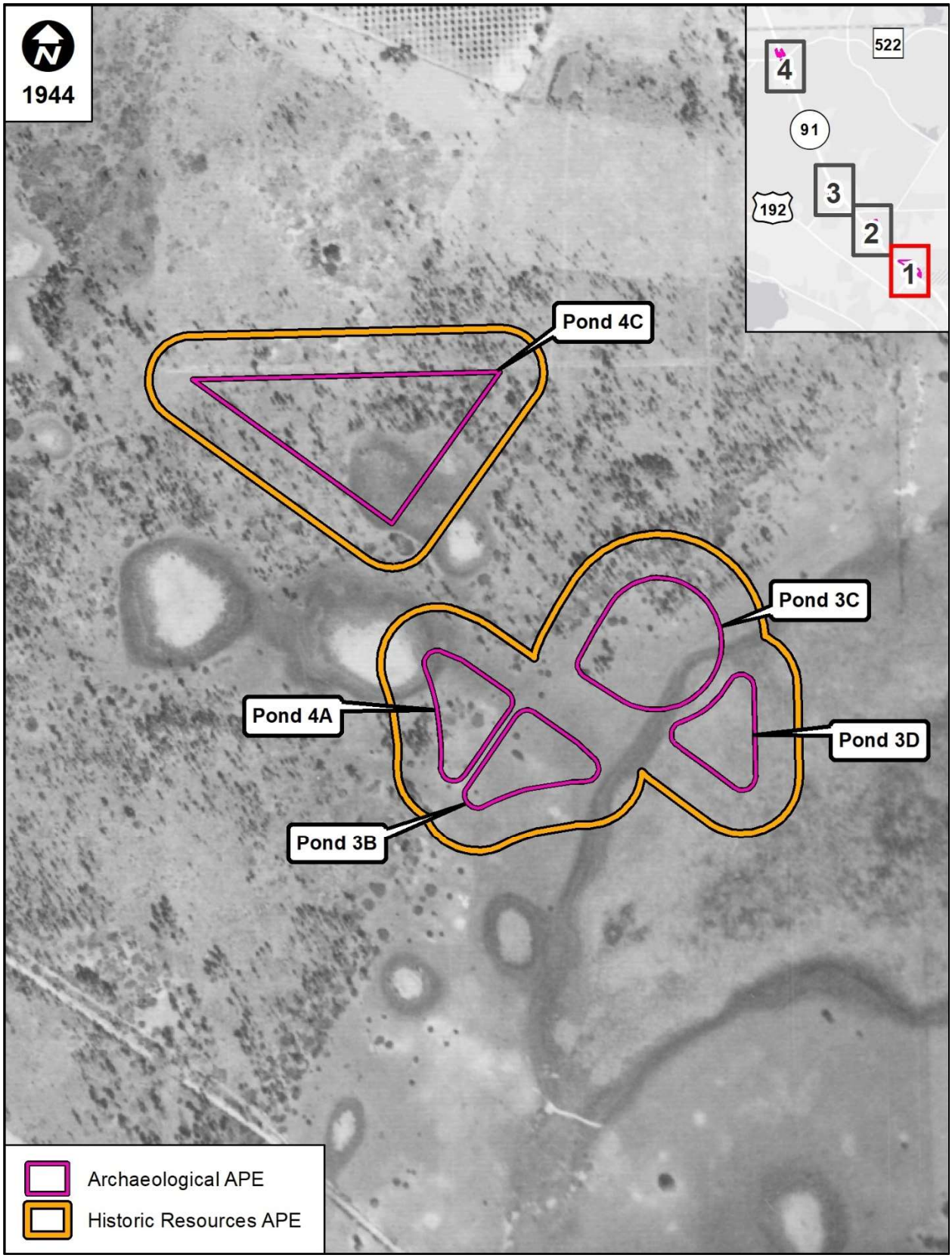

Figure 3.2a: Project APE Illustrated on 1944 Aerial Photographs (Map 1 of 4)

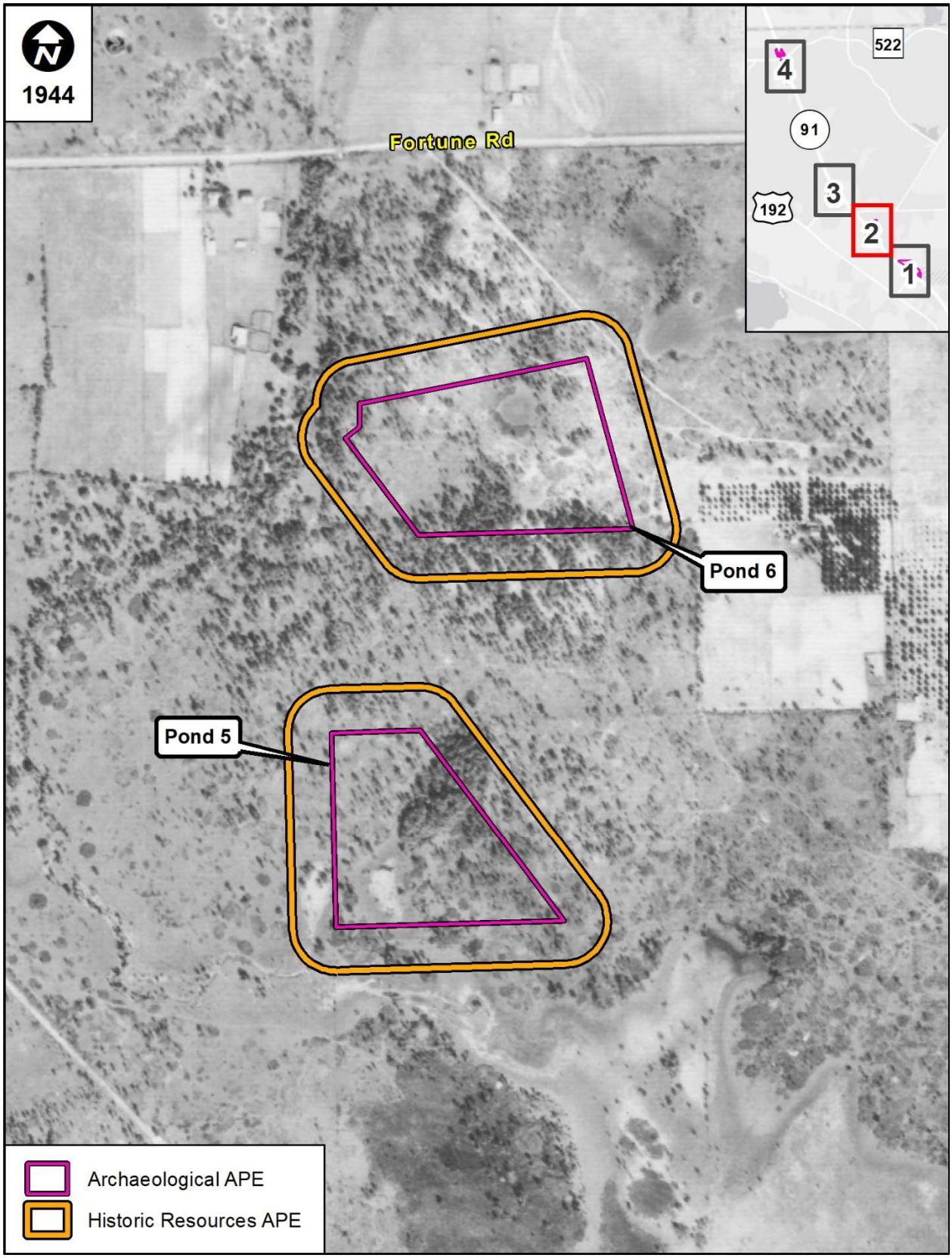

Figure 3.2b: Project APE Illustrated on 1944 Aerial Photographs (Map 2 of 4)

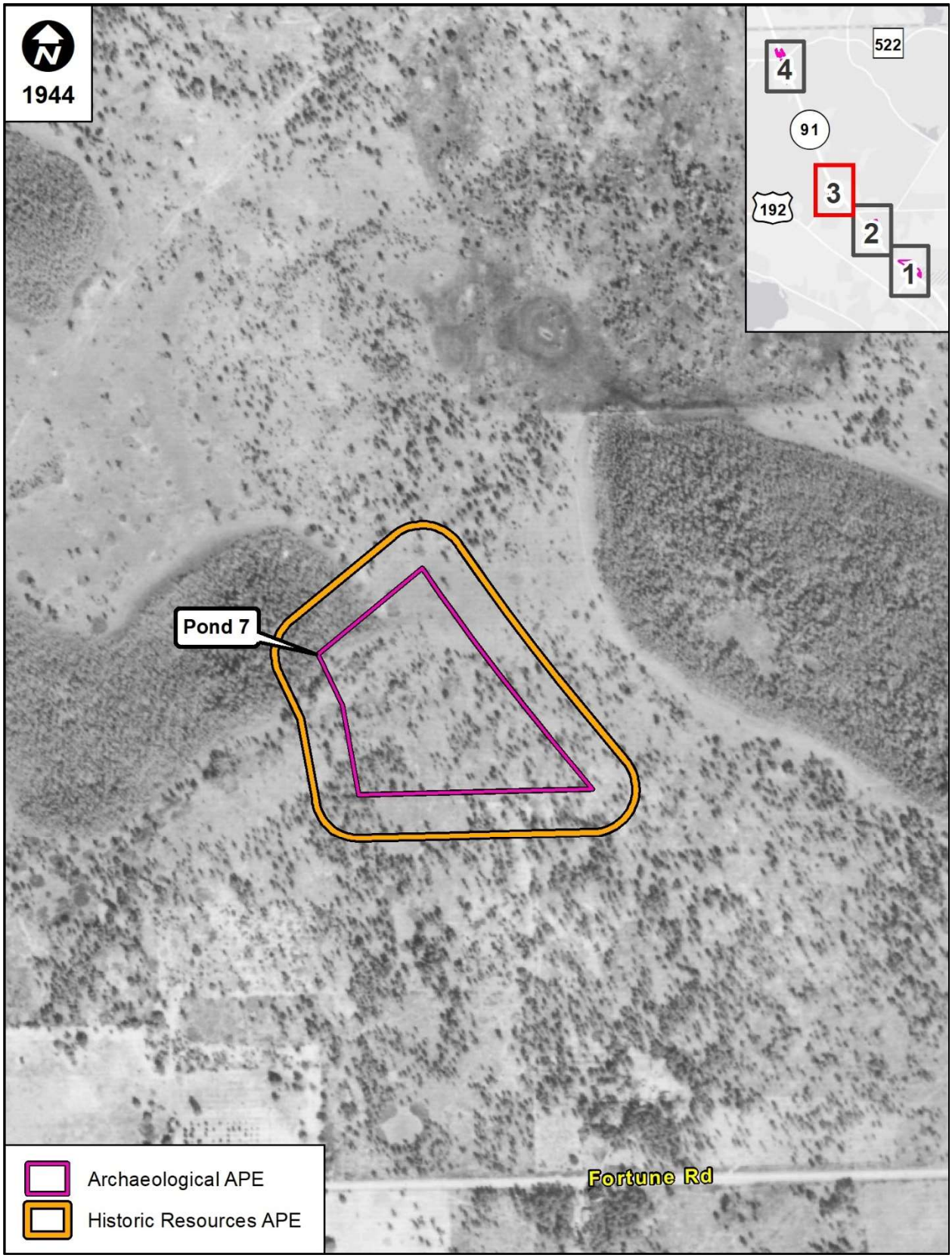

Figure 3.2c: Project APE Illustrated on 1944 Aerial Photographs (Map 3 of 4)

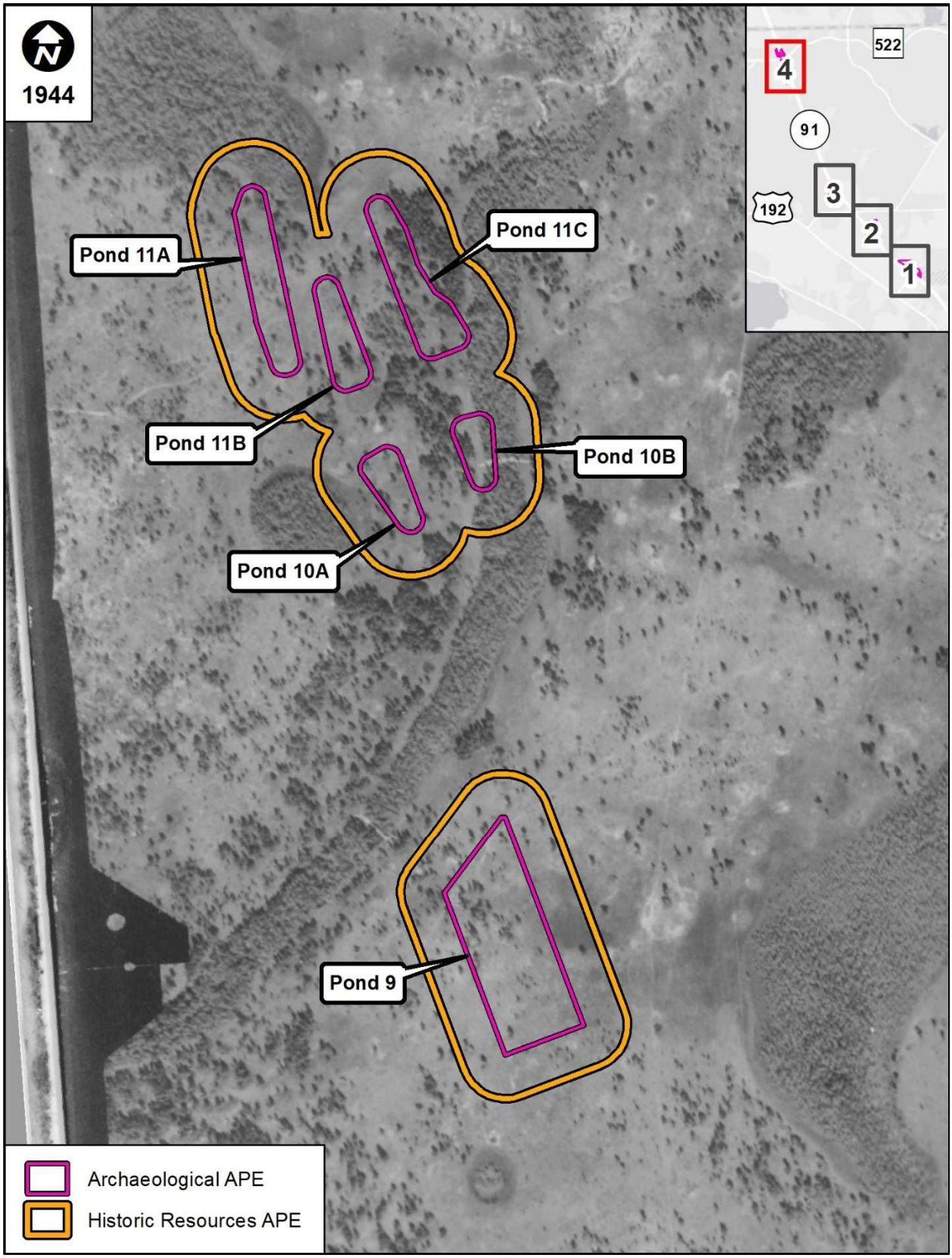

Figure 3.2d: Project APE Illustrated on 1944 Aerial Photographs (Map 4 of 4)

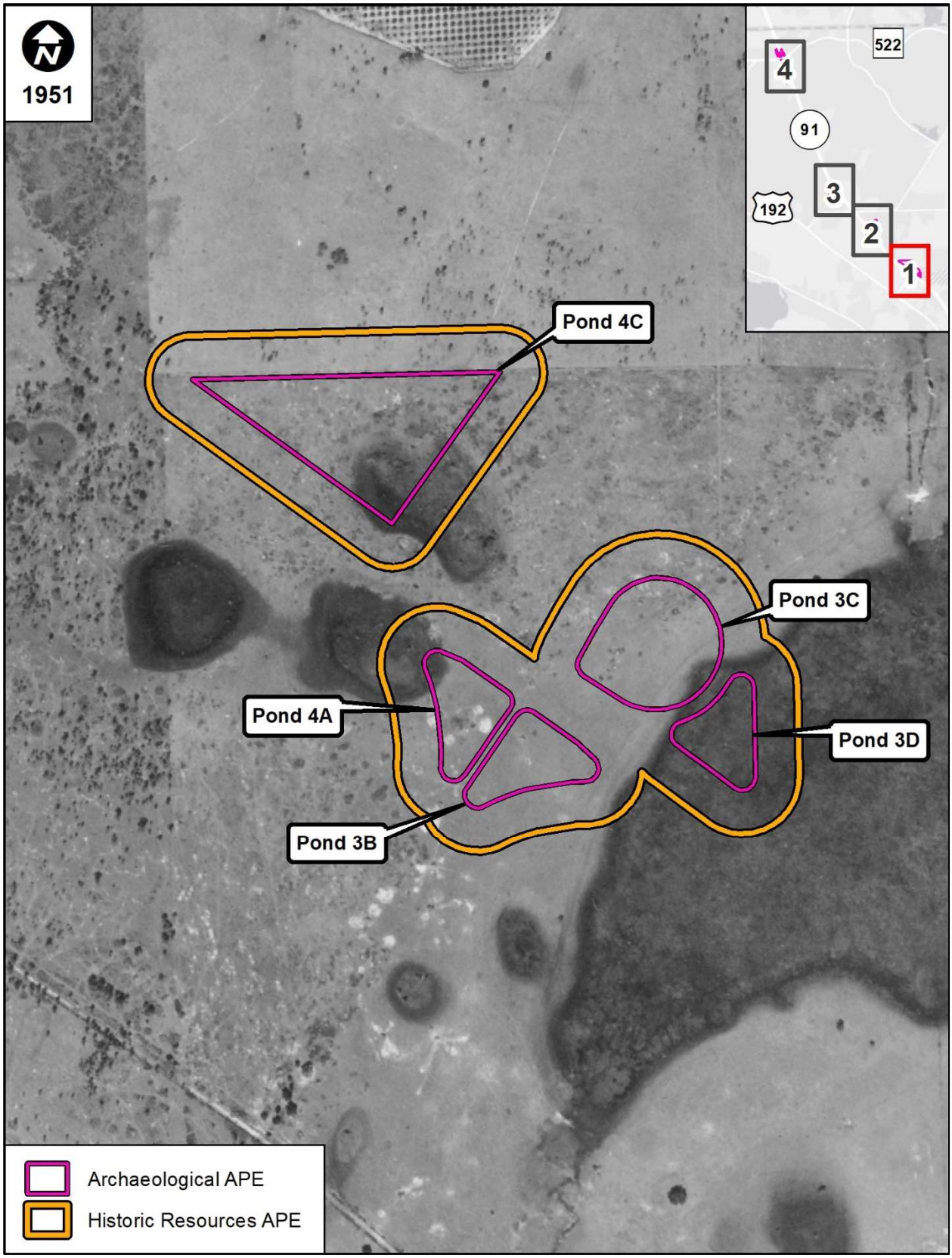

Figure 3.3a: Project APE Illustrated on 1951 Aerial Photographs (Map 1 of 4)

