

REVISED FINAL

**SECTION 106 DOCUMENTATION
AND DETERMINATION OF EFFECTS
CASE STUDY REPORT**

**WEKIVA PARKWAY (SR 429)/SR46 REALIGNMENT
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
IN ORANGE, LAKE, AND SEMINOLE COUNTIES, FLORIDA**

Prepared for:

Orlando-Orange County Expressway Authority

and

Florida Department of Transportation, District Five

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Revised Final Report

November 2011

Executive Summary

In accordance with the provisions of the Section 106 of the *National Historic Preservation Act (NHPA)* of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR Part 800 (*Protection of Historic Properties*, revised January 2001), this *Section 106 Documentation and Determination of Effects Case Study Report* documents potential effects of the proposed improvements on the *National Register of Historic Places (NRHP)*-eligible resources within the project area of potential effects (APE) related to the Wekiva Parkway (SR 429)/SR 46 Realignment project. The noise analysis conducted for this document is in compliance with amended 23 CFR Part 772 (effective date July 13, 2011) and updated Chapter 17 in Part 2 of the *FDOT PD&E Manual*. The following *NRHP*-eligible resources are located within the APE for the Orange County portion of the Locally Recommended Alternative:

- Paul Bock House/2626 Boch Road (8OR7946), individually eligible for listing in the *NRHP*, and
- Strite House/6229 Plymouth Sorrento Road (8OR9844), individually eligible for listing in the *NRHP*

The Bock House and the Strite House are the only significant historic resources within the APE for the proposed Wekiva Parkway project. In 2006, these two historic resources were identified and documented as part of the *Cultural Resource Assessment Survey (CRAS)* of the *Wekiva Parkway (SR 429)/SR 46 Realignment in Orange, Lake, and Seminole Counties, Florida* (February 2007, Revised April 2007, Updated Final May 2010). Additional documentation on the Strite House was provided in the *Addendum to the CRAS of the Wekiva Parkway (SR 429)/SR 46 Realignment in Orange, Lake, and Seminole Counties, Florida* (October 2007, Revised March 2008, Updated Final May 2010) as prepared by Archaeological Consultants, Inc. and Janus Research for the Florida Department of Transportation (FDOT), District 5 and the Orlando-Orange County Expressway Authority (OOCEA). All work was intended to comply with Section 106 of the NHPA of 1966 (as amended) as implemented by 36 CFR 800 (*Protection of Historic Properties*), Chapter 267 of the *Florida Statutes*, and Section 4(f) of the *Department of Transportation Act of 1966*. In accordance with the Section 106 consultation process, Federal Highway Administration (FHWA) coordination with the State Historic Preservation Officer (SHPO) was initiated upon submittal of the draft CRAS in May 2007. In letters to FHWA dated June 27, 2007 and October 10, 2007, the SHPO concurred with the findings of the CRAS report and with a later response (dated August 2007) to the SHPO's request for additional information. In a letter dated May 19, 2008, the SHPO concurred with the findings of the *CRAS Addendum* (copies of the referenced correspondence are provided in **Appendix A**).

The Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study, under joint management of FDOT and OOCEA, has evaluated and analyzed alignment alternatives since early 2005. Three public workshops were held in November 2005 to present initial alternatives for review and comment. In July/August 2006, potential viable alternatives were presented to the public for review and comment at a series of three public workshops. As a result of the public comments received and extensive project coordination with stakeholders (federal,

local and state government agencies, project and environmental advisory groups, residents and other interested individuals), the viable alternatives were refined and analyzed further. Based on the comprehensive assessment of Purpose and Need satisfaction, engineering factors, environmental analyses and stakeholder coordination, the project sponsors (FDOT and OOCEA) identified a Locally Recommended Alternative. In northwest Orange County, which is the area of focus for this Case Study, the portion of the Locally Recommended Alternative is referred to as Orange County Alternative 1.

Section 106 of the *NHPA of 1966* is applicable to this project, as federal funds are involved in portions of the proposed improvements. Based upon the Section 106 process, effects to the above mentioned resources that may be caused by the Orange County Alternative 1 portion of the Locally Recommended Alternative were evaluated.

The Criteria of Effect as defined by the Section 106 regulations were applied to the two historic resources. The Orange County Alternative 1 portion of the Locally Recommended Alternative will have an **adverse effect** on the Paul Bock House and the Strite House due to right-of-way acquisition needed for the proposed project. The right-of-way acquisition will affect the historic connection between the Paul Bock House and its associated land as well as the integrity of the historic setting. The proposed project will require right-of-way acquisition of the portion of the Strite property that includes the existing location of the Strite House and two contributing resources.

In accordance with Section 106 and its public involvement requirements, an initial Cultural Resource Consultation meeting was held on April 21, 2008 with the affected parties and appropriate agencies and organizations. During this meeting, the Section 106 process and possible avoidance alternatives, minimization alternatives, and mitigation measures for the potential adverse effects associated with the Orange County Alternative 1 portion of the Locally Recommended Alternative were discussed. Subsequent to that consultation meeting, the potential effects to the two cultural resources were documented in the draft *Section 106 Documentation and Determination of Effects Case Study Report* (July 2008) prepared for the project. After review of that document, the SHPO concurred with the finding of adverse effect for both the Paul Bock House and the Strite House and requested further coordination in a letter to FHWA dated September 10, 2008 (see **Appendix A**).

During project sponsor consultation with FHWA from September 2008 to April 2010, the potential effects to the two cultural resources were analyzed further and documented as part of the draft *Individual Section 4(f) Evaluation for Historic Resources* (April 2010). Portions of those additional analyses were included in the revised draft *Section 106 Documentation and Determination of Effects Case Study Report* (June 2010). The revised draft *Case Study Report* included the results of the analysis and evaluation of the effects of Orange County Alternative 1, two minimization alternatives, and an avoidance alternative. The SHPO reviewed the revised draft *Case Study Report* and provided comments on it to FHWA in a letter dated July 6, 2010 (see **Appendix A**). Thereafter, a second Section 106 Cultural Resource Consultation meeting was held on August 16, 2010 with the affected parties and appropriate agencies and organizations, including FHWA, SHPO, the property owners, the Apopka Historical Society, and the Orange County Regional History Center. At that meeting, potential measures to minimize and/or mitigate adverse effects to the Strite House and Bock House historic resources were discussed.

After FHWA approval of the draft *Environmental Assessment* for public availability on August 20, 2010, the Locally Recommended Alternative was presented as the Proposed Build Alternative at three Public Hearing sessions held in October 2010 in Orange, Lake, and Seminole Counties. The draft *Individual Section 4(f) Evaluation* and the revised draft *Case Study Report*, along with other study documentation, were made available to the public as part of the Public Hearing process.

The Locally Preferred Alternative (i.e., the Proposed Build Alternative presented at the Public Hearing sessions) was selected at duly noticed public meetings/hearings held by the Seminole County Expressway Authority Board on November 9, 2010, the Lake County Board of County Commissioners on December 7, 2010, and the Orlando-Orange County Expressway Authority Board on December 14, 2010.

After conclusion of the Public Hearing and comment period, and after formal selection of the Locally Preferred Alternative, preparation began on a draft *Memorandum of Agreement* (MOA) between FHWA and the SHPO to address minimization and/or mitigation of adverse effects to the two historic resources. FHWA, in cooperation with OOCEA and FDOT, developed a draft MOA which contained minimization and/or mitigation measures that are consistent with those discussed at the second Section 106 consultation meeting. FHWA then transmitted the draft MOA to the SHPO for review and comment. On June 15, 2011, the SHPO staff advised FHWA that the draft MOA was acceptable. The final MOA document was then circulated for review, approval and signature by the FHWA Florida Division Administrator and the SHPO, with concurrence signatures by the FDOT District Five Secretary and the OOCEA Executive Director. A copy of the executed MOA is provided in **Appendix E**. The sufficiency and concurrence form signed by the SHPO on October 18, 2011 after review of the final *Case Study Report* (July 2011) is provided in **Appendix F**. This revised final *Case Study Report* (November 2011) incorporates revisions to the July 2011 document that were requested by FHWA; a list of those revisions is included in **Appendix F**.

All possible mitigation measures for the protection of historic resources were identified during the Section 106 consultation process and documented as required by Section 106 of the *NHPA of 1966*. The resolution of adverse effects is documented in accordance with Section 106 and in compliance with the requirements mandated by Section 4(f) of the U.S. Department of Transportation Act (USDOT) of 1966 [Title 49, USC, Section 303] and [Title 23, USC, Section 138], as amended.

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SECTION 1

Introduction

In accordance with the provisions of Section 106 of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-665, as amended), as implemented by 36 CFR Part 800 (*Protection of Historic Properties*, revised January 2001), this *Section 106 Documentation and Determination of Effects Case Study Report* documents potential effects of the proposed improvements on the *National Register of Historic Places (NRHP)*-eligible resources within the project area of potential effects (APE) related to the Wekiva Parkway (SR 429)/SR 46 Realignment project. The noise analysis conducted for this document is in compliance with amended 23 CFR Part 772 (effective date July 13, 2011) and updated Chapter 17 in Part 2 of the FDOT *PD&E Manual*. The following *NRHP*-eligible resources are located within the APE for the Orange County portion of the Locally Recommended Alternative:

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Section 106 of the *NHPA of 1966* is applicable to this project, as federal funds are involved in portions of the proposed improvements. Based upon the Section 106 process, effects to the above mentioned resources that may be caused by the Locally Recommended Alternative were evaluated. In northwest Orange County, which is the area of focus in this *Case Study Report*, the portion of the Locally Recommended Alternative is referred to as Orange County Alternative 1. This report includes a description of and background on the proposed project,

a summary description of the two historic resources that are the subject of this *Case Study Report*, and the results of analysis and evaluation of Orange County Alternative 1, two minimization alternatives, and an avoidance alternative. The Criteria of Adverse Effect, as defined in 36 CFR Part 800.5, were applied to the historic resources and the subsequent analysis of effects is also discussed.

1.1 Project Description

The Wekiva Parkway (SR 429) is a proposed limited access expressway that will complete the Western Beltway (SR 429), a regional transportation corridor around the Orlando metropolitan area, linking I-4 (SR 400) in Osceola County to I-4 (SR 400) in Seminole County. The project is located in Orange, Lake, and Seminole Counties, Florida. Portions of the project are located within the jurisdictions of the City of Apopka in Orange County, the City of Mount Dora in Lake County, and the City of Sanford in Seminole County. A partial realignment of SR 46 in Lake County is integrated with the Wekiva Parkway (SR 429) project.

The Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study addresses the following proposed project components within the study area shown in **Exhibit 1-1**:

- The Wekiva Parkway (SR 429), a four-lane divided and six-lane divided limited access toll facility, which would begin in Orange County at the planned terminus of the John Land Apopka Expressway at US 441 (SR 500) just west of CR 437 and extend to the north/northeast into Lake County, turning east and crossing the Wekiva River into Seminole County and terminating at I-4. The approximate length of the Wekiva Parkway (SR 429) is 20.94 miles, with 8.16 miles in Orange County, 7.37 miles in Lake County and 5.41 miles in Seminole County.
- SR 46 Reconstruction and Realignment which would begin at the SR 46/US 441 interchange in Lake County and extend along the existing SR 46 corridor to the east, then turning southeast on a new alignment and entering Orange County with a systems interchange connection at the Wekiva Parkway (SR 429). It is expected that the SR 46 improvements would provide six-lane divided controlled access along the existing alignment from US 441 to east of Round Lake Road, while the remaining alignment to the southeast would transition to a four-lane (expandable to six-lane) limited access expressway. The approximate length of the SR 46 Reconstruction and Realignment is 4.79 miles, with 4.01 miles in Lake County and 0.78 miles in Orange County.
- CR 46A Realignment, a two-lane rural (expandable to four-lane rural) roadway, which would begin on existing CR 46A in east Lake County and extend to the south on a new alignment and tie into existing SR 46 with an access connection to the Wekiva Parkway (SR 429). The approximate length of the CR 46A realignment is 2.72 miles.
- Wekiva Parkway (SR 429) Access Improvements would be required between the realignment of CR 46A in Lake County and Orange Boulevard (CR 431) in Seminole County. A two-lane, non-tolled service road would be parallel to the Wekiva Parkway from north of the Wekiva Parkway interchange near Neighborhood Lakes to just east of the Wekiva River in Seminole County. Two-lane, one-way non-tolled frontage roads would be parallel to the Wekiva Parkway from east of the Wekiva River to Orange Boulevard (CR 431) in Seminole County. Those service and frontage roads would allow access to private property along existing SR 46 while also providing a non-tolled alternative for local trips.

1.2 Background

The Wekiva River Basin is a very unique environmental resource within Florida. The implications of this resource are best understood with an examination of the Wekiva-Ocala Greenway shown on **Exhibit 1-2**. The Greenway is anchored on the north side by the Ocala National Forest which incorporates 450 square miles of conservation and recreation lands in Central Florida. The State of Florida has proactively focused on establishing a permanent ecological link between the Ocala National Forest and the Wekiva River Basin. The size and diversity of this environmental resource ranks it as a top priority natural system in the State of Florida second only to the Everglades in south Florida.

Some of the characteristics of the Wekiva-Ocala Greenway, and more specifically the Wekiva Basin, that prompt the priority focus include:

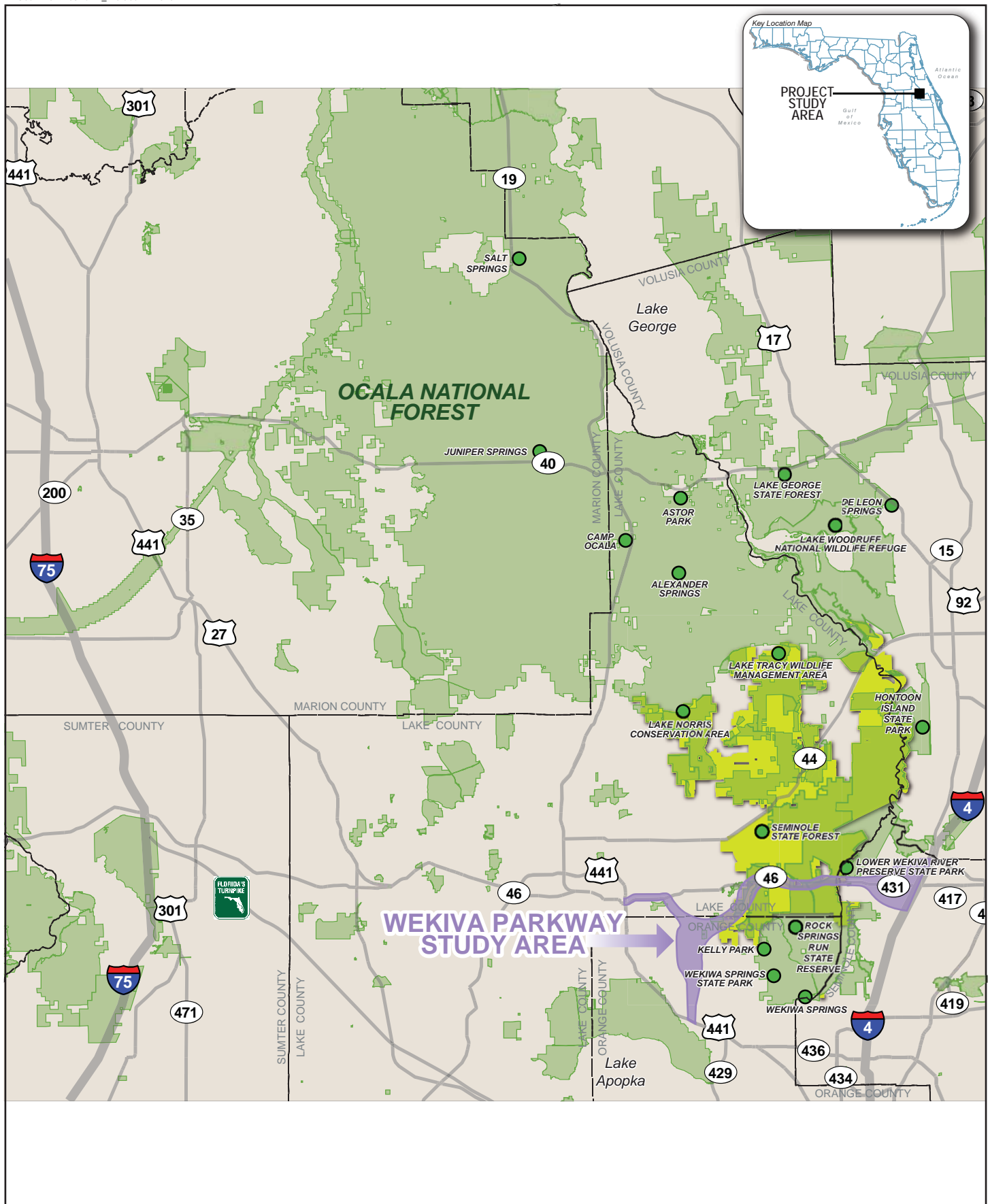
- Wide variety of flora and fauna supported by a diverse, yet integrated habitat,
- Extensive habitat connectivity which supports a variety of wildlife most notably larger mammal species including deer and the Florida Black Bear,
- Numerous springs and seepage slopes which are fed from adjacent high recharge areas within the basin.

Over the past 25 years, there had been numerous discussions and various actions taken regarding the need to complete the beltway on the northwest side of the Orlando metropolitan area while protecting the Wekiva River Basin and its springshed. Area governmental agencies, municipalities, and environmentalists have generally agreed on the needs for transportation improvements, but could not reach a consensus on various issues including alignment and environmental protections. As time elapsed the situation grew more critical due to growing traffic on SR 46 which increasingly served as a barrier to the southern reaches of the Wekiva Basin and in essence caused increasing habitat fragmentation.

The problems with SR 46 and the desire to complete the beltway system gained increased attention in the 2001/2002 timeframe due to several factors including increasing accidents and fatalities on SR 46, continued vehicle-wildlife conflicts, and growing congestion on I-4. Transportation officials with the FDOT and the OOCEA recognized that a collaborative process would be required to develop potential solutions for the transportation problems. In light of this, the transportation officials reached out to affected State agencies and environmental special interests in 2002 in an effort to define how to move forward.

At a meeting in 2002, the discussions emphasized several key points regarding the Wekiva Basin including:

- The Wekiva River Basin is an important environmental resource in Florida second only to the Everglades,
- The unique characteristics of this resource require special technical considerations, and
- Complete and integrated considerations of cultural, natural and social issues are required to define potential solutions that address transportation needs while balancing the protection of this resource.



LEGEND

- Planned Public Lands
- Public Lands
- Wekiva Parkway Study Area

**Exhibit 1-2
Wekiva-Ocala Greenway**

The outcome of that meeting resulted in coordination with the Governor's office on these important issues, and the Governor issued a series of Executive Orders that resulted in the State of Florida undertaking an unprecedented technical and stakeholder process for the Wekiva River Basin Area with specific emphasis on defining the following:

- The Purpose and Need for the Wekiva Parkway (including the final segment of the Orlando metropolitan beltway system) in light of the sensitive natural systems associated with the Wekiva River Basin and the larger Wekiva-Ocala Greenway,
- The dynamic implications of transportation and land use changes in the Wekiva River Basin and their resultant impact to the natural system function, and
- A range of alternatives that responds to the purpose and need based on technical evaluations of this unique resource.

It should be noted that the timing of these actions was prior to full implementation of FDOT's Efficient Transportation Decision Making (ETDM) process and prior to guidance emanating from the Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation. That said, the process closely mirrored these new processes and requirements with particular emphasis on opportunity for input at formative stages of the project and subsequent project development advancement.

In summary, the State of Florida formed a Wekiva Basin Area Task Force and a Wekiva Basin Coordinating Committee that were chartered to undertake a holistic evaluation of the Wekiva Basin Area and to prepare recommendations on guiding principles and directions for the various components involved in the evaluation.

The Task Force and Coordinating Committee included representatives from State/ Regional agencies (including FDOT and OOCEA), elected officials in the general basin area, special interest groups, property owners, and business interests. Each meeting included time for public comment and input.

Furthermore, the meetings involved technical and expert presentations on the various issues under consideration including transportation needs, wildlife habitat protection, land use, water quantity supplies, water quality issues with focus on the numerous springs in the area, protection of rural settlements, cultural resources, and conservation land needs.

The proceedings resulted in a series of objective and scientific analyses tailored to the unique characteristics of the Wekiva Basin Area. The transportation analyses included considerations and review of the purpose and need for transportation improvement within the general area.

1.3 Purpose and Need

The deliberations of the Task Force and Coordinating Committee referenced previously involved technical assessments to support development of a purpose and need for the project. The technical components of this effort were led by FDOT and OOCEA officials in a manner consistent with the National Environmental Policy Act (NEPA). Also, opportunity for input on the purpose and need by all stakeholders and the public was offered at every meeting of the Task Force and Coordinating Committee.

The following provides the stated Purpose and Need for the Wekiva Parkway project.

- **Complete the Western Beltway (SR 429) around metropolitan Orlando**

The proposed Wekiva Parkway, extending approximately 21 miles from near the current terminus of SR 429 at US 441 in Apopka in Orange County to I-4 near Sanford in Seminole County, would complete the Western Beltway (SR 429) around metropolitan Orlando; it is the only segment of the entire eastern and western beltway system from I-4 in Osceola County through Orange County to I-4 in Seminole County that remains to be completed. Construction of the Wekiva Parkway would follow completion of the SR 429/SR 414 John Land Apopka Expressway in northwest Orange County. Traffic projections indicate the proposed Wekiva Parkway would provide relief to congested I-4, SR 46, US 441 and other heavily traveled roads in northwest Orange County, east Lake County and west Seminole County, as well as provide a continuous beltway with systems connection for regional travelers.

A map of the regional transportation network, which also depicts the Wekiva Parkway study area, is shown in **Exhibit 1-3**. Improvements to these facilities are identified in the FDOT Strategic Intermodal System (SIS) 2030 Unfunded Needs Plan for highway improvements needed by 2015 and 2030. SR 429 (the Western Beltway) is a designated SIS facility. In March 2007, the Wekiva Parkway was added to the Florida Intrastate Highway System, which is a prerequisite for the addition of a highway to the SIS. Florida's SIS is a transportation network consisting of statewide and regionally significant transportation facilities and services. The SIS was established to focus limited state resources on transportation facilities that are critical to Florida's economy and quality of life. The SIS integrates individual facilities, services, modes of transportation and linkages into a single, integrated transportation network.

- **Provide a higher capacity east-west travel facility in east Lake County and west Seminole County**

Most of the existing roadways within the study area consist primarily of local and collector roads. SR 46, the only east-west connection between Lake County and Seminole County within the study area, is a two-lane rural roadway which was constructed prior to current design standards. The majority of SR 46 through Lake and Seminole Counties consists of two 12-foot travel lanes with varying shoulder widths.

A safer, higher capacity east-west travel facility is needed. Many roads in the study area are currently operating at conditions below level of service "C". However, for SR 46 in east Lake County and west Seminole County in a portion the study area, the existing level of service is "F", with annual average daily traffic of 23,700.

These level of service conditions, especially for SR 46, are projected to worsen significantly under the No-Build scenario. Growth in residential population and employment opportunities has contributed to an increasing travel demand in northwest Orange County, north and east Lake County, and west Seminole County. Population and employment projections indicate that travel demand will continue to increase in the area for the foreseeable future. In the 2032 design year for the proposed Wekiva Parkway project, the projected No-Build condition for SR 46 over a nine mile section in the study area in east Lake County and west Seminole County is a further deteriorated level of service "F", with annual average daily traffic of 37,440. That would be a 58% increase in traffic on a facility that is currently operating at level of service "F".

