

**WETLANDS EVALUATION
AND
BIOLOGICAL ASSESSMENT
MEMORANDUM**

**I-75 (SR 93)
PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
from north of SR 52 to south of CR 476B
Pasco, Hernando, and Sumter Counties; Florida
Work Program Item Segment Number: 411014 1
Federal Aid Project Number: 0751-120I**



Prepared for:
**Florida Department of Transportation
District Seven**
11201 North McKinley Drive
Tampa, Florida 33612-6476

June 2007

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Prepared by:

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June 2007

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) has conducted a Project Development and Environment (PD&E) Study to evaluate capacity improvements along the segment of Interstate Highway I-75 -State Road (SR) 93- that extends from just north of SR 52 in Pasco County, through Hernando County, to just south of County Road (CR) 476B in Sumter County, Florida. The length of this segment is approximately 20.8 miles. The design year for the improvements is 2030.

The objectives of this *Wetland Evaluation and Biological Assessment Memorandum* were to evaluate the potential effects of the project improvements on the existing wetlands and federal- and state-listed threatened and endangered species in the study area and to identify available avoidance, minimization, mitigation and/or compensation measures to address these effects.

I-75 will be widened within its current right-of-way. However, some of the upland and wetland habitats outside the current right-of-way will be affected due to the construction of the stormwater management facilities or –for the WSF – Croom Tract– the storage of stormwater in natural depression areas and the expansion of the interchanges at CR 41 and SR 50. All effects will be mitigated as not to have a net negative affect on wetlands and resources involved.

A total of 30 aquatic features (does not include swales) have been identified along the project corridor that have the potential to be impacted by the proposed improvements. All wetlands affected by the project have been grouped and classified according to the USFWS’s Classification of Wetlands and Deepwater Habitats of the United States and the Florida Land Use/Cover and Forms Classification System. It is estimated that a total of 35.24 acres of wetlands will be affected by the proposed improvements.

It was determined that the proposed project will not likely have an adverse affect or jeopardize the existence of any federally- and/or state-listed threatened or endangered species, even though they are known or expected to occur in the study area. The project should have **no effect** on the bald eagle. The project **may affect** the wood stork as the

project is very close to a known rookery. The project is **not likely to adversely affect** the eastern indigo snake with use of the proposed construction conditions. Furthermore, the proposed project is not located in an area designated as critical habitat by the U.S. Department of the Interior.

This *Wetlands Evaluation and Biological Assessment Memorandum* has been reviewed by the US Fish and Wildlife Service (USFWS) which has concurred, in a letter dated December 7, 2006, that the planned action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). A copy of the USFWS letter is provided in **Appendix E** of this document.