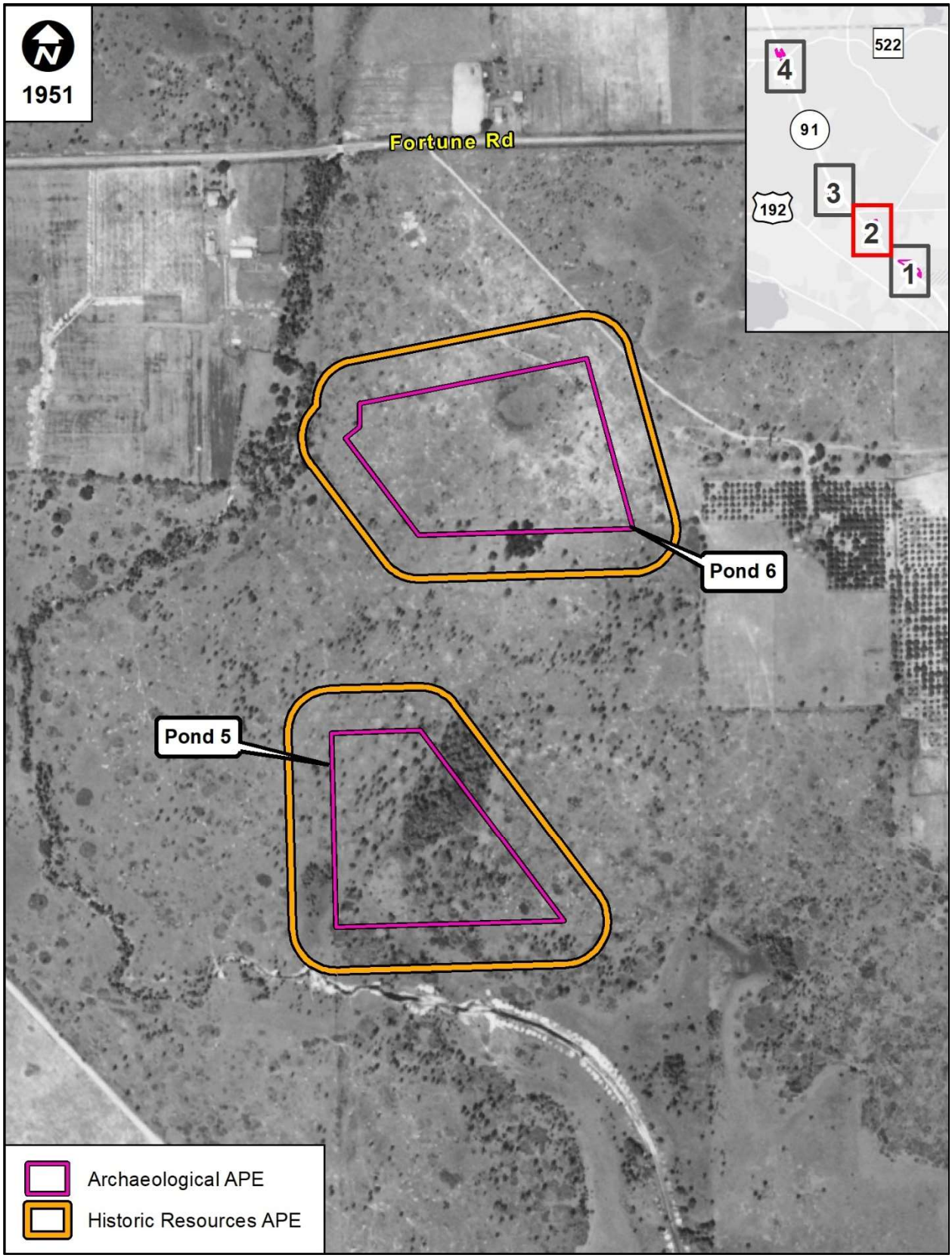

Figure 3.3b: Project APE Illustrated on 1951 Aerial Photographs (Map 2 of 4)

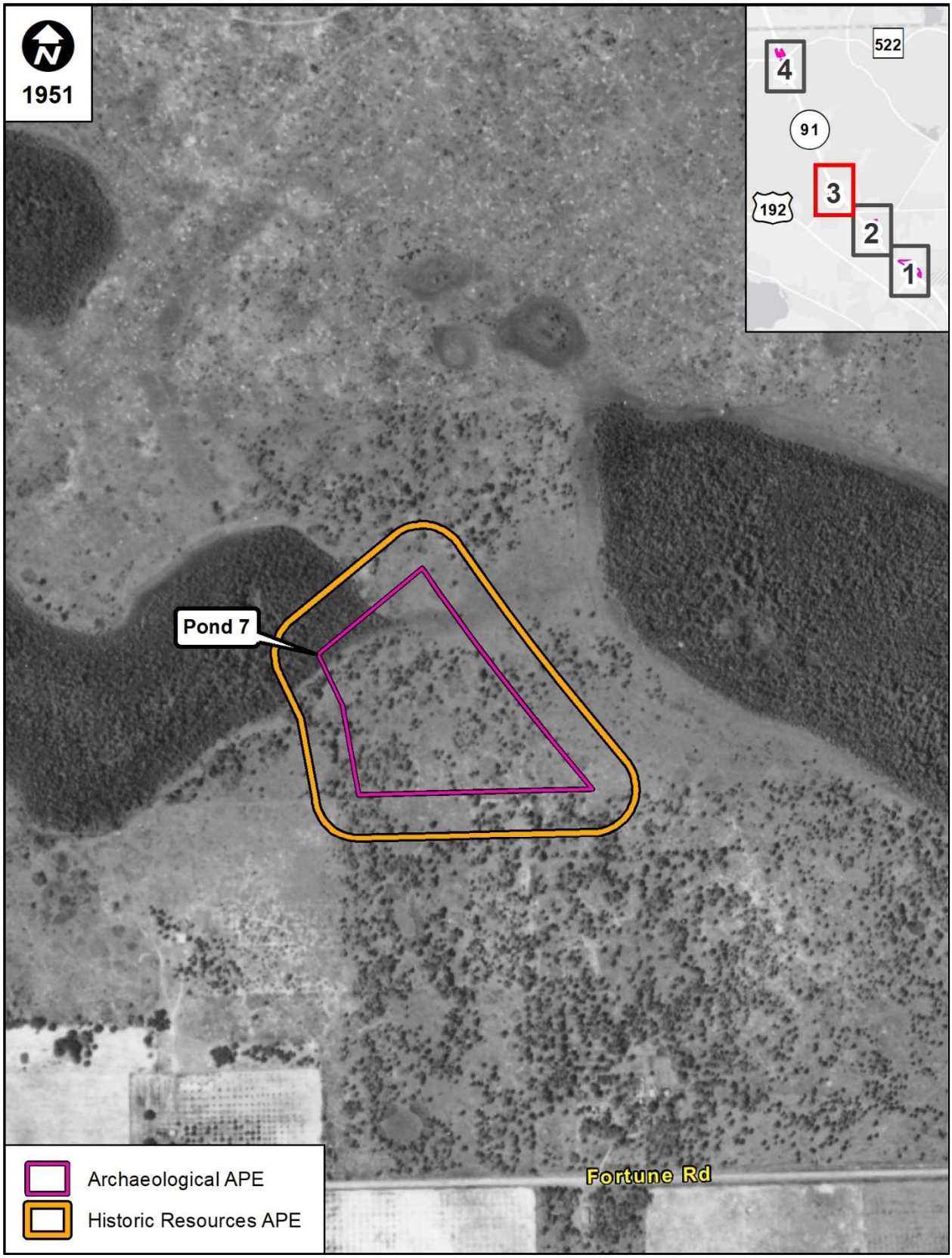

Figure 3.3c: Project APE Illustrated on 1951 Aerial Photographs (Map 3 of 4)

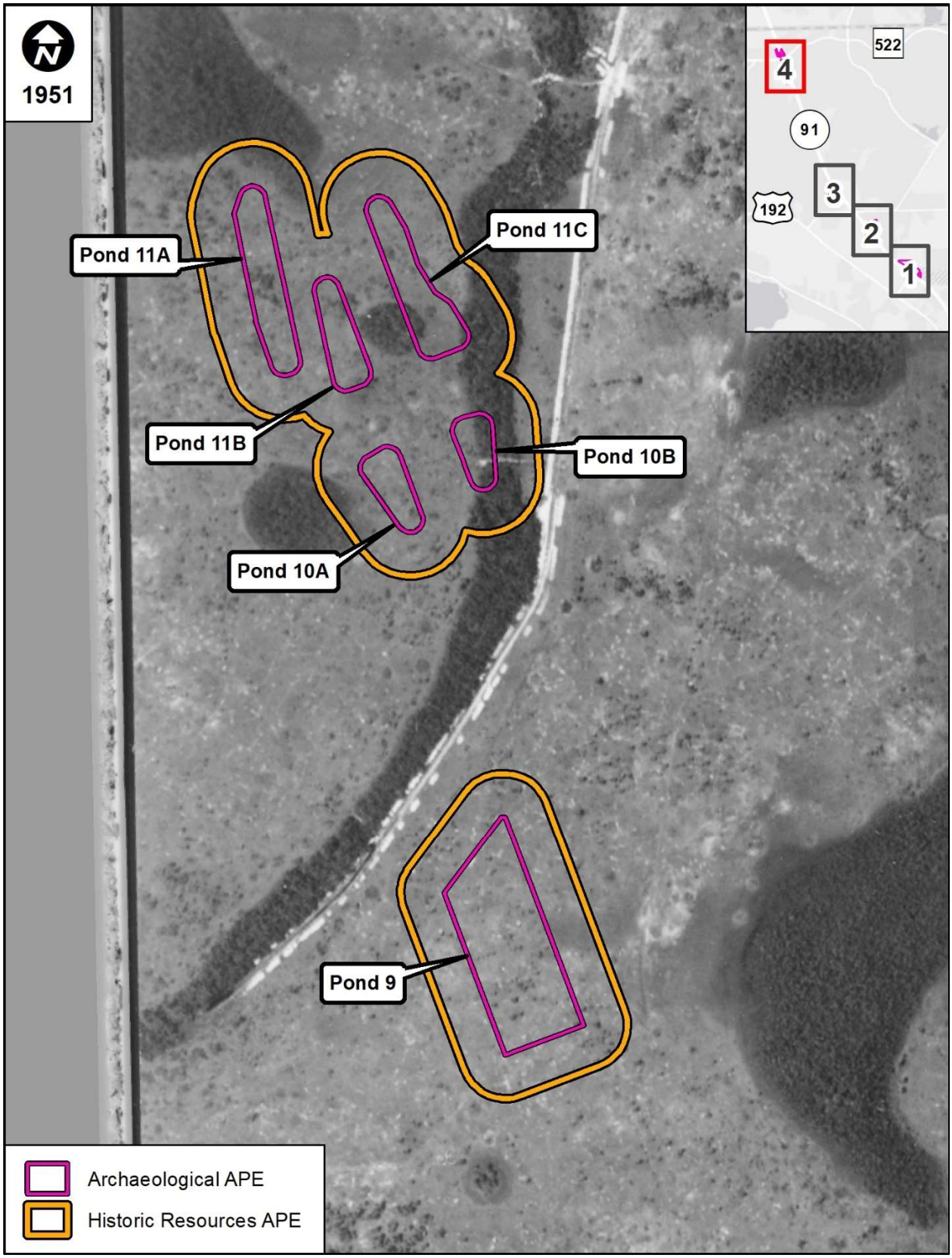

Figure 3.3d: Project APE Illustrated on 1951 Aerial Photographs (Map 4 of 4)

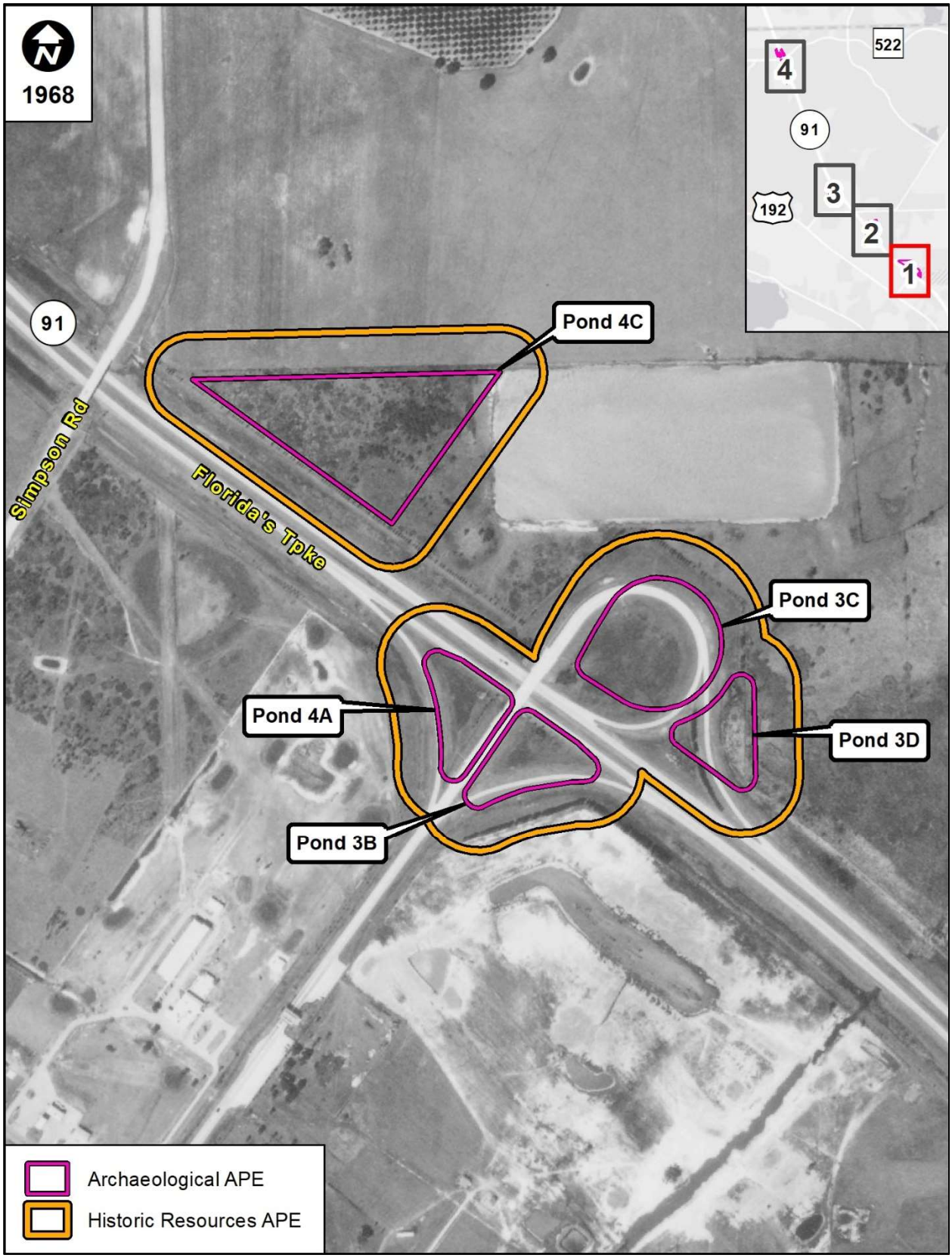

Figure 3.4a: Project APE Illustrated on 1968 Aerial Photographs (Map 1 of 4)

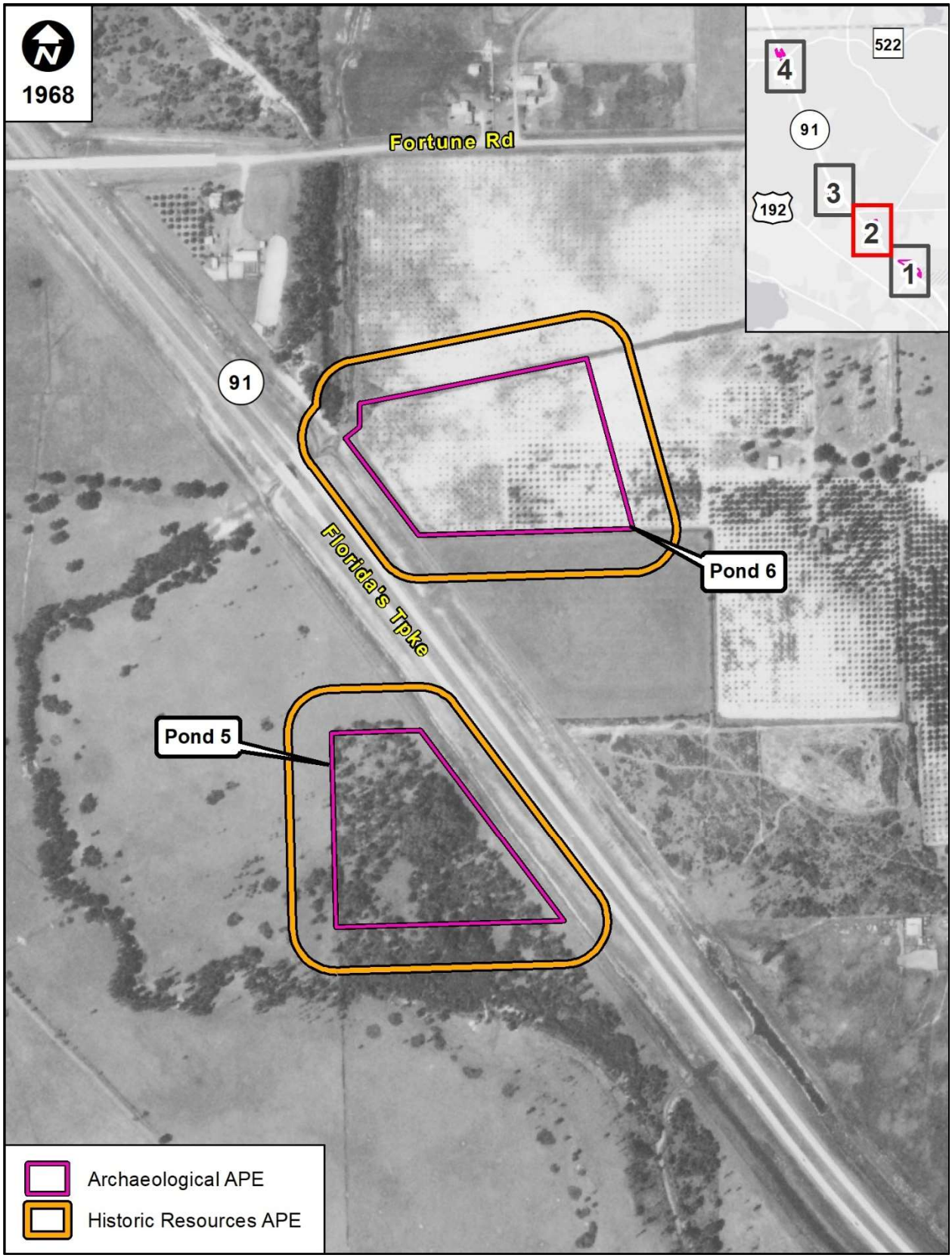

Figure 3.4b: Project APE Illustrated on 1968 Aerial Photographs (Map 2 of 4)