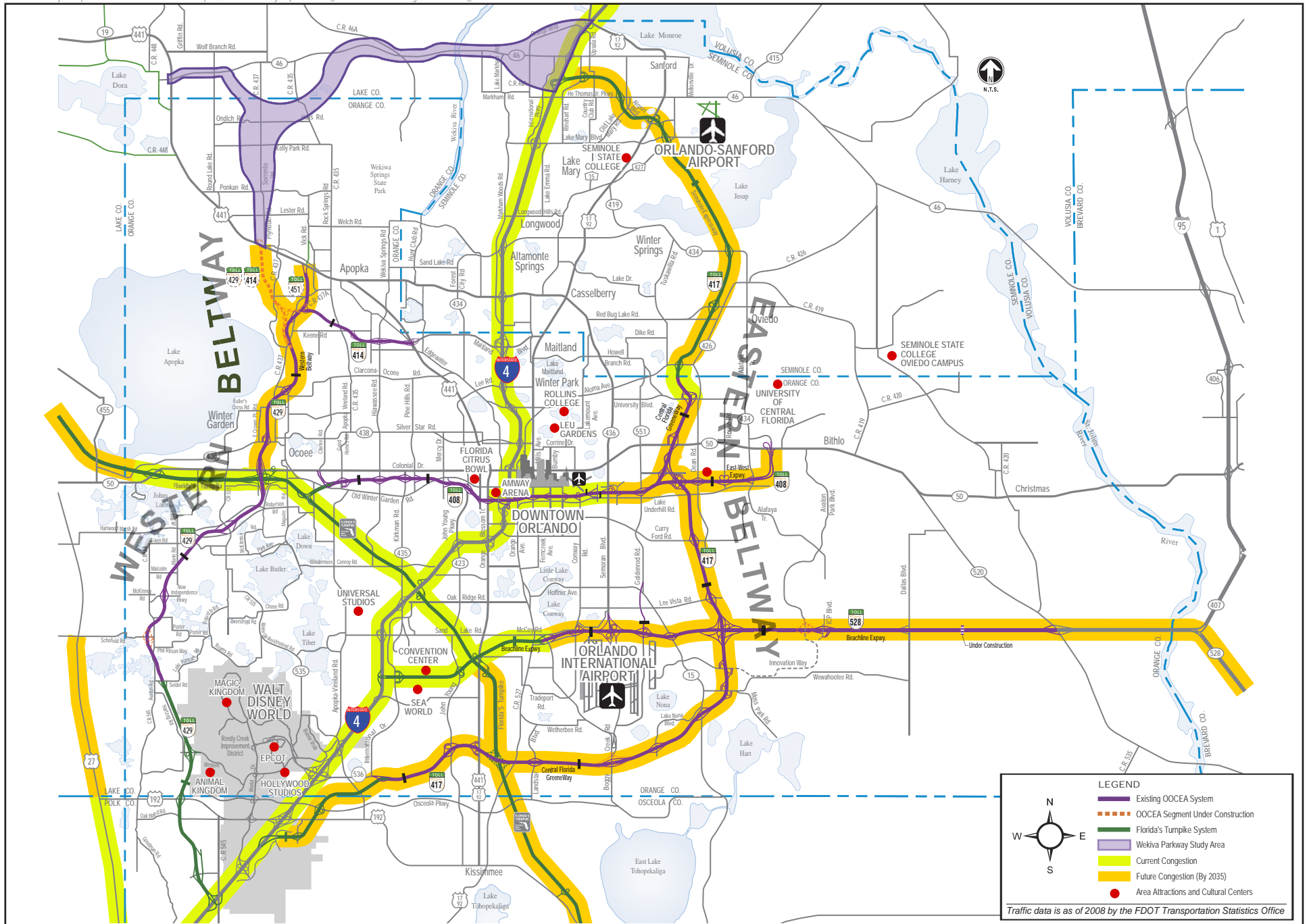


Exhibit 2-1
Regional Transportation Network with Heavily Congested SIS Facilities

The proposed project is a needed link between urbanized areas. Modes of transportation within the Wekiva Parkway study area are generally limited to personal vehicles and vehicles for hire. There are currently no public bus service routes within the study area. Much of the study area traverses rural residential and conservation lands; however, the corridor connects the urbanized areas of Apopka in Orange County, Mount Dora in Lake County, and Sanford in Seminole County. The proposed Wekiva Parkway project would meet increased travel demand from population growth in an environmentally sensitive and compatible manner.

- **Improve safety to reduce vehicle crash fatalities**

Many of the study area roadways are two-lane local and arterial roads that do not meet the current design standards for safety and capacity. That is a major contributing factor in the high crash and fatality rates, especially for SR 46 through Lake and Seminole Counties. According to FDOT Crash Data Reports from 2000 to 2004, there were 27 fatalities resulting from vehicle crashes on the 18.5 mile segment of SR 46 from US 441 near Mount Dora in Lake County to I-4 near Sanford in Seminole County. FDOT data indicates that in 2004 alone there were 10 fatalities and 117 injuries resulting from 95 vehicle crashes on that section of SR 46.

Public awareness of this safety issue has been raised through media attention, such as an *Orlando Sentinel* article on September 28, 2005 which described SR 46 in Lake County as “Central Florida’s Deadliest Road.” The *Sentinel* stated that, according to their analysis of regional crash data from FDOT and the Florida Highway Patrol, on a per mile basis the section of SR 46 through Lake County is the most dangerous roadway in Central Florida, and the section of SR 46 through Seminole County was described as the region’s second most dangerous roadway. While such media reports are not the basis for decision-making, they have heightened public interest in the need for a safer travel facility in east Lake County and west Seminole County.

As traffic volumes grow on these unimproved local roadways, it is reasonable to expect that a similar increase in traffic incidents would continue to occur. The proposed Wekiva Parkway and the widened and realigned sections of SR 46 would be designed and constructed in accordance with all current standards and would be available to those regional motorists desiring to bypass local traffic. A modern facility, coupled with the opportunity for segregation of trip types, would help to reduce the potential for traffic incidents and fatalities when compared to existing conditions.

- **Develop a transportation facility that minimizes impacts to the Wekiva River Basin Area resources and that specifically improves wildlife habitat connectivity between conservation lands and reduces vehicle-wildlife conflicts**

The recognition of the importance of the Wekiva River Basin Area, its habitat, wildlife, conservation and recreation values, the associated spring systems, and the connection to the Ocala National Forest elevates the protection of this resource to a primary component of the purpose and need for the Wekiva Parkway. There are numerous publicly held conservation and recreation lands within the study area, including Rock Springs at Kelly Park, Wekiva Springs State Park, Rock Springs Run State Reserve, Seminole State Forest, and Lower Wekiva River Preserve State Park. Vast areas of floodplains and wetlands, including the

Wekiva Swamp south of SR 46 and the Seminole Swamp north of SR 46, are located west of the Wekiva River.

The natural environment includes the Wekiva River Basin ecosystem, springshed, and an expansive wildlife habitat area that connects to the Ocala National Forest. Given the significance of springs in the Wekiva Basin, special consideration was given to the high recharge areas primarily in northwest Orange County recognizing those recharge areas are an integral component of the area springshed and the ultimate continued function of the spring systems. The Wekiva River and its tributaries Rock Springs Run, Seminole Creek, and Black Water Creek are included in the designations of the Wekiva River Aquatic Preserve, Outstanding Florida Water, and State and National Wild & Scenic River.

Due to the expansive wildlife habitat area, an additional safety concern in the study area is vehicle-wildlife conflict. Since much of the study area consists of sparsely populated rural residential areas and large tracts of state conservation land, there have historically been many conflicts between vehicles and wildlife on roadways, particularly SR 46 in east Lake County. Over the past 20 years, more than 50 black bears have been killed by collisions with vehicles on the six mile segment of SR 46 just west of the Wekiva River adjacent to state conservation lands. From 1994 to 2005 on that same section of SR 46, 23 black bears were killed by vehicles. The proposed Wekiva Parkway project incorporates three long wildlife bridges on both the mainline and parallel service road totaling approximately 7,710 feet in length to enhance wildlife habitat connectivity between state conservation lands, which would greatly reduce the number of vehicle-wildlife conflicts.

1.4 Study Area

The analysis to define the study area (shown previously in Exhibit 1-1) for the Wekiva Parkway was performed by the FDOT and OCEA using land suitability mapping (LSM). The LSM incorporated the traditional factors of constraints and opportunities including regulatory constraints such as wetlands, floodplains, public parks and recreations areas (Section 4(f)), archaeological and historic sites (Section 106 and Section 4(f)), as well as threatened and endangered species (Section 7). Other constraints associated with cultural, natural and social environment components were also mapped.

The driving principle in developing the study area was to define a range of reasonable alternatives for the Wekiva Parkway in light of the project's purpose and need. The screening included added focus on a couple of issues that are unique to the specific areas and resources. For instance, given the preponderance of springs in the Wekiva River Basin special considerations were given to avoid impacts to high recharge areas primarily in Northwest Orange County recognizing the recharge areas are an integral component to the area springshed and the ultimate continued function of the spring systems. In addition, the City of Apopka is known as the "Indoor Foliage Capital" given its extensive number of small and large commercial plant nurseries. Consequently, impacts to plant nurseries were specifically identified to gain a sense of the potential impacts to this important economic driver in the area.

The assessments for the study area were presented to the Task Force and Coordinating Committee for input. Other stakeholders and the public were offered numerous opportunities to provide comment and input to the purpose and need and the study area

evaluations. The deliberations on the study area focused on meeting the transportation needs and providing protection to the Wekiva River Basin area. The geographic location of the study area was culled based on two factors:

- 1) Consistency with the Purpose and Need,
- 2) Exclude areas that would involve higher levels of impacts while providing less potential benefits.

Exhibit 1-4 provides a composite constraints map that formed the basis for the study area. Specific areas of note include the extensive coverage of public recreation lands, expansive wetlands adjacent to the Wekiva River, large tracts of high recharge areas, and several neighborhoods and communities. Additional mapping and discussion of the development of the study area is included in the *Environmental Assessment* for the project.

1.5 Development of Alternatives

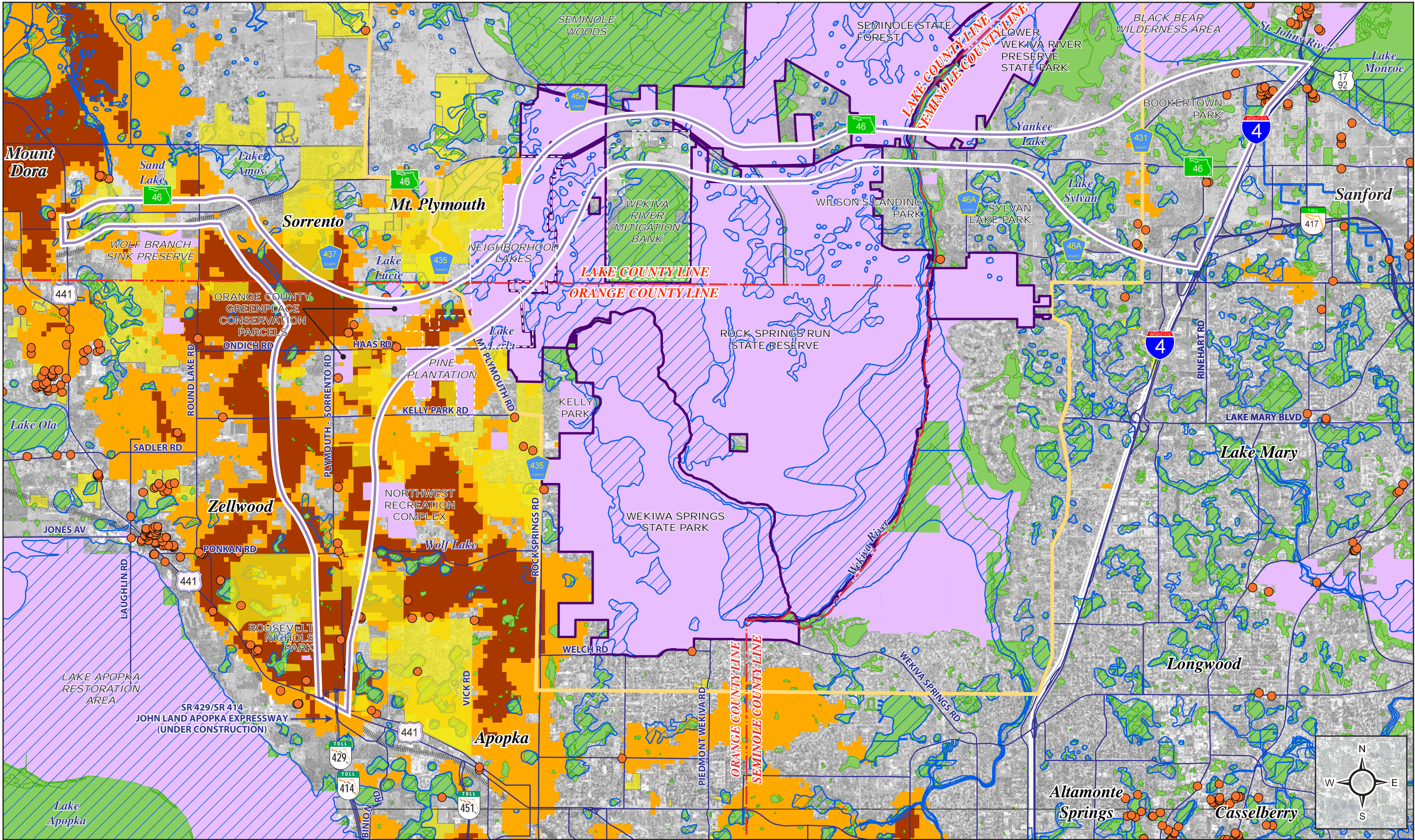
A multi-step process was used to develop project alternatives. The goal was to identify the alternatives that should be carried forward for more detailed analysis and evaluation, and to allow opportunity for public and agency input throughout the study. This process started with the study area which provides the boundary within which reasonable alternatives are expected given the project purpose and need. A large number of alternatives were developed initially that were assessed in respect to meeting the purpose and need. This was of particular importance in consideration of the stated purpose and need for the project to improve safety to reduce the high vehicle crash fatality rate in a portion of the study area, to minimize impacts to the fragile Wekiva River Basin ecosystem and other natural resources, to enhance wildlife habitat connectivity, and to reduce vehicle-wildlife conflicts. If an alternative did not meet the purpose and need, it was eliminated as being unreasonable. Second, alternatives were comparatively assessed to determine anticipated impact and benefits. If an alternative showed greater impact with no additional benefits as compared to other alternatives, it was eliminated as being unreasonable as well.

The following summarizes the multi-step process in the development of alternatives for the proposed Wekiva Parkway.

1.5.1 No Build Alternative

The No Build Alternative assumes that the proposed project is not implemented within the study area. Only those projects for which funding is committed in the Expressway Authority's 2030 Expressway Master Plan, METROPLAN ORLANDO's 2025 Long Range Transportation Plan Update, and the Lake-Sumter MPO 2025 Long Range Transportation Plan are assumed to be provided to meet the transportation need. The results of the No Build Alternative analysis form the basis of the comparative analysis with the viable Build Alternatives presented later in this section.

The benefits of the No Build Alternative include the absence of long term impacts such as residential displacements and natural environmental intrusion, as well as short term impacts associated with actual construction of a major new expressway.



LEGEND

- Wekiva Parkway Study Area
- Public Conservation/Park & Recreation Lands

- Existing and Planned Neighborhoods (Orange and Lake Counties)
- Wekiva River Protection Area
- Wetland

- Potential Historic Sites
- Recharge Rate 12- 20 in/yr
- Recharge Rate > 20 in/yr

- Floodplains
- State Park Boundary

Exhibit 1-4
Composite Constraints Map

However, long term benefits associated with serving future traffic demand and improved safety will not be realized with the No Build Alternative. Also, improved wildlife habitat connectivity in east Lake County and reduced vehicle-wildlife conflicts will not be achieved. Some of the existing roadways within the project study area are currently operating at less than desirable service levels, and operating/safety conditions are projected to worsen in the future as congestion would increase under the No Build Alternative. Nearly all roadways in the study area would be operating at level of service E or F conditions in 2032 under the No Build Alternative. The SR 429–Wekiva Parkway/SR 46 Realignment PD&E Study Traffic Report states “the No Build Alternative does not meet the transportation needs within the study area. This alternative does not relieve traffic congestion along SR 46 or along US 441.” The No Build Alternative would not meet the stated Purpose and Need for the project.

1.5.2 Build Alternatives

1.5.2.1 SR 46 Widening Only

The first Build Alternative to be analyzed was the least cost, least impact option – that is, widening the existing two lane SR 46 to four lanes from US 441 in Lake County to Orange Boulevard just west of I-4 in Seminole County (a distance of about 17 miles), along with those projects for which funding is committed in the Expressway Authority’s 2030 Expressway Master Plan, METROPLAN ORLANDO’s 2025 Long Range Transportation Plan Update, and the Lake-Sumter MPO 2025 Long Range Transportation Plan. However, after analysis of this concept, the *SR 429 Wekiva Parkway/SR 46 Realignment PD&E Study Traffic Report* states “this Build Alternative does not meet the transportation needs within the study area. Any additional capacity along the SR 46 corridor added with the widening of SR 46 is consumed by the latent demand for east-west travel within the corridor. Thus, even with the widening, SR 46 would continue to operate at level of service F”. This alternative also does not relieve congestion along US 441. Also, improved wildlife habitat connectivity in east Lake County and reduced vehicle-wildlife conflicts would not be achieved. This Build Alternative would not meet the stated Purpose and Need for the project.

1.5.2.2 Initial Alternatives

In order to identify concepts which would be more effective in meeting travel demand than merely widening SR 46, initial alternatives were developed for four general areas within the study area:

- Orange County from the planned SR 429/SR 414 John Land Apopka Expressway/ US 441 interchange north to the Lake County line;
- Lake County from US 441 to the Orange County line (referred to as Lake County West);
- Lake County from the Orange County line to the Seminole County line (referred to as Lake County East) and
- Seminole County from the Lake County line to I-4.

Numerous initial alignments were developed in each county based upon the project constraint data. A comparative analysis was performed on the initial alternatives to establish potential impacts and preliminary costs along with corresponding impact analysis spreadsheets. During the process of developing the initial alternatives, extensive project

coordination was undertaken with local and state government agencies, advisory groups, and other entities. Those meetings and/or presentations provided study updates, specific information, and opportunities for feedback on the initial alternatives. After development of the initial alternatives and refinement of them based on the feedback received at many of those meetings, a series of three public workshops in Orange, Lake, and Seminole Counties were held in November 2005 to present the initial alternatives to the public for review and comment. The area of focus for this *Case Study Report* is northwest Orange County. The initial alternatives presented for the Orange County portion of the study area are shown in **Exhibit 1-5**. The public comments on the initial alternatives were analyzed by county and utilized by the project team in the evaluation and assessment of alternatives.

1.5.2.3 Viable Alternatives

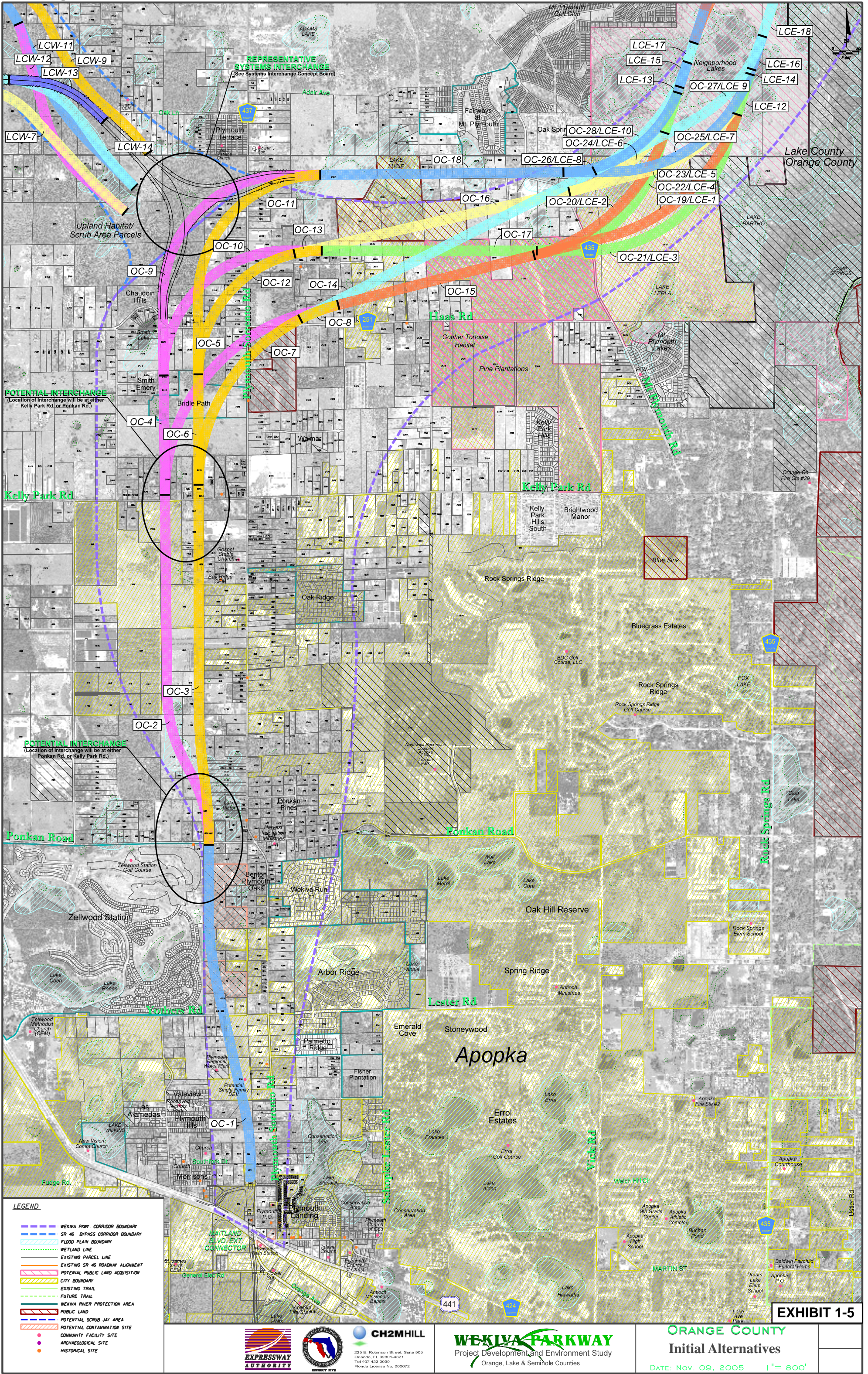
After the first public workshops and meetings with local and state governmental agencies and other stakeholders on the initial alternatives, the project team began the process of alternatives evaluation and refinement. The concepts and impact assessments developed in the initial alternatives phase of the study served as the basis for commencing the identification of potential viable alternatives. The initial alternatives presented at the public workshops in November of 2005 were analyzed and evaluated in greater detail, their impacts were assessed more thoroughly, and they were scrutinized for negative and positive aspects. This resulted in the elimination or modification of some alternatives and the further evaluation of others as potential viable alternatives. A specific work plan with sequential steps was followed in the process of identifying viable alternatives.

During the process of identifying the viable alternatives, extensive project coordination continued with local and state government agencies, advisory groups, and other entities. Those meetings and/or presentations provided study updates, specific information, and opportunities for feedback on the viable alternatives. After identification of the viable alternatives and refinement of them based on the feedback received at many of those meetings, a series of three public workshops in Orange, Lake, and Seminole Counties were held in July/August 2006 to present the viable alternatives to the public for review and comment. The viable alternatives presented for the Orange County portion of the study area are shown in **Exhibit 1-6**. The public comments on the viable alternatives were analyzed by county and utilized by the project team in further evaluation and assessment of the alternatives. After the public workshops, the project team began attending a series of meetings with homeowners associations, property owners, and others to discuss possible refinements to the viable alternatives in certain areas.

A public workshop in the Lake County East study area was held in December of 2009 to present the service road concept which provides a two-lane, two-way road parallel to the Wekiva Parkway to accommodate non-tolled local trips. That portion of the overall study area is not within the area of focus of this *Case Study Report*.

1.5.2.4 Locally Recommended Alternative

As a result of the public comments received and extensive project coordination with stakeholders (federal, local and state government agencies, project and environmental advisory groups, residents, and other interested individuals), the viable alternatives were refined and analyzed further. This included review and evaluation of the combined and cumulative effects of socio-economic, cultural, natural, physical, and engineering factors



and costs. Based on the comprehensive assessment of Purpose and Need satisfaction, engineering factors, environmental analyses and stakeholder coordination, the project sponsors (FDOT and OOCEA) identified a Locally Recommended Alternative. The overall layout of the Locally Recommended Alternative in Orange, Lake and Seminole Counties is shown in **Exhibit 1-7**. The portion of the Locally Recommended Alternative in the area containing the *NRHP*-eligible Paul Bock House and Strite House properties, which has potential for adverse effects, is known as Orange County Alternative 1 (hereinafter referred to as Alternative 1). It is depicted and labeled in the previously referenced Exhibit 1-6.