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1.0 INTRODUCTION

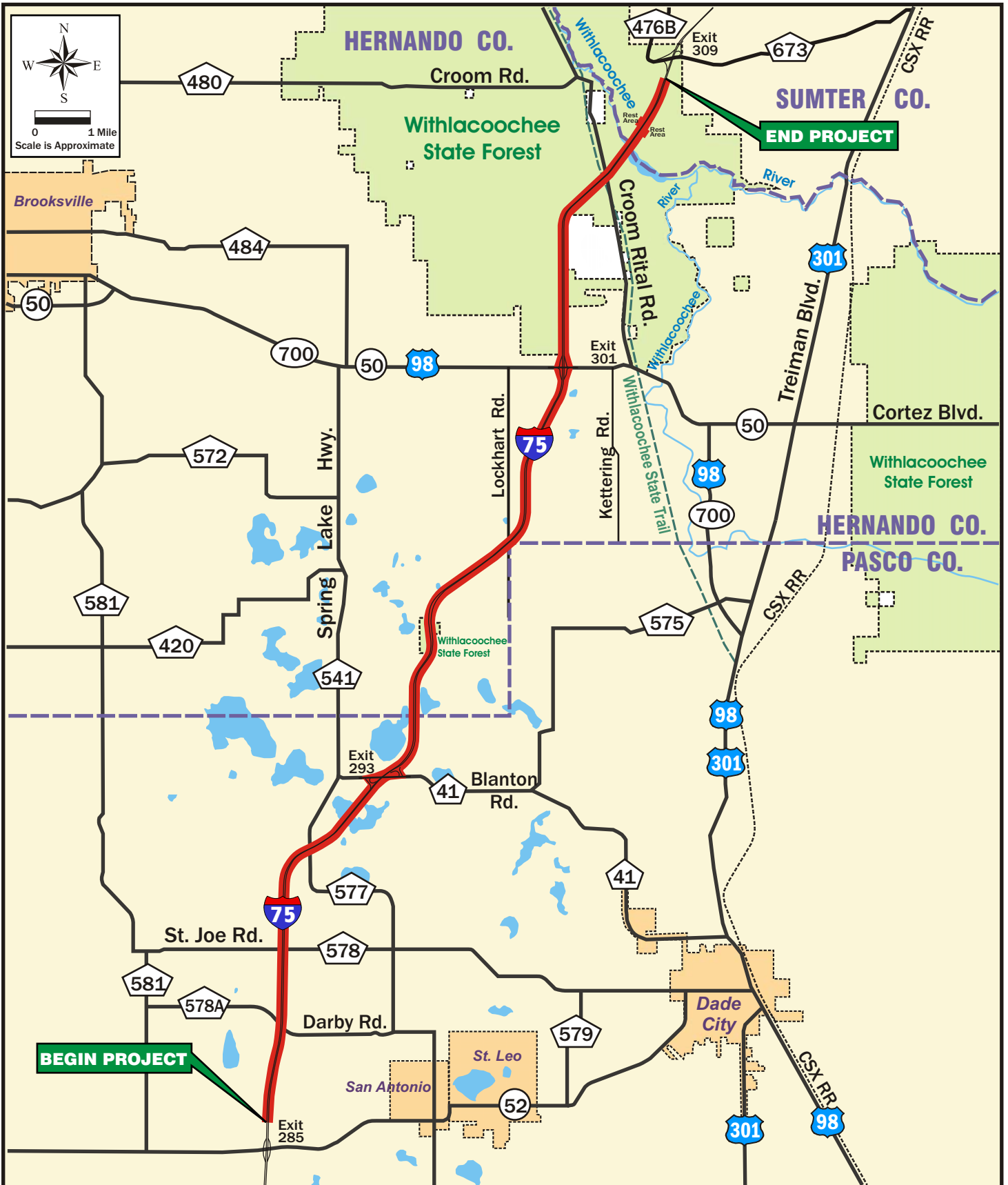
The Florida Department of Transportation (FDOT) has conducted a Project Development and Environment (PD&E) Study to evaluate capacity improvements along the segment of Interstate 75 (I-75) -State Road (SR) 93- that extends from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida. The length of this segment is approximately 20.8 miles. The design year for the improvements is Year 2030. **Exhibit 1-1** illustrates the location and limits of this project.

1.1 Purpose

The objective of this PD&E Study is to document the engineering and environmental analyses that were performed for this project so that the FDOT and the Federal Highway Administration (FHWA) can reach a decision on the type, location, and conceptual design of the necessary improvements of I-75 to accommodate future traffic demand in a safe and efficient manner. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvement alternatives. Information related to the engineering and environmental characteristics, which are essential for the alternatives analysis, was collected. Design criteria were established and preliminary alternatives were developed. The comparison of alternatives was based on a variety of parameters utilizing a matrix format. This process identified the alternative that would have minimal effects, while providing the necessary improvements.

The PD&E Study also satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), in order for this project to qualify for federal-aid funding of subsequent development phases (design, right-of-way acquisition, and construction).