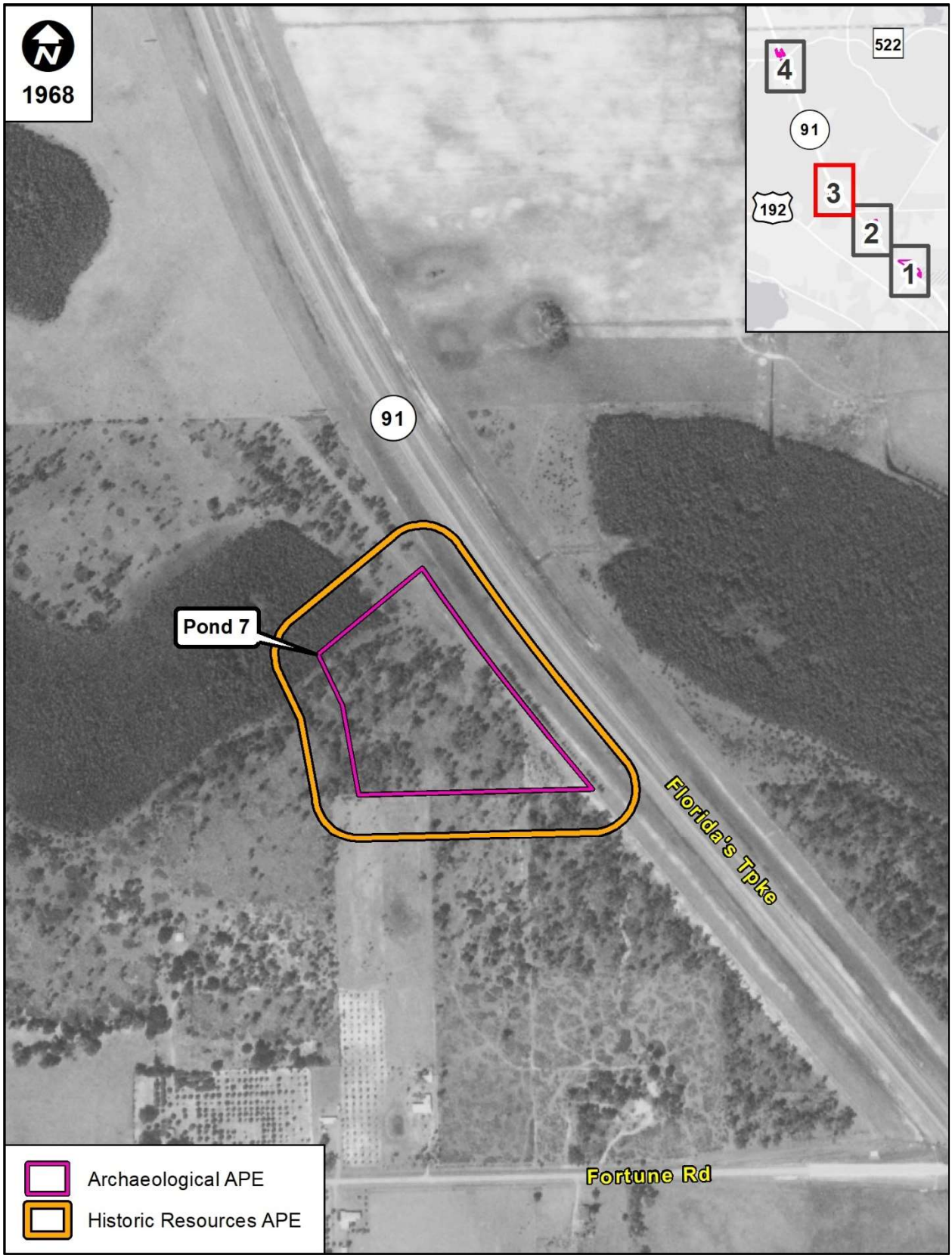

Figure 3.4c: Project APE Illustrated on 1968 Aerial Photographs (Map 3 of 4)

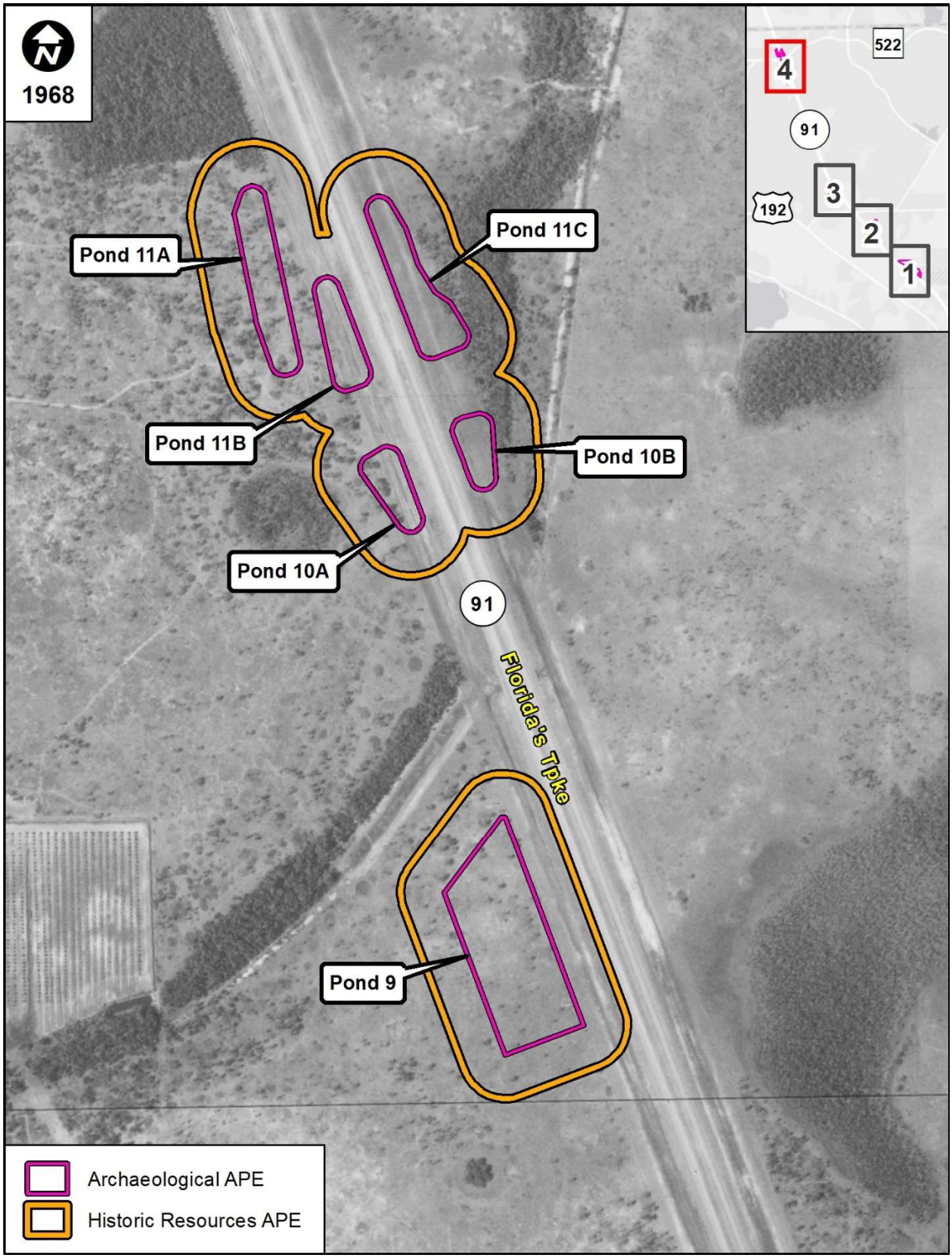

Figure 3.4d: Project APE Illustrated on 1968 Aerial Photographs (Map 4 of 4)

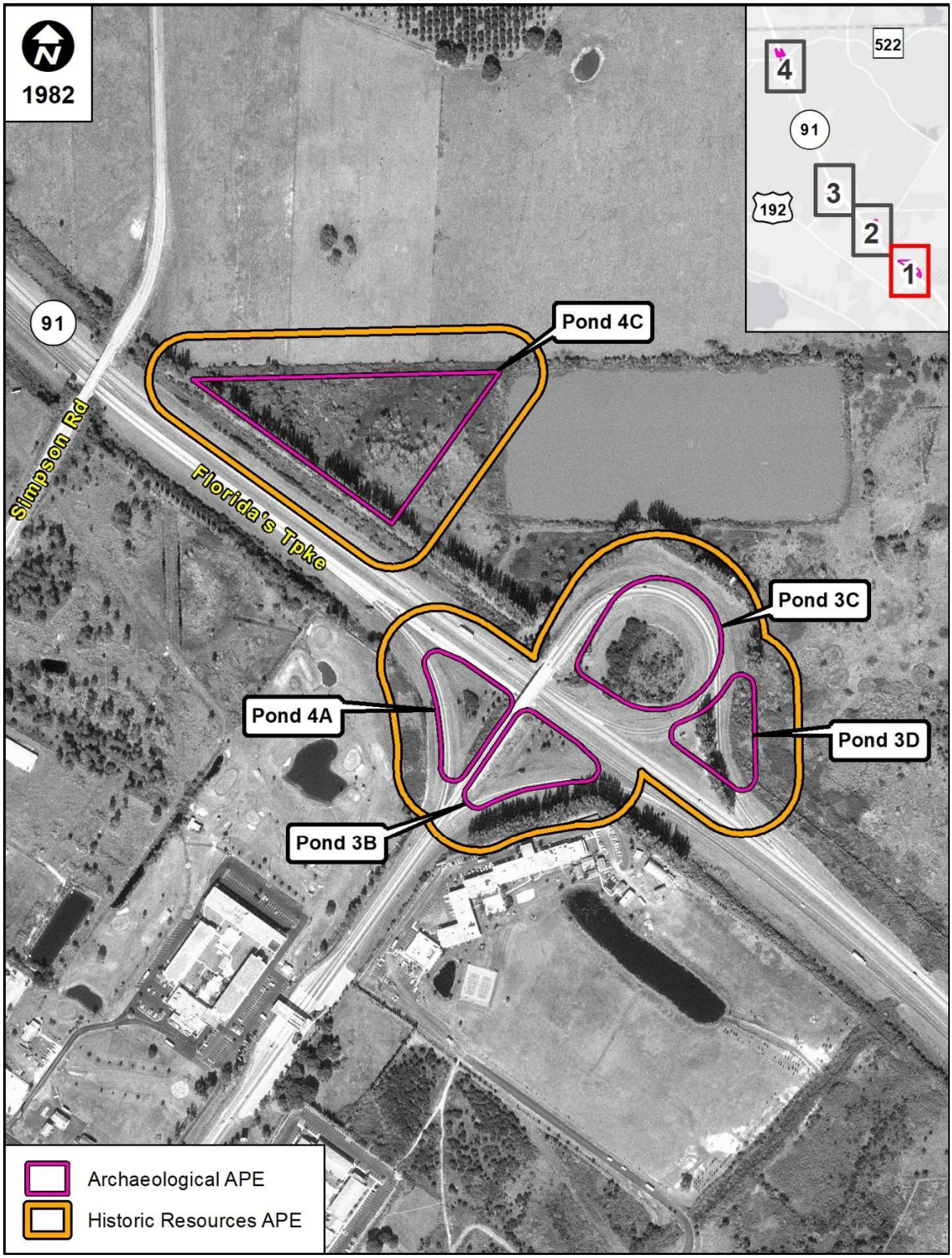

Figure 3.5a: Project APE Illustrated on 1982 Aerial Photographs (Map 1 of 4)

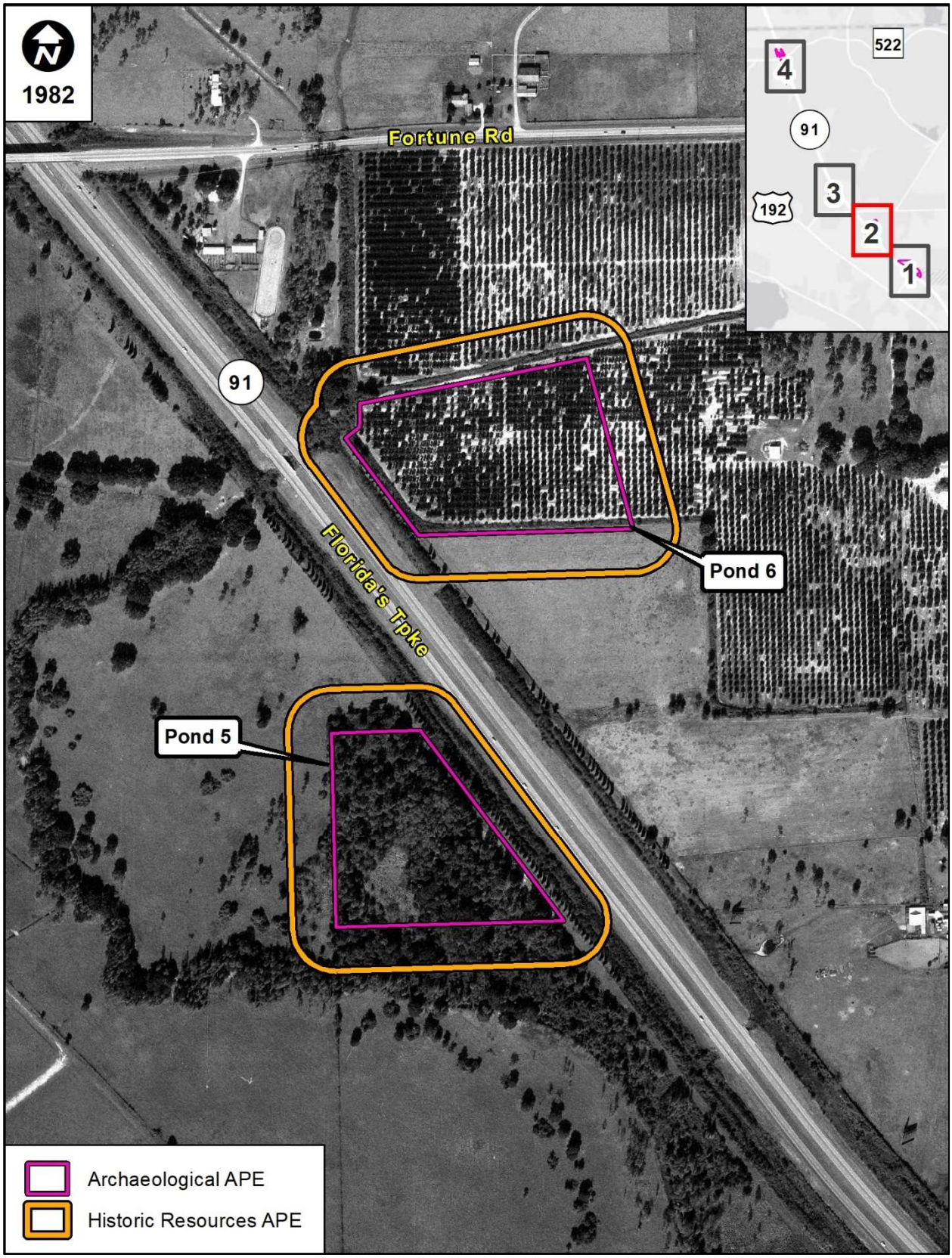

Figure 3.5b: Project APE Illustrated on 1982 Aerial Photographs (Map 2 of 4)

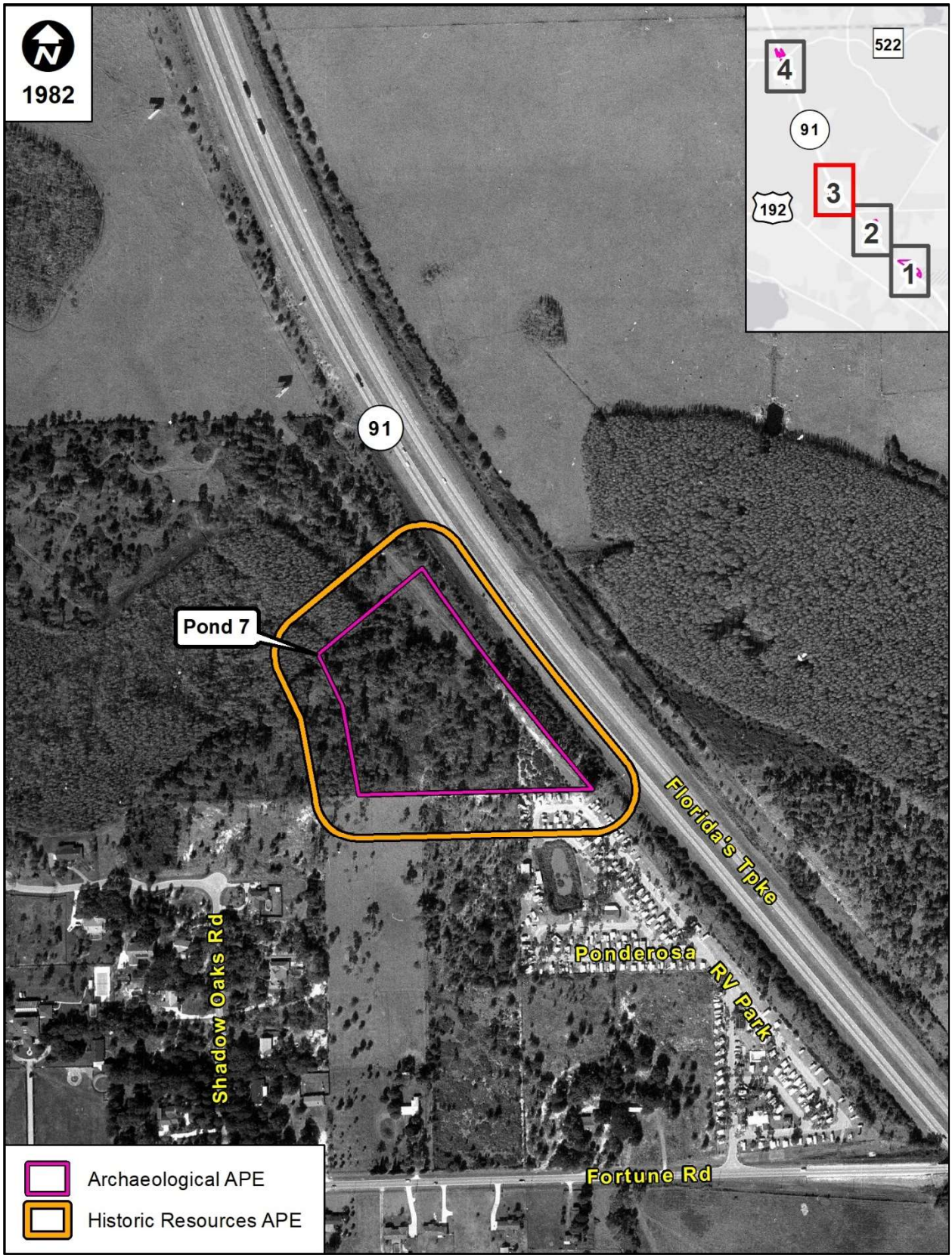

Figure 3.5c: Project APE Illustrated on 1982 Aerial Photographs (Map 3 of 4)