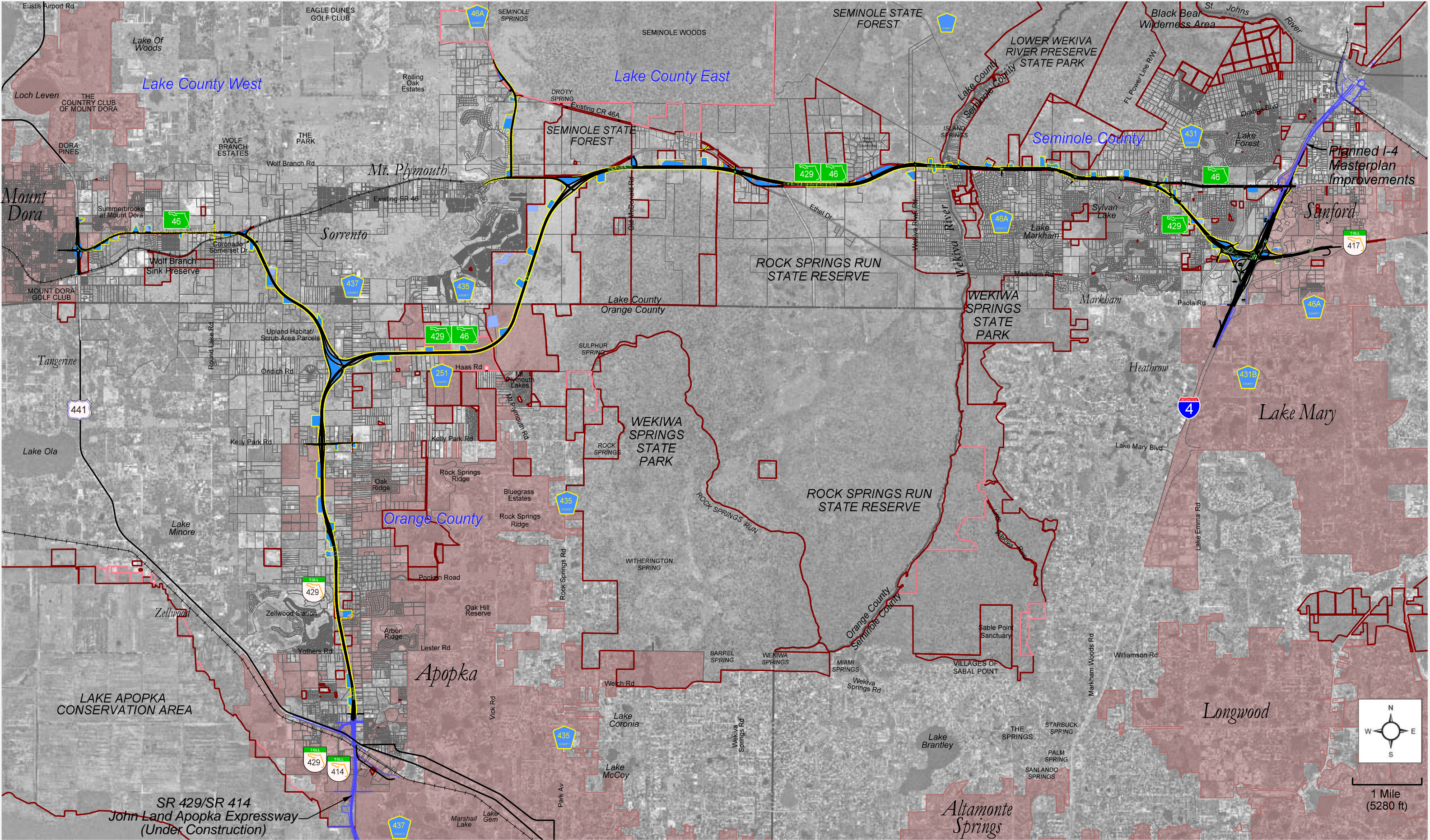
Section 4 of this *Case Study Report* focuses on Alternative 1, two minimization alternatives (Alternatives 1A and 1B) and an avoidance alternative (Alternative 2) that were evaluated for the Orange County portion of the project study area where the *NRHP*-eligible properties are located. The avoidance alternative is known as Orange County Alternative 2, hereinafter referred to as Alternative 2 (see Exhibit 1-6 referenced previously). Both Alternative 1 and Alternative 2 were identified as viable alternatives during the multi-step screening process described in Section 1.5.

1.6 Project Area of Potential Effect

The area of potential effect (APE) is defined as “the geographic area(s) within which the proposed undertaking may cause changes in the character or use of historic properties listed or eligible for listing in the *National Register Historic Places* (36 CFR 800.2[c]). The APE is influenced by the scale and nature of an undertaking, and as such, depends on the proposed action under consideration. The locations of construction staging areas and associated access routes will be determined during the subsequent design phase of the project. The type and extent of construction activities, the horizontal and vertical limits, and the placement of project related staging, such as borrow pits, waste, and mitigation areas are considered when establishing the APE. Also considered is the introduction of project-associated visual and aesthetic impacts.

The APE for historic resources survey in the Wekiva Parkway Corridor was 300 feet from either edge of the proposed expanded right-of-way. An APE of this size considered any potential direct or indirect effects that could occur as part of the project improvements. **Exhibit 1-8** depicts the APE in the area of the two historic resources that are the subject of this *Case Study Report*. The exhibits illustrating the APE in its entirety for the overall project can be found in the *CRAS* and *CRAS Addendum* reports (ACI and Janus Research, 2007 and 2008; both updated 2010).

Several potentially significant or *NRHP*-eligible historic resources within the project study area were identified in the *CRAS* and *CRAS Addendum*. After review of the information in those documents and in several follow-up responses to requests for additional information, the SHPO determined that the Bock House and the Strite House are the only significant historic resources within the APE for the proposed Wekiva Parkway project. Copies of the letters between the SHPO and FHWA which document that coordination, as well as those findings by the SHPO, are provided in **Appendix A**.



LEGEND

- | | | |
|---|---------------------------------------|-----------------------------------|
| PROPOSED BUILD ALTERNATIVE RIGHT-OF-WAY | PROPOSED BRIDGE | PUBLIC LAND |
| EXISTING RIGHT-OF-WAY | PROPOSED STORMWATER POND | POTENTIAL PUBLIC LAND ACQUISITION |
| EXISTING PARCEL LINE | PROPOSED FLOODPLAIN COMPENSATION POND | MUNICIPAL BOUNDARY |

Exhibit 1-7
Overall Layout of Locally Recommended Alternative

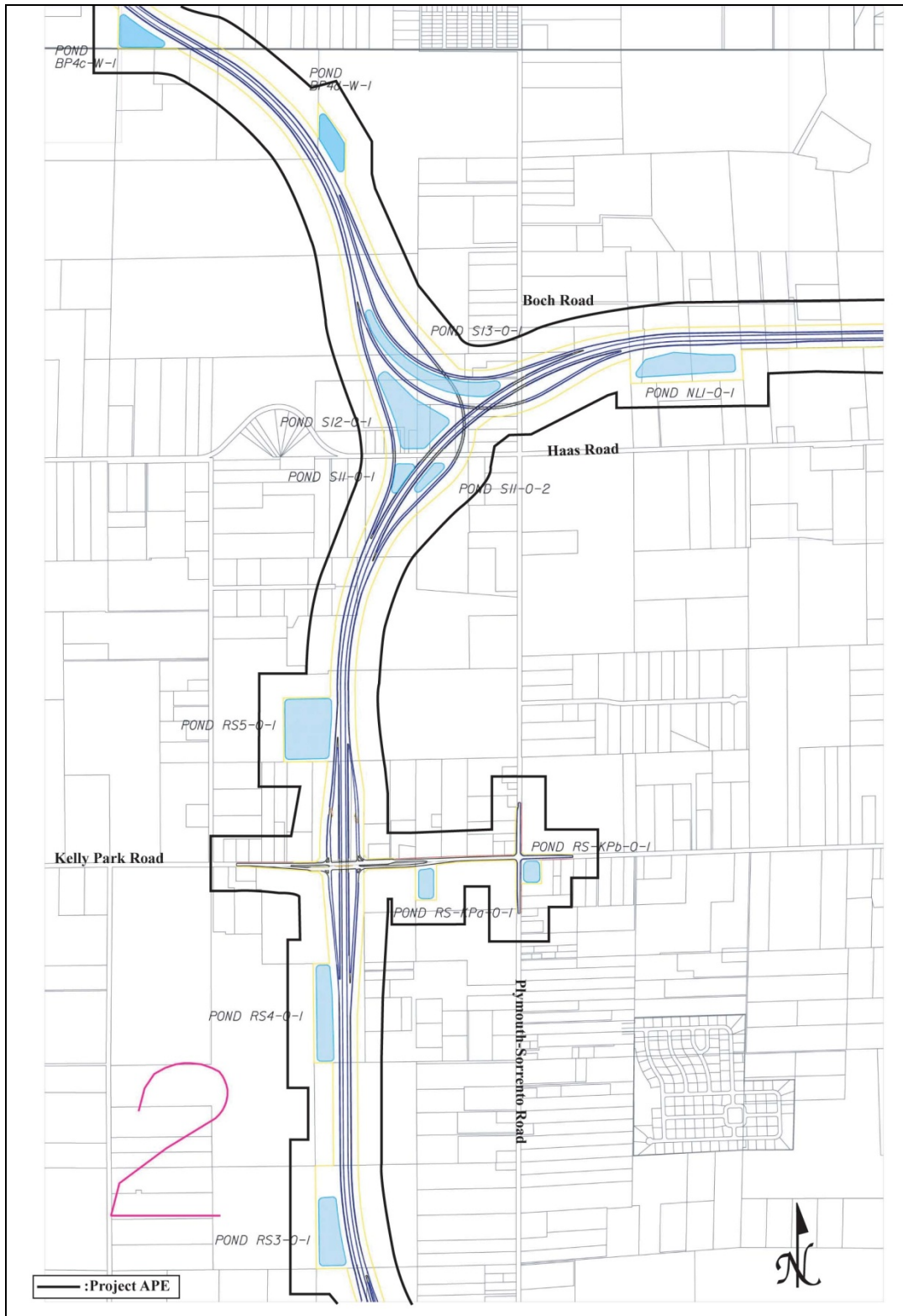


EXHIBIT 1-8
Project APE in Orange County Study Area

SECTION 2

Historical Overview

The following section includes the historical overview that was originally included in the CRAS report (ACI and Janus Research 2007). Included are the time periods from the historical overview that apply to the historic resources covered in this *Case Study Report*.

2.1 Civil War and Post-War Period (1860–1898)

With the beginning of the Civil War, cattle were needed to help feed the Confederate Army. Herds from as far south as central Florida were driven to railheads near the Georgia border. However, cattle ranchers discovered they could sell their herds in Cuba for a greater profit and began dealing with blockade-runners. The Union attempted to stop all shipping from Florida ports, but blockade-runners were too abundant. Cattle ranchers from all over Florida drove their cattle to Punta Rassa to be shipped to Cuba for payment in Spanish gold. Jacob Summerlin, a successful cattle rancher from the Fort Meade area, gave up his contract with the Confederate government to supply cattle and in 1863 teamed up with James McKay from the Tampa area. McKay, a successful and daring blockade-runner, supplied the schooners and Summerlin the cattle. It is not known how many cattle were shipped from the port during the Civil War. However, after the war as cattle continued to be shipped, it is reported that in the decade between 1870 and 1879, more than 165,000 head were shipped (Grismer, 1949).

Following the Civil War, the Homestead Acts of 1866 and 1876 provided additional incentive for settlers to come to the area. The Act of 1866 gave Union-loyal African-Americans and southerners the opportunity to receive 80-acre tracts in Florida and the other four public land states. Former Confederates, however, were ineligible to receive homesteads until the Act of 1876 (Tebeau, 1980:266, 294).

The post-war economic conditions of much of the rest of the south contributed to changes in the economy of the Tampa Bay area and communities to the south along the Gulf Coast. An influx of poor farmers coinciding with the southward movement of cattle ranches made the economic stability of the area dependent upon reliable sources of overland freight transport. Beginning about 1870, many settlers began to buy the land on which they had homesteaded for so many years in anticipation of the coming railroad (Hetherington 1980:86).

In the 1880s, interest in the resources of Florida increased due in large part to people like Hamilton Disston and Henry B. Plant. By 1881, the State of Florida faced a financial crisis involving a title to public lands. On the eve of the Civil War, land had been pledged by the Internal Improvement Fund to underwrite railroad bonds. After the War, when the railroads failed, the land reverted to the State. Almost \$1 million was needed by the state to pay off the principal and accumulated interest on the debt, thereby giving clear title.

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. They agreed to purchase Internal Improvement Fund Lands at \$0.25 an acre to satisfy the indebtedness of the fund. A contract was signed on June 1, 1881 for the sale of 4,000,000 acres for the sum of \$1 million, the estimated debt owed by the Improvement Fund.

During 1881 and 1882, channels were dug between the lake systems to the north and the Kissimmee River (Tebeau 1980:279). The Atlantic and Gulf Coast Canal and Okeechobee Land Company was 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 1980:280). 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 of swamps, heat, and mosquitoes into an area ripe for investment. This enabled Henry B. Plant to move forward with his plans to open the west coast of Florida with a railroad-steamship operation called the Jacksonville, Tampa & Key West Railway. Through the Plant Investment Company, he bought up defunct rail lines such as the Silver Springs, Ocala & Gulf Railroad, Florida Transit and Peninsular Railroad, South Florida Railroad, and Florida Southern Railroad to establish his operation (Harner, 1973:18-23; Mann, 1983:68). In 1902, Henry Plant sold all of his Florida holdings to the Atlantic Coast Line, which would become the backbone of the southeast (Mann 1983:68).

However, many Florida residents were not very happy with the Disston Drainage Contract. They resented the \$0.25 per acre price Disston paid under the land contract, as they were required to pay \$1.25 per acre under the terms of the Homestead Act of 1876. Claims also were made that Disston was receiving title to lands that were not swamplands or wetlands (Tebeau 1980:278). Many residents bought up the higher, better-drained parcels of land for speculation, knowing that the surrounding wetlands and flatwoods would be deeded to Disston under the Land Purchase contract. Many hoped that their more desirable land purchases would increase in value.

Private land claims between 1881 and 1883 were probably squatters acquiring the land on which they lived prior to the land transfers under the Disston Land Purchase contract. The flurry of land transfers recorded in the early 1880s was mainly the result of two factors: large influxes of people as a result of the railroads, and the widespread unpopularity of the Disston Land Purchase and Drainage Contracts.

In the early 1880s, railroads made the previously isolated area of central Florida accessible to tourists and prospective settlers. Many communities located in present-day Orange, Seminole, and Lake Counties began as “whistle stops” on the numerous rail lines constructed during the last two decades of the nineteenth century. Tables listing the original property owners of the lands along the Wekiva Parkway alignments may be found in the original CRAS document.

One such community was Apopka. Although settled in 1850, Apopka was not incorporated until 1882. The expansion of the citrus and lumber industries, along with the introduction of

railroads through the community, spurred significant development in Apopka during the 1880s. One of the first railroad systems built through the area was the South Florida Railroad, completed in 1884. It initially extended from Sanford to Tampa and bypassed western Orange County. Within several years, however, a number of short lines were established to service small communities in central Florida. Organized by Alexander St. Clair Abrams, the founder of Tavares and an important central Florida financier, the South Florida Railroad began as the Tavares, Orlando, and Atlantic Railroad, which was completed in 1885. Apopka served as an important station for the short line, which extended 32 miles between Tavares and Orlando. The Tavares, Orlando, and Atlantic (TO&A) Railroad ran through Apopka from northwest to southeast, intersecting Park Avenue at Seventh Street (HPA 1992:6).

The TO&A Railroad line also ran through the town of Plymouth, located just five miles northwest of Apopka. Plymouth was settled in 1880 and the town plan was platted in 1885. That same year the railroad extended through the town. Plymouth emerged as a predominantly agricultural settlement. Winter tourism gained some popularity in Plymouth, however citrus cultivation, the railroad, bee apiaries, and turpentine stills were the key economic components (HPA 1992:3). Many agricultural communities were bypassed by the railways including Bay Ridge and Rock Springs. These towns remained small during this era and did not experience the growth of the railway towns until the Boom Period of the 1920s.

A terminus for the railroad was established in Sanford, a city to the northeast of Apopka established in 1870 by Henry Shelton Sanford. Sanford was a wealthy financier from Connecticut who envisioned a model citrus grove town. He purchased over 12,000 acres on Lake Monroe and built a store, sawmill, hotel, and real estate office. He attracted many new settlers to come to the area and buy into his town.

Citrus production was the main industry in Orange and Lake Counties until the winter of 1894-1895. During this period, the “Great Freeze” devastated many citrus crops causing many settlers to return to the north. Those that chose to stay and replant their groves slowly regained their prosperity in the citrus business (Robison and Andrews 1995:183). In Apopka, the bank closed and newspapers ceased publication as a result of the economic recession. Although the community was hailed in 1897 as the “Metropolis of West Orange,” subdivision and construction activity remained lethargic, and it was nearly a decade before citrus trees produced at levels set in the early 1890s (HPA 1992:1, 8). Sanford was also affected by the freeze; however, people who chose to stay were able to harness artesian wells to irrigate their crops (Sanford Historic Preservation Board 2005).

2.2 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 is 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 more 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 (George 1990).

In 1904, Governor Napoleon Bonaparte Broward initiated significant reforms in Florida's 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 the lines to export Florida's agricultural and industrial products (George 1990). 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. In 1913, Seminole County broke from Orange County and Sanford was chosen as the county seat.

Rapid and widespread growth was the theme of this period in Florida history. Thousands of miles of railroad tracks were laid by the Florida East Coast (FEC), Seaboard Air Line (SAL), and Atlantic Coast Line (ACL) railways. The Sanford and Lake Eustis Railway was a spur that ran from Sanford, through Mount Dora to Lake Eustis. This line was purchased by the ACL in 1902. While agriculture, especially the citrus industry, had become the backbone of Florida's economy, manufacturing and industry 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). By 1912, Apopka experienced renewed development when the revitalized citrus industry, support from local government, and the formation of a board of trade sparked the local economy (HPA 1992:9).

During the first part of the twentieth century, Orange County reestablished itself as the dominant area of the citrus industry. By 1910, approximately 500,000 boxes of oranges were shipped annually, making the county the state's leading citrus producer. The Florida Citrus Exchange was started in 1909 as a response to the growing industry. Exchanges also were established in communities such as Apopka, Plymouth, Ocoee, Orlando, and Winter Garden. Numerous citrus and vegetable packinghouses dotted the area around these communities (HPA 1995:6).

In Seminole County, vegetables had replaced citrus as the key crop. Clay pipes fed from underground artesian wells kept fields well irrigated. By 1909, Sanford had established itself as the largest vegetable shipping center in the United States and had received the nickname, "Celery City" (Sanford Historic Preservation Board 2005). Celery growing was very profitable and farmers built large homes on the outskirts of Sanford.

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

The World War I and Aftermath period of Florida's history begins with the United States' entry into World War I in 1917. Wartime activity required the development of several training facilities in the state, and protecting the coastlines was a priority at this time. Although the conflict only lasted until November 1918, the economy was boosted greatly by the war. For example, the war brought industrialization to port cities such as Tampa and Jacksonville, where shipbuilding accelerated. These cities also functioned as supply depots and embarkation points. An indirect economic benefit of the war was an increase in agricultural production for central Florida since beef, vegetables, and cotton were in great demand (George 1990).

While Florida industrialization and agriculture flourished, immigration and housing development slowed during the war. Tourism increased as a result of the war in Europe, which forced Americans to vacation domestically. Tycoons such as Henry Flagler and Henry Plant were building the hotels and railroads for people desiring winter vacations in sunny Florida. These magnates took an interest in the improvements and promotion of Florida in an effort to bring in more tourist dollars, however small rural communities of Apopka, Plymouth, Bay Ridge, Sanford, and others felt little effect from the increase in tourism.

2.4 Florida Boom Period (1920–1930)

After World War I, Florida experienced unprecedented growth. Many people relocated to Florida during the war. Many came to work in wartime industries while other were 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 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 southern Florida (Weaver et al. 1996:3).

The population in Orange County grew from 19,890 to 38,325 between 1920 and 1925, while the population of Apopka increased from 798 to 1,001 between the same years (Nolan 1984). Agricultural development included the expansion of citrus groves and the establishment of the ornamental fern industry (HPA 1995:17).

Lake County experienced similar growth, the population there increased from 12,744 in 1920 to 18,870 in 1925. Seminole County grew from 10,986 to 14,738 in the same years (Florida Department of Agriculture 1925:16). As opposed to many counties in Florida where Boom Period growth was happening in cities, growth in Lake and Seminole counties was predominantly in the rural areas.

Road building became a statewide concern as it shifted from a local to a state function. A state highway association, established in Orlando in 1917, sponsored the development of an improved highway system. These roads made even remote areas of the state accessible and allowed the boom to spread. State Road 46 was constructed in 1927, connecting Sanford to Mount Dora. The road was built parallel to the ACL railway tracks. On a daily basis, up to 20,000 people were arriving in the state. The Dixie Highway was constructed between 1915 and the early 1930s by Carl Fisher to encourage travelers to come south to Florida (Harner, 1973:63). Extending through Apopka, it became a significant route for travelers through the state (Blackman, 1927:28; Shofner, 1982:155). Besides the inexpensive property, Florida's legislative prohibition on income and inheritance taxes also encouraged more people to move into the state.

Apopka benefited from its proximity to Orlando, which maintained a metropolitan character and served as a crossroads for several state and federal highways. Improvements to Apopka during this period included the establishment of nearly 25 residential

subdivisions, paving of brick roads, and construction of several new public buildings, including Apopka High School, which was built in 1924. The former school now houses the administrative offices of the City of Apopka (Sanborn various dates; Shofner 1982).

Apopka's African-American district also expanded during the 1920s. Local business leaders formed a board of trade, and a chapter of the National Negro Business League was established. In addition, several new African-American churches were built, along with new residences and neighborhood stores. Most of this construction activity occurred near the Consumer's Lumber and Veneer Company (Sanborn various dates; Shofner 1982).

The Boom Period had begun to decline in the mid 1920s, when the Florida East Coast Railway placed an embargo on freight shipments to South Florida. Ports and rail terminals were overflowing with unused building materials. In addition, northern newspapers published reports of fraudulent land deals in Florida. In 1926 and 1928, two hurricanes hit southeastern Florida, killing hundreds of people and destroying thousands of buildings. The collapse of the real estate market and the subsequent hurricane damage effectively ended the boom. The 1929 Mediterranean fruit fly infestation that devastated citrus groves throughout the state only worsened the recession (Weaver et al. 1996:4).

By the time the stock market collapsed in 1929, Floridians were already accustomed to economic depression. Construction activity had halted and industry dramatically declined. Subdivisions platted several years earlier remained empty and buildings stood on lots partially-finished and vacant (Weaver et al. 1996). However, the relatively small amount of real estate activity in rural citrus and vegetable-growing towns in the central part of the state somewhat mitigated the effects of the real estate market collapse (Shofner 1982:176, 181, 189, 241; Tebeau 1980:385-388).

2.5 Depression and New Deal Period (1930–1940)

This era of Florida's history begins with 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 back pay, and a quarter of the residents were receiving public relief (George 1990). New building and development in the Boom Period's subdivisions for the most part ceased.

The Depression affected most areas of the state's economy. Beef and citrus production declined, manufacturing slowed, and development projects were stopped. Celery prices fell in the northern markets and many farmers in Sanford plowed their crops under in attempt to boost prices. Even the railroad industry felt the pressures of the 1930s, and had to reduce service and let go some personnel. In addition, the increasing use of the automobile lessened the demand for travel by rail.

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, who constructed or improved many

roads, public buildings, parks, and airports in Florida. The CCC improved and preserved forests, parks, and agricultural lands (Shofner 1987).

In Sanford, the first farmer's marketing center was established as part of the WPA. A cross-Florida sea-level canal was proposed to create federal jobs in the area, but was rejected by many farmers in Seminole County who feared salt water would seep into their fields and kill crops (HPA 1995).

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" (George 1990).

2.6 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 service personnel 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.

Several ancillary battalions were stationed in Apopka during the war, including the 351st Coast Artillery Search Light Battalion and the 10th Anti-Aircraft Automatic Weapons Group (Sanborn various dates; Shofner 1982:259-260; Tebeau 1980:416-419). In the Orlando area, the municipal airport was converted into the Orlando Army Air Base. The Pine Castle Army Air Field also was established. The U.S. Navy established an aviation training base east of Sanford that helped save the bankrupt community in 1943. This increased demand for agricultural products as well as the railway use.

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 State Road Department constructed 1,560 miles of highway during the war era (George 1990).