This *Wetland Evaluation and Biological Assessment Memorandum* is among the various independent reports that were prepared as part of this PD&E study to assess the potential effects of the project improvements. The objectives of this document are to evaluate the potential effects of the project improvements on the existing wetlands and federal- and state-listed threatened and endangered species in the study area and to identify available



BEGIN PROJECT

END PROJECT



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Project Location Map

Exhibit 1-1

avoidance, minimization, mitigation and/or compensation measures to address these effects.

The *Wetlands Evaluation and Biological Assessment Memorandum* has been reviewed by the US Fish and Wildlife Service (USFWS) which has concurred, in a letter dated December 7, 2006, that the planned action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). A copy of the USFWS letter is provided in **Appendix E**.

1.2 Project Description

1.2.1 Project Background

I-75 is an interstate, limited access freeway. It is included in the State Highway System (SHS), designated as SR 93, the Florida Intrastate Highway System (FIHS), the Strategic Intermodal System (SIS), and the Federal Aid Interstate System. I-75 also serves as a major evacuation route throughout the state. According to FIHS standards, all of the I-75 components (mainline, ramps, merge/diverge areas) should provide adequate capacity to operate at level of service (LOS) “C” or better.

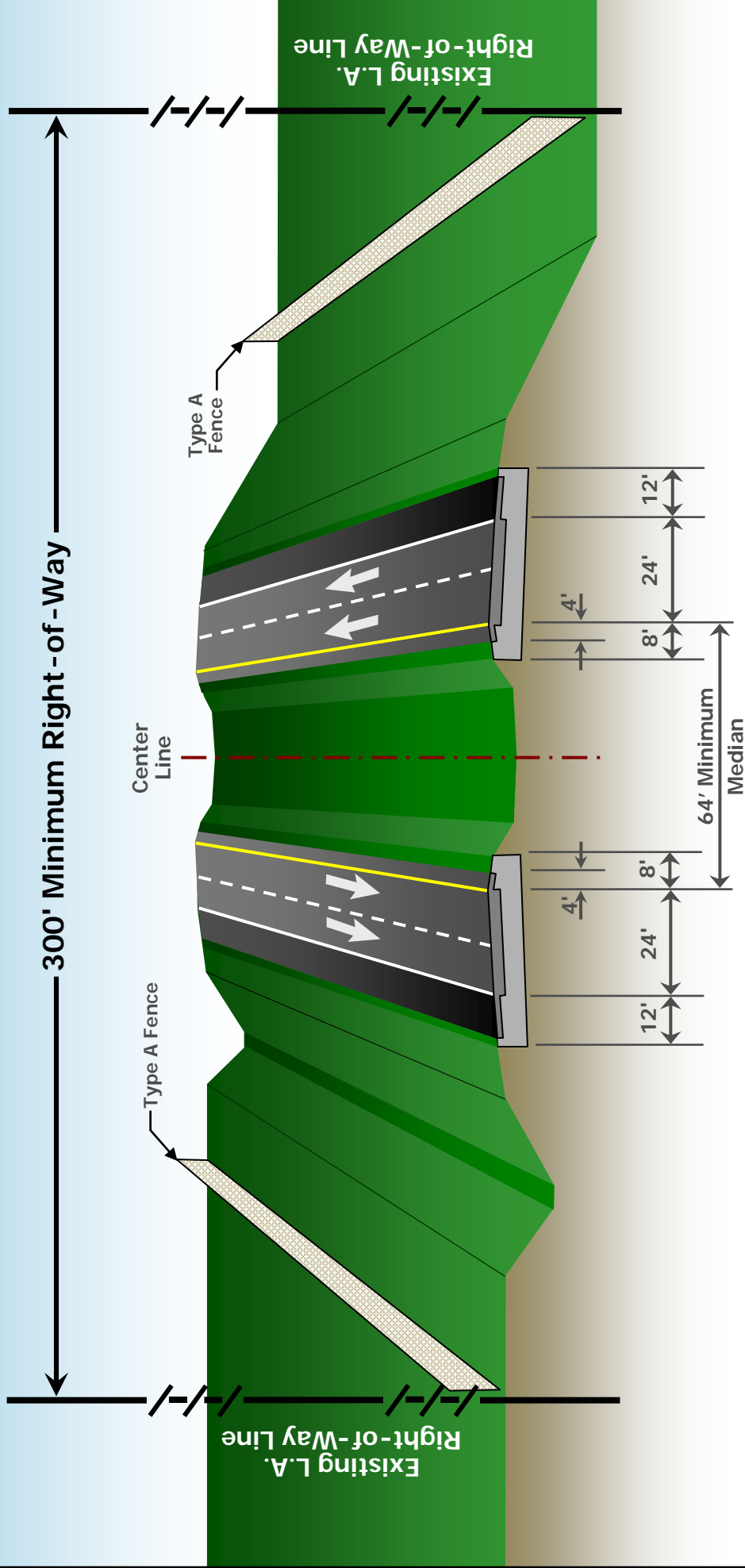
1.2.2 The Study Area

As noted before, the study area for this project extends from just north of SR 52 in Pasco County to just south of County Road (CR) 476B in Sumter County, Florida; a distance of approximately 20.8 miles.

Presently, within the project limits, I-75 is a four-lane, divided, limited access, rural highway that generally occupies 300 feet of right of way. **Exhibit 1-2** displays the existing typical section of I-75. No major improvements have been made to this segment of I-75 since its original construction in the 1960s.

The study area includes two interchanges and two rest areas (one in each direction). More specifically, a partial cloverleaf interchange is currently provided at Blanton Road (CR 41) approximately 6.3 miles north of SR 52 in Pasco County and a diamond interchange is present at Cortez Road (US 98/SR 50), approximately 9.3 miles north of

Roadway Typical Section



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I-75 Mainline Existing Typical Section