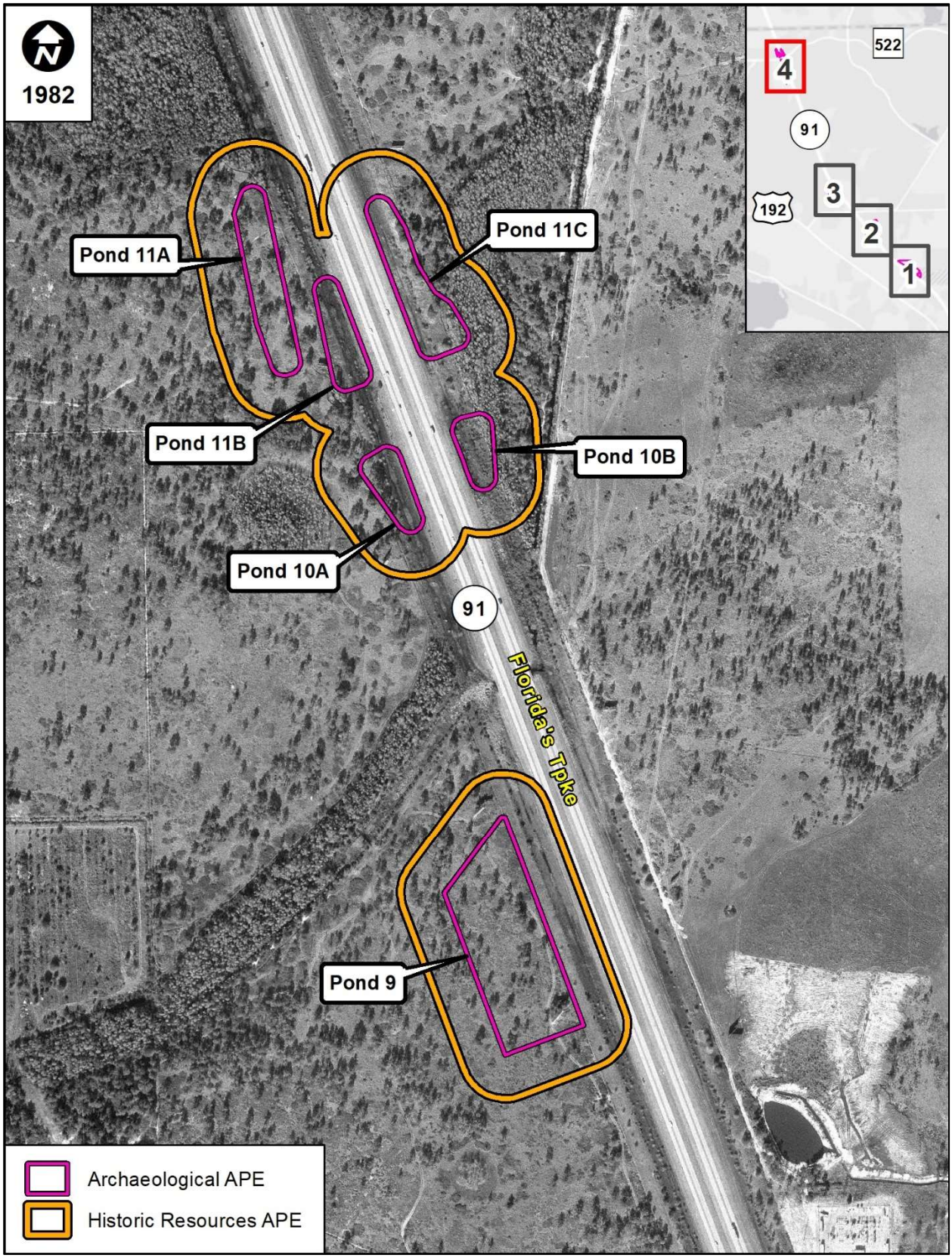

Figure 3.5d: Project APE Illustrated on 1982 Aerial Photographs (Map 4 of 4)

The 1968 aerial imagery (see Figures 3.4a–3.4d) depicts the Florida Turnpike's expansion through the region, directly intersecting Ponds 3B, 3C, 3D, 4A, 10A, 10B, 11B, and 11C. Ponds 4C, 5, 6, 7, 9, and 11A all border the road and remain undisturbed. As residential development expands in the surrounding region, conditions within the proposed ponds remain the same in the 1973-1974 and 1982 imagery; except for Pond 6 which is developed into agricultural groves. The APE is illustrated on 1982 aerial imagery in Figures 3.5a–3.5d. The subsequent changes in the local hydrology of the region result in altered environments within the proposed ponds, such as an increase in upland vegetation amongst previously wet areas.

More modern aerial imagery from 1994–2022 available from Google Earth (2022) were also reviewed to identify more recent major episodes of non-historic land modification. Modern imagery depicts an increase of residential development, and subsequent commercial development, throughout the region. Present imagery shows each region of the proposed ponds have been incorporated into, or affected by, the infrastructure of the Florida Turnpike.

3.3.3 Soils

The 1979 *Soil Survey of Osceola County Area* (USDA 1979) was reviewed to help assess environmental and drainage characteristics to help determine the archaeological potential of the previously unsurveyed portions of the APE. A list of detailed soil types, along with their drainage characteristics and associated environmental associations, are presented in Table 3.1. Soils within the proposed ponds ranged from moderately well drained to very poorly drained, but the predominant soil drainages were poorly and very poorly drained soil types. With the exception of Pond 6, the southern portion of which contains a soil type that is moderately well drained, soils present within the remainder of the proposed ponds are poorly or very poorly drained. The poorly drained to very poorly drained soils tended to be associated with lower areas of flatwoods and even lower, wetter areas of marshes and swamps. The moderately well drained soil was associated with the more elevated areas of uplands present within the flatwoods. No hammock vegetation was associated with any of the soil types.

Table 3.1: Drainage Characteristics and Environmental Associations of Detailed Soil Types Within the Archaeological APE

Drainage	Soil Name	Environmental Association	Ponds
Moderately Well Drained	Pomello fine sand	Found between the high sand ridges and the flatwoods and on low ridges or knolls within the flatwoods. Natural vegetation includes scattered sand pine, longleaf pine, and slash pine with saw palmetto. Sand live oaks may also occur in places. During the wet season, the water table is at a depth of 24 to 40 inches and at 40 to 60 inches during the dry seasons.	Pond 6
Poorly Drained	Immokalee fine sand	Found on broad areas of the flatwoods. Natural vegetation includes longleaf and slash pines with saw palmetto, inkberry, fetterbush ad running oak. Water table is at a depth of less than 10 inches for approximately 2 months of the year and within 20 to 40 inches during the remainder of the year.	Pond 7
	Myakka fine sand	Nearly level soil found in broad areas in the flatwoods. Natural vegetation consists of longleaf and slash pines with an understory of sawpalmetto, inkberry, fetterbush, and running oak.	Ponds 5, 6, 7, 10A, 10B, 11A, 11B, and 11C
	Basinger fine sand	Associated with low, broad flats and sloughs in the flatwoods. Natural vegetation is predominantly grasses with scattered longleaf pines, saw palmetto, and wax myrtle. Water table is at a depth of less than 10 inches for 2 to 6 months and 10 to 30 inches during the remainder of the year.	Pond 3B, 3C, 3D, 4A, 4C, 5, 6, 7, and 11A
	Basinger fine sand, depressional	Nearly level soil found in shallow depressions and poorly defined drainageways in the flatwoods. Natural vegetation consists of water-tolerant grasses and small woody shrubs, with swamp vegetation in some places.	Pond 7
	Smyrna fine sand	Found in flat areas of the flatwoods. Natural vegetation includes longleaf and slash pines with saw palmetto, inkberry, fetterbush, and running oak. Water table is at a depth of less than 10 inches for up to 4 months of the year and between 10 and 40 inches during the remainder of the year. During the rainy season, ponding occurs.	Pond 4C, 6, and 9

Drainage	Soil Name	Environmental Association	Ponds
Very Poorly Drained	Samsula muck	Associated with freshwater marshes and swamps. The water table is at or above the surface except during extended dry periods. Natural vegetation includes sawgrass, maidencane, cattails, and a variety of sedges. Some areas also have willow, elderberry and buttonbush or cypress, red maple, black tupelo, and sweetgum with ferns and greenbriers.	Pond 3D
	Placid fine sand	Associated with low, wet depressions and swamps in the flatwoods. Natural vegetation includes maidencane, sand cordgrass, pickerelweed, giant cutgrass, and wax myrtle with scattered cypress, cabbage palm, bay, and tupelo in areas. Ponding occurs for 6 to 9 months of the years.	Pond 3D, 10B, and 11C

USDA 1979:13,14,20,25,31–37

3.3.4 Elevation

An analysis of the earliest available topographic maps (1953), as well as a review of available digital elevation model (DEM) data from the Florida Geographic Data Library (FGDL) was conducted to determine whether the APE exhibited any areas of higher elevation relative to the surrounding area. The proposed ponds are located within the Kissimmee River valley and occupy a range of elevations ranging from 19.8–24.3 meters (65–80 feet) AMSL on the Kissimmee (1953) and St. Cloud North (1953) United States Geological Survey (USGS) quadrangle maps (see Figure 6.1 in *Section 6.2 Previously Recorded Archaeological Sites*). The APE is generally in lower, level or gently sloping areas near Fennel Slough, Mill Slough and intermittent wetland areas. The DEM from the FGDL depicts similar elevations within the APE, ranging from 19–25 meters (62.3–82 feet) AMSL.

4.0 Precontact Overview

People have inhabited Florida for at least 14,000 years. The earliest cultural periods are pan-Florida in extent, while later cultures exhibited unique regional traits. The following discussion of the precontact time period is included to provide a framework within which the local archaeological record can be understood.

4.1 Paleoindian Period (12,000–7500 BC)

The earliest period of precontact cultural development dates from the time people first arrived in Florida. The greatest density of known Paleoindian sites is associated with the rivers of northern and north-central Florida where distinctive lanceolate projectile points and bone pins have been found in abundance in and along the Santa Fe, Silver, and Oklawaha Rivers (Dunbar and Waller 1983). The majority of these have been found at shallow fords and river crossings.

The prevailing view of the Paleoindian culture, a view based on the uniformity of the known tool assemblage and the small size of most of the known sites, is that of a nomadic hunting and gathering existence, in which now-extinct Pleistocene megafauna were exploited. Settlement patterns were restricted by availability of fresh water and access to high-quality stone from which the specialized Paleoindian tool assemblages were made.

4.2 Archaic Period (7500–500 BC)

The Archaic period of cultural development was characterized by a shift in adaptive strategies stimulated by the onset of the Holocene and the establishment of increasingly modern climate and biota. It is generally believed to have begun in Florida around 7500 BC (Milanich 1994:63). This period is further divided into three sequential periods: the Early Archaic (7500–5000 BC), the Middle Archaic (5000–3000 BC), and the Late Archaic (3000–500 BC). The Late Archaic is subdivided into the Preceramic Late Archaic (3000–2000 BC) and the Orange Period (2000–500 BC).

4.2.1 Early Archaic (7500–5000 BC)

Cultural changes began after about 8000 BC in the late Paleoindian times with the onset of less arid conditions, which correlate with changes in projectile-point types, specifically a

transition from lanceolate to stemmed varieties. Beginning about 7500 BC, Paleoindian points and knives were replaced by a variety of stemmed tools, such as the Kirk, Wacissa, Hamilton, and Arredondo types (Milanich 1994:63). Kirk points and other Early Archaic diagnostic tools are often found at sites with Paleoindian components, suggesting that Early Archaic peoples and Paleoindians shared similar lifeways (Daniel and Wisenbaker 1987:33–34). However, it appears that the distribution of Early Archaic artifacts is wider than that of Paleoindian materials. Sites having both Paleoindian and Early Archaic components have been largely restricted to natural springs and the extensive perched water sources of northern Florida.

With the wetter conditions that began about 8000 BC and the extinction of some of the Pleistocene animal species that helped to sustain earlier populations, Paleoindian subsistence strategies were no longer efficient for gathering resources from a very different Florida environment. As environmental conditions changed, surface water levels throughout the state increased and new locales became suitable for occupation and resource extraction. Early Archaic peoples might be viewed as a population changing from the nomadic Paleoindian subsistence pattern to the more sedentary coastal- and riverine-associated subsistence strategies of the Middle Archaic period.

4.2.2 Middle Archaic Period (5000–3000 BC)

Throughout the Middle Archaic, environmental and climatic conditions would become progressively more like modern conditions, which appeared by the end of the period, circa 3000 BC. During this time, rainfall increased, surface water became much less restricted and, as a result, vegetation patterns changed. The Middle Archaic period is characterized by increasing population and a gradual shift toward shellfish, fish, and other food resources from freshwater and coastal wetlands as a significant part of their subsistence strategy (Watts and Hansen 1988:310; Milanich 1994:75–84). Pollen evidence from Florida and south-central Georgia indicates that after about 4000 BC, a gradual change in forest cover took place, with oaks in some regions giving way to pines or mixed forests. The vegetation communities that resulted from these changes are essentially the same as those present in historic times before widespread land alteration took place (Watts 1969, 1971; Watts and Hansen 1988).

The Middle Archaic artifact assemblage is characterized by several varieties of stemmed, broad-blade projectile points. The Newnan point is the most distinctive and widespread in distribution (Bullen 1975:31). Other stemmed points of this period include the less common Alachua, Levy, Marion, and Putnam points (Bullen 1968; Milanich 1994). In addition to these stemmed points, the Middle Archaic lithic industry in Florida included the production of cores, true blades, modified and unmodified flakes, ovate blanks, hammerstones, "hump-backed" unifacial scrapers, and sandstone "honing" stones (Purdy 1981; Clausen et al. 1975). Additionally, thermal alteration, a technique in stone tool production, reached its peak during the Middle to Late Archaic periods.

Three common types of Middle Archaic sites are known in Florida (Bullen and Dolan 1959; Purdy 1975). The first are small, special-use camps, which appear archaeologically as scatters of lithic waste flakes and tools such as scrapers, points, and knives. These sites are numerous in river basins and along wetlands and probably represent locations used for tool repair and food processing during hunting and gathering excursions (Milanich 1994:78). The second common site type is the large base camp. This type of site may cover several acres or more and contain several thousand or more lithic waste flakes and tools. The third common type of site is the quarry-related site that occurs in localities of chert outcrops.

4.2.3 Late Archaic Period (3000–500 BC)

After 3000 BC, there was a general shift in settlement and subsistence patterns emphasizing a greater use of wetland and marine food resources than in previous periods. This shift was related to the natural development of food-rich wetland habitats in river valleys and along the Atlantic and Gulf coasts (Bense 1994). By the Late Archaic period, a regionalization of precontact cultures began to occur as human populations became adapted to specific environmental zones across the peninsula.

Based on current evidence, it appears that relatively large numbers of Late Archaic peoples lived in some regions of the state but not in others. For example, large sites of this period are uncommon in the interior highland forests of northwestern Florida and northern peninsular Florida, regions where Middle Archaic sites are common. The few Late Archaic sites found in these areas are either small artifact scatters or are components within sites that contain artifacts from several different time periods. This dearth of sites in the interior forests

suggests that non-wetland locales either were not inhabited year-round or were only inhabited by small populations (Milanich 1994:87). Extensive Late Archaic middens are found along the northeastern coast. The importance of the wetlands in these regions to precontact settlements was probably similar to other coastal regions, especially the Central Peninsular Gulf Coast and the Northwest (Milanich 1994:85).

4.2.3.1 Orange Period (2000–500 BC)

By about 2000 BC or slightly earlier, the firing of clay pottery was either invented in Florida or the technique diffused from coastal Georgia and South Carolina, where early dates for pottery have been obtained (Milanich 1994:86). At one time, it was thought that the earliest pottery-manufacturing culture in Florida was the Orange culture of the St. Johns region in northeast Florida. But additional evidence from southwest Florida indicates fired clay pottery from northeastern and southwestern Florida is comparable to the early dates from sites in Georgia and South Carolina (Division of Archives 1970; Cockrell 1970; Widmer 1974; McMichael 1982; Russo 1991).

The earliest ceramics in Florida were tempered with plant fibers such as palmetto fiber or Spanish moss. The first use of pottery is well dated to the period from circa 2000 BC to 1000 BC, making fiber-tempered pottery a convenient horizon across the state. Originally, the Orange period was divided into sub-periods based on surface decoration. Subsequent research suggests that variations in Orange period paste, form, and decoration do not represent temporal changes (Sassaman 2003). In addition, early pottery was not limited to fiber-tempered wares. Sand-tempered pottery and thick St. Johns Plain (chalky wares) have also been recovered from Late Archaic period contexts.

4.3 Formative and Mississippian Periods (500 BC–AD 1513)

Changes in pottery and technology occurred in Florida during the Late Archaic period, also known as the Florida Transitional period; these changes mark the beginning of the Formative period. Fiber-tempered pottery was replaced by sand-tempered, limestone-tempered, and chalky temper less ceramics and three different projectile point styles (basally-notched, corner-notched, and stemmed) occur in relatively contemporaneous contexts. These pottery and tool traditions suggest population movement and social interaction between culture areas.

The archaeological APE is located in the East and Central cultural region (Figure 4.1), which includes the lower and central portions of the St. Johns River, its tributaries, adjacent portions of the coastal barrier-salt marsh-lagoon system, and the Central Florida Lake District. It extends from the St. Mary's River on the north to the vicinity of Vero Beach on the Atlantic Coast, and west into Marion, Sumter, and Polk counties (Milanich 1994:243).

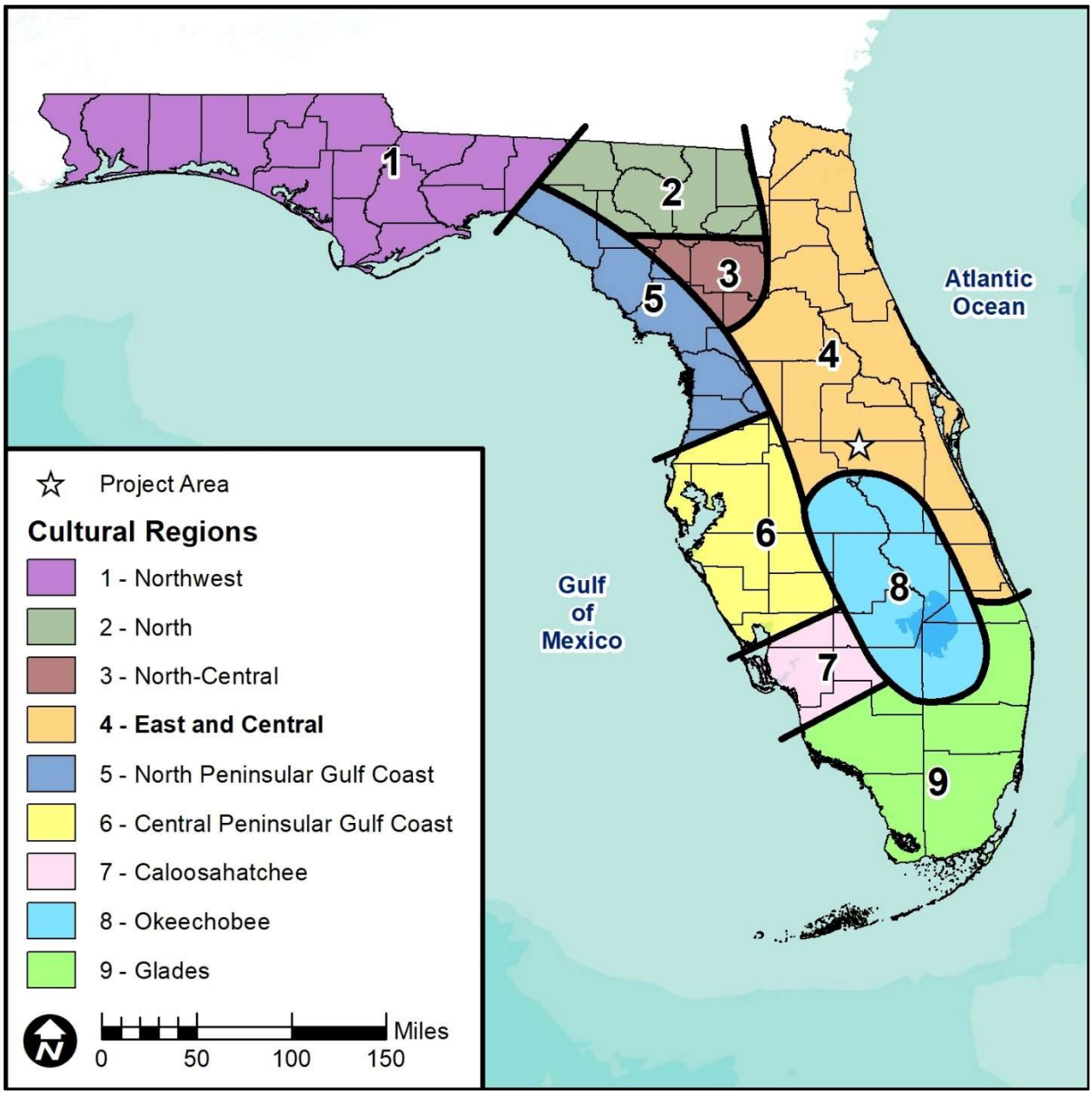

Figure 4.1: Location of the Archaeological APE within the East and Central Cultural Region (Adapted from Milanich 1994)

4.3.1 East and Central Cultural Region

The East and Central region (Figure 4.1) was occupied during the Formative period by what archaeologists call the St. Johns cultures. The early St. Johns I and II cultures developed out of the Orange culture of the Late Archaic period. A chronology for the St. Johns culture sequence is shown in Table 4.1. The dates for these periods correspond with other chronologies in northern Florida. due to shared traits among the groups of northern and eastern Florida. Primarily, ceramic changes, on which archaeologists base their chronologies, spread across northern Florida at approximately the same time. Also, the same pre-Columbian developments that influenced other cultures in the Southeast also affected the St. Johns cultures (Milanich 1994).