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

2.7 Modern Period (1950–Present)

Following the war, many people stationed nearby remained in Orlando, and the area experienced a population increase at that time. Subsequently, Orlando experienced a post-war economic boom as large numbers of people began seeking permanent residence. As veterans resided in the area in the late 1940s and early 1950s, new housing focused on the

development of masonry tract homes in new subdivisions on land that had once been the outskirts of Orlando.

The 1956 Highway Act initiated a plan for 41,500 miles of interstate highway throughout the country. Interstate 4 (I-4), which was constructed in the late-1950s and early-1960s, was part of the plan. Completed in 1965, it passed through downtown Orlando, connecting Tampa to Daytona. I-4 quickly served as the beltway across central Florida, providing access to both coasts and many tourist attractions. After Walt Disney World opened in 1971, growth and development along I-4 in Orange and Seminole counties exploded. Cities such as Apopka and Sanford, as well as others in the surrounding area have experienced large growth in recent years due to their proximity to the metropolitan Orlando area.

Significant Historic Resources

3.1 Paul Bock House (8OR7946)

Much of the descriptive information below was directly derived from the 2007 *NRHP* Determination of Eligibility for the Paul Bock House/2626 Boch Road completed as part of the February 2007 *CRAS*.

The Paul Bock House is a type of house that is often characterized in Florida as a “Cracker” house. The term Cracker generally refers to the early Florida settlers and the houses they built. The term Cracker was coined because of the way the settlers cracked their own corn to make meal, the staple in every aspect of their diet (Haase, 1992, 10). Cracker architecture was unadorned in style and functional in form. The term Vernacular has also come to be used in describing these houses in the sense they represent the regional language or dialect of architecture. The earliest Cracker houses in the mid-nineteenth century were commonly single pen structures with dirt floors. Over time, these Cracker houses became double-pens, saddlebag, and dog-trot houses. By the early twentieth century, the central hallway was enclosed, another set of rooms had been added to the back, and a second floor was included creating a four square pattern of rooms very similar to the plan of Georgian houses from the late eighteenth century. Although the interior of the Paul Bock House was inaccessible, the exterior shape and bay configuration of the house resembles the four square pattern of the later Cracker homes. The circa 1900 construction date of the Paul Bock House is also consistent with the early twentieth century construction period attributed to that form of construction.

The Bock House is two-and-a-half stories in height and topped by a front-facing gable roof clad in 5-V sheet metal. The wood frame structural system is clad with drop siding and rests on a brick pier foundation. A full-width, one-story porch is located on the front façade and has been enclosed with jalousie windows. This porch is topped by a shed roof covered in 5-V sheet metal. A second full-width, one-story porch is located on the rear façade and has been enclosed with a combination of plywood and metal windows. This porch is topped by a hipped roof covered with composition roll. The house retains all of its original windows which are wood double-hung sash with one-over-one light configurations. The windows are paired on the front and rear façade and single on the side facades. The original screens are also present on most windows. Two chimneys are present on the house; one on the east side and one on the west side. The west side chimney is located on the exterior wall and is constructed of brick covered in stucco. The chimney on the east side is also located on the exterior wall and was originally covered with stucco, but the stucco was removed when the chimney was rebuilt in the 1950s and never reapplied leaving the brick exposed (Howell 2007). The house is simple and functional in design; the only exterior ornamentation being cornerboards, wood surrounds on the windows and doors, and exposed rafter tails.

The Paul Bock House property currently contains the main house and six outbuildings located behind it as shown in **Exhibit 3-1**. Those outbuildings include a historic garage/tenants' quarters, three non-historic metal sheds, a modern trailer home, and a modern nursery. The total size of the two parcels upon which the Bock property (2626 Boch Road) is located is approximately 14 acres. The Bock House and the historic garage/tenant's quarters are located on the western parcel which is approximately 1 acre in size. The adjacent parcel to the east is approximately 13 acres in size and contains the modern trailer home, modern nursery and the majority of the former citrus groves. The two adjacent parcels are owned by the Bock family and are referred to as the Bock property in this report.

A historic garage/tenants' quarters located behind the main house is considered contributing. This building has a wood frame structural system covered in wood shingles. It is topped by a front-facing gable roof clad in 5-V sheet metal. The front portion of the building has a large open garage area and currently has no door attached to the bay. There are several rooms built in the rear portion of the building that housed farm hands during the farm's peak of citrus production (Howell 2007). This building is probably not contemporary to the construction of the house in circa 1900. It was most likely constructed in the 1920s when citrus production was in full swing on the property and field hands would have been needed to tend the groves. An entire building on the property was devoted to citrus packing during that time period that has since been demolished (Howell 2007). An open top, wood water tower was also present on the property to provide water pressure to the house and the irrigation of the groves. This structure however fell into disrepair and was removed in the early 1950s by the current owners (Howell 2007).

There is also one non-historic, non-contributing trailer home and four non-historic, non-contributing structures on the property including three metal sheds and a greenhouse. The trailer home is located to the east of the main house on land that formerly made up the property's citrus groves. Two of the metal sheds are close to the house and used for general storage. The first shed is located directly behind the house and is four-sided with a gable roof. This structure is clad in sheet metal on the walls and the roof. It has jalousie windows and a wood door. The second shed is located across the driveway from the main house and is only partially enclosed with sheet metal siding and is covered by a shed roof. A third metal shed is located further to the rear on the property and was inaccessible. The final non-contributing structure is a greenhouse/nursery located behind the trailer home also on land that formerly made up the property's citrus groves. This structure consists of an extended semicircular frame covered in a partially transparent plastic that is of common design for greenhouses and nurseries in the area.

The overall property this house is sited on was originally deeded to James P. Kerr in 1883 (FDEP 1883). James Kerr was originally deeded the entire SW quarter of Section 6 of Township 20 South, Range 28 East. The property the house is located on was subdivided and parceled off in 1934 when the Kerr family transferred title of the land to the Whitola Company (Orange County Clerk of Courts 1934). Property records show the property being deeded to J.W. Richardson that same year. In 1951, the property was purchased by Paul Bock, whom the road the property is located on was named after, although it is unclear when and why the spelling was changed to Boch. Paul Bock continued to tend the citrus groves located on the property for a short period of time until the groves froze in the 1960s.

The Bocks also raised chickens on the property. The property remains in the Bock family and is currently owned by Paul Bock's daughter.

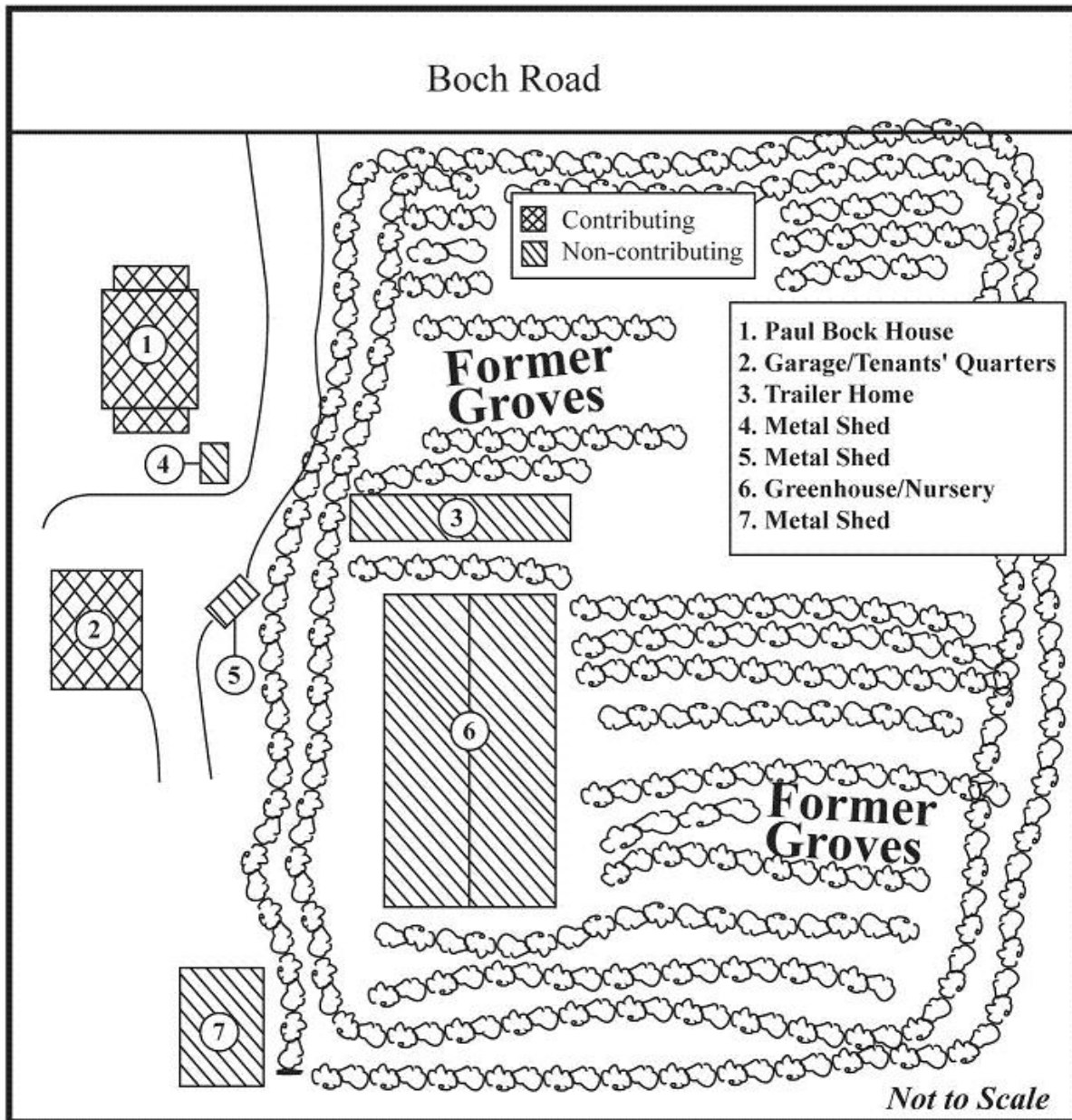


EXHIBIT 3-1
Site Plan of Paul Bock House Building Complex

Property records and an on-site inspection of the house show that the building was constructed near the turn-of-the-century. Since the property was owned by the Kerr family until 1934, it can be deduced that the main house was likely built by either James Kerr himself or a direct descendent. However, no building records have been located that confirm this. Research has revealed little information about James Kerr or the Kerr family other than they came from New England and were among the earliest 30 families in the Bay Ridge area in the 1880s (Shofner 1982, 48). James Kerr's profession is unknown, although

agriculture, particularly citrus farming is probable. A historic aerial photograph from 1947 shows well established groves surrounding the house. The region of Orange County just north of the City of Apopka contains several of Florida's earliest agricultural communities. Communities which date from the turn-of-the-twentieth century located in this region include Tangerine, Plymouth, Bay Ridge, and Rock Springs (Historic Property Associates, Inc. 1995). Despite the rapid growth and development occurring in other sections of Orange County, this region has retained many of these early small settlements and remained predominantly agricultural. Much of the earliest architecture, however, has been lost.

The property has been owned and occupied by the same family since 1951 and there have been very few alterations to the house. The only visible modifications to the exterior of the house are the enclosed front and back porches. The Paul Bock House, therefore, conveys its original historic appearance and maintains much historic physical integrity.

Turn-of-the-century buildings of this type that are associated with the original settlers to the area are a rare and disappearing resource type. The Paul Bock House is a surviving example of early Cracker architecture in the Bay Ridge area of Florida.

Associated with one of the earliest settlers to the area, this house is believed to be the oldest residence in the Bay Ridge area (Historic Properties Associates 1995). Despite its recent decline in physical condition and the addition of several non-historic outbuildings on the property, the Paul Bock House still conveys the historic character of an early Cracker farmstead. Due to these factors, this house was determined eligible by the SHPO for inclusion in the *NRHP* on an individual basis under Criteria A and C in the areas of Local Exploration/Settlement and Architecture. **Exhibits 3-2** through **3-3** are current representative photographs of the Paul Bock House/ 2626 Boch Road.

Exhibits 3-4 through **3-6** illustrate the rural setting of the Paul Bock House and associated property with former citrus groves. Access restrictions did not permit photographs of the open field at the rear of the property.



EXHIBIT 3-2
Paul Bock House, Facing Southwest



EXHIBIT 3-3
Rear of Paul Bock House and Non-Historic Outbuilding, Facing Northwest



EXHIBIT 3-4
Paul Bock House and Associated Property from Boch Road, Facing Southwest



EXHIBIT 3-5
Paul Bock House Surroundings from Boch Road, Facing Southeast



EXHIBIT 3-6
Former Citrus Groves and Associated Property at the Paul Bock House from Boch Road, Facing South

3.2 Strite House (8OR9844)

Much of the descriptive information below was directly derived from the 2008 *NRHP* Determination of Eligibility for the Strite House/6229 Plymouth Sorrento Road found in the *CRAS Addendum* (March 2008).

The Strite House is known as a Florida “Cracker” house, exhibiting an interpretation of the Georgian Form. Although the interior was inaccessible, the exterior shape and bay configuration of the house resembles the later Cracker style interpretation of the Georgian form, and the circa 1910 construction date of the Strite House is also consistent with the early twentieth century construction period attributed to that form of construction (Haase 1992).

The Strite House is two stories tall and has a symmetrical front facade; in keeping with its Georgian form. The façade is divided into three bays with the entrance centrally located and a single window on each side. The second floor fenestration matches that of the first floor with a central window in place of the door. The building is topped by a pyramidal roof clad in 5-V sheet metal. A one-story kitchen ell extends off the rear and is topped by a hipped roof clad in 5-V sheet metal. A small second story sleeping porch also extends off the rear and is set on top of the kitchen ell. This room is covered with a hipped roof clad in 5-V sheet metal as well. The wood frame structural system is clad with drop siding and rests on a continuous rusticated concrete block foundation. A one-story flat-roof screened porch has been appended to the northwest corner of the house and wraps around portions of the front and side facades partially interrupting the symmetry of the front facade. According to the Jerry Holder, the son of the current owner, this porch was added in the 1950s and replaced an earlier front porch (Holder 2008). A second, original porch is located on the south side of the house. This screened porch is topped by a hipped roof clad in 5-V sheet metal and is supported by wood Doric columns. The original front porch that has been replaced originally had columns that matched those of the side porch (Holder 2008). The house retains all of its original windows which are mostly wood double-hung sash with one-over-one light configurations, but there is also a pair of wood casement windows with four panes each on the rear kitchen ell. The original wood-frame screens are present on most windows. The house has a pair of interior brick chimneys that likely are placed between the front and rear rooms on the interior of the house. The building is simple and functional in design; yet has some modest ornamentation. The windows and doors have wood surrounds with molded architraves, a molded cornice board wraps around all sides of the house, and the eaves are boxed in with bead board.

As Haase’s fieldwork on Florida Cracker houses indicates, many of these old houses have either been abandoned by their owners, or allowed to fall into a state of disrepair (Haase 1992, 14). Simple construction techniques often make constant work and repair on the house a necessity which becomes a burden. Temperature regulation is also challenging due to the wood frame construction and old windows. The Strite House is representative of this trend. The property has been owned and occupied by the same family since the 1920s, and since then, there have been few updates or repairs to the house, which has consequently caused some minor deterioration of architectural elements, although has also resulted in few compromising alterations or additions. The only visible modification to the exterior of the house is the replaced front porch, which is itself historic. The Strite House, therefore, conveys its original historic appearance and maintains much historic physical integrity.

The Strite House property currently contains the main house, historic garage, historic water tower, and historic swimming pool as shown in **Exhibit 3-7**. A historic garage building and water tower structure are located behind the main house. The garage has a wood frame structural system covered in drop siding. It is topped by a rear-sloping shed roof clad in 5-V sheet metal. The front facade of the building faces west, and is five bays wide, including three centrally located open garage bays, flanked by enclosed storage areas. The open bays are divided and supported by square wood posts, with diagonal braces in the upper corner of each. The storage bay on the south end is accessed through an interior doorway located in the open garage area. The storage bay on the north end is accessed through a doorway on rear of the building. This building is likely contemporary to the construction of the house, circa 1910 (Holder 2008). Located adjacent to the garage, is a historic water tower structure. The tank has been removed and replaced with what appears to be a galvanized tub. The steel support tower structure remains intact, and is approximately 30 feet tall. It has four steel legs braced by a system of purlins and diagonal tension rods. A ladder is located on one side and extends to the top of the structure.

A historic swimming pool, constructed circa 1930s is also located on the property (Holder 2008). This pool is located approximately 400 feet to the south of the house near a natural spring. The pool is rectangular in shape and consists of concrete block walls and floor. It is about 3 feet deep at the shallow end, and slopes to a depth of 7 feet at the other end. The pool is fed by the nearby spring through a pipe that flows into the pool; overflow is then directed through a pipe that allows the spring water to continue flowing through its natural path (Holder 2008). The pool ceased being used in the 1960s and has since been partially silted in, although the actual structure remains in good condition.

The building complex is set back approximately 1,190 feet from Plymouth Sorrento Road on a narrow dirt drive. Much of the front portion of the property is wooded which obscures the view of the complex from Plymouth Sorrento Road. The driveway loops in front of the house, creating a circular lawn that is surrounded by historically planted mature Camphor Laurel trees. Much of the property is wooded; however, the southern portion of the property consists of open hay fields.

The overall property this house is sited on was originally deeded to James P. Kerr in 1883 (FDEP 1883). James Kerr was originally deeded the entire SW quarter of Section 6 of Township 20 South, Range 28 East (this land also included the previously discussed Bock House). The precise date of construction of the buildings, and the person responsible for building them are unknown. However, when the property was purchased by Edgar Kitchen in the 1920s, the house, garage, and water tower were already present. In the 1930s, Edgar Kitchen gave the property to his daughter, Alice Kitchen and her groom, Newton E. Strite, as a wedding gift. The property was later passed down to their daughter, Clara Ruth Strite (now Holder), to whom the property still belongs.

When Edgar Kitchen purchased the property in the 1920s, it included approximately 180 acres which consisted of the current property, and extended south of Haas Road. At that time, the overall property was being used to harvest timber and turpentine (Holder 2008). According to the family, Kitchen proceeded to convert the property into citrus groves. When the property was passed down to his daughter, Alice Kitchen, and her husband, Newton Strite, in the 1930s, they continued to grow citrus on the property, and were members of several local citrus cooperatives (Holder 2008). By the 1960s, several freezes and

insect infestations had effectively destroyed the groves to the point that citrus farming was stopped, and the family switched to raising chickens. Several large chicken coops were constructed at this time; however, the non-historic buildings are located off the original Strite House property, on a separate parcel to the north that is still owned by the family (Holder 2008).

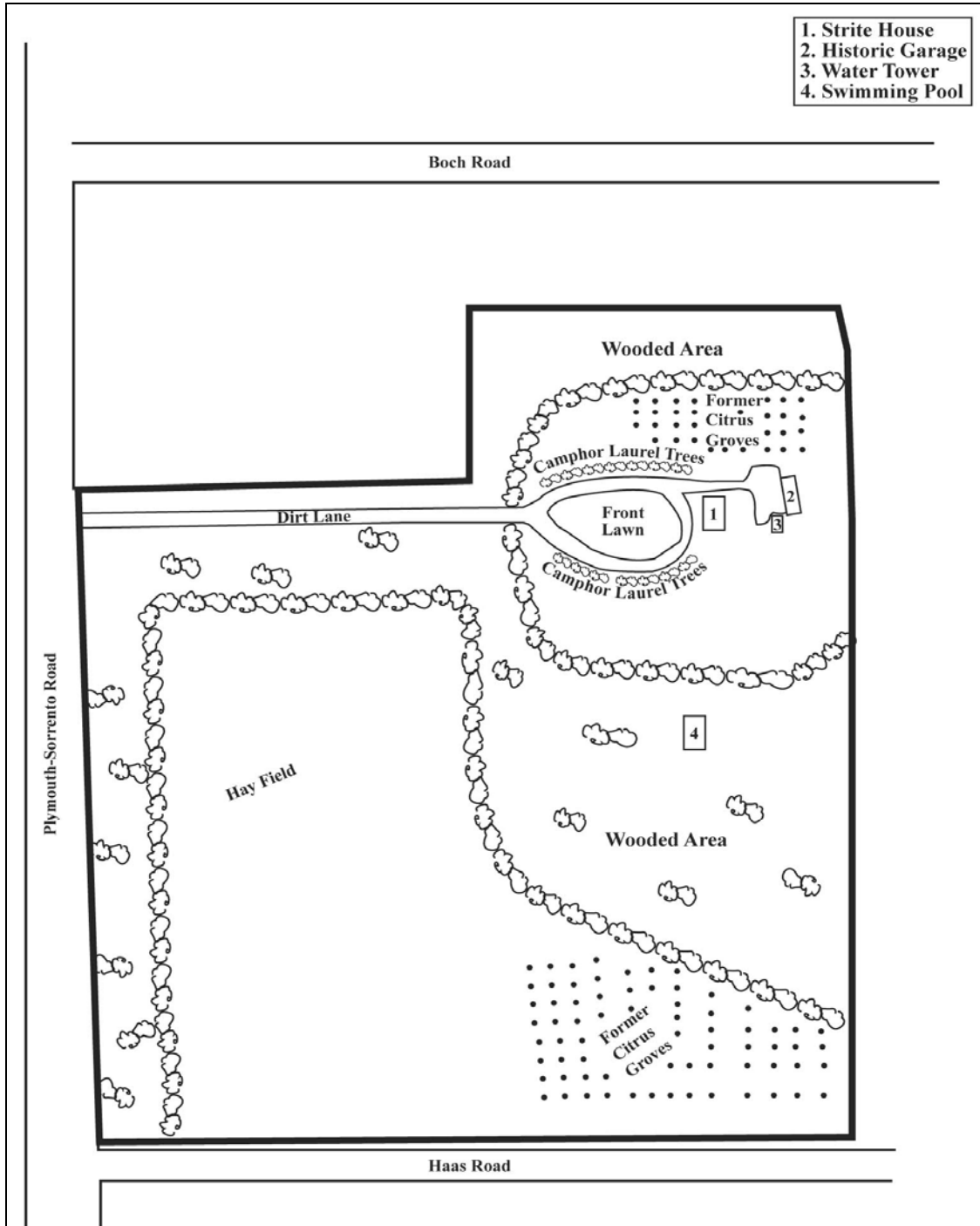


EXHIBIT 3-7
Site Plan of Strite House and Property

In recent years, the family has ceased raising chickens, and now grows hay. Many of the former citrus groves have been cleared for the hay to grow. The historic garage is no longer used for agricultural purposes; however, the former chicken coops now function as storage for the farm equipment. While the property has undergone several phases of agricultural production including a variety of crops, the property is still used as a family-owned farm. Many of the characteristics of the property's history are still evident, and the house retains a high degree of integrity. Due to these factors, the Strite House is considered significant as an excellent example of an early farmstead in north Orange County, that has adapted over the years, and still functions as an agricultural producing property.

The region of Orange County just north of the City of Apopka contains several of Florida's earliest agricultural communities. Communities which date from the turn-of-the-twentieth century, located in this region include Tangerine, Plymouth, Bay Ridge, and Rock Springs (Historic Property Associates, Inc. 1995). Despite the rapid growth and development occurring in other sections of Orange County, this region has retained many of these early small settlements and remained predominantly agricultural. Much of the earliest architecture however has been lost. According to a survey done in 1995 by Historic Property Associates, only nine early twentieth-century buildings, not including the Strite House, were recorded in this region (Historic Property Associates, Inc. 1995).

The Strite House is an excellent example of the Florida Cracker House interpretation of the Georgian Form. Constructed circa 1910, the house is a late example of the Cracker style, although coincides with the shift towards larger and more permanent construction after the turn-of-the-century. The massing, roof shape, exterior siding, decorative features, and majority of the windows have all remained unchanged since its construction date. The historic replacement of the original front porch is the only visible alteration to the exterior of the house, and the loss of physical integrity due to this modification is minimal.

The historic setting and landscape of the house also remains intact. The house is set far back from the road, and the surrounding property is still used for agriculture. Few non-historic buildings or developments are present in vicinity of the property, and overall the area appears much as it did historically. Although the citrus groves that surrounded the house in the early to mid-twentieth century are now gone, the land is now used for growing hay. The historic ancillary structures such as the garage, water tower, and swimming pool are still present on the property with few alterations. Much of the designed historic landscape on the property such as the circular drive, front lawn, and planted Camphor trees, are also still present.