CR 41 in Hernando County. The rest areas are located approximately 4.9 miles north of SR 50, in Sumter County.

From north of SR 50 to the northern terminus of the project, the Withlacoochee State Forest (WSF) abuts the entire western border of I-75 and most of its eastern border. At the Hernando/Sumter County Line, approximately 1.5 miles from the northern project terminus, I-75 crosses the Withlacoochee River.

To facilitate development and evaluation of the improvement alternatives, the project was divided into three segments:

- Segment 1: from north of SR 52 to the Pasco/ Hernando county line; 7.8 miles
- Segment 2: from the Pasco/Hernando county line to SR 50; 7.0 miles
- Segment 3: from SR 50 to just south of CR 476B; 6.0 miles.

1.2.3 Need for the Project

The need for improving I-75 within the project limits was established after consideration of the following factors:

- Evaluation of the current and future contribution of I-75 in accommodating regional travel and its importance in providing system-wide linkage within the overall roadway network.
- Review of the federal and state policies regarding I-75 and, where applicable, study of the comprehensive plans and the long-range transportation plans of the local governments involved in this project.
- Assessment of current and future social and economic demands.
- Study of the interrelationships of I-75 with other modes of transportation.
- Evaluation of the quality of traffic operations in the study area for the design year assuming that no capacity improvements will be implemented along this corridor (No-Build Alternative).
- Analyses of the traffic safety statistics for the period between 1999 and 2003.
- Comparison of the geometric characteristics of I-75 with current design standards as well as research of records for structural deficiencies along the project.

1.2.4 Improvement Alternatives

According to the Traffic Technical Memorandum –prepared for this study under separate cover– the annual average daily traffic (AADT) volumes along I-75 during the design year 2030 should be expected to range from 90,000 to 107,400 vehicles per day (vpd). To accommodate this projected transportation demand at the SIS standard for this facility of LOS “C”, I-75 will need to be widened to an eight-lane highway with four travel lanes in each direction. Also, improvements will be needed at the interchanges of I-75 with CR 41 and SR 50. **Appendix A** provides the conceptual plans for the I-75 improvements. A detailed description of the improvements is provided in Section 9.0 of the Preliminary Engineering Report, prepared for this study.