Table 4.1: St. Johns Region Chronology

Period	Dates
St. Johns I	500 BC–AD 100
St. Johns Ia	AD 100–500
St. Johns Ib	AD 500–750
St. Johns IIa	AD 750–1050
St. Johns IIb	AD 1050–1513
St. Johns IIc	AD 1513–1565

Milanich (1994)

Throughout the East and Central region, archaeological surveys and excavations have demonstrated that Orange Period and St. Johns I period components are found in the same locales, often at the same site (e.g., Bullen and Griffin 1952; Goggin 1952; Jahn and Bullen 1978; Newman and Weisman 1992; Russo et al. 1992; Wayne and Dickinson 1993; Weisman 1993). This continuity is illustrated in a study by James Miller (1991:155, 172), who plotted locations of all known Orange and St. Johns I sites on the St. Johns River from Lake George north. Miller's study also demonstrated similar settlement continuity between the St. Johns I and St. Johns II cultures (1991:172, 176). Another trend observable in this region is a general population increase from the Orange Period into the St. Johns II period. (Miller 1991:152, 180).

Evidence from several sites strongly suggest that year-round St. Johns I settlements were present in the coastal zone and that such sites were often adjacent to special-use camps (Russo et al. 1989; Russo et al. 1992). The tools and other St. Johns I period artifacts associated with these sites were similar to those found associated with Orange Period sites. Examples include bone and shell tools, net weights, stone plummets, bottle gourd containers, distinctive chalky St. Johns ceramic wares, and occasional sand-tempered plain ceramics. Although surface decoration occurs on some of the St. Johns wares, the trend over time is for fewer decorated sherds during this period (Milanich 1994:257–264).

Constructed sand burial mounds are present during the St. Johns I period, prior to AD 100. Goggin (1952) describes these mounds as low rises or truncated cones usually less than four feet high, although a few are almost 10 feet high. Deposits of red ochre or a similar mineral were often placed in these mounds. Primary flexed, extended, and secondary bundle interments are known in this period, the latter indicating the use of a charnel house (Milanich 1994:260).

After AD 100, new ideas appear to have entered the region along with exotic items. Such objects, placed in caches in mounds or with individual burials, included mica and galena, copper-covered animal bones, wooden effigies, greenstone celts, quartz plummets, copper discs, copper earspools, and effigy pipes. Locally made Dunns Creek Red and St. Johns Plain and St. Johns Check Stamped vessels were placed in the mounds (Milanich 1994:262). Village pottery continued to be dominated by St. Johns Plain ware, with Dunns Creek Red, Deptford, Swift Creek and, later, Weeden Island wares in the mounds (Milanich and Fairbanks 1980).

The St. Johns Ia period mounds tended to be larger than those of the earlier St. Johns I period, and all are constructed in the shape of truncated cones. In later mounds of this period, Swift Creek Complicated Stamped vessels are also found. Log tombs containing numerous burials were found in two St. Johns Ia period sites (Bullen et al. 1967; LaFond 1972, 1983).

During the St. Johns Ib period, the diffusion of Weeden Island rituals and beliefs into the region is reflected in the types of exogenous ceramics found in the mounds. Additionally, some mounds contain vessels made with St. Johns chalky paste but in Weeden Island shapes and decorated with Weeden Island motifs. These copies of Weeden Island vessels sometimes

depict animals, such as a duck effigy and other ceramics found in a mound at Tick Island (Goggin 1952:100; Moore 1894a:58–63). By the end of the St. Johns Ib period, circa AD 750, native groups were living in villages and practicing horticulture, as was common throughout Florida at this time (Milanich 1994:262).

The appearance of St. Johns Check Stamped pottery marks the beginning of the St. Johns IIa period. Although significant continuity exists between the St. Johns I and II periods, there is an increase in the number of sites or St. Johns II components within sites. Population increases in at least some locales within the St. Johns drainage resulted in the development of a more complex socio-political organization, much like that of contemporary Mississippian cultures to the north and northwest. There is evidence that at least one of the St. Johns IIb period mound sites interpreted as the center of a chiefdom was still occupied when European influences first reached Florida (Milanich 1994:263).

Subsistence practices among the St. Johns II peoples were very similar to those of the St. Johns I period. Evidence from two St. Johns IIb sites provided evidence of the use of maize, gourds, squash, acorns, hickory nuts, cabbage palm, may pop, grape, and saw palmetto, among other plants (Newsom 1986, 1987; Purdy 1991). Faunal samples from excavations at Hontoon Island (Wing and McKean 1987) were dominated by freshwater species such as snail, catfish, gar, bass, mullet, aquatic turtle, and alligator, as well as terrestrial species such as ducks, geese, gopher tortoise, rabbit, deer, and turkey. Most popular in the meat diet were freshwater snail, catfish, pond turtle, and gopher tortoise. All of the latter species could be taken with simple and efficient technologies: gathering snails and gopher tortoises by hand, using hook and line or nets for catfish, and catching turtles with traps or by hand (Milanich 1994:266).

In addition to Ashley's 2012 studies in northeastern Florida, knowledge of St. Johns II political and ceremonial life has come largely from mounds excavated by Clarence B. Moore (1894a, 1894b, 1896a, 1896b, and 1896c). His reports suggest that St. Johns IIa period mounds tend to be larger than those of the St. Johns I period, and that they continued to be used for kin-based interments. Some of these mounds had associated causeways (Bartram 1928:101–102; Goggin 1952:55; Laudonnière 1975:115, 137; Newsom 1986).

The St. Johns IIb is generally characterized by the appearance of some southeastern Mississippian traits, presumably resulting from socio-religious interaction with the Fort Walton and Safety Harbor cultures of Florida. Artifacts recovered from sites in the region included "killed" Busycon shells, greenstone celts, spatulate greenstone celts, ceramic biconical tubes, ceramic plant and animal effigy vessels, a limestone earspool with copper sheeting, a copper breast plate with "forked eye" motifs, a large wooden owl carving, and wooden carvings of an otter and a pelican (Moore 1894a; Bullen 1955:61; Purdy 1991:110, 119–120).

During the St. Johns IIb period, at least some of the mounds were used as tombs for elite individuals. This suggests that areas in which these mounds are located had the largest populations and the most efficient economies, further indicating that chiefdoms may have replaced the former "big-man" societies. However, as was the case in the Central Peninsular Gulf Coast region, it is likely that agriculture was never as important in the East and Central region as it was for Mississippian societies due to the reliance of the St. Johns peoples on coastal and wetland food resources (Milanich 1994:268).

The St. Johns II period is marked by the introduction of European artifacts in some mounds. Ethnohistoric accounts describe the native tribes who lived in the area as the Acuera of the Eastern Timucua (Deagan 1978). Gathering, hunting, and shellfish collecting continued as the primary subsistence mode supplemented by the cultivation of corn, beans, tobacco, and other crops. Villages were located near freshwater streams or lakes and were ruled by a chief. The Fort Mason Mound on the Oklawaha River contained European trade goods in association with burials (Moore 1896c; Deagan 1978). Similar sites include the Southport Mound (Mitchem et al. 1998) and the Beehive Hill mound (Janus Research 2000), both of which are believed to be associated with the Mayaca.

5.0 Historic Overview

The intent of this overview is to serve as a guide to field investigations by identifying the possible locations of any historic cultural resources within the historic resources APE and to provide expectations regarding the potential historic significance of any such sites. It also provides a context with which to interpret any resources encountered during the study.

5.1 European Contact and Colonial Period (ca. 1513–1821)

Official credit for the "discovery" of Florida by Europeans is credited to Juan Ponce de Leon, whose voyage of 1513 took him along the East Coast of the peninsula (Tebeau 1971:21). Other Spanish explorers followed Juan Ponce de Leon's lead, and over the next 50 years the Spanish government and private individuals financed expeditions in hopes of establishing a colony in Florida. In 1565, King Philip II of Spain licensed Pedro Menendez de Aviles to establish a settlement in St. Augustine, Florida. During the 1500s, settlements with associated missions were established at St. Augustine, San Mateo (Ft. Caroline) and Santa Elena, and smaller outposts and missions were located in Ais, Tequesta, Calusa, and Tocobaga territory (Gannon 1965:29). The Franciscan mission effort began in the 1570s and focused predominantly in northern areas of Florida. One possible reason may have been differences in Native American settlement patterns and economies. According to Milanich and Proctor (1978:68), the failure of the Spanish missions among the south Florida native population was due partially to the groups' subsistence pattern, which required seasonal movement for maximum resource exploitation. Consequently, during the First Spanish Period (1565-1763), the area surrounding the project area was virtually ignored as the Spanish concentrated their efforts in the northern half of the peninsula.

By the beginning of the eighteenth century, the Native American population of South Florida had declined considerably as a result of disease, slave raids and intertribal warfare. Many who survived integrated into the Seminoles, descendants of Creek Indians who moved into Florida during the early eighteenth century to escape the political and population pressures of the expanding American colonies to the north (Wright 1986:218).

By the end of the eighteenth century, the Seminoles had become the dominant Native American group in the state. Groups of fugitive African American slaves had also settled among the Seminoles by the early nineteenth century (Brown 1991:5-19). Armed conflict with pioneers, homesteaders, and eventually the United States Army resulted in the removal of most of the Seminoles from Florida. This action forced the withdrawal of the remaining Seminole population to the harsh environment of the Everglades and Big Cypress Swamp by the late nineteenth century.

5.2 The Territorial and Statehood Period (1821–1860)

In 1821, after several years of negotiations with Spain, the United States acquired Florida as a territory. The population of the territory at that time was still centered in the northern areas around Pensacola, St. Augustine, and Tallahassee. As more European-American settlers moved into the region, conflicts arose with the Seminole people over available land. Pressure was brought to bear upon the government to remove the Seminoles from North Florida and relocate them farther south. The Treaty of Moultrie Creek (1823) restricted the Seminole people to approximately four million acres of land in the middle of the state, running south from Micanopy to just north of the Peace River (Mahon 1967). This treaty was unpopular with the Seminoles, as they were reluctant to move from their established homes to an area that they felt could not be cultivated. Equally unpopular were the later treaties of Paynes Landing (1832) and Fort Gibson (1833), which called for the relocation of the Seminoles to the western territories (Mahon 1967:75-76, 82-83). These three treaties helped foster Seminole resentment of settlers and outbreaks of hostility that culminated in the Second Seminole War in 1835.

The Second Seminole War had a deleterious effect on new settlement in Florida. To encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act of 1842 offered settlers 160 acres of land at no cost, provided they built a house, cleared five acres, planted crops, and resided on the land for five years. Any head of a family or single man over 18 years of age and able to bear arms was eligible to receive a homestead. This act, plus the end of the Second Seminole War, created a small wave of immigration by Anglo-American pioneers to Central Florida. Most of these immigrants were Anglo-American farmers and cattle ranchers from the southeast United States.

5.3 Civil War and Post War Period (1860-1898)

The onset of the Civil War disrupted serious development in Florida. Most of the State did not have daily contact with battles; however, Florida contributed 15,000 troops and supplies to the Confederate Army (Miller 1990). Florida cattlemen became an important supplier of beef to the Confederate Army after the occupation of Vicksburg on July 4, 1863. (Gannon 1996:241). In addition, the State supplied salt for tanning and meat preservation from coastline salt works. Cattle herds from as far south as central Florida were driven to railheads near the Georgia border. Cattle ranchers also discovered they could sell their herds in Cuba for a greater profit and began utilizing blockade-runners to avoid the Union forces. Cattle ranchers from all over Florida drove their cattle to Punta Rassa to be shipped to Cuba for payment in Spanish gold. It is estimated that in the decade between 1870 and 1879 over 165,000 head were shipped to Cuba (Grismer 1949). Although not many Civil War battles occurred in Florida, Union forces established control of the Florida coastline in 1863 (Miller 1990).

Like the other former Confederate states, Florida suffered economic devastation at the Civil War's end. Six railroad lines in north Florida at the war's beginning were destroyed or fell into disrepair during the war. Florida's cotton industry had grown in the decade before the war; however as a result of limited markets, short supply of laborers, and blocked ports, the industry declined. At this time, much of the state's agricultural production came to a halt (Miller 1990). Settlement increased slightly in central and southern Florida, but development was limited by a lack of transportation to the state's interior and the state's internal debt. Although the economy was in ruins, tax-supported public school and university systems were established. Some industries including lumbering and cattle ranching emerged during this period. Despite some economic activity, the overall condition was hard for most residents (Miller 1990).

The presidential election of 1876 marked the end of Reconstruction. The Post-Reconstruction era ushered in economic growth, prosperity, and population expansion for Florida. Transportation routes, primarily through the railroad's expansion along both coasts, encouraged the state's overall development. Agricultural products were now more easily shipped to out-of-state markets and building materials were shipped into the state. By 1890,

agricultural products included lumber, cigars, turpentine, fertilizers, printing, shipbuilding, cattle ranching, and citrus production. Several cities and six new counties were established during the Post-Reconstruction period (Miller 1990).

In the 1880s, interest in south Florida's resources intensified and was promoted by businessmen Hamilton Disston, Henry Plant, and Henry Flagler. Hamilton 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. The Drainage Contract was an agreement between Disston and the State in which Disston and his associates agreed to drain and reclaim all overflow lands south of present day Orlando and east of the Peace River in exchange for one-half the acreage that could be reclaimed and made fit for cultivation. A contract was signed on March 10, 1881. Disston and his associates formed a company called the Atlantic and Gulf Coast Canal and Okeechobee Land Company on July 20, 1881 (Davis 1938:205).

During 1881 and 1882, channels were dug between the lake systems to the north and the Kissimmee River (Tebeau 1971:288). The Atlantic and Gulf Coast Canal and Okeechobee Land Company were responsible for opening up Lake Okeechobee to the Gulf of Mexico by dredging a channel to the Caloosahatchee River. Disston and his associates received 1,652,711 acres of land under the Drainage Contract, although they probably never permanently drained more than 50,000 acres (Tebeau 1971:280). Drainage operations began and the Florida Land and Improvement Company and Kissimmee Land Company were formed to help fulfill the drainage contract (Hetherington 1980:6).

Disston changed Florida from a wilderness into an area ripe for investment. This enabled Henry Plant and Henry Flagler to expand their railroad lines south (Mann 1983:68; Harner 1973:18-23). Plant built and operated the Jacksonville, Tampa & Key West Railway on the west coast and Flagler built and operated the Florida East Coast Railroad on the east coast. Through the efforts of these people, areas south of Pensacola and Jacksonville were opened to development. All the development encouraged the beginning of Florida's tourist industry.

5.4 Spanish-American War Period/Turn-of-the-Century (1898–1916)

At the turn-of-the-century, Florida's history was marked by the outbreak of the Spanish-American War in 1898. As Florida was the closest state to Cuba, American troops were stationed and deployed from the state's coastal cities. Harbors in Tampa, Pensacola, and Key West were improved as ships were launched with troops and supplies. "The Splendid Little War" was short in duration, but evidence of the conflict remained in the form of improved harbors, expanded railroads, and military installations (Miller 1990).

In 1904, Governor Napoleon Bonaparte Broward initiated significant reforms in Florida politics. Several of Broward's major issues included the Everglades drainage project, railroad regulation, and the construction of roads. During this time, railroads were constructed throughout the state and automobile use became more prevalent. Improved transportation in the state opened lines to export Florida's agricultural and industrial products. As various products such as fruits and vegetables were leaving the state, people were arriving in Florida. Some entered as new residents and others as tourists. Between 1900 and 1910, the state population increased from 528,542 residents to 752,619. At this time, St. Lucie and Palm Beach counties were established, indicative of the increasing numbers of people moving to the East Coast of the state (Miller 1990).

Rapid and widespread growth was the theme of this period in Florida history. Thousands of miles of railroad tracks were laid at this time. The Florida East Coast (FEC), Atlantic Coast Line, and Seaboard Air Line railroads each had systems running throughout the state. While agriculture, especially the citrus industry, was the main source of Florida's economy, manufacturing and industry grew during the beginning of the century. Fertilizer production, boat building, and lumber and timber products were large industries (Weaver et al. 1996:3).

5.5 World War I and Aftermath Period (1917–1920)

The World War I and Aftermath period of Florida's history starts with the United States' entry into World War I in 1917. Several training facilities were set up in the state and protecting the coastlines was a priority at this time. Although the conflict only lasted until November of 1918, the economy was boosted by the war. Shipbuilding was accelerated. The war brought industrialization to Tampa and other port cities such as Jacksonville, where war

ships were built. These cities also functioned as supply depots and embarkation points. As agricultural production increased, products such as beef, vegetables, and cotton were in great demand (Miller 1990). Immigration and housing development slowed during the war; however, tourism increased as the war in Europe forced Americans to vacation in the United States. At the conclusion of the war, railroad construction resumed. Railroad tycoons such as Henry Flagler and Henry Plant were not only building railroad facilities, but also erecting hotels for winter visitors. These magnates took an interest in the promotion and improvements in Florida in an effort to bring more people into the state. The end of the war marked a slight increase in population.