The Strite House is a rare surviving example of Cracker architecture in what was formerly known as the Bay Ridge area of northern Orange County, Florida. The house exhibits the deterioration of some elements, but nearly all of the historic, character-defining features are retained. The overall property still reflects its historic use and appearance, and conveys the character of a historic farm. Due to these factors, the Strite House is considered significant in the area of Architecture as an excellent example of a turn-of-the-century Cracker farmstead. The historic garage, water tower, pool, and agricultural fields are considered contributing features to the property. This property was determined eligible for inclusion in the *NRHP* by the SHPO in a letter dated May 19, 2008.

Exhibits 3-8 through 3-12 are current representative photographs of the Strite House/6229 Plymouth Sorrento Road.



EXHIBIT 3-8
Strite House, Facing Southeast



EXHIBIT 3-9
Strite House and Ancillary Structures, Facing North



EXHIBIT 3-10
Historic Swimming Pool at the Strite House, Facing South



EXHIBIT 3-11
Strite House, Facing East



EXHIBIT 3-12
Planted Camphor Laurel Trees Encircling Front Lawn, Facing East

SECTION 4

Alternatives Evaluation and Determination of Effects

4.1 Constraints Identification

The alternatives development process for the proposed Wekiva Parkway included a focus on avoidance and minimization of impacts to cultural resources. During the screening of the Initial Alternatives it was noted that several potential Section 106 and Section 4(f) resources including historic sites, public parks, recreation facilities and conservation areas were located within or close to the project study area. As required by Section 4(f) of the U.S. Department of Transportation Act of 1966 [Title 49, USC, Section 303] and [Title 23, USC, Section 138] as amended, avoidance alternatives were developed for these potential Section 106 and Section 4(f) resources. During the development of the Initial Alternatives in Orange County, an avoidance alternative (referred to as Alternative 2) was developed to avoid impacts to potential Section 106 and Section 4(f) resources including both the Bock House and Strite House properties.

Both the Bock House and Strite House properties were identified as project alignment constraints during the development of the Initial Alternatives. The Bock House was surveyed in June 2006 and documented in the *CRAS* (February 2007) completed for the study. In a letter to FHWA dated June 27, 2007, the SHPO concurred that the Bock House was potentially eligible for *NRHP* listing (copy of letter is provided in **Appendix A**). The existence of the Strite House was also identified in 2006 based on a review of aerial photographs and property appraisal data. In 2006, the landowner denied several requests for property access which prevented initiation of the field survey, so the property was documented as a potential historic resource in the *CRAS* (February 2007).

In a letter to FHWA dated October 10, 2007 (copy provided in **Appendix A**), the SHPO indicated the need to gain access to the Strite House property to complete the assessment of *NRHP* eligibility. In February 2008, after a certified letter was sent to the property owner by FDOT and access permission was subsequently granted by the property owner, the historic resource survey of the Strite House property was completed. The results of the survey were documented in the *CRAS Addendum* (March 2008). The SHPO concurred with the *CRAS Addendum* findings and potential *NRHP* eligibility of the Strite House property in a letter to FHWA dated May 19, 2008 (copy provided in **Appendix A**).

Although the Strite House was not identified as potentially eligible for *NRHP* listing until later in the alternatives analysis stage of the project, the Strite House property was considered a project constraint during the analysis of the initial alignment alternatives because it was identified as a potential historic structure in the *CRAS*. Furthermore, the Strite House property contains a seepage spring which was identified in October 2005 and again in October 2008 by the Orange County Environmental Protection Division (OCEPD) as a project constraint (see copies of OCEPD letters in **Appendix A**). Therefore, impacts to

the Strite parcel were minimized and avoided to the extent possible during the development of alternative alignments.

4.2 Proposed Typical Section

As discussed in Section 1, the Wekiva Parkway is a proposed extension of SR 429 (the Western Beltway around metropolitan Orlando). It would be an elevated-on-fill, grade-separated rural expressway within 300 feet of limited access right-of-way, plus the right-of-way needed for stormwater ponds. A depiction of the typical section for Wekiva Parkway is shown in **Exhibit 4-1**.

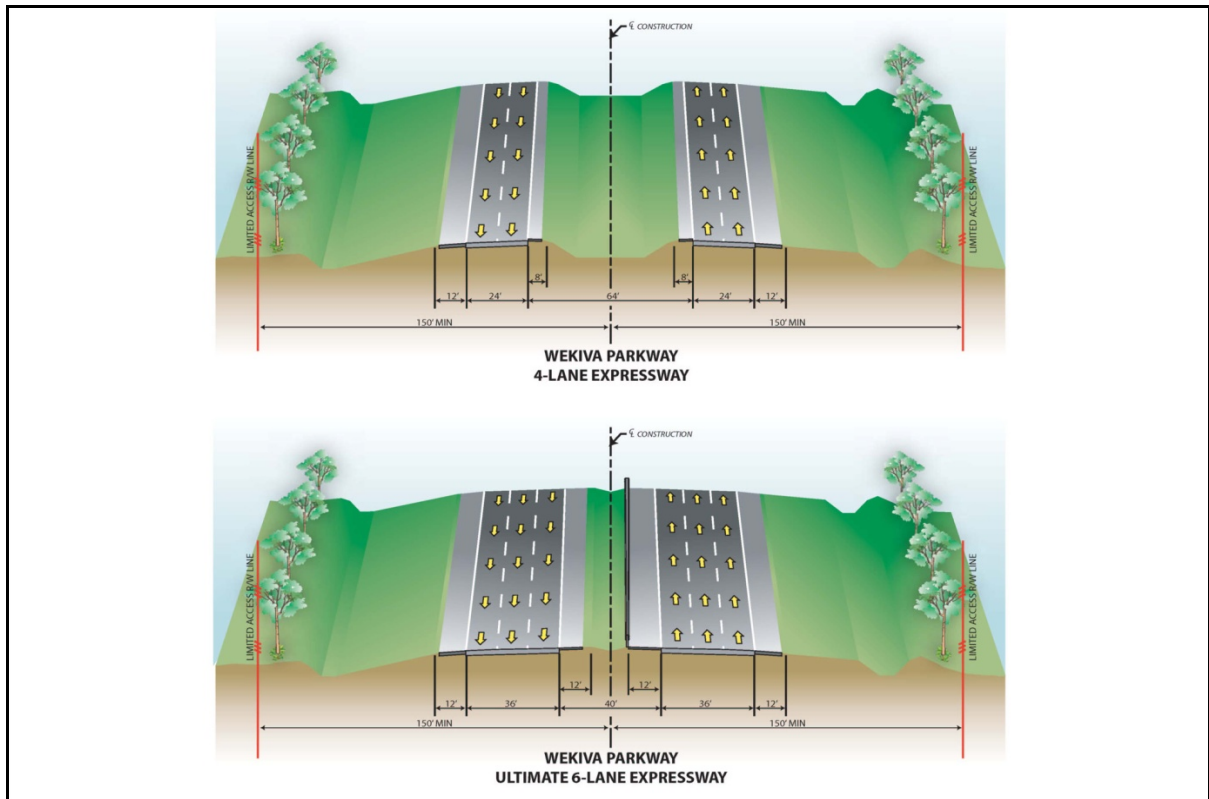


EXHIBIT 4-1
Proposed Typical Section of the Wekiva Parkway

4.3 Alternatives Analysis

As previously discussed in Section 1 of this *Case Study Report*, a multi-step screening process was used to develop and analyze project alternatives. The study area was defined through land suitability mapping (LSM) of the cultural, natural, social and physical environment constraints. Within the study area, alternatives were identified that addressed the purpose and need for the project. Next, initial alternatives were identified through the constraint mapping and stakeholder input. After a comparison of the potential impacts for the initial alternatives, the initial alternatives identified as reasonable for further study were refined to develop viable alternatives. The viable alternatives were then evaluated through a systematic process which involved analyzing the environmental effects (socio-economic,

cultural, natural, physical), engineering factors, and costs with consideration of stakeholder input.

Based on the comprehensive assessment of Purpose and Need satisfaction, engineering factors, environmental analyses and stakeholder coordination, Alternative 1 was identified as the Locally Recommended Alternative in northwest Orange County. Orange County Alternative 2, an alignment alternative for avoidance of both the Bock and Strite properties, was considered to have too many composite impacts and did not meet the stated Purpose and Need due to additional environmental impacts. During a Section 106 Consultation meeting in April 2008 (see Section 5 - Coordination for more detail), the SHPO representative suggested that two minimization alternatives should be analyzed. Those minimization alternatives are referred to as Alternative 1A and Alternative 1B. **Exhibit 4-2** provides a comparative depiction of the alignments of Alternative 1, the two minimization alternatives (Alternatives 1A and 1B) and the avoidance alternative (Alternative 2).

Table 4-1 summarizes the analysis for each of the alternatives. The noise effects associated with each alternative are summarized in **Table 4-2**.

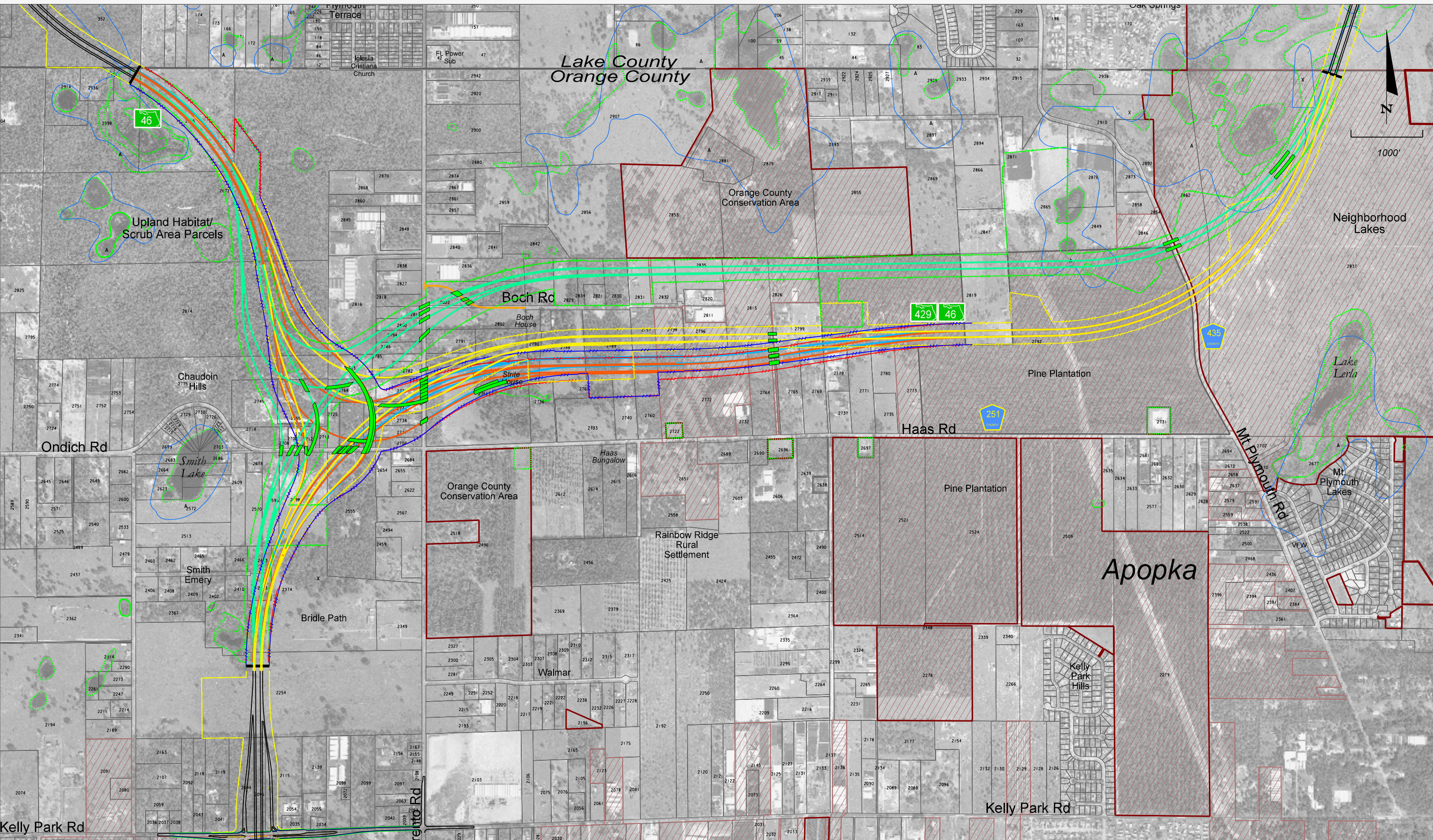
The following sections describe the alternatives analysis for the four Build Alternatives in more detail. Analysis of the No Build Alternative was discussed previously in Section 1.5.1. A comparative summary of the results of the analysis for the No Build Alternative and the four Build Alternatives is provided in the above referenced Table 4-1.

4.3.1 Alternative 1 (Locally Recommended)

Exhibit 4-3 shows the preliminary concept for Alternative 1. Alternative 1 would result in direct use impacts to both the Bock and Strite properties. Alternative 1 impacts 10.2 acres of the southern portion of the Bock property, but would not directly impact the Bock House or any contributing structures. Alternative 1 includes a potential stormwater pond on the remnant of the parcel south of the proposed improvements.

Alternative 1 would directly impact the Strite property. The total size of the Strite property is approximately 48 acres. Approximately 19.5 acres from the northern portion of the Strite property would be impacted by the proposed improvements. Approximately 2.6 acres of this total impact area are not required for right-of-way; however, this 2.6 acre remnant north of the proposed improvements does not allow direct property access and was included in the estimated 19.5 acres of impact.

Alternative 1 would involve direct impact to the Strite House. During the Section 106 Consultation meeting in April 2008, potential mitigation measures were discussed including relocation of the Strite House to the southern parcel remnant. The property owner was amenable to the potential relocation and noted that Alternative 1 provided a usable parcel remnant for relocation, if necessary. Two of the contributing structures (garage and water tower) would also be impacted by Alternative 1. Alternative 1 avoids the seepage spring identified by OCEPD as an important environmental feature and project constraint (as noted in Section 4.1).



LEGEND:

- Alternative 1 (Locally Recommended)
- Alternative 1A (Minimization)
- Alternative 1B (Minimization)
- Alternative 2 (Avoidance)
- Bridge
- Wetland
- 100-Year Floodplain
- Public Land
- Municipal Boundary

Exhibit 4-2
Comparison of Alternative Alignments

TABLE 4-1
Comparison of Orange County Build Alternatives and No Build Alternative

Evaluation Criteria		Alternatives				
		Alt. 1 (Locally Recommended)	Alt. 1A (Minimization)	Alt. 1B (Minimization)	Alt. 2 (Avoidance)	No Build
Sociocultural Environment	Bock Property Land Area Required (acres)	10.2	5.6	4.7	0	0
	Strite Property Land Area Required (acres)	19.5	18.3	16.8	0	0
	Historic Structures Impacted (Bock property)	0	0	0	0	0
	Historic Structures Impacted (Strite property)	3 (Strite House, garage and water tower)	4 (Strite House, garage, water tower and swimming pool)	2 (water tower, swimming pool)	0	0
	Residential Displacements	19 (includes Strite House)	18 (includes Strite House)	17	26	0
	Business Displacements (Plant/Foliage Nurseries)	2	3	3	5	0
	Total ROW Required (acres)	268	269	265	302	0
	Number of Impacted Parcels	49	56	56	54	0
Natural Environment	Floodplain Impact (acres)	5.4	5	5	19.5	0
	Wetlands Impact (acres)	2	3	3	3	0
	Potential for Severe Florida Scrub Jay Habitat Impact (<i>species listed by USFWS & FWC as Threatened under Endangered Species Act</i>)	Low (0 acres; west R/W line is approx. 465 ft. from prime habitat area boundary)	Low (additional 2.6 acres; west R/W line is approx. 355 ft. from prime habitat area boundary)	Low (additional 2.6 acres; west R/W line is approx. 355 ft. from prime habitat area boundary)	High (additional 24.4 acres; west R/W line is approx. 71 ft. from prime habitat area boundary)	None
	Seepage Spring on Strite property effected	No	Yes – requires bridge over seepage spring	Yes – requires bridge over seepage spring	No	No
Project Cost	Estimated Cost for Right-of-Way and Residential/Business* Displacements (in millions, 2008 dollars) *business damages not included	\$9.6	\$10.0	\$10.1	\$14.0	\$0
	Estimated Cost for Construction (in millions, 2008 dollars)	\$52.2	\$57.4	\$59.1	\$66.2	\$0
Community	Public Controversy due to Community Disruption	Low	Low	Low	High**	None

** In comparison to Alternative 1 (the Locally Recommended Alternative), Alternative 2 (the Avoidance Alternative) would result in the displacement of seven additional residential dwellings, which is about 20% of the residences within a relatively small cluster of about 35 homes in a rural setting. Alternative 2 would also displace three additional businesses. It would also require relocation of Boch Road and alteration of existing access to it for several parcels. For these reasons, Alternative 2 is expected to impact community cohesion and, based on comments received from area residents at public workshops, is expected to generate a high degree of public controversy.

TABLE 4-2
Existing and Projected Noise Levels for Section 106 Consultation Build Alternatives

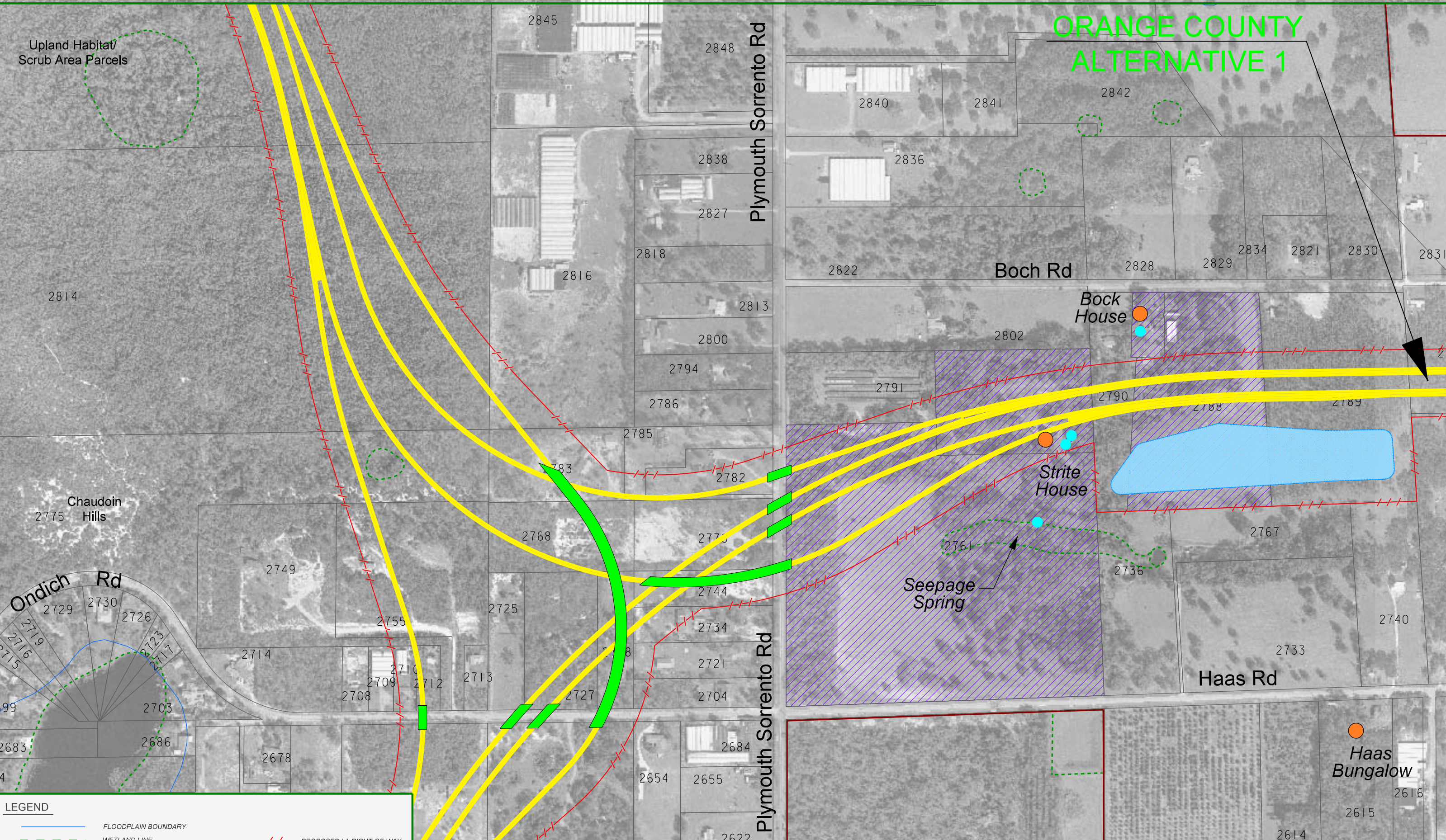
Evaluation Criteria	Bock House				Strite House				Do Alternatives Exceed or Approach FHWA Noise Abatement Criteria ¹ ? (Yes/No)
	Alt. 1	Alt. 1A	Alt. 1B	Alt. 2	Alt. 1	Alt. 1A	Alt. 1B	Alt. 2	
Projected 2032 Build noise level	61.2 dB(A)	58.3 dB(A)	57.4 dB(A)	59.5 dB(A)	N/A ³	N/A ³	63.5 dB(A)	58.2 dB(A)	No
Projected 2032 No Build noise level	42.7 dB(A)	42.7 dB(A)	42.7 dB(A)	42.7 dB(A)	49.5 dB(A)	49.5 dB(A)	49.5 dB(A)	49.5 dB(A)	No
Projected increase in noise level compared to No-Build Alternative ²	18.5 dB(A)	15.6 dB(A)	14.7 dB(A)	16.8 dB(A)	N/A ³	N/A ³	14.0 dB(A)	8.7 dB(A)	
Distance from edge of travel lanes	298 feet	573 feet	671 feet	460 feet	N/A ³	N/A ³	89 feet	923 feet	

Notes:

¹ FHWA Noise Abatement Criteria is 67.0 dB(A) for residential areas (Activity Category B) and for Section 4(f) sites (Activity Category C). Per FDOT guidelines, the approach criteria is 1.0 dBA less (66.0 dB(A)) for both categories.

² FDOT noise analysis guidelines require consideration of noise abatement measures when the projected noise level increases by 15.0 dB(A) or more as compared to the No Build condition. As stated in the FDOT noise analysis guidance, for a noise barrier to be feasible it must achieve a 5 dB(A) reduction at a minimum of two impacted receptors. As the Bock House is a single residence located in a sparsely populated rural area, a noise barrier at this location would not meet the FDOT feasibility criteria. As a result, no further analysis is warranted.

³ Under Alternatives 1 and 1A, the Strite House would be displaced; its existing location would be within the right-of-way for either alternative.



ORANGE COUNTY ALTERNATIVE 1

LEGEND

	FLOODPLAIN BOUNDARY		PROPOSED LA RIGHT-OF-WAY
	WETLAND LINE		POTENTIAL POND
	EXISTING PARCEL LINE		PROPERTY PARCEL CODES
	PUBLIC LAND		HISTORICAL SITE
	PROPOSED BRIDGE		CONTRIBUTING STRUCTURES

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Orange, Lake & Seminole Counties

ORANGE COUNTY
Locally Recommended
Alternative 1
EXHIBIT 4-3

Alternative 1 is the Locally Recommended Alternative as it results in the lowest cumulative impacts including:

- Low impact to environmentally sensitive habitat for the Florida Scrub Jay, which is a Federal and State listed threatened species,
- No impact to seepage spring on Strite Property which is considered a significant environmental feature to OCEPD,
- Least impact to wetlands,
- Moderate impact to floodplains,
- Moderate impacts related to residential displacements,
- Least number of business displacements and total impacted parcels, and
- Low public controversy (no community cohesion impacts anticipated).

Furthermore, Alternative 1 results in the lowest overall cost. The potential effects to the Bock and Strite properties as a result of Alternative 1 are described in more detail in Section 4.4.