Based on the current FDOT design criteria, the widening of I-75 to provide eight through lanes –four in each direction– can be accommodated within its existing 300-foot-wide right-of-way. Additional right-of-way, however, would be required for interchange improvements and for stormwater management facilities (SMFs). Depending on where the additional through lanes will be placed in relation to the existing lanes, three typical section alternatives were developed. To minimize costs and effects to natural resources, the final recommendation for widening I-75 may consist of a combination of the alternatives described below:

- **The “Inside” Widening Alternative:** The “Inside” Widening Alternative proposes construction of the additional four lanes into the existing median. The existing 64.0-foot-wide median is not wide enough to accommodate the two additional lanes and standard shoulder widths. An additional narrow 5.0-foot widening would also be necessary on the outside of the existing lanes. The resulting median width would be 26.0 feet wide, 38.0 feet less than the standard minimum median width for this type of facility. Therefore, concrete median barrier would need to be placed along the center of the roadway and a design variation will be required. The border width would also be reduced from 94.0 feet to 89.0 feet which would require an additional design variation.
- **The “Inside & Outside” Widening Alternative:** The “Inside & Outside” Widening Alternative proposes, for each direction, the construction of one

additional lane within the median and one additional lane to the outside where the existing outside shoulder is presently located. Since the remaining median after the construction of the four new lanes would be 40.0 feet wide, 24.0 feet less than the standard minimum median width for this type of facility, guardrail would need to be placed along the median and a design variation would be required. The border width would also be reduced from 94.0 feet to 82.0 feet which would require an additional design variation.

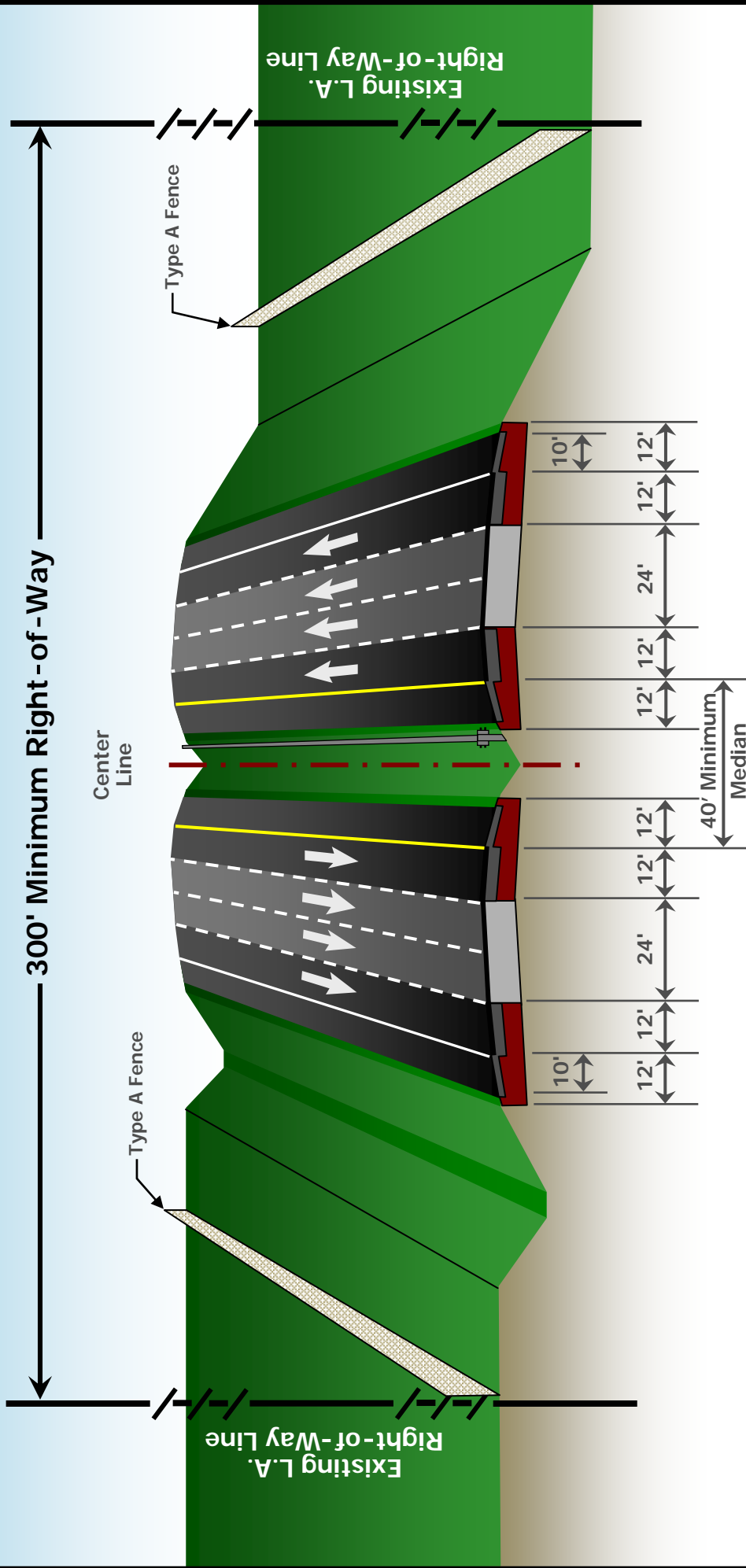
- **The “Outside” Widening Alternative:** The “Outside” Widening Alternative proposes, for each direction, the placement of two additional lanes along the outside of the two existing lanes. The existing lanes would need to be overbuilt with additional asphalt to slope the inside lane into the median to alleviate having four travel lanes sloped in one direction. The remaining border after the construction of the two new lanes would be 70.0 feet wide, 24.0 feet less than the standard minimum border width for this type of facility. Therefore, a design variation and/or acquisition of additional right-of-way would be required.