5.6 Florida Boom Period (1920-1930)

After World War I, Florida experienced unprecedented growth. Many people had relocated to Florida during the war to work in wartime industries or had been stationed in the state as soldiers. Bank deposits increased, real estate companies opened in many cities, and state and county road systems expanded quickly. Earlier land reclamation projects had created thousands of new acres of land to be developed. Real estate activity increased steadily after the war's end and drove up property values. Prices on lots were inflated to appear more enticing to out-of-state buyers. Every city and town in Florida had new subdivisions platted and lots were selling and reselling for quick profits. Southeast Florida, including cities such as Miami and Palm Beach, experienced the most activity, although the boom affected most communities in central and south Florida (Weaver et al. 1996:3).Building roads became a statewide concern as road building shifted from a local to a state function. These roads made all parts of the state accessible and allowed the boom to spread. It is estimated that up to twenty thousand people were arriving in the state on a daily basis. Besides having inexpensive property, Florida legislation that prohibited income and inheritance taxes also encouraged people to relocate to the state.

The Boom period began to decline in August 1925, when the FEC placed an embargo on freight shipments to south Florida. Ports and rail terminals were overflowing with unused building materials. In addition, northern newspapers began to suggest fraudulent land deals were occurring in Florida. In 1926 and 1928, two hurricanes hit southeast Florida killing people and destroying thousands of buildings. The collapse of the real estate market and the

subsequent hurricane damage effectively ended the boom. Further damaging Florida's economy was a Mediterranean fruit fly infestation in 1929 that devastated citrus groves throughout the state (Weaver et al. 1996:4). By the time the stock market collapsed in 1929, Florida was already suffering from an economic depression. Construction activity halted and the industry dramatically declined. Subdivisions platted several years earlier remained empty and buildings stood on lots partially finished and vacant.

5.7 The Great Depression and New Deal Period (1930-1940)

This era of Florida's history dates from the stock market crash of 1929. As previously discussed, there were several causes for the economic depression in Florida including the grossly inflated real estate market, the hurricanes, and fruit fly infestation. During the Great Depression, Florida suffered significantly. Between 1929 and 1933, 148 state and national banks collapsed, more than half of the state's teachers were owed backpay, and one in four residents was receiving public relief (Miller 1990).As a result of hard economic times, President Franklin D. Roosevelt initiated several national relief programs. Important New Deal-era programs in Florida were the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). The WPA provided jobs for professional workers and laborers. Their work included the construction or improvement of many roads, public buildings, parks and airports in Florida. The CCC improved and preserved forests, parks, and agricultural lands (Miller 1990).

Most areas of the state's economy were affected by the Depression. Beef and citrus production declined, manufacturing slowed, and development projects were stopped. Even the railroad industry felt the pressures of the 1930s; service was greatly reduced and personnel were let go. Also, the increasing use of the automobile lessened the demand for travel by rail. Despite the Depression, tourism remained an integral part of the Florida economy during this period. New highways made automobile travel to Florida easy and affordable, and more middle-class families were able to vacation in the "Sunshine State."

5.8 World War II and the Post War Period (1940-1950)

From the end of the Great Depression until after the close of the post-war era, Florida's history was inextricably bound with World War II and its aftermath. It became one of the

nation's major training grounds for the various military branches including the Army, Navy, and Air Force. Prior to this time, tourism had been the state's major industry and it was brought to a halt as tourist and civilian facilities, such as hotels and private homes, were placed into wartime service. The influx of thousands of servicemen and their families increased industrial and agricultural production in Florida, and also introduced these new residents to the warm weather and tropical beauty of Florida. Railroads once again profited, since service personnel, military goods and materials needed to be transported. However, airplanes were now becoming the new form of transportation, and Florida became a major airline destination. The highway system was also being expanded at this time. The Florida State Road Department constructed 1,560 miles of highway during the war era (Miller 1990).

At the conclusion of World War II, Florida's economy was almost fully recovered. Tourism quickly rebounded and once again became a major part of the state's economy. Additionally, former military personnel found the climate amenable and moved to Florida permanently after the war. These new residents greatly increased the population in the 1940s (Miller 1990).

5.9 Modern Period (1950–Present)

The development of Florida during the modern period is marked by the rapid expansion of population and the modern transportation system including Florida's Turnpike. The Florida State Turnpike Authority was authorized by legislature and signed into law by Governor Dan McCarty as the Turnpike Authority Act on June 11, 1953. It was reorganized and incorporated in the newly formed Florida Department of Transportation in July 1969.

In 1949, Governor Fuller Warren initiated the preliminary plans for a turnpike. In 1953, businessman Charles B. Costar led a group of citizens to lobby state officials to create Florida's first toll road. The legislature then created the Florida State Turnpike Authority, which had the authority to plan, design, and construct bond-financed toll roads. The tolls from turnpike customers were used to repay the bonds. Costar was also instrumental in creating the bond financing that led to the "Florida Turnpike Act" which Governor Dan McCarty signed into law on June 11, 1953. Costar served as the chairman of the early Turnpike Committee of the Miami-Dade Chamber of Commerce. However, once the Turnpike Authority

was formed, Governor McCarty appointed Earl P. Powers as the first Turnpike Authority Chairman (Florida's Turnpike Enterprise 2007). In 1957, a major stretch of the turnpike opened, hugging the Atlantic coast for a distance of 108 miles between Fort Pierce (MP 152) to the Golden Glades interchange in north Miami (MP 44 originally) (Janus Research 2012). Originally the Turnpike had eight controlled interchanges and three service areas.

The second phase of Turnpike construction began in 1959 when Governor Leroy Collins extended the Turnpike from Fort Pierce to Orlando. With the state's population increasing in the 1960s, Governor Collins approved the sale of over $80 million worth of bonds to finance the extension from its original terminus in Fort Pierce onward to Wildwood (Florida's Turnpike Enterprise 2007). This final extension of the Turnpike was completed in 1964. It now had a total of 30 interchanges with seven service areas.

As noted previously, portions of the current project area fall within the infrastructure of the Florida's Turnpike (SR 91). In addition, the historic resources APE is also within areas of non-historic residential and commercial development.

5.10 Osceola County History

Osceola County, carved out of both Orange and Brevard Counties, was established on May 2, 1887 and named after the celebrated warrior Chief Osceola. With 954,880 acres, 1,365 square miles and vast prairie marshes, Osceola County quickly became the hub of Florida's cattle industry (Osceola County 1987:21). The county grew rapidly during the late 1880s and 1890s. During the 1880s, vast tracts of land opened for agriculture with land reclamation projects. The timber industry and cattle ranching increasing, both becoming major industries in the county (Hardin et al. 1984:16-18). Steamboat shipping in the 1890s helped increase the cattle industry. Phosphate and citrus production also became prevalent in the county during the late-1800s.

The cattle industry became increasingly important in central Florida after the Civil War. The lower Kissimmee River Valley, with its sparse population and large open ranges was ideal for raising cattle, and many ranchers owned thousands of head. Basinger and the town of Kissimmee, were important centers for the cattle industry; however, these cattlemen had

herds ranging as far east as Fort Pierce. Cattle families continued to move south in the late 1870s. Eventually, cattle ranching became a predominant industry in Florida and cattle ranchers became prominent and influential community leaders. It was during this period that several of the Osceola County pioneer ranching families such as the Overstreets, Bronsons, and Partins arrived in the county (Silver Spurs Rodeo 2016).

Towns first grew around Lake Tohopekaliga, including modern-day Kissimmee. This settlement, originally a cattle trading post, was chartered in 1883. The town of Narcoossee was established in 1884 along the shores of East Lake Tohopekaliga by a group of wealthy English citrus farmers in the late 1880s. The settlers played cricket and polo, founded several golf courses, and built a large hotel for winter visitors. When the freezes of 1894/1895 destroyed most of the citrus groves, a number of families moved away (Federal Writers' Project 1984:462). The town of St. Cloud was founded out in 1909. The town was especially popular with Civil War veterans of the Union army.

On November 2, 1896, Isaac Anstaat, an elder in the Shaker community, purchased 7,046 acres just south of Narcoossee in Osceola County for $94,000. Bought from the Disston Land Company, this tract included Trout Lake, Live Oak Lake, Sardine Lake, and portions of Lake Lizzie and the upper region of Alligator Lake. The community prospered by engaging in pineapple cultivation for several years. However, the community began to falter by 1910 and the land was slowly sold off. A trustee held the last of it until the 1930s (Cantrell 1948:44-45).

Four consecutive years of several freezes hindered the growth of Osceola County in the late nineteenth century. Consequently, many farmers moved to Broward and Miami-Dade counties. A decline in the cattle industry during the 1880s, resulted in cattle prices dropping from $10 per head to $5 and $6 per head. This recession lasted for nearly four years, during which time many northern investors lost interest in the area. As the northern investors pulled out of Florida, the cattle ranchers took the opportunity to re-invest in the area. The economy eventually recovered in Osceola County with the onset of the twentieth century (Osceola County 1987:39-40).

The economy of Osceola County remained largely based on agricultural industry into the twentieth century. The cattle industry was the most popular, followed by the citrus industry, horse husbandry, and truck crops. In the twentieth century, timber became increasingly important to the economy. Several lumber companies were formed, such as the Everglades Cypress Lumber Company and the Candler Lumber Company. These companies purchased large tracts of land in the Osceola County area. Related to the lumber industry, the extraction for making turpentine, and rosin were also components of the Osceola County economy at this time.

Rapid and widespread growth was the theme of the Land Boom period in Florida history. Thousands of miles of railroad tracks were laid, including the Florida East Coast, Atlantic Coast Line, and Seaboard Air Line railroads. While agriculture, especially the citrus industry, had become the backbone of Florida's economy, manufacturing began growing during the beginning of the century. Fertilizer production, boat building, and lumber and timber products were strong secondary industries (Weaver et al. 1996:3). In the early days of St. Cloud, the Sugar Belt Railroad played a large part in the area's development, progress, and stability. This railroad connected Kissimmee with the old St. Cloud sugar plantation. In addition to serving as a means of transportation for the population, the railroad brought in new settlers and supplies, such as building materials, food and clothing (Osceola County 1987:90).

While the Land Boom was occurring throughout the state in the 1920s, the pressures of increasing populations required more available land in areas such as Osceola County. The twentieth century history of Florida is marked with attempts to modify and manipulate the land in order to make more land available for prospective property owners, make the state more accessible to different modes of transportation, and to control the natural forces such as floods. Also, the demand for more farmland was evident. Eventually large sugar corporations turned the wetlands in central Florida into productive fields.

Throughout the latter half of the twentieth century, Osceola County's history has been inextricably tied to the drainage activity in the area. These projects greatly influenced the activities that could occur on the land. One of the biggest water management projects in Osceola County was the channelization of the Kissimmee River. However, the environmental

impacts of the channelization has resulted in attempts to restore the nature river. During World War II, Florida was an important location for bases for military activity and for training. The Kissimmee civilian airport was leased by the US Army in 1942 and was used as part of the Orlando School of Applied Tactics to help train pilots and crews. In March 1945, the Kissimmee Army Air Base was closed and the airport returned to civilian use (Shettle 2009). The lasting impact that World War II had on Osceola County and Florida was a significant influx of veterans returned to Florida as tourists or permanent residents. The US census reported only 10,119 residents and by 1950 that number was 11,406 residents. In the 1960 census, the county had increased to 19,029 residents (US Census Bureau 1995). In 1963, Walt Disney toured central Florida and was attracted to the area of the state that was just recently bisected by the Florida's Turnpike and Interstate 4. By June of 1965, Disney had purchased or had under contract 27,258 acres of land in Orange and Osceola counties. Eventually the construction of Disney World would remake central Florida into a tourist mecca and would attract other major tourism-related industries and companies (Revels 2011). By the end of the twentieth century, Osceola County had shifted away from its agricultural roots to the service and entertainment industries.

6.0 Florida Master Site File Search and Literature Review

An archaeological and historical literature and background information search pertinent to the project APE was conducted in order to determine the types, chronological placement, and location patterning of cultural resources within the APE. This included a review of FMSF data to identify cultural resources that are listed, eligible, or considered eligible for listing in the National Register and resources with potential or confirmed human remains.[1] Other methods included a search of Osceola County Property Appraiser records, FGDL geographic information systems (GIS) data, FDOT bridge data, and other relevant historical research materials to help identify potential unrecorded historic resources within the historic APE.

6.1 Previously Conducted Cultural Resource Surveys

The search of the FMSF data identified eight previously conducted cultural resource surveys that contain or partially contain the project APE (Table 6.1). *The Cultural Resource Assessment Survey of Florida's Turnpike Mainline PD&E Study from US 192 to SR 50 (Clermont), Orange and Osceola Counties* (Janus Research 2003; FMSF Manuscript No. 9230) is directly related to the current APE. A review of available field maps from 2003 indicates that the location of the currently proposed Pond 9 was included within the 2003 Pond 11A location. The southern end of current Pond 7 is also within the footprint of the 2004 Pond 9A, The current locations of Ponds 10A, 10B, 11A, 11B, and 11C, which are within the E Osceola Parkway Interchange, were also included within the 2003 APE. No archaeological sites or historic resources were identified in these areas during the previous survey work, and the SHPO concurred with the results of this CRAS in a letter dated October 20, 2003 (Appendix A). The remaining surveys included cellular communications tower surveys, surveys that only briefly intersect with the project APE, or surveys did not meet current standards. All of the surveys were conducted over 15 years ago.

[1] The FMSF is a planning tool that assists in identifying potential cultural resources issues and resources that may warrant further investigation and protection. It can be used as a guide but should not be used to determine the official position of the FDHR/SHPO regarding the National Register significance of a resource. Due to COVID-19 safety protocols, the FMSF data may not be current.

Table 6.1: Previously Conducted Cultural Resource Surveys Containing or Partially Containing the Project APE

FMSF Survey Number	Title	Author(s)	Date
2062	An Archaeological and Historical Survey of Lucas Lakes, Osceola, Florida	Garner, Michael S. Torp, Lyle C. Simpson, Terrance L.	1989
4383	Phase I Cultural Resources Investigation of the Proposed 30 IN O.D. Mainline Loop South Portion in the Florida Gas Transmission Company Phase III Expansion Project [Draft Report]	Athens, William P. Cohen, Jennifer	1993
7512	An Archaeological and Historical Survey of the Proposed Fennel Slough Tower Location in Osceola County, Florida	Jones, Paul L. and Kennedy, Audrey	2001
9230	Cultural Resource Assessment Survey of Florida's Turnpike Mainline PD&E Study from US 192 to SR 50 (Clermont), Orange and Osceola Counties	Janus Research	2003
9941	An Archaeological and Historical Assessment for the Proposed heritage Park, Kissimmee Cellular Tower (ID# 248-C), Osceola County, Florida	Nash, Jennifer L. F.	2004
10061	Identification and Evaluation of Historic Properties Within the One Mile Area of Potential Effects of the Existing 300-foot Osceola County--Simpson Road Telecommunications Tower (Verizon Wireless 081724-1), Osceola County, Florida	Florida Archaeological Consulting, Inc.	2004
10612	An Archaeological and Historical Survey of the Proposed Heritage Park 2 Tower Location in Osceola County, Florida	Driscoll, Kelly A.	2004
12581	Reconnaissance Survey Ivey-Boggy Creek Osceola County, Florida	Dickinson, Martin F. Torres, Joshua	2006

6.2 Previously Recorded Archaeological Sites

A search of the FMSF data identified five previously recorded archaeological sites within one mile of the archaeological APE. The locations of these sites relative to the archaeological APE are illustrated on USGS topographic quadrangle maps in Figure 6.1 and listed in Table 6.2.

Table 6.2: Previously Recorded Archaeological Resources Within or Adjacent to the Archaeological APE

FMSF No.	Site Name	Site Type	SHPO National Register Evaluation*
8OS124	Cattle Slaughter	Twentieth Century American, Building remains	Ineligible
8OS125	Partin-Humby Homes	Nineteenth Century American, Homestead	Ineligible
8OS126	Myerson Meyer Home	Nineteenth Century American, Homestead	Ineligible
8OS1844	Kamikaze Kow	Prehistoric Habitation and Artifact Scatter; Twentieth Century American Refuse	Ineligible
8OS1934	Peat Farm Site	Precontact Human Remains with Possible Archaic Component	Not Evaluated by SHPO

** As recorded in the FMSF, may require re-evaluation within the project APE; Due to COVID-19 safety protocols, the FMSF data may not be current.*

None of the five previously recorded sites are within or adjacent to the archaeological APE. Four of the previously recorded sites within one mile of the APE were previously evaluated as National Register–ineligible by the SHPO, with one not evaluated.

The majority of the previously recorded archaeological sites within one mile of the APE represented low density lithic or artifact scatters that the SHPO determined to be National Register–ineligible. Two sites, 8OS125 and 8OS126, are nineteenth century homesteads. Site 8OS1844 has a prehistoric habitation component, and site 8OS124 contains twentieth century building remains. One site, 8OS1934, is noted in the FMSF as having human remains that were identified during construction. However, this site is located over 0.2 miles outside of the APE.

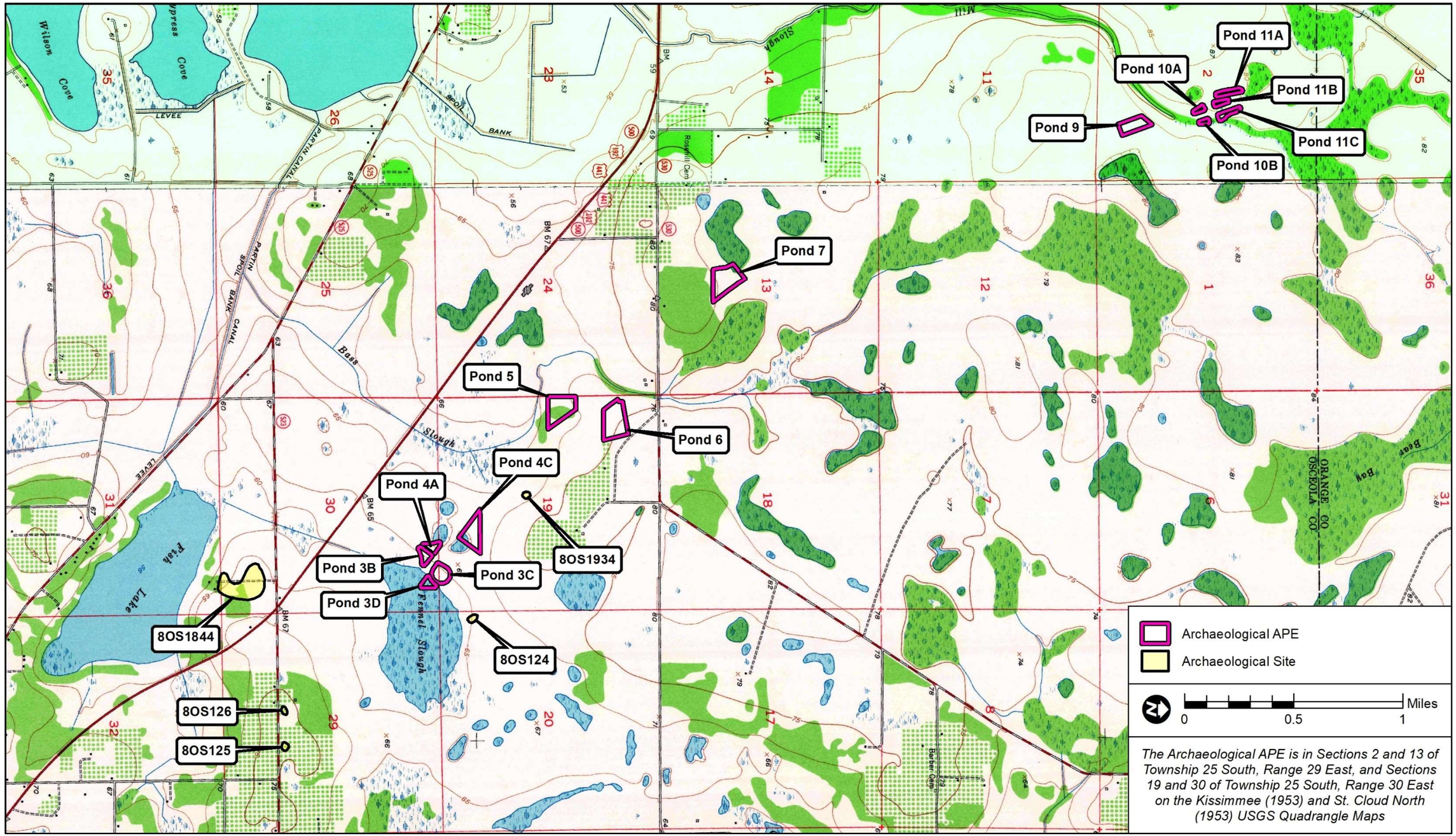

Figure 6.1: Previously Recorded Archaeological Sites Within One Mile of the Archaeological APE Illustrated on USGS Topographic Maps from 1953

6.3 Previously Recorded and Potential Historic Resources

A search of the FMSF data identified no previously recorded historic resources within the historic resources APE. A review of Osceola County Property Appraiser data, FDOT bridge data (FDOT Office of Maintenance 2022), historic aerials from the early 1940s through 1980 (FDOT, Office of Surveying and Mapping 1996-2022; University of Florida, George A. Smathers Libraries 2022), and modern aerial photographs (Google Earth 2022) was conducted to help identify extant historic resources (built during or prior to 1977) within the historic resources APE.