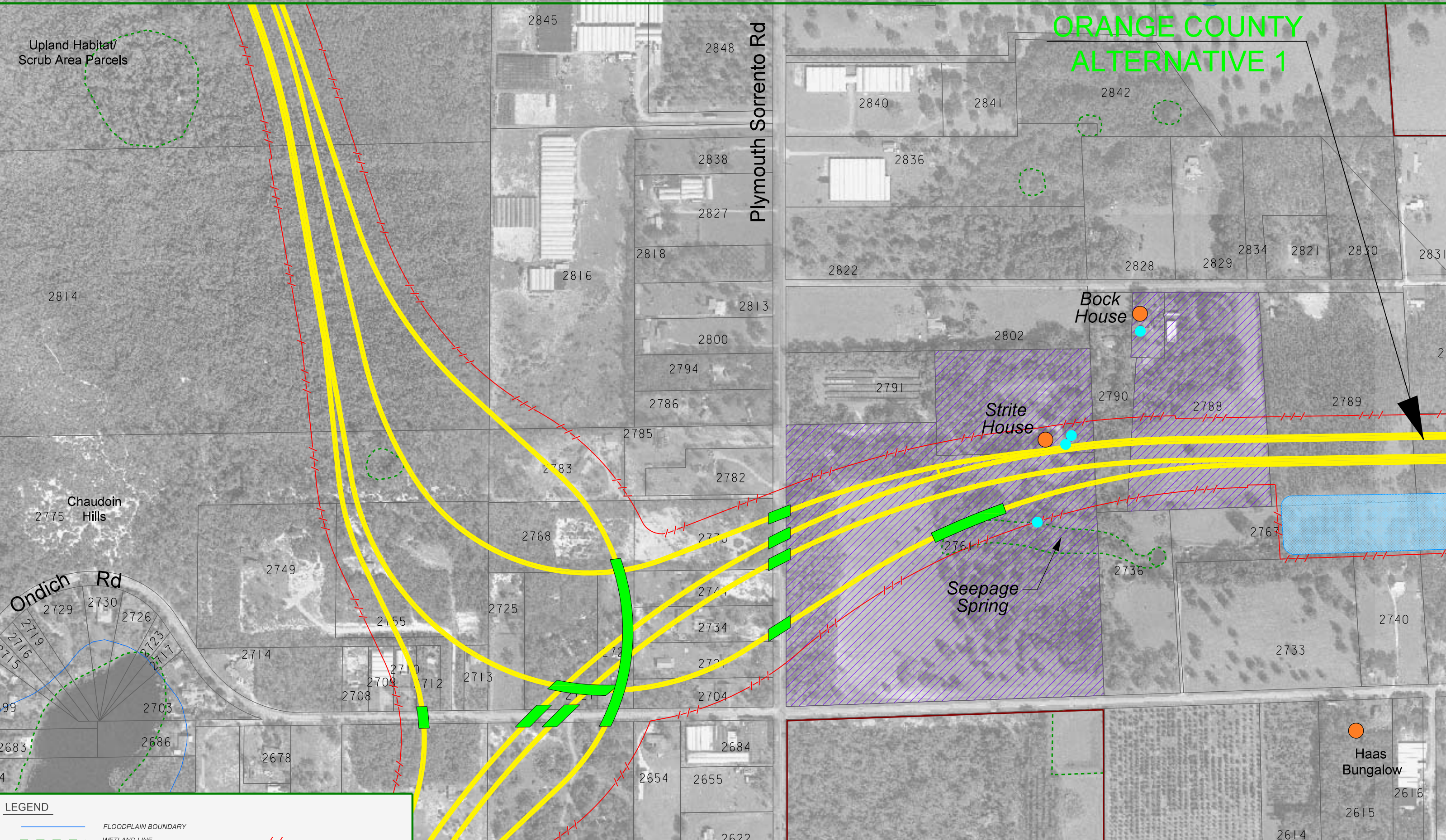
4.3.2 Alternative 1A (Minimization)

Exhibit 4-4 shows the preliminary concept for Alternative 1A. As stated previously, Alternative 1A was developed at the request of the SHPO to minimize direct impacts to the Bock property by shifting the alignment further south to avoid impacts to existing mature oak trees and former citrus groves. Similar to Alternative 1, Alternative 1A would result in direct use impacts to both the Bock and Strite properties.

Approximately 4.94 acres from the Bock property would be impacted due to the potential improvements associated with Alternative 1A. Similar to Alternative 1, this alternative would not directly impact the Bock House or any contributing structures. To further minimize impacts to the Bock property, proposed stormwater ponds for Alternative 1A were located on adjacent parcels.

Due to the close proximity of the Bock and Strite properties, the alignment shift to the south associated with Alternative 1A would increase the impacts to land use and contributing structures for the Strite House as compared to Alternative 1. Both Alternative 1 and Alternative 1A would require relocation or removal of the Strite House. However, Alternative 1A would result in 18.3 acres of direct use impacts to the Strite property and divide the parcel. Additionally, all the contributing structures (garage, water tower and pool) would be directly impacted by Alternative 1A.

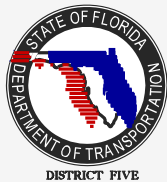
This alternative would also require bridging the seepage spring as the OCEPD has twice requested protection of the seepage slope as an important environmental feature (as noted in Section 4.1) and, in any case, it is not suitable for roadway construction. The required bridge would result in additional construction costs as compared to Alternative 1. The potential effects to the Bock and Strite properties as a result of Alternative 1A are described in more detail in Section 4.4.



ORANGE COUNTY
ALTERNATIVE 1

LEGEND

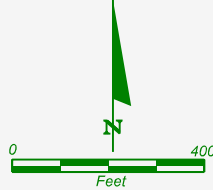
	FLOODPLAIN BOUNDARY
	WETLAND LINE
	EXISTING PARCEL LINE
	PUBLIC LAND
	PROPOSED BRIDGE
	POTENTIAL POND
2362	PROPERTY PARCEL CODES
	HISTORICAL SITE
	CONTRIBUTING STRUCTURES



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Orange, Lake & Seminole Counties

ORANGE COUNTY
Section 106 Minimization
Alternative 1A
EXHIBIT 4-4



4.3.3 Alternative 1B (Minimization)

Exhibit 4-5 shows the preliminary concept for Alternative 1B. As previously mentioned, Alternative 1B was developed at the request of the SHPO to minimize direct impacts to the Bock property and reduce impacts to the Strite property by shifting the alignment as far south as geometrically possible to avoid directly impacting the Strite House. Similar to Alternative 1, Alternative 1B would result in direct use impacts to both the Bock and Strite properties.

Approximately 4.7 acres from the Bock property would be impacted due to Alternative 1B. Similar to Alternative 1, this alternative would not directly impact the Bock House or any contributing structures. Alternative 1B would result in 16.8 acres of direct use impacts to the Strite property and divide the parcel. Two of the contributing structures (water tower and pool) would be directly impacted by Alternative 1B.

Alternative 1B would require bridging the seepage spring for the environmental concerns noted for Alternative 1A. The required bridge would result in additional construction costs as compared to Alternative 1.

4.3.4 Alternative 2 (Avoidance)

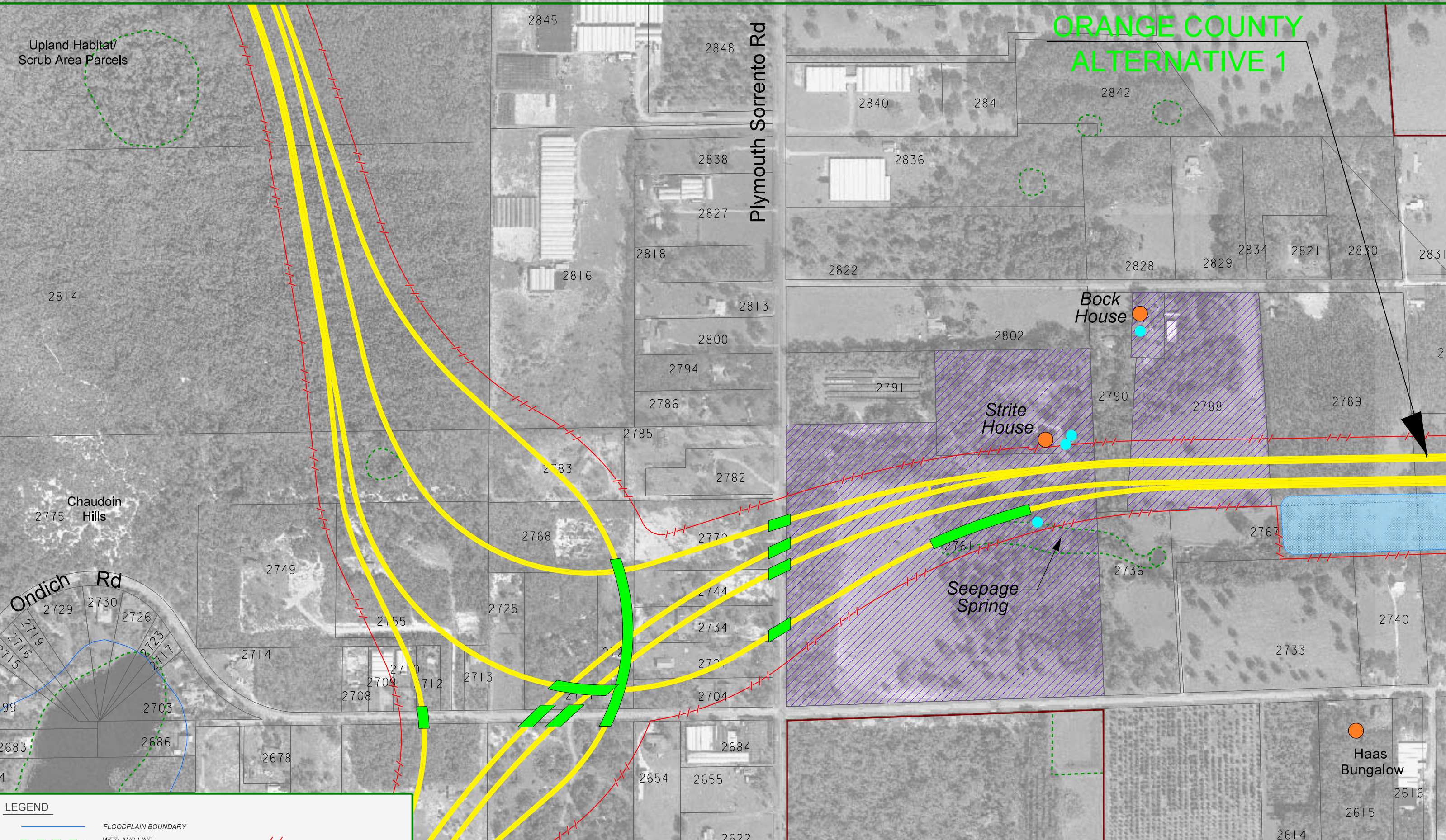
Exhibit 4-6 shows the preliminary concept for Alternative 2 which is the avoidance alternative for the two historic properties. Alternative 2 would not directly impact either the Bock House or Strite House properties as the alignment is further west and further north than Alignment 1. Due to the termination of existing Boch Road by the alignment of Wekiva Parkway in this alternative, it would require the realignment and relocation of Boch Road and construction of associated bridging to the west of the Bock House property and to the north of the Strite House property.

As shown in the previously referenced Table 4-1, Alternative 2 would have cumulative environmental, community disruption, social and cost impacts of extraordinary magnitude in comparison to Alternative 1, including:

- Highest impact (24.4 acres) to environmentally sensitive habitat for the Florida Scrub Jay (shown on **Exhibits B-4 through B-6** in **Appendix B**) which is a Federal and State listed threatened species,
- Highest impact to wetlands (3 acres),
- Highest impact to floodplains (14.1 additional acres as compared to Alternative 1),
- Highest number of residential and business displacements,
- High public controversy (high community cohesion impacts anticipated*), and
- Highest estimated right-of-way and construction costs (30% higher composite construction and right-of-way costs as compared to Alternative 1).

The overall environmental impacts associated with Alternative 2 are detailed in **Appendix B**. The potential effects to the Bock and Strite properties as a result of Alternative 2 are described in more detail in Section 4.4.

*See footnote under Table 4-1 on page 4-5 and Section B.1.3 Community Disruption in **Appendix B** for further information.



ORANGE COUNTY
ALTERNATIVE 1

LEGEND

FLOODPLAIN BOUNDARY

WETLAND LINE

EXISTING PARCEL LINE

PUBLIC LAND

PROPOSED BRIDGE

POTENTIAL POND

2362

PROPERTY PARCEL CODES

HISTORICAL SITE

CONTRIBUTING STRUCTURES

EXPRESSWAY
AUTHORITY

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

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WEKIVA PARKWAY

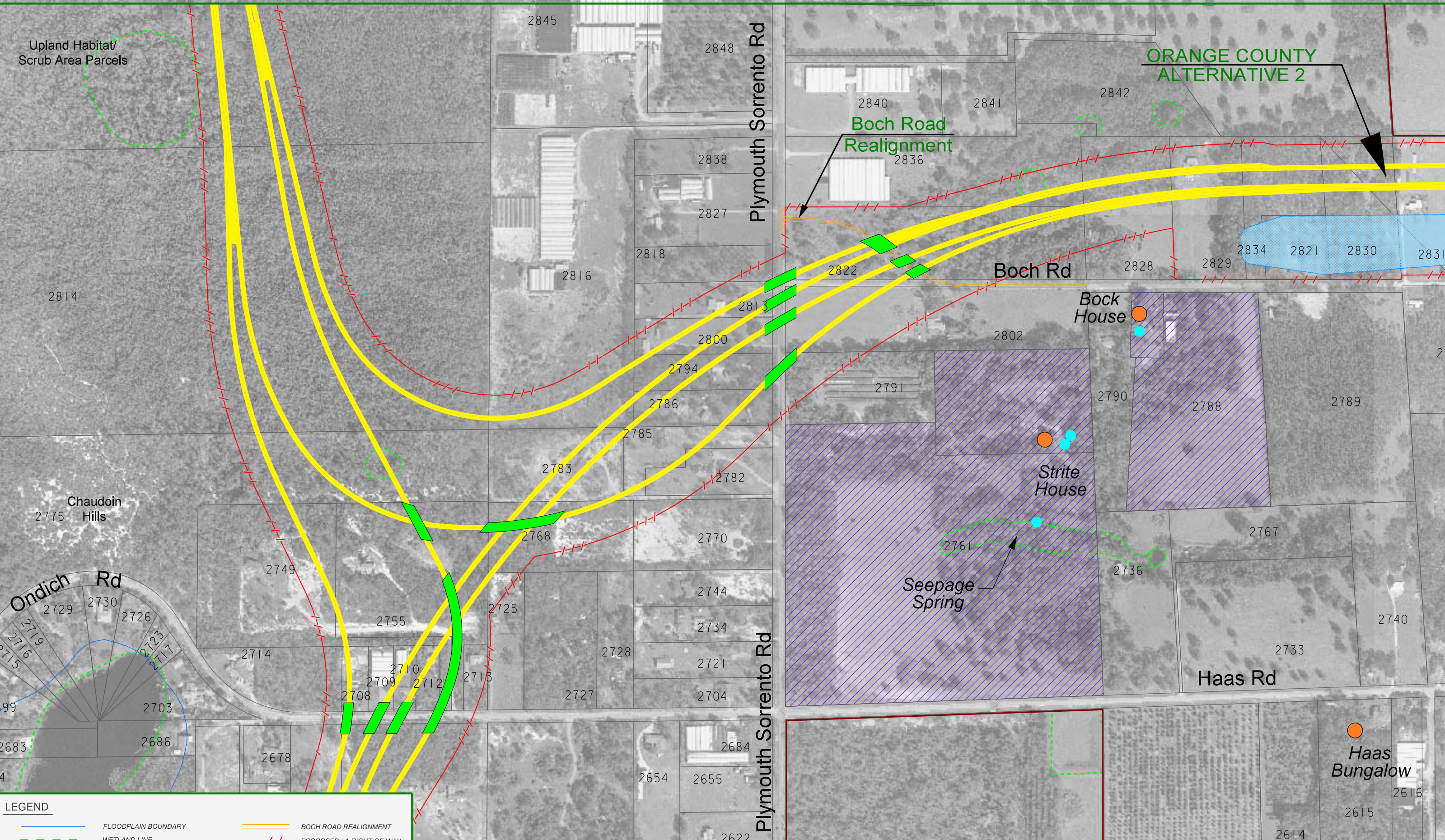
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Orange, Lake & Seminole Counties

ORANGE COUNTY

Section 106 Minimization
Alternative 1B

EXHIBIT 4-5

0 400
Feet



LEGEND

	FLOODPLAIN BOUNDARY		BOCH ROAD REALIGNMENT
	WETLAND LINE		PROPOSED LA RIGHT-OF-WAY
	EXISTING PARCEL LINE		POTENTIAL POND
	PUBLIC LAND		PROPERTY PARCEL CODES
	PROPOSED BRIDGE		HISTORICAL SITE
			CONTRIBUTING STRUCTURES

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ORANGE COUNTY
Avoidance
Alternative 2
EXHIBIT 4-6

4.4 Determination of Effects

The Criteria of Effect as defined by the Section 106 regulations was applied to the significant historic resources. The Criteria of Effect is defined as the following:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Following an evaluation of the improvements related to the Locally Recommended Alternative (Alternative 1), a determination of effects was developed as stipulated by Section 106 of the *NHPA of 1966* as implemented by 36 CFR Part 800. As part of this assessment, the potential effects to the two subject resources were evaluated for Alternative 1 and the Section 106 minimization and avoidance alternatives (Alternative 1A, Alternative 1B and Alternative 2). The potential effects of these alternatives on each of the subject resources are summarized in **Table 4-3** and discussed in the following paragraphs.

TABLE 4-3
Determination of Effect

FMSF #	Site Name/Address	Potential Effects			
		Alt. 1	Alt. 1A	Alt. 1B	Alt. 2
8OR7946	Paul Bock House/2626 Boch Rd	Adverse Effect – <i>Right-of-way, Visual/Aesthetic, Noise Effects</i>	Adverse Effect – <i>Right-of-way, Visual/Aesthetic, Noise Effects</i>	Adverse Effect – <i>Right-of-way, Visual/Aesthetic, Noise Effects</i>	No Adverse Effect - <i>Visual/Aesthetic, Noise Effects</i>
8OR9844	Strite House/6229 Plymouth Sorrento Rd	Adverse Effect – <i>Right-of-way, Access, Landscaping, Visual/Aesthetic Effects</i>	Adverse Effect – <i>Right-of-way, Access, Landscaping, Visual/Aesthetic Effects</i>	Adverse Effect – <i>Right-of-way, Access, Landscaping, Visual/Aesthetic Effects</i>	No Adverse Effect - <i>Visual/Aesthetic Effects</i>

4.4.1 Effects on Paul Bock House (8OR7946)

4.4.1.1 Effect of Alternative 1 (Locally Recommended)

The Paul Bock House property currently contains the main house, one contributing outbuilding (a historic garage/tenants' quarters) and five other non-contributing outbuildings (three non-historic metal sheds, a modern mobile home, and a modern nursery) as discussed in Section 3.1. The Alternative 1 alignment of the Wekiva Parkway would pass south of the Bock House. The one acre parcel upon which the Boch House is located would not be directly impacted by Alternative 1. Approximately 10 acres from the southern portion of the property (eastern parcel adjacent to Bock House) would be acquired

for roadway and pond right-of-way. Alternative 1 includes a potential pond on the remnant of the parcel south of the proposed improvements. The portion of the property to be acquired for pond right-of-way consists of open field that historically was an open field (see **Exhibit 4-7**). This would leave approximately 4 acres of the property contiguous with the house to maintain the existing residential land uses. The 4 acres are located north of the proposed right-of-way line, south of Boch Road and east of the house, including the area labeled “Former Citrus Groves” on Exhibit 4-7. The existing direct access to Boch Road would not be affected by the project.

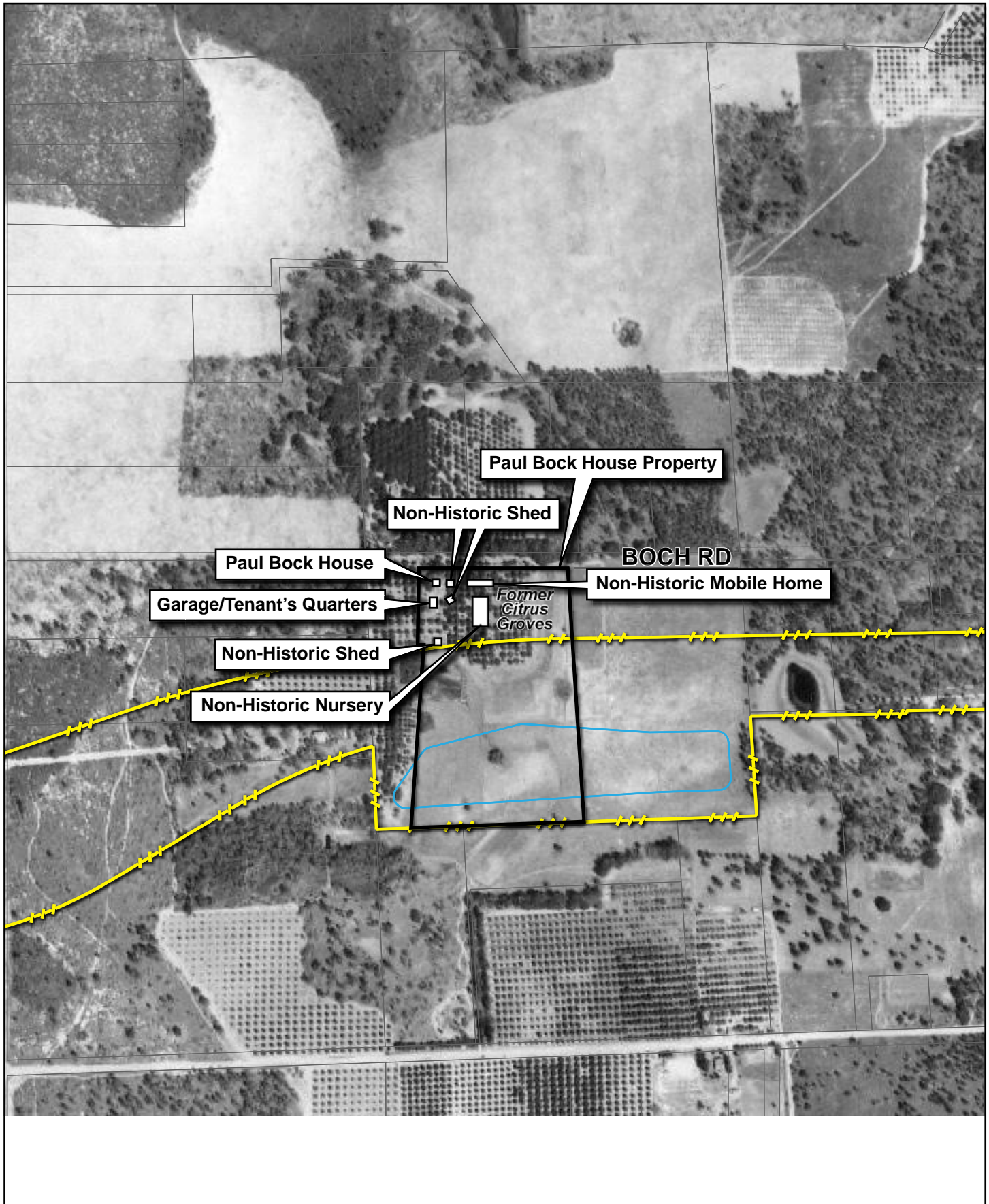
The proposed improvements associated with Alternative 1 would take a metal shed that may be non-historic and non-contributing due to the property owner’s description of the building; although access restraints did not permit a visual inspection of the building. An unidentified outbuilding in roughly the same location is evident on the 1947 aerial photograph, although the size and form appear different than on the current aerial.

The acquisition would also take land on which the associated citrus groves were sited. Citrus trees are still present, although they are not maintained and are intermixed with oak trees. Alternative 1 would involve 0.8 acre of direct impact to existing mature oak trees which are considered contributing resources due to the presence of former citrus groves in this location. Approximately 2.3 acres of the former citrus groves would be maintained with Alternative 1.

As a result of implementing Alternative 1, the Bock House would be approximately 298 feet from the edge of the proposed Wekiva Parkway travelway and approximately 204 feet from the limited access right-of-way line. Alternative 1 introduces a new roadway facility with stormwater ponds through a rural area and will result in noise and visual effects. The traffic noise level with Alternative 1 is predicted to increase from the projected existing level of 42.7 dB(A) to an estimated 61.2 dB(A) in 2032 (the project design year) at the Bock House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A), but it would exceed the FDOT substantial increase criteria of 15 dB(A) above existing levels, resulting in an impact. As stated in the FDOT noise analysis guidance, for a noise barrier to be feasible it must achieve a 5 dB(A) reduction at a minimum of two impacted receptors. As the Bock House is a single residence located in a sparsely populated rural area, a noise barrier at this location would not meet the FDOT feasibility criteria. As a result, no further analysis is warranted.

In the vicinity of the Bock House, the Alternative 1 profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource would be affected by Alternative 1.