After evaluation of the advantages and disadvantages of each of these alternatives, the “Inside & Outside” widening alternative was selected as the most suitable for this project. **Exhibit 1-3** depicts the proposed typical section for the mainline of I-75 based on this alternative.

2.0 STORMWATER MANAGEMENT

An Alternative Stormwater Management Facility Report has been prepared for this PD&E Study under separate cover. The drainage system for the planned I-75 improvements will be designed in accordance with standards contained in the FDOT Drainage Manual, including Chapter 14-86, and SWFWMD Rule criteria for open or closed basins, as applicable. Stormwater treatment and attenuation is anticipated to be accomplished through the use of detention/retention ponds and swales in accordance with SWFWMD/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP) rules (Chapters 40D-1, 40D-4, 40D-40, 40D-41, and 40D-400, F.A.C.). Natural depression areas are to be used for stormwater storage in the WSF -

Roadway Typical Section



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Proposed Eight-Lane Typical Section For the Mainline of I-75

Exhibit 1-3



Croom Tract. The applicable type of stormwater management facility is generally dependent upon topographic constraints, seasonal high water table depth, and soil types and permeability encountered. The overall direction of the groundwater potentiometric surface is from south to north.

The planned roadway improvements may require extensions to cross drains and roadside ditches will be utilized along the proposed alignment for conveyance toward the stormwater management facilities.