The review of the Osceola County Property Appraiser data (2022) identified no parcels with historic actual year built (AYRB) dates (AYRB dates of 1977 or earlier) within the historic resources APE. A review of aerial photographs from the early 1940s through 2022 (FDOT, Office of Surveying and Mapping 1996-2022; University of Florida, George A. Smathers Libraries 2022; Google Earth 2022) identified no potential historic buildings within the APE, which the field survey confirmed.

A search of the FDOT bridge data (FDOT Office of Maintenance 2022) identified two unrecorded historic bridges, FDOT Bridges No. 920075 and 920136, within the historic resources APE. These bridges were constructed in 1963, and are components of the Florida's Turnpike (SR 91) system. As documented within the *Historic Linear Resource Guide* (2022) provided by OEM, the SHPO has previously determined that the Turnpike (SR 91) is "exempt from documentation as a historic linear resource, and that evaluation for NRHP eligibility is neither necessary or required" (2022:1).

7.0 Project Research Design and Site Location Model

Zones of archaeological site location were designated based on previous archaeological research in the vicinity of the ponds and previous surveys, including the 2003 CRAS report (Janus Research 2003). As noted previously, the ponds are located predominantly in very poorly or poorly drained areas of the flatwoods with either a relatively high water table or within shallow, wet depression or marshes. Several ponds (Ponds 7, 9 10A, 10B, 11A, 11B, and 11C) are either partially or entirely within the APE surveyed during the 2003 CRAS, which identified no archaeological sites in these areas within or adjacent to the Turnpike (SR 91) ROW. Four ponds (Ponds 3B, 3C, 3D, and 4A) are in or adjacent to existing retention areas within the Cross Prairie Parkway Interchange in areas that were modified during construction of the interchange. Based on the factors described above, the majority of the proposed ponds exhibit a low potential for archaeological sites. Two zones of moderate archaeological site potential were established in areas with relatively better drained soils and areas with a slightly higher elevation in proximity to a source of freshwater (Ponds 6 and 7). The zones of archaeological site potential are illustrated on aerial imagery in Appendix B.

8.0 Methods

8.1 Archaeological Field Methods

The archaeological field survey consisted of a pedestrian survey of the entirety of the archaeological APE that could be accessed. The pedestrian survey included a visual survey of 13 of the 14 pond sites. The exception was previously surveyed Pond 9, where ongoing construction prevented access to the proposed pond site. The pedestrian survey documented existing conditions within the accessible portions of the archaeological APE and identified areas where subsurface testing was feasible in areas devoid of wetlands, standing water, existing hardscape, and underground utilities.

Thirty three (33) shovel tests were excavated within the archaeological APE. All shovel tests measured approximately 50 centimeters (20 inches) in diameter and were excavated to a minimum depth of one meter (39 inches) unless inhibited by the presence of dense hardpan, compact clay, or dense root mass. All excavated soil was sifted through 6.4-millimeter (¼-inch) metal hardware cloth screen suspended from portable wooden frames and all shovel tests were backfilled upon completion. Standard archaeological methods for recording field data were followed throughout the project. Shovel tests were excavated systematically at 50-meter (164-feet) intervals within moderate site potential zones. Shovel tests were excavated judgmentally within low site potential zones in over 10 percent of the testable area of the archaeological APE, per FDHR requirements.

Current conditions were marked on aerial field maps of the APE and photographs were taken to document the existing conditions. The identification number, location, stratigraphic profile, and soil descriptions were recorded for every shovel test excavated. The locations of all tests were plotted on field maps of the archaeological APE and recorded with Wide Area Augmentation System (WAAS)-enabled hand-held Global Positioning System (GPS) units (UTM-NAD83).

8.2 Historic Resources Survey Methods

Background research and the historic resources field survey were conducted to identify, record, and evaluate the National Register eligibility of any historic resources built during or prior to 1977 within the historic resources APE. The two previously discussed historic bridges

are components of the Florida's Turnpike (SR 91) system, the SHPO has previously determined they are exempt from recordation per the most recent guidelines provided by OEM within the *Historic Linear Resource Guide* (2022), and therefore were not recorded or evaluated as part of the current survey effort. No additional extant historic resources were identified within the historic resources APE during the current survey.

8.3 Local Informants and Certified Local Government Coordination

Local informants often provide valuable information which is otherwise not available through official records or library collections. The City of Kissimmee is included on the July 28, 2022 list of Certified Local Governments (CLG) available from the FDHR (2022). Therefore, Ms. Ashley Cornelison, Senior Planner for the City of Kissimmee, was contacted via email September 14, 2022 for input on local cultural resources. Ms. Cornelison replied via email the same day that she had no concerns or comments regarding the project. No additional local informants offered cultural resources information related to project APE during the field survey.

9.0 Results

9.1 Archaeological Resources Survey Results

No archaeological sites or occurrences were newly identified within the archaeological APE during the current CRAS. Much of the archaeological APE is located within or adjacent to the previously disturbed ROW of the Florida's Turnpike (SR 91). Subsurface testing was conducted where feasible within the APE in areas devoid of hardscape, underground utility corridors, drainage ditching, retention ponds, wetlands, and standing water. Representative photographs of the archaeological APE are included for reference in Figures 9.1–9.14 and current conditions are marked on aerial imagery in Appendix B. A summary of the archaeological survey results, presented by pond ID, is included for reference in Table 9.1.

Out of fourteen proposed ponds, a total of four were tested: Ponds 4C, 5, 6, and 7. Ponds 3B, 3C, 3D, 4A, 10A, 10B, 11A, 11B, and 11C were not feasible to test due to the conditions described above. Pond 9 could not be accessed due to the combination of wet field conditions, fencing, locked gates in the surrounding area and the presence of ongoing construction blocking access from the roadway.

A total of 33 round shovel tests were excavated within the four proposed ponds conducive to testing. Shovel Tests (STs) 1–3 (Pond 4C) and STs 4–6 (Pond 5) were placed at 100-meter intervals within zones of low site potential. STs 7–20 (Pond 6) and STs 21–33 (Pond 7) were excavated at 50-meter intervals within moderate probability zones. A summary of the stratigraphic profiles encountered during subsurface testing is provided in Table 9.2. Shovel test locations relative to the archaeological APE are illustrated in Appendix B, Maps 1–4. Representative photographs of the stratigraphic profiles encountered are included in Figures 9.15 through 9.21.

Figure 9.1: Representative Photograph of Pond 3B, Facing South

Figure 9.2: Representative Photograph of Pond 3C, View of Roadway Embankment and Retention Pond, Facing West

Figure 9.3: Representative Photograph of Pond 3D, View of Retention Pond with Standing Water, Facing South

Figure 9.4: Representative Photograph of Pond 4A, View of Retention Pond and Roadway Embankment, Facing North

Figure 9.5: Representative Photograph of Pond 4C, Dense Vegetation Consisting of Saw Palmetto and Oak, Facing South

Figure 9.6: Representative Photograph of Pond 5, View of Dense Vegetation Consisting of Saw Palmetto, Oak, and Cabbage Palm, Facing North

Figure 9.7: Representative Photograph of Pond 6, View of Open Pasture and Tall Grasses, Facing North

Figure 9.8: Representative Photograph of Pond 7, View of Dense Vegetation Consisting of Slash Pine, Saw Palmetto, and Scrub Oak, Facing South

Figure 9.9: Representative View of Construction Activity Prohibiting Access to Pond 9, Facing North

Figure 9.10: Representative Photograph of Pond 10A, View of Retention Pond, Underground Utilities and Roadway Embankment, Facing South

Figure 9.11: Representative Photograph of Pond 10B, View of Retention Pond, Underground Utilities, and Roadway Embankment, Facing Northeast

Figure 9.12: Representative Photograph of Pond 11A, View of Tollway Building, Underground Utilities and Roadway Embankment, Facing South

Figure 9.13: Representative Photograph of Pond 11B, View of Underground Utilities, Retention Pond, and Roadway Embankment, facing North

Figure 9.14: Representative Photograph of Pond 11B, View of Underground Utilities, Retention Pond, and Roadway Embankment, facing Southeast

Table 9.1: Summary of Archaeological Survey Results

Pond ID	ST Nos.	Current Conditions	Survey Results
3B	N/A	Retention pond containing standing water.	No archaeological sites or occurrences
3C	N/A	Retention pond containing standing water.	No archaeological sites or occurrences
3D	N/A	Wetlands bordering a modified embankment.	No archaeological sites or occurrences
4A	N/A	Retention pond surrounded by a modified embankment on all three sides.	No archaeological sites or occurrences
4C	1-3	Wooded area bordering the ROW of the Florida's Turnpike (SR 91). Vegetation consists of saw palmetto, live oak, and cabbage palm.	No archaeological sites or occurrences
5	4-6	Wooded region along the Florida's Turnpike (SR 91) ROW with vegetation consisting of live oak, saw palmetto, Brazilian pepper, and slash pine.	No archaeological sites or occurrences
6	7-20	Open cow pasture with tall grasses, long leaf pine, and saw palmetto.	No archaeological sites or occurrences
7	21-33	Partially surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Wooded region bordering the ROW of the Florida's Turnpike (SR 91). Vegetation consists of slash pine, Brazilian pepper, vines, and tall grasses.	No archaeological sites or occurrences
9	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Wooded area bordering the ROW of the Florida's Turnpike (SR 91). Vegetation consists of slash pine and saw palmetto.	No access (no archaeological sites or occurrences during previous survey)
10A	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Retention pond containing standing water.	No archaeological sites or occurrences
10B	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Retention pond containing standing water.	No archaeological sites or occurrences
11A	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Toll station surrounded by a retention pond containing standing water.	No archaeological sites or occurrences
11B	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Retention pond containing standing water.	No archaeological sites or occurrences
11C	N/A	Previously surveyed (Janus Research 2003; FMSF Manuscript No. 9230). Retention pond containing standing water.	No archaeological sites or occurrences

Table 9.2: Representative Stratigraphy Encountered Within the Archaeological APE

Pond ID	ST No.	Stratigraphy
4C	ST 2	Brownish Grey sand, 0-33 centimeters below surface (cmbs) Pale grey sand, 33-54 cmbs Dark brownish grey sand, 54-100 cmbs
5	ST 5	Grey sand, 0-35 cmbs Pale grey sand, 35-69 cmbs Dark brown sand, 69-85 cmbs Hardpan, 85 cmbs
6	ST 13	Grey sand, 0-30 cmbs Light grey sand, 30-68 cmbs Brown sand, 68-86 cmbs Light brown sand, 86-100 cmbs
7	ST 29	Grey sand with roots, 0-25 cmbs Light grey sand, 25-56 cmbs Very dark brown compact clay, 56-77 cmbs Hardpan, 77 cmbs

Figure 9.15: Representative Soil Profile, ST 2 (Pond 4C), Facing North

Figure 9.16: Representative Soil Profile, ST 3 (Pond 4C), Facing North

Figure 9.17: Representative Soil Profile, ST 5 (Pond 5), Facing North

Figure 9.18: Representative Soil Profile, ST 13 (Pond 6), Facing North

Figure 9.19: Representative Soil Profile, ST 16 (Pond 6), Facing North

Figure 9.20: Representative Soil Profile, ST 25 (Pond 7), Facing North

Figure 9.21: Representative Soil Profile, ST 29 (Pond 7), Facing North

9.2 Historic Resources Survey Results

Two unrecorded historic bridges, FDOT Bridge Nos. 920075 and 920136, were identified within the historic resources APE during the background research and current field survey. These bridges are components of the Florida's Turnpike (SR 91) system, and the SHPO previously determined they are exempt from recordation per the most recent guidelines provided by OEM within the *Historic Linear Resource Guide* (2022). No additional historic resources were identified within the historic resources APE during the current survey.

10.0 Conclusions

During the current survey, 33 shovel tests were excavated in four pond locations where access could be obtained, and subsurface testing was not obstructed by hardscape, underground utilities, retention ponds, wetlands with standing water, and ditching. Pond 9 was inaccessible due to the combination of wet field conditions, fencing, locked gates in the surrounding area and the presence of ongoing construction blocking access from the roadway. However, this pond was surveyed in 2003 and no archeological sites or occurrences were identified within the pond location at that time (Janus Research 2013; FMSF Manuscript No. 9230). The results of the background research, the pedestrian survey, and the subsurface testing conducted during the current survey effort, determined that the archaeological APE exhibits low probability for containing intact cultural deposits. All shovel tests were negative for cultural material, and no newly identified or previously recorded archaeological sites or archaeological occurrences were encountered within the archaeological APE.

Two unrecorded historic bridges were identified within the historic resources APE. FDOT Bridge Nos. 920075 and 920136 are components of the Florida's Turnpike (SR 91) system, and the SHPO previously determined they are exempt from recordation per the most recent guidelines provided by OEM within the *Historic Linear Resource Guide* (2022). No additional historic resources were identified within the APE during the current survey.

10.1 Unanticipated Finds

Should construction activities uncover any archaeological remains, it is recommended that activity in the immediate area of the remains be stopped while a professional archaeologist evaluates the remains. In the event that human remains are found during construction or maintenance activities, Chapter 872.05, *F.S.* will apply and FDOT's Standard Specifications for Road and Bridge Construction require that all construction cease. Chapter 872.05, *F.S.* states that, when human remains are encountered, all activity that might disturb the remains shall cease and may not resume until authorized by the District Medical Examiner or the State Archaeologist. The District Medical Examiner has jurisdiction if the remains are less than 75 years old or if the remains are involved in a criminal investigation. The State Archaeologist may assume jurisdiction if the remains are 75 years of age or more.

10.2 Curation

A copy of this report and a Survey Log (Appendix C) are curated at the FMSF in Tallahassee. Field notes, and other pertinent project records are temporarily stored at Janus Research until their transfer to the FDOT storage facilities.

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Appendix A

SHPO Concurrence Letter for FMSF Manuscript No. 9230

9230

FLORIDA DEPARTMENT OF STATE
Glenda E. Hood
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Daniel T. Penton
Post, Buckley, Schuh & Jernigan
1901 Commonwealth Lane
Tallahassee, Florida 32303

October 20, 2003

Re: DHR Project No. 2003-8469 / Received by DHR: September 25, 2003 EAK 10/21/03
1) *Cultural Resource Assessment Review Request: Widening of Florida's Turnpike from US 192 to SR 50*
2) *Cultural Resource Assessment Survey of New Pond Sites along Florida's Turnpike: An Addendum*
Orange, Osceola Counties, Florida

Dear Mr. Penton:

Our office received and reviewed the referenced projects in accordance with Chapter 267, *Florida Statutes*, and implementing state regulations, for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value. The State Historic Preservation Officer is to advise and assist state and federal agencies when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or minimize adverse effects.

The cultural resource assessment survey of the Florida Turnpike Mainline PD&E study resulted in the identification of three newly recorded archaeological sites (8OR4887, 8OR4888, 8OR9604), one archaeological occurrence (8OR9605), and three historic resources (8OR9567, 8OR4314, 8OR4315).

The four archaeological resources are precontact or historic lithic scatters. Due to the sparse and mundane nature of the artifact assemblages, it is the opinion of Post, Buckley, Schuh and Jernigan (PBS&J), that 8OR4887, 8OR4888, 8OR9604, and 8OR9605 are considered ineligible for listing in the *National Register of Historic Places*. Based on the information provided, our office concurs with this determination.

Information regarding resource 8OR9605 is unclear within the report, as it has been referred both as an archaeological occurrence and an archaeological site at different instances. In the future, resources similar to site 8OR9605, which consists of less than three, non-diagnostic finds, should be classified as an archaeological occurrence and not as an archeological site and should not be recorded with the Florida Master Site File.

8OR4314, 8OR4315 are residential structures circa 1935. Due to common design, lack of known historical association, and non-historic modifications, it is the opinion of PBS&J, that 8OR4314 and 8OR4315 do not appear to meet the criteria for listing in the *National Register of Historic Places*. Based on the information provided, our office concurs with this determination.

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☐ Director's Office (850) 245-6300 • FAX: 245-6435
☐ Archaeological Research (850) 245-6444 • FAX: 245-6436
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
☐ St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
☐ Tampa Regional Office (813) 272-3843 • FAX: 272-2340

8OR9567 (Old Oakland African-American Cemetery) consists of at least 40 graves. The earliest marker dates to 1921 and the most recent burial dates to 1949. Since there is a lack of historic documentation of minority communities in Oakland and surrounding small towns during the late nineteenth and early twentieth centuries, it is the opinion of PBS&J, that the Old Oakland African-American Cemetery has the unique potential to yield valuable information about the population with regards to demographics, gender, and early burial practices. Based on Criteria D, PBS&J consider 8OR9567 potentially eligible for listing in the *National Register of Historic Places*. Based on the information provided, our office does not concur with this determination of eligibility. It is the opinion of this office that 8OR9567 appears to be potentially eligible for listing in the *National Register of Historic Places*, based on Criterion C, due to the unique shell markers present in the cemetery.

It is the opinion of PBS&J that the cemetery will not be affected by the proposed project, as it is outside the Area of Potential Effect (APE). They recommended that, since the boundaries of the cemetery are unclear, some form of remote sensing must be utilized to determine the exact boundaries of the cemetery. Based on the information provided, it is the opinion of this office that preservation of Site 8OR9567 can be achieved through avoidance. It is proposed that a 25-foot buffer zone be created around the cemetery and left undeveloped, in the event that any unmarked graves lie outside the identified site area. In addition to the plan for avoidance, our office recommends fencing of the site area and buffer zone during construction. Special care should be taken in areas immediately outside the buffer zone, since the boundaries of the cemetery are unspecified. There is a strong possibility that the project may affect unmarked burials, lying outside the known limits of the cemetery. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance within Section 872.05, *Florida Statutes*.