While the acquisition for the Wekiva Parkway right-of-way would not directly impact the main Paul Bock House, it would require removal of a non-historic outbuilding and construction on land that formerly comprised the associated citrus groves. Although the land is no longer harvested for citrus and other trees and vegetation have intermixed with them, the citrus trees are still present. Citrus was the staple crop on the property throughout the historic period of significance, and thus the former groves are an integral part of the Paul Bock House’s property and significance. The rural/agricultural land that surrounds the Paul Bock House and property, as well as the isolation derived from its surroundings, are important parts of the setting, and contribute to the significance of the resource.



LEGEND

- Parcel Line
- +—+— Alternative 1 - Right-of-Way Line
- Potential Pond

Exhibit 4-7
Alternative 1-
Alignment in Relation to Paul Bock House and Property
(1947 Aerial Photography)

Based on the amount of property that will be acquired as part of the improvements and the proximity of the improvements to the historic house, there would be an **adverse effect** on the Bock House. The historic connection and setting of the Bock House and surrounding property will be notably compromised by the improvements.

4.4.1.2 Effect of Alternative 1A (Minimization)

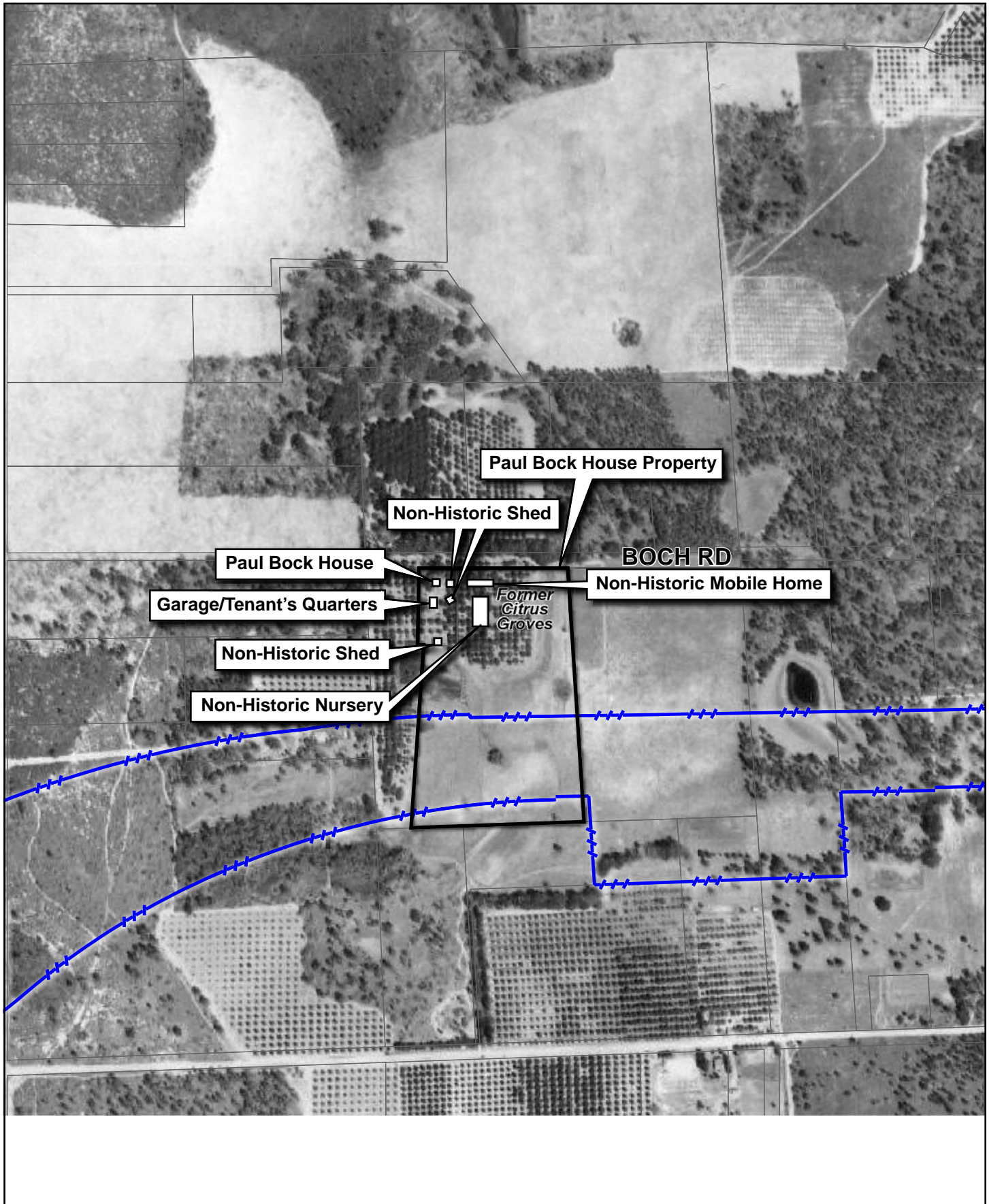
Alternative 1A would pass south of the Bock House. The one acre parcel upon which the Bock House is located would not be directly impacted by Alternative 1A. Approximately 4.9 acres from the southern portion of the property (eastern parcel adjacent to Bock House) would be acquired for roadway right-of-way. The portion of the property to be acquired for right-of-way consists of open field that historically was an open field (see **Exhibit 4-8**). Therefore, no contributing or non-contributing structures would be impacted by Alternative 1A. This would leave approximately 8 acres of the property adjacent to the house to maintain the existing residential land uses. The existing direct access to Bock Road would not be affected by the project.

As compared to Alternative 1, Alternative 1A would minimize potential noise and visual or aesthetic effects as the proposed edge of travelway is shifted approximately 275 feet further south of the Bock House. As a result of implementing Alternative 1A, the Bock House would be approximately 573 feet from the edge of the proposed Wekiva Parkway travelway and approximately 479 feet from the limited access right-of-way line. The traffic noise level with Alternative 1A is predicted to increase from the projected existing level of 42.7 dB(A) to an estimated 58.3 dB(A) in 2032 (the project design year) at the Bock House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A), but it would exceed the FDOT substantial increase criteria of 15 dB(A) above existing levels, resulting in an impact. As stated in the FDOT noise analysis guidance, for a noise barrier to be feasible it must achieve a 5 dB(A) reduction at a minimum of two impacted receptors. As the Bock House is a single residence located in a sparsely populated rural area, a noise barrier at this location would not meet the FDOT feasibility criteria. As a result, no further analysis is warranted.

In the vicinity of the Bock House, the Alternative 1A profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource would be affected by Alternative 1. *In summary, the effects of Alternative 1A on the Bock House would be minimized as compared to Alternative 1. However, Alternative 1A would result in an adverse effect to this historic resource.*

4.4.1.3 Effect of Alternative 1B (Minimization)

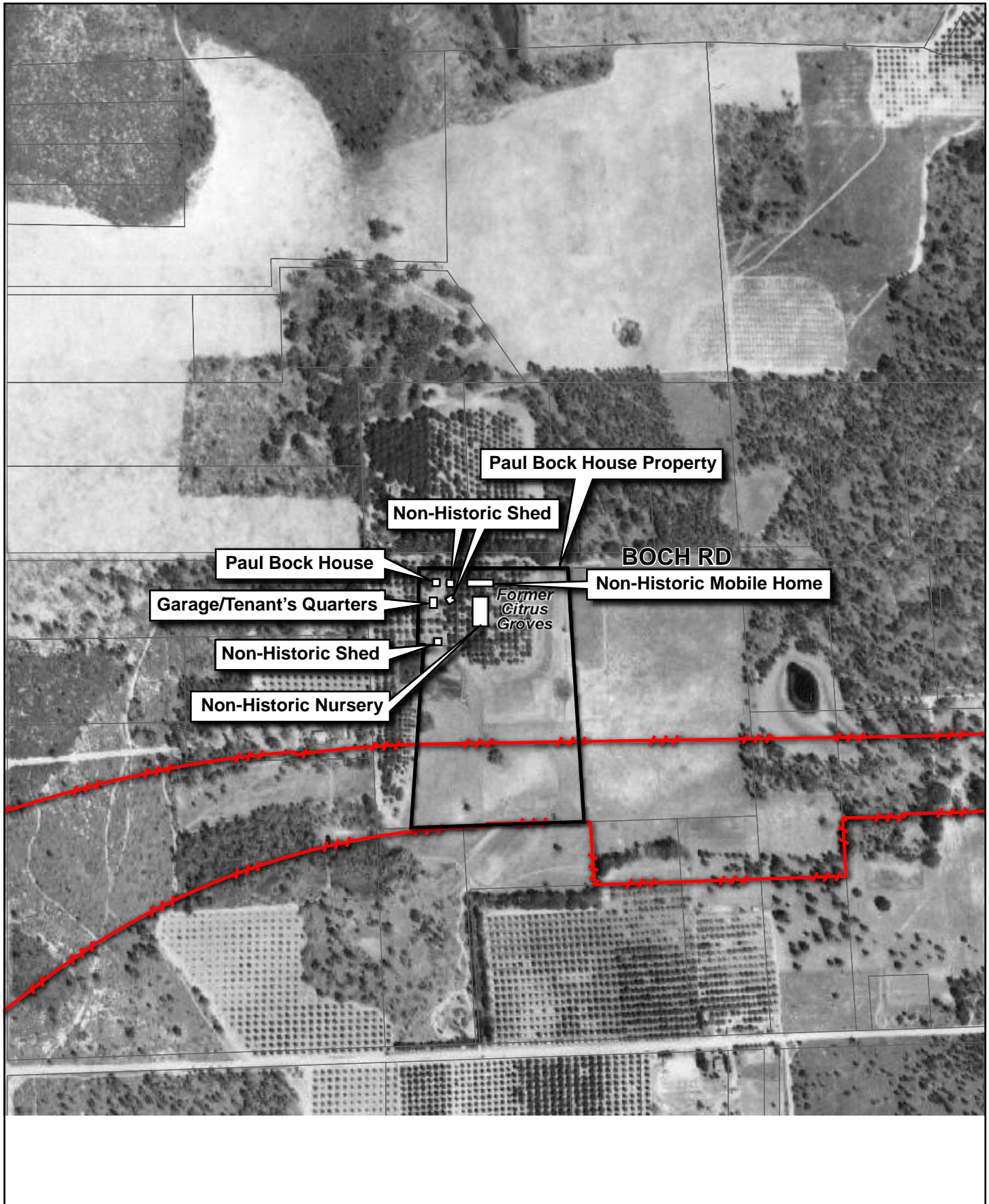
Alternative 1B would pass south of the Bock House. The one acre parcel upon which the Bock House is located would not be directly impacted by Alternative 1B. Approximately 4.7 acres from the southern portion of the property (eastern parcel adjacent to Bock House) would be acquired for roadway right-of-way. The portion of the property to be acquired for right-of-way consists of open field that historically was an open field (see **Exhibit 4-9**). Therefore, no contributing or non-contributing structures would be impacted by Alternative 1B. This would leave approximately 9 acres of the property adjacent to the house to maintain the existing residential land uses. The existing direct access to Bock Road would not be affected by the project.



LEGEND

- Parcel Line
- +—+— Alternative 1A - Right-of-Way Line

Exhibit 4-8
Alternative 1A-
Alignment in Relation to Paul Bock House and Property
(1947 Aerial Photography)



LEGEND

- Parcel Line
- +—+— Alternative 1B - Right-of-Way Line

Exhibit 4-9
Alternative 1B-
Alignment in Relation to Paul Bock House and Property
(1947 Aerial Photography)

As compared to Alternative 1, Alternative 1B would minimize potential noise and visual or aesthetic effects as the proposed edge of travelway is shifted approximately 373 feet further south of the Bock House. As a result of implementing Alternative 1B, the Bock House would be approximately 671 feet from the edge of the proposed Wekiva Parkway travelway and approximately 577 feet from the limited access right-of-way line. The traffic noise level with Alternative 1B is predicted to increase from the projected existing level of 42.7 dB(A) to an estimated 57.4 dB(A) in 2032 (the project design year) at the Bock House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A), but it would almost exceed the FDOT substantial increase criteria of 15 dB(A) above existing levels. As stated in the FDOT noise analysis guidance, for a noise barrier to be feasible it must achieve a 5 dB(A) reduction at a minimum of two impacted receptors. As the Bock House is a single residence located in a sparsely populated rural area, a noise barrier at this location would not meet the FDOT feasibility criteria. As a result, no further analysis is warranted.

In the vicinity of the Bock House, the Alternative 1B profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource would be affected by Alternative 1B. *In summary, the effects of Alternative 1B on the Bock House would be minimized as compared to Alternative 1. However, Alternative 1B would result in an adverse effect to this historic resource.*

4.4.1.4 Effect of Alternative 2 (Avoidance)

Alternative 2 would pass north of the Bock House as stated previously, Alternative 2 would not directly impact the Bock property as the alignment is further west and further north than Alignment 1 (see **Exhibit 4-6**). The Bock House would be approximately 460 feet from the edge of the Wekiva Parkway mainline travelway which is approximately 162 feet further away from the Bock House than Alternative 1. Alternative 2 introduces a new roadway facility with stormwater ponds through a rural area and will result in noise and visual effects. The traffic noise level with Alternative 2 is predicted to increase from the projected existing level of 42.7 dB(A) to an estimated 59.5 dB(A) in 2032 (the project design year) at the Bock House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A), but it would exceed the FDOT substantial increase criteria of 15 dB(A) above existing levels, resulting in an impact. As stated in the FDOT noise analysis guidance, for a noise barrier to be feasible it must achieve a 5 dB(A) reduction at a minimum of two impacted receptors. As the Bock House is a single residence located in a sparsely populated rural area, a noise barrier at this location would not meet the FDOT feasibility criteria. As a result, no further analysis is warranted. A review of the projected noise levels indicate the impact will not effect the current uses of the property, nor will the projected noise levels impair or alter the historic context of these resources.

In the vicinity of the Bock House, the Alternative 2 profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource to the north would be affected by Alternative 2. A review of the visual effects indicate that the viewshed of the roadway will not alter the historic context of the Bock House. *In summary, Alternative 2 would result in no adverse effect to this historic resource.*

4.4.2 Effects on Strite House (8OR9844)

4.4.2.1 Effect of Alternative 1 (Locally Recommended)

The Strite House property currently contains the main house and three contributing structures (historic garage, historic water tower, and historic swimming pool) as discussed in Section 3.1. Approximately 19.5 acres from the northern portion of the 48 acre Strite property would be impacted by the proposed improvements (see **Exhibit 4-10**). This right-of-way impact would require relocation or removal of the Strite House. The remaining 28.5 acres would permit existing direct access to both Haas Road and Plymouth Sorrento Road. However, the existing driveway from Plymouth Sorrento Road will need to be relocated to the southern portion of the property due to the right-of-way acquisition.

In addition to relocation or removal of the Strite House, the portion of the property to be acquired for right-of-way contains the historic garage and historic water tower which are considered contributing structures. The acquisition would also take the original driveway, the front lawn, and land on which associated citrus groves were sited; however, citrus trees are no longer present. The historic swimming pool is located outside of the right-of-way acquisition area. Alternative 1 maintains the historic pool and the associated spring.

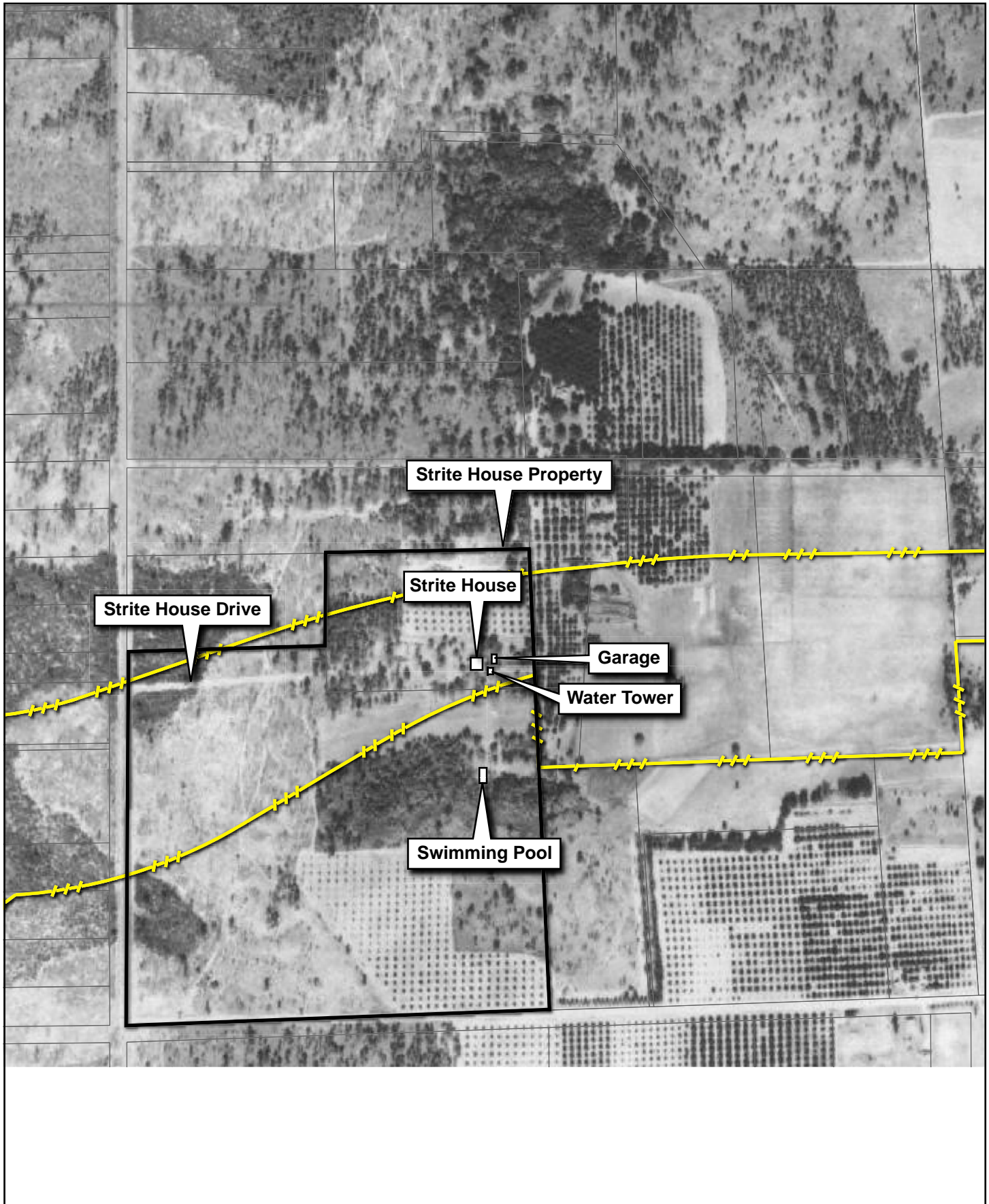
Substantial noise impacts are not anticipated with Alternative 1 as the potential relocation of the Strite House would involve on-site relocation of the house on the remaining 28.5 acres allowing sufficient room to relocate the residence a minimum of 500 feet from the proposed improvements to avoid substantial noise impacts.

In the vicinity of the Strite House, the Alternative 1 profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource would be affected by Alternative 1. Aesthetic treatments may be implemented in the design of the roadway to decrease the visual intrusiveness of the proposed improvement.

All of the features listed above as included in the acquisition area are considered contributing to the significance of the Strite House. The rural/agricultural land that surrounds the Strite House and property, as well as the isolation derived from its surroundings, are important aspects of the setting, and therefore, contribute to the significance of the resource. The historic integrity of the Strite House and surrounding property will be significantly compromised by direct effects from the project improvements. Based on the impact to the house, ancillary structures, landscape features, and the amount of property that will be required for project right-of-way, the Wekiva Parkway improvements will have an **adverse effect** on the Strite House.

4.4.2.2 Effect of Alternative 1A (Minimization)

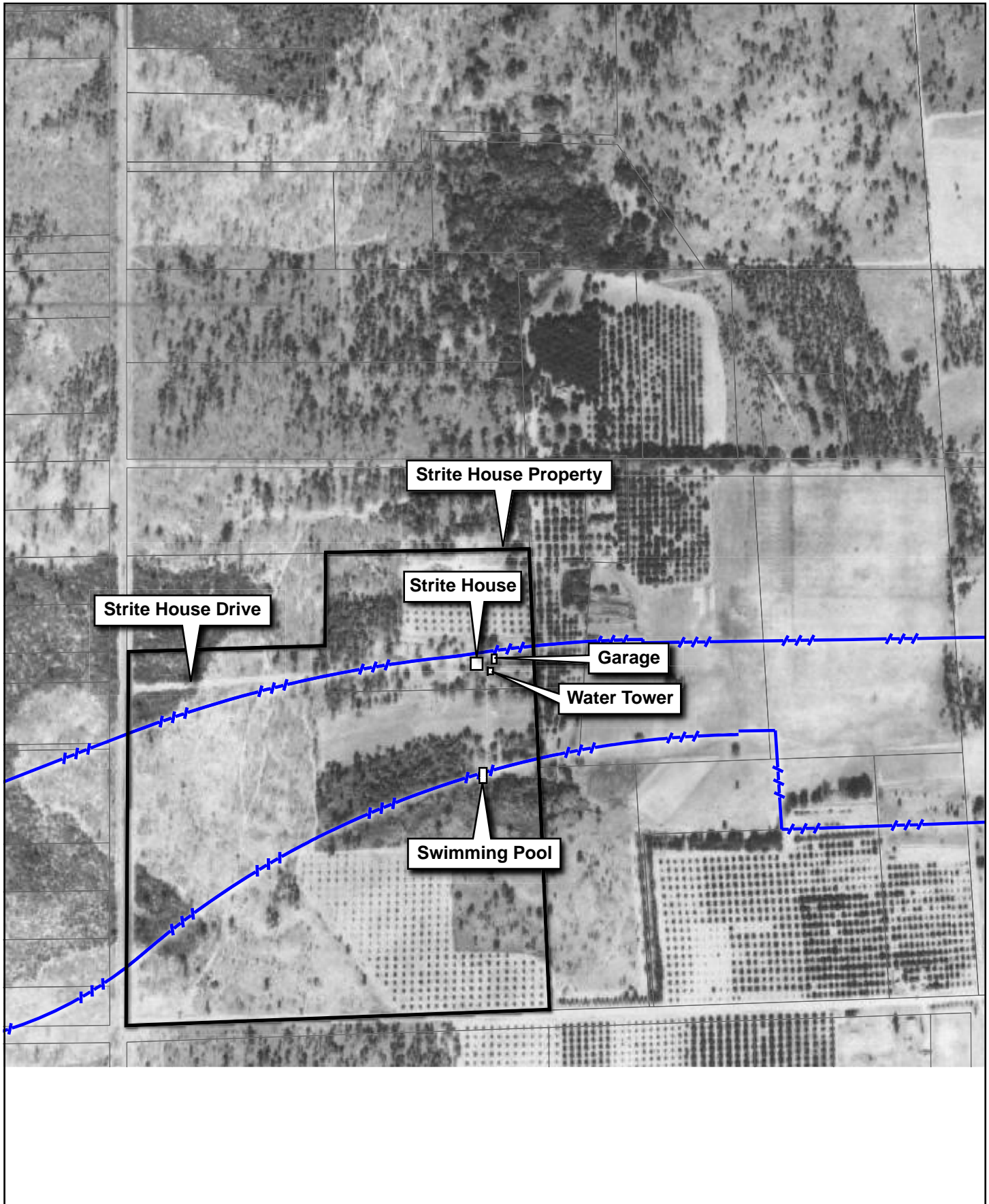
Alternative 1A would result in 18.3 acres of direct use impacts to the Strite property and divide the parcel (see **Exhibit 4-11**). This right-of-way impact would require relocation or removal of the Strite House. The southern property remnant would consist of approximately 20 acres and would permit direct access to both Haas Road and Plymouth Sorrento Road. Alternative 1A would decrease the usable parcel remnant for potential relocation on the southern portion of the property by approximately 8 acres as compared to Alternative 1.



LEGEND

- Parcel Line
- Alternative 1 - Right-of-Way Line

Exhibit 4-10
Alternative 1-
Alignment in Relation to Strite House and Property
(1941 Aerial Photography)



LEGEND

- Parcel Line
- +—— Alternative 1A - Right-of-Way Line

Exhibit 4-11
Alternative 1A-
Alignment in Relation to Strite House and Property
(1941 Aerial Photography)

In addition to relocation or removal of the Strite House, the portion of the property to be acquired for right-of-way contains the historic garage, historic water tower and historic swimming pool which are considered contributing structures. Due to the concrete structure of the historic pool, it is expected that it would not be possible to relocate the historic pool. Additionally, the historic pool was spring-fed by the seepage spring located on property. Therefore, Alternatives 1A would impact the historic pool and compromise the historical pool setting. The acquisition would also take the original driveway, the front lawn and land on which associated citrus groves were sited; however, citrus trees are no longer present.

Substantial noise impacts are not anticipated with Alternative 1A as the potential relocation of the Strite House would involve on-site relocation of the house on the remaining 20 acres allowing sufficient room to relocate the residence a minimum of 500 feet from the proposed improvements to avoid substantial noise impacts.

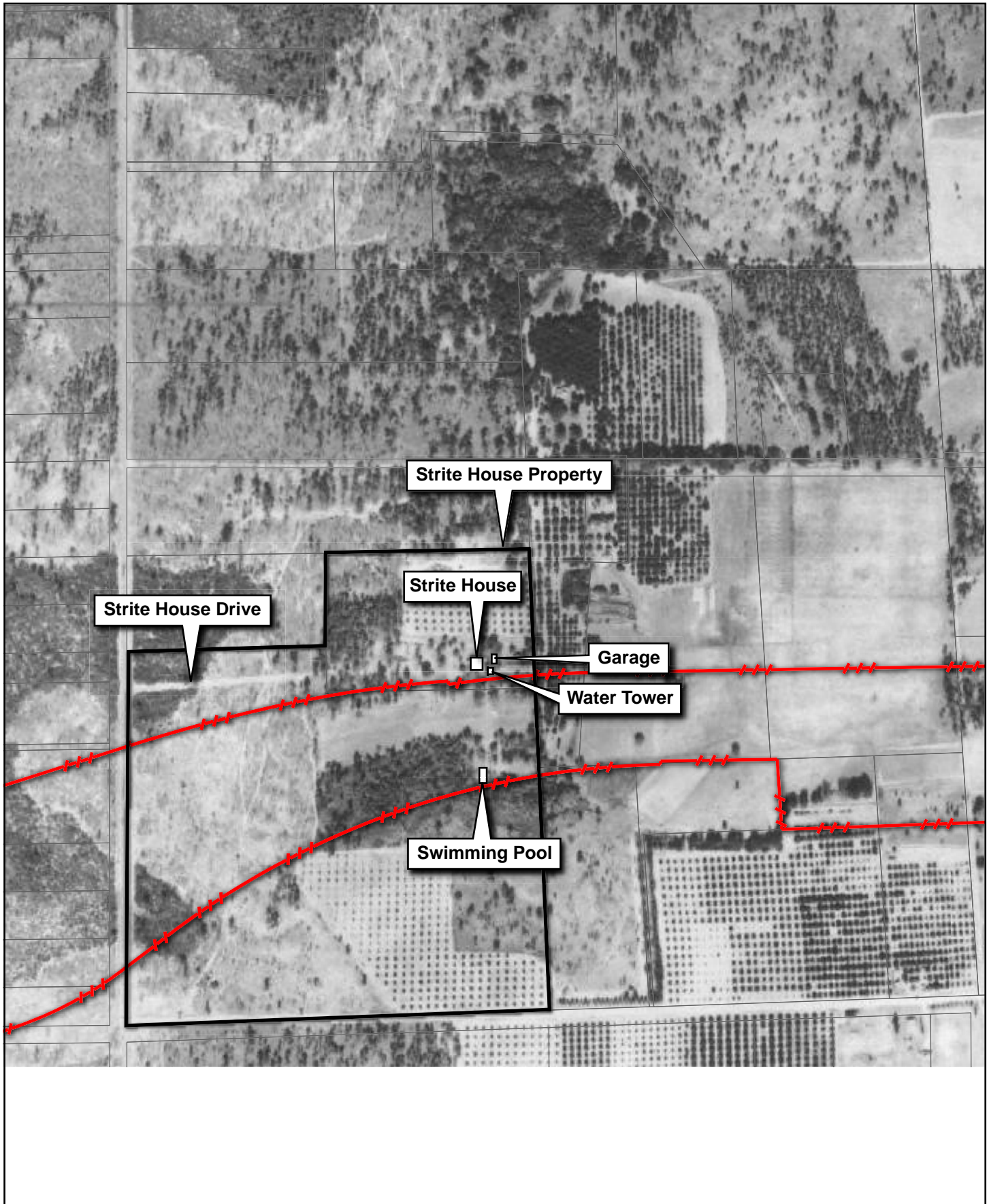
In the vicinity of the Strite House, the Alternative 1A profile would be approximately 16 feet to 25 feet above the existing ground elevation. Although visual impacts are a subjective matter, the viewshed from the historic resource would be affected by Alternative 1. *In summary, the effects of Alternative 1A on the Strite House would be increased as compared to Alternative 1, and Alternative 1A would result in an adverse effect to this historic resource.*

4.4.2.3 Effect of Alternative 1B (Minimization)

Alternative 1B would pass south of the Strite House and result in 16.8 acres of direct use impacts to the Strite property and divide the parcel (see **Exhibit 4-12**). The southern property remnant would consist of approximately 19 acres and would permit direct access to both Haas Road and Plymouth Sorrento Road. Alternative 1B would decrease the usable remnant for potential relocation of the house on the southern portion of the parcel by approximately 9 acres as compared to Alternative 1.

The portion of the property to be acquired for right-of-way contains the historic water tower and historic swimming pool which are considered contributing structures. As with Alternative 1A, the historic pool and the historical pool setting are directly impacted by Alternative 1B. The acquisition would also take the original driveway, the front lawn and land on which associated citrus groves were sited; however, citrus trees are no longer present.

Alternative 1B would avoid the Strite House and, therefore, would not necessarily require relocation of the house. However, the potential for visual effects is notable as the Strite House would be located approximately 89 feet from the edge of travelway of the Wekiva Parkway mainline and approximately 6 feet from the limited access right-of-way line. The traffic noise level with Alternative 1B is predicted to increase from the projected existing level of 49.5 dB(A) to an estimated 63.5 dB(A) in 2032 (the project design year) at the Strite House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A). It would also be less than the FDOT substantial increase criteria of 15 dB(A) above existing levels and would not require consideration of noise abatement. *In summary, the effects of Alternative 1B on the Strite House would be increased as compared to Alternative 1, and Alternative 1B would result in an adverse effect to this historic resource.*



LEGEND

- Parcel Line
- - - - Alternative 1B - Right-of-Way Line

Exhibit 4-12
Alternative 1B-
Alignment in Relation to Strite House and Property
(1941 Aerial Photography)

4.4.2.4 Effect of Alternative 2 (Avoidance)

Alternative 2 would pass north of the Strite House. As stated previously, Alternative 2 would not directly impact the Strite property as the alignment is further west and further north than Alignment 1. The Strite House would be approximately 923 feet from the edge of the Wekiva Parkway mainline travelway (see **Exhibit 4-6**). Alternative 2 introduces a new roadway facility with stormwater ponds through a rural area and will result in noise and visual effects. The traffic noise level with Alternative 2 is predicted to increase from the projected existing level of 49.5 dB(A) to an estimated 58.2 dB(A) in 2032 (the project design year) at the Strite House location. This projected increase would not exceed either the FHWA noise abatement criteria of 67 dB(A) for residential areas/Section 4(f) sites or the FDOT approach criteria of 66 dB(A). It would also be less than the FDOT substantial increase criteria of 15 dB(A) above existing levels and would not require consideration of noise abatement. A review of the projected noise levels indicate the impact will not effect the current uses of the property, nor will the projected noise levels impair or alter the historic context of these resources.

In the vicinity of the Strite House, the Alternative 2 profile would be approximately 16 feet to 25 feet above the existing ground elevation. A review of the visual effects indicate that the viewshed of the roadway will not alter the historic context of the Strite House. *In summary, Alternative 2 would result in no adverse effect to this historic resource. As discussed in Section 4.3.4, Alternative 2 involves overall impacts of extraordinary magnitude in comparison to Alternative 1.*

4.4.3 Summary of Potential Effects to Historic Resources

Table 4-4 summarizes the potential effects of the various design alternatives to the historic resources documented in the previous sections. As summarized in Table 4-4 and the preceding sections, the minimization alternatives (Alternative 1A and 1B) would result in minimized effects to the Bock House (decreased right-of-way impacts, noise effects and visual effects) as compared to Alternative 1; however, these alternatives would also result in increased effects to the Strite House. Alternative 2 avoids direct impact to both the Bock House and Strite House properties, but would have collective environmental, community disruption, social, and cost impacts of extraordinary magnitude in comparison to Alternative 1.

TABLE 4-4
Section 106 Consultation Alternatives – Summary of Potential Effects to Historic Resources

Exhibit Number	Concept (Description)	Bock House – Potential Effects						Strite House – Potential Effects							
		Right-of-Way impacts (acres)	Relocates Historic Residence (Yes/No)	Potential for indirect effects – Distance from house to edge of travelway	Direct impact to other contributing structures ²	Direct impact to other contributing resources (acres of former citrus groves)	Potential Adverse Effect (Yes/No)	Right-of-Way impacts (acres)	Relocates Historic Residence (Yes/No)	Potential for indirect effects – Distance from house to edge of travelway	Southern property remnant available for on-site relocation ³	Existing access to be relocated (Yes/No)	Direct impact to other contributing structures ⁴	Indirect impact to historic pool (direct impact to seepage spring)	Potential Adverse Effect (Yes/No)
4-3	Alternative 1 (Locally Recommended Alternative)	10.2 (includes pond ¹)	No	298 feet	No	.8	Yes	19.5	Yes	N/A – to be relocated	28.5	Yes	2 (Garage, water tower)	No	Yes
4-4	Alternative 1A (shifted south to oak tree line)	4.94	No	573 feet	No	0	Yes	18.3	Yes	N/A– to be relocated	20	Yes	3 (garage, water tower and pool)	Yes – requires bridge over seepage spring	Yes
4-5	Alternative 1B (shifted south to avoid Strite House structure)	4.7	No	671 feet	No	0	Yes	16.8	No	89 feet	19	Yes	2 (water tower and pool)	Yes– requires bridge over seepage spring	Yes
4-6	Alternative 2 (Avoidance Alternative with Boch Rd. realignment west of Bock property)	0	No	460 feet	No	0	No	0	No	923 feet	0	No	None	No	No

¹ Alternative 1 includes a potential pond on the southern remnant of the parcel south of the proposed improvements. As this portion of the property has no proposed access, a pond was proposed to utilize the remnant. Alternative 1A and 1B exclude pond impacts as the ponds are proposed in other locations.

² Other Bock House contributing structures (in addition to Paul Bock House historic residence) include: Garage/Tenants' Quarters

³ Remnant not suitable for roadway or pond construction due to existing seepage slope.

⁴ Other Strite House contributing structures (in addition to Strite House historic residence) include: historic garage, water tower and pool

Coordination

5.1 Public Involvement Activities

The alternatives analysis process for this PD&E Study has provided opportunities for the involvement of participating agencies and the public, and has considered the input provided by these groups. Since the study began in 2005, over 300 meetings have been held with the public (particularly residents and landowners within the study area), federal, state and local agencies, environmental groups, and other stakeholders.

A multi-step alternatives evaluation was undertaken for the proposed Wekiva Parkway project. Through mid 2005, conceptual alignment alternatives within the entire study area were developed and reviewed with the various stakeholders. After extensive analysis under impact assessment criteria and multiple meetings with State and local agencies, numerous Initial Alternatives within the identified study area were presented for public feedback in workshops in November 2005. The Initial Alternatives Public Workshops were held on the dates and at the locations shown below:

- November 9, 2005 – Orange County Public Workshop at Apopka High School
- November 10, 2005 – Lake County Public Workshop at Lake Reception in Mount Dora
- November 14, 2005 – Seminole County Public Workshop at the Sanford Civic Center

A total of 1,147 attendees signed in at the three workshops and 285 comment forms were submitted after the workshops. All public comments were reviewed and responded to in writing. Many of the comments expressed opinions in favor of or against specific alignment alternatives or interchange concepts.

With consideration of the input received, further development of the alternatives was undertaken. After more refinement, evaluation and numerous meetings with multiple stakeholders, the Viable Alternatives were presented for public comment in workshops in July/August 2006. The Viable Alternatives Public Workshops were held on the dates and at the locations shown below:

- July 25, 2006 – Seminole County Public Workshop at the Sanford Civic Center
- July 26, 2006 – Orange County Public Workshop at Apopka High School
- August 1, 2006 – Lake County Public Workshop at Lake Reception in Mount Dora

A total of 1,201 attendees signed in at the workshops and 573 comment forms were submitted after the workshops. All public comments were reviewed and responded to in writing. Many of the comments expressed opinions in favor of or against specific alignment alternatives or interchange concepts/locations.

Subsequent meetings with stakeholders were held and additional refinements to the Viable Alternatives were made. The alternatives selected for further evaluation were initially identified in April 2007, and after additional meetings with the various stakeholders, refinements were made through the end of 2008.

A public workshop in the Lake County East study area was held in December of 2009 to present the service road concept which provides a two-lane, two-way road parallel to the Wekiva Parkway to accommodate non-tolled local trips. That portion of the overall study area is not within the area of focus of this *Case Study Report*.

The overall Locally Recommended Alternative, including Alternative 1 in Orange County, was presented as the Wekiva Parkway (SR 429)/SR 46 Realignment Proposed Build Alternative at three Public Hearing sessions held on the dates and at the locations shown below:

- October 26, 2010 – Orange County, Public Hearing Session No. 1, at VFW Post No. 10147 (Apopka Community Center) in Apopka
- October 27, 2010 – Lake County, Public Hearing Session No. 2, at Lake Receptions in Mount Dora
- October 28, 2010 – Seminole County, Public Hearing Session No. 3, at the Civic Center in Sanford

The draft *Individual Section 4(f) Evaluation for Historic Resources* (April 2010) and the revised draft *Section 106 Documentation and Determination of Effects Case Study Report* (June 2010), along with other study documentation, were made available to the public as part of the Public Hearing process. A total of 1,327 attendees signed in at the three Public Hearing sessions and 232 comment forms were submitted at or after the sessions. All public comments were reviewed by the study team and responded to in writing.

Throughout the project development process, the project team has informed the public on the potential impacts to historic properties (there are no impacts to archaeological resources). Project team members were on-hand to answer questions at the Initial Alternatives Public Workshops, Viable Alternatives Public Workshops, Project Advisory Group (PAG) and Environmental Advisory Committee (EAC) meetings, and at the Public Hearing sessions. In addition, project team members have met several times with local, state, and federal agencies to discuss potential impacts to historic properties. The public involvement process is described in detail in the *Environmental Assessment* and the *Comments and Coordination Package* prepared for this project.

5.2 Section 106 Coordination

In accordance with the Section 106 consultation process, coordination with the State Historic Preservation Officer (SHPO) was initiated by FHWA upon submittal of the draft CRAS in May 2007. A summary of the Section 106 coordination process is provided by copies of correspondence in **Appendix A**. As a result of this coordination, both the Bock House and the Strite House were determined eligible for *NRHP* listing, and the improvements associated with the Proposed Build Alternative in Orange County (Alternative 1) were determined to have an adverse effect on these resources. FHWA has engaged in on-going consultation with the SHPO as required by 36 CFR, Part 800 and regulations implementing Section 106 of the National Historic Preservation Act of 1966 (as amended) regarding the potential impacts of the proposed project and its alternatives on significant historic resources. Additionally, Section 106 consultation with the affected property owners, responsible agencies and other stakeholders has been undertaken to address and resolve issues concerning adverse effects.

In accordance with Section 106 and its public involvement requirements, an initial Cultural Resource Consultation meeting was held on April 21, 2008 with the affected parties and appropriate agencies and organizations. OOCEA and FDOT conducted the meeting with a SHPO representative, the owners of the Strite House and Bock House properties, and other stakeholders including local historians. During that meeting, the Section 106 process and possible avoidance alternatives, minimization alternatives and mitigation measures for the potential adverse effects associated with Alternative 1 were discussed. A copy of the summary of that Section 106 Consultation meeting is included in **Appendix C**.

Upon review of Alternative 1 and Alternative 2, the SHPO representative requested that two minimization alternatives be developed for the Bock and Strite House properties to compare the potential effects for each alternative. As requested at the consultation meeting, two Section 106 minimization alternatives (Alternatives 1A and 1B) were developed and evaluated. As previously discussed in Section 4, Alternative 1A is similar to Alternative 1 with an alignment shift further south to avoid impacts to the mature oak trees on the Bock property. Alternative 1B is similar to Alternative 1 with an alignment shift further south to avoid impacts to the mature oak trees on the Bock property and to avoid the Strite House.

Subsequent to that meeting, the potential effects to these two cultural resources were documented in the draft *Section 106 Documentation and Determination of Effects Case Study Report* (July 2008) prepared for the project. After review of that document, the SHPO concurred with the finding that Alternative 1 would have an adverse effect on both the Paul Bock House and the Strite House, indicated that Alternative 2 should be considered, and requested further coordination in a letter to FHWA dated September 10, 2008 (copy of letter provided in **Appendix A**).

As requested by the SHPO in a project coordination conference call on March 9, 2010, local historians were contacted to obtain their opinion on the relative significance of the Bock House and Strite House properties. Local historian input was requested from both the Orange County Regional History Center and the Apopka Historical Society in March 2010. The representatives from both historical societies indicated they had no specific opinion on the significance of the Bock House and Strite House properties; however, the representatives indicated that they understood the SHPO considered the properties to be significant resources.

During project sponsor consultation with FHWA from September 2008 to April 2010, the potential effects to the two cultural resources were analyzed further and documented as part of the draft *Individual Section 4(f) Evaluation for Historic Resources* (April 2010). Portions of those additional analyses were included in the revised draft *Section 106 Documentation and Determination of Effects Case Study Report* (June 2010). The revised draft *Case Study Report* included the results of the analysis and evaluation of the effects of Alternative 1, two minimization alternatives, and an avoidance alternative. The SHPO reviewed the revised draft *Case Study Report* and provided comments on it to FHWA in a letter dated July 6, 2010 (see **Appendix A**). Thereafter, a second Section 106 Cultural Resource Consultation meeting was held on August 16, 2010 with the affected parties and appropriate agencies and organizations, including SHPO, FHWA, the property owners, the Apopka Historical Society, and the Orange County Regional History Center. At that meeting, the proposed effects to the Strite House and Bock House historic resources, and potential measures to

minimize and/or mitigate adverse effects, were discussed. A copy of the summary of that Section 106 Consultation meeting* is included in **Appendix C**.

After FHWA approval of the draft *Environmental Assessment* for public availability on August 20, 2010, the Locally Recommended Alternative was presented as the Proposed Build Alternative at three Public Hearing sessions held in Orange, Lake, and Seminole Counties in October 2010 as previously discussed in Section 5.1. At each of the Public Hearing sessions, all of the Initial and Viable Alternatives analyzed in the PD&E Study were addressed and were depicted on large display boards for public review. For the two historic resources, the draft *Section 106 Documentation and Determination of Effects Case Study Report* and the draft *Individual Section 4(f) Evaluation* were specifically referenced and both documents, which contain the alternatives discussed in this Case Study, were made available for public review in hard copies and on-line before, during and after the Public Hearing sessions. It was clearly stated at the Public Hearing sessions that the Proposed Build Alternative would have adverse effects on the Strite House and Bock House historic resources. There were no public comments received during or after the Public Hearing regarding the alternatives and/or effects to the Bock House and Strite House properties. Comments from the affected property owners and other stakeholders have been addressed during the course of the PD&E Study public involvement process and in the two Section 106 Consultation meetings held on April 21, 2008 and August 16, 2010. Subsequent to the Public Hearing comment period, the affected property owners have contacted the PD&E Study Team to inquire about the status of the project.

The Locally Preferred Alternative (i.e., the Proposed Build Alternative presented at the Public Hearing sessions) was selected at duly noticed public meetings/hearings held by the Seminole County Expressway Authority Board on November 9, 2010, the Lake County Board of County Commissioners on December 7, 2010, and the Orlando-Orange County Expressway Authority Board on December 14, 2010.

5.2.1 Memorandum of Agreement between FHWA and the SHPO

Following the Public Hearing sessions and comment period, and after formal selection of the Locally Preferred Alternative, preparation began on a draft *Memorandum of Agreement* (MOA) between FHWA and the SHPO to address minimization and/or mitigation of adverse effects to the two historic resources. FHWA, in cooperation with the project sponsors (OOCEA and FDOT), developed a draft MOA which contained minimization and/or mitigation measures that are consistent with those discussed at the second Section 106 Consultation meeting. FHWA then transmitted the draft MOA to the SHPO for review and comment. On June 15, 2011, the SHPO staff advised FHWA that the draft MOA was acceptable. The final MOA document was then circulated for review, approval and signature by the FHWA Florida Division Administrator and the SHPO, with concurrence

*During the second Section 106 Consultant meeting, the Bock House property owner's representative requested a reevaluation of the out-buildings for historical significance. Members of the study team revisited the site on January 4, 2011 to conduct the requested reevaluation. The NPS forms and photographs which document the results of that reevaluation are provided in **Appendix D**. In the opinion of the cultural resource surveyors, the out-buildings do not meet significance criteria and are considered non-contributing. The improvements associated with the Proposed Build Alternative take two of the non-historic and non-contributing out-buildings, one metal shed and a former feed shed; they are described and depicted in the NPS forms and photographs provided in **Appendix D**.

signatures by the FDOT District Five Secretary and the OOCEA Executive Director. A copy of the executed MOA is provided in **Appendix E**.

5.2.2 SHPO Concurrence

The project sponsors submitted the final *Section 106 Documentation and Determination of Effects Case Study Report* to FHWA in July 2011. FHWA transmitted a copy of the document to the SHPO. After review of the document, FHWA approved it and signed the sufficiency form on October 11, 2011 with the condition that some revisions would be made to the *Case Study Report* by the project sponsors. On October 18, 2011, the SHPO signed the sufficiency and concurrence form. This revised final *Case Study Report* dated November 2011 incorporates the revisions requested by FHWA. The sufficiency and concurrence form signed by the SHPO, and the list of revisions made to this document at the request of FHWA, are attached to a July 26, 2011 letter from FDOT to FHWA which is provided in **Appendix F**.

SECTION 6

Conclusions

This *Section 106 Evaluation and Determination of Effects Case Study Report* documents the potential effects of the Wekiva Parkway Proposed Build Alternative in Orange County and the Section 106 consultation alternatives (minimization alternatives and the avoidance alternative) to the *NRHP*-eligible Paul Bock House and Strite House within the project APE. The Criteria of Effect as defined by the Section 106 regulations, as defined in 36 CFR Part 800.5, were applied to the two historic resources.

The Proposed Build Alternative will have **adverse effects** on the Paul Bock House and Strite House due to right-of-way acquisition. The right-of-way acquisition will affect the historic connection between the Paul Bock House and its associated land as well as the integrity of the historic setting. The Proposed Build Alternative will also have a direct effect on the Strite House and contributing ancillary structures, as it will require the complete acquisition of the house and several contributing resources.

Consistent with discussions at the second Section 106 Consultation meeting held on August 16, 2010, measures to minimize and/or mitigate effects to the two historic resources have been addressed in a *Memorandum of Agreement* (MOA) dated June 2011 between FHWA and the SHPO. As mentioned in Section 5.2.1, a copy of the executed MOA, signed by the FHWA Florida Division Administrator and the SHPO, with concurrence signatures by the FDOT District Five Secretary and the OOCEA Executive Director, is provided in **Appendix E**. Listed below is a general summary of the measures addressed in the MOA.

6.1 Minimization/Mitigation of Harm to Bock House Property

Measures to minimize and/or mitigate effects to the Bock House Property include:

- Historic American Building Survey (HABS) standard photography and documentation,
- Repairs to the Bock House, and
- Landscape screening between the historic structures and the proposed roadway.

6.2 Minimization/Mitigation of Harm to Strite House Property

Measures to minimize and/or mitigate effects to the Strite House Property include:

- HABS standard photography and documentation,
- Relocate Strite House and contributing structures, if feasible, to south end of the Strite property,
- Exterior rehabilitation of relocated historic structures, and
- Landscape screening between the historic structures and the proposed roadway.

After coordination with all required consulting parties, the resolution of adverse effects has been documented in accordance with Section 106 and in compliance with the requirements mandated by Section 4(f) of the U.S. Department of Transportation Act (USDOT) of 1966 [Title 49, USC, Section 303] and [Title 23, USC, Section 138]; as amended.

SECTION 7

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