The cultural resource assessment survey of 19 proposed pond sites identified one previously recorded archaeological site (8OR9605). Due to the relatively sparse and unexceptional artifact assemblage, PBS&J does not consider the site regionally or locally significant. Based on the information provided, our office concurs with this determination and finds that site 8OR9605 does not appear to meet the criteria for listing in the *National Register of Historic Places*.

We find the submitted report complete and sufficient in accordance with Chapter 1A-46, *Florida Administrative Code*. If you have any questions concerning our comments, please contact Mini Sharma, Historic Sites Specialist, at mtsharma@dos.state.fl.us or (850) 245-6333. Your interest in protecting Florida's historic properties is appreciated.

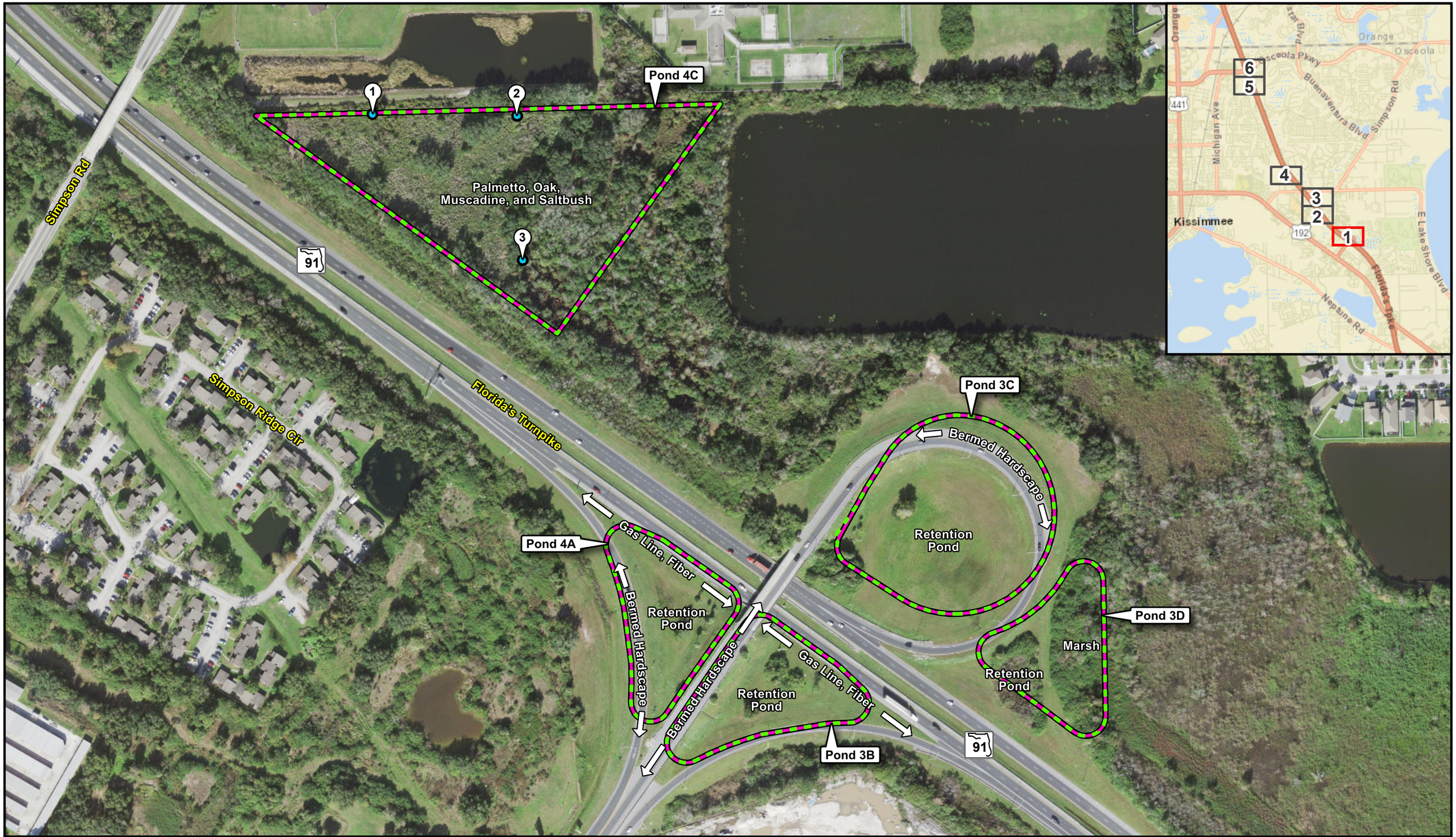
Sincerely,

Janet Snyder Matthews, Ph.D., Director, and
State Historic Preservation Officer

Xc: Raymond Aske, FDOT-Turnpike District
James St. John-FHWA
Leroy Irwin, FDOT-CEMO

Appendix B

Previous Archaeological Survey Coverage, Zones of Archaeological Site Potential, Shovel Test Locations, and Current Conditions



Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 1 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

Archaeological APE

Zone of Moderate Archaeological Site Potential

Zone of Low Archaeological Site Potential

Negative Shovel Test

Osceola County

0 50 100 Meters

Bill Beck Blvd

Pond 5

4

5

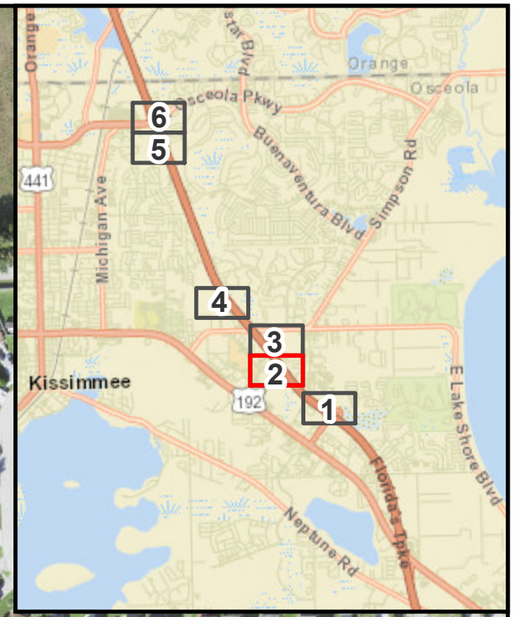
6

Pine, Palmetto, Oak, and Muscadine

91

Florida's Turnpike

91



Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 2 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

Archaeological APE

Zone of Moderate Archaeological Site Potential

Zone of Low Archaeological Site Potential

Negative Shovel Test

Osceola County

N

0 50 100 Meters

Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 3 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

Archaeological APE

Zone of Moderate Archaeological Site Potential

Zone of Low Archaeological Site Potential

Negative Shovel Test

Osceola County

0 50 100 Meters

Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 4 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

Archaeological APE

Zone of Moderate Archaeological Site Potential

Zone of Low Archaeological Site Potential

Negative Shovel Test

Osceola County

N

0 50 100 Meters

Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 5 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

Archaeological APE

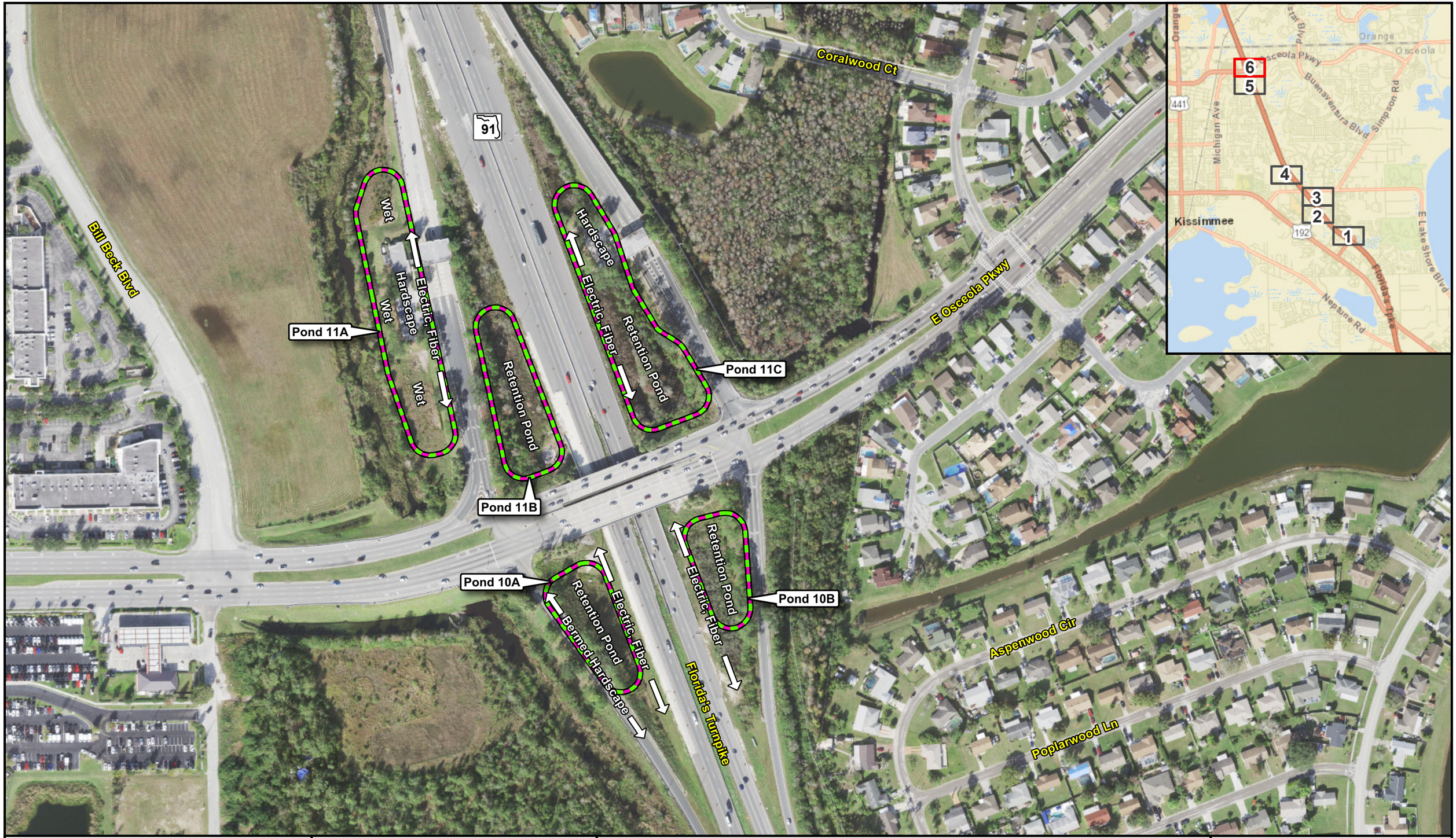
Zone of Moderate Archaeological Site Potential

Zone of Low Archaeological Site Potential

Negative Shovel Test

Osceola County

0 50 100 Meters



Zones of Archaeological Site Potential, Locations of Shovel Tests, and Current Conditions Within the Archaeological APE (Map 6 of 6)

Widen Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway (436194-1-52-01)

- Archaeological APE
- Zone of Moderate Archaeological Site Potential
- Zone of Low Archaeological Site Potential
- Negative Shovel Test

Osceola County

0 50 100 Meters

Appendix C

Survey Log

Ent D (FMSF only) _____

Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Manuscript Information

Survey Project (name and project phase)

CRAS for 14 Preferred Pond Sites, Widening Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway Project

Report Title (exactly as on title page)

Cultural Resources Assessment Survey for 14 Preferred Pond Sites, Widening Turnpike Mainline (SR 91) from Partin Settlement Road to Osceola Parkway, Osceola County, Financial Project ID (FPID) No. 436194-1-52-01

Report Authors (as on title page) 1. Janus Research 3. _____ 2. _____ 4. _____

Publication Year 2023 **Number of Pages in Report** (do not include site forms) 104

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)

Janus Research, 1107 N. Ward Street, Tampa FL 33607

Supervisors of Fieldwork (even if same as author) Names Kathleen S. Hoffman, Amy Streelman

Affiliation of Fieldworkers: Organization Janus Research City Tampa

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. FTE 3. Turnpike 5. _____ 7. _____
2. Widen 4. Pond 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization, or person funding fieldwork)

Name Florida's Turnpike Enterprise Organization _____

Address/Phone/E-mail PO Box 613069,Ocoee FL 34761 / (407)532-3999

Recorder of Log Sheet Janus research **Date Log Sheet Completed** 2-27-2023

Is this survey or project a continuation of a previous project? ☐No ☒Yes: **Previous survey #s (FMSF only)** _____

Project Area Mapping

Counties (select every county in which field survey was done; attach additional sheet if necessary)

1. Osceola 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name KISSIMMEE Year 1980 4. Name _____ Year _____
2. Name ST. CLOUD NORTH Year 1980 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 7-18-2022 End 7-28-2022 **Total Area Surveyed** (fill in one) _____ hectares 129.10 acres

Number of Distinct Tracts or Areas Surveyed 13

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (select all that apply): ☒archaeological ☒architectural ☐historical/archival ☐underwater ☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures

Visual survey of APE. Pond 9 (SVd in 2003) not accessible (wet conditions, fencing, gates, & nearby construction). 33 STs (all negative for cultural material) excavated where feasible in areas devoid of hardscape, underground utilities, water, & ditching

Preliminary Methods (select as many as apply to the project as a whole)

☐Florida Archives (Gray Building)	☐library research- *local public*	☒local property or tax records	☒other historic maps	☐LIDAR
☐Florida Photo Archives (Gray Building)	☐library-special collection	☐newspaper files	☒soils maps or data	☐other remote sensing
☒Site File property search	☐Public Lands Survey (maps at DEP)	☒literature search	☐windshield survey	
☒Site File survey search	☒local informant(s)	☐Sanborn Insurance maps	☒aerial photography	

☒other (describe): Janus Research Library

Archaeological Methods (select as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☐surface collection, controlled	☐shovel test-other screen size	☐block excavation (at least 2x2 m)	☐metal detector
☐surface collection, **un**controlled	☐water screen	☐soil resistivity	☐other remote sensing
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer	☒pedestrian survey
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar	☐unknown
☐shovel test 1/16"screen	☐coring	☐ground penetrating radar (GPR)	
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐LIDAR	

☒other (describe): Desktop analysis

Historical/Architectural Methods (select as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☐neighbor interview	☐subdivision maps
☐commercial permits	☐windshield survey	☐occupant interview	☒tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☒other (describe): Visual survey of APE

Survey Results

Resource Significance Evaluated? ☐Yes ☒No

Count of Previously Recorded Resources 0 **Count of Newly Recorded Resources** 0

List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)

List Newly Recorded Site ID#s (attach additional pages if necessary)

Site Forms Used: ☐Site File Paper Forms ☒Site File PDF Forms

REQUIRED: Attach Map of Survey or Project Area Boundary

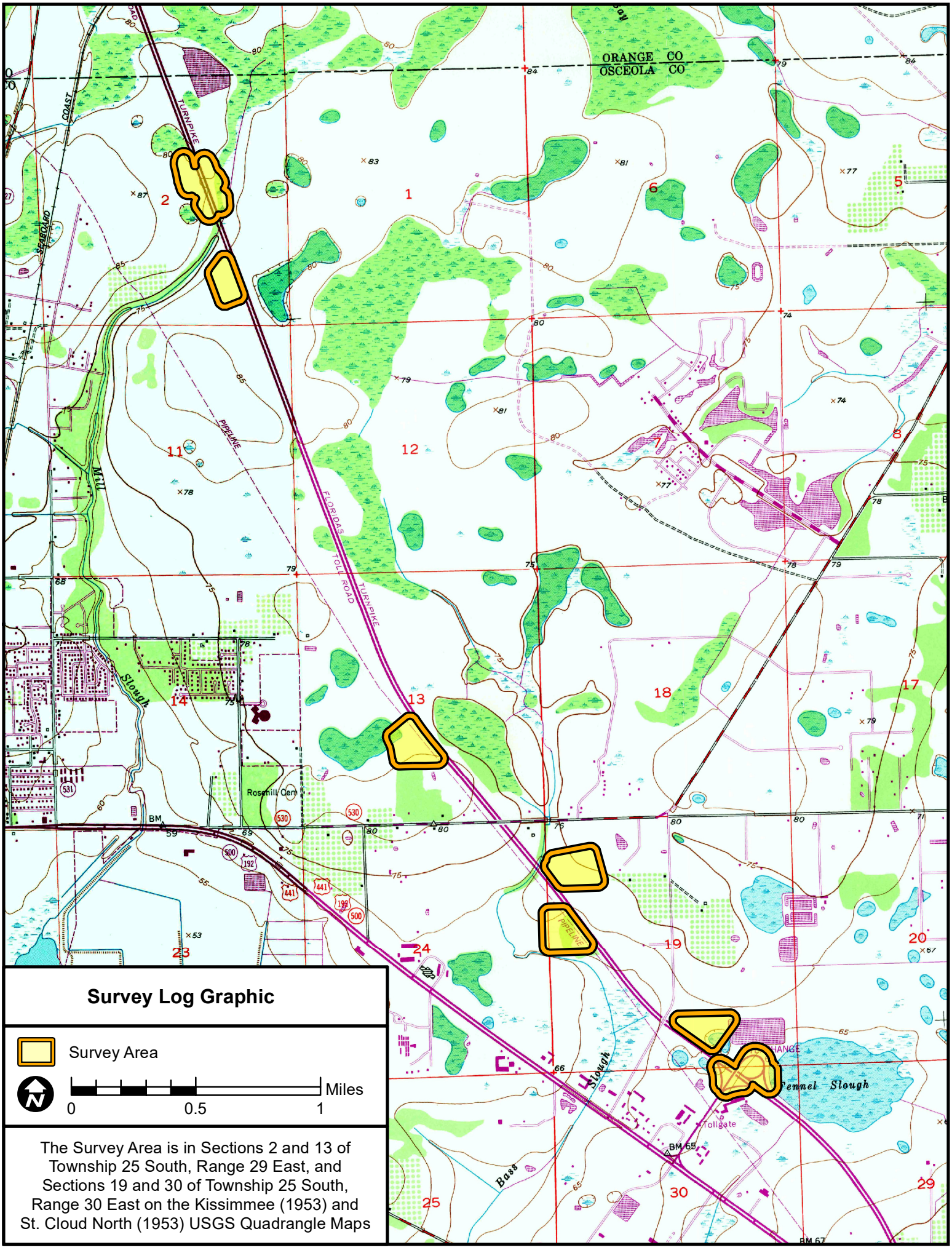
SHPO USE ONLY **SHPO USE ONLY** **SHPO USE ONLY**

Origin of Report: ☐872 ☐Public Lands ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational ☐Grant Project # _____ ☐Compliance Review: CRAT # _____

Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report ☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc ☐Desktop Analysis ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: Plottable Projects **Plotability:** _____

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com


ORANGE CO
OSCEOLA CO
FLORIDAS TURNPIKE
TOLL ROAD
TURNPIKE
COAST
SEABOARD
PIPELINE
M&U
Slough
Rosehill Cem
BM
Tollgate
BM 65
BM 67
Bass
Survey Log Graphic
Survey Area
Miles
0
0.5
1
The Survey Area is in Sections 2 and 13 of Township 25 South, Range 29 East, and Sections 19 and 30 of Township 25 South, Range 30 East on the Kissimmee (1953) and St. Cloud North (1953) USGS Quadrangle Maps