3.0 EXISTING ENVIRONMENTAL CONDITIONS

In Pasco County, the Withlacoochee, Hillsborough, Pithlachascotee and Anclote Rivers are the major waterways (USDA 1982:5). In addition, over 190 lakes are located throughout Pasco County, including Lake Iola, Moody Lake, and Mud Lake near the I-75 corridor. Stanley Branch, Bee Tree Branch, and Cypress Creek also cross the project corridor. Hernando County is situated within the Middle Gulf Hydrologic System (Cherry et al. 1970). The major and permanent streams are the Withlacoochee, Little Withlacoochee, and Weeki Wachee Rivers (USDA 1977). Numerous small streams and creeks are located in the coastal areas. Springs are also common along the coast. Of the approximate 130 lakes scattered throughout Hernando County, those located proximate to the I-75 corridor include McClendon, Robinson, and Oriole Lakes. During the Late Pleistocene/Early Holocene, many of these water features were non-existent. The Withlacoochee and Little Withlacoochee Rivers also flow through part of Sumter County. The former forms the line dividing Hernando and Sumter Counties. Several waterways, including the Dead River, Outlet River, and Jumper Creek discharge into the Withlacoochee River (USDA 1988:2). Wild Cow Prairie, another wetland feature near the project area, is situated at the northern end of the project area. Elevations throughout the project corridor range from about 55 feet National Geodetic Vertical Datum (NGVD) of 1929 at the northern end of the project to about 200 feet at the southern end.

4.0 WETLANDS

In accordance with Executive Order 11990, “Protection of Wetlands” (May 1977), the proposed project has been evaluated for potential effects to wetlands. Wetland locations and boundaries were identified and delineated in the fall of 2005 and spring of 2006. Habitat mapping for areas impacted by this project are provided in **Appendix A**.

4.1 Vegetative Communities

Upland and wetland communities that occur within the study area were identified using National Wetlands Inventory (NWI) maps, the Natural Resources Conservation Service’s (NRCS (formerly the Soil Conservation Service)), Soil Surveys for Pasco, Hernando, and Sumter Counties, U.S Geological Survey (USGS) topographical maps, and aerial photographs. Field surveys to verify natural community types were conducted in the Fall of 2006. Several different plant communities were found, with many of them interspersed with each other. The plant communities are differentiated between upland and wetland communities. These include five upland categories and five wetland categories.

The upland and wetland communities were classified according to the Florida Land Use, Cover and Forms Classification System (FLUCFCS) and U.S. Fish and Wildlife Service (USFWS) Classification in accordance with the “Classification of Wetlands and Deepwater Habitats of the United States” (Cowardin, et al., 1979). Descriptions of these communities are provided below:

4.2 Upland Communities

4.2.1 Upland Hardwood Forests

This upland community commonly has a variety of oak species in the overstory including live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*) and water oak (*Quercus nigra*). Other hardwoods found in this community are sweetgum (*Liquidambar styraciflua*), hickory (*Carya* sp.), and sugarberry (*Celtis laevigata*). Cabbage palm (*Sabal palmetto*) can also be found in the mixed hardwoods. Ground cover and midstory species include young of the overstory, tree sparkleberry (*Vaccinium arboreum*), saw

palmetto (*Serenoa repens*), American beautyberry (*Callicarpa virginiana*), Virginia creeper (*Parthenocissus quinquefolia*), skunkvine (*Paederia foetida*), greenbriar (*Smilax* sp.), and muscadine grape (*Vitis rotundifolia*). The FLUCFCS code is 420.

4.2.2 Hardwood/Conifer Mixed

This community type is an upland forest co-dominated by hardwoods and conifers. This community includes the hardwoods and groundcover mentioned above (Upland Hardwood Forests) but also includes conifer species such as slash pine (*Pinus elliottii*) and long leaf pine (*Pinus palustris*). The FLUCFCS Code is 434.

4.2.3 Coniferous Plantation

Two types of trees are associated with this cover type along the project: Slash pine and sand pine (*Pinus clausa*). Groundcover includes saw palmetto, prickly pear cactus (*Opuntia* sp.), blackberry (*Rubus* sp.) and greenbriar. The FLUCFCS Code is 441.

4.2.4 Improved Pasture

This category is composed of land that has been cleared, tilled, re-seeded with specific grass types such as bahia grass (*Paspalum notatum*) and periodically improved with brush control. The FLUCFCS Code is 211.

4.2.5 Unimproved Pasture

This category includes cleared land with major stands of trees and brush where native grasses have been allowed to develop. Species include broomsedge (*Andropogon* sp.), wax myrtle (*Myrica cerifera*), saltbush (*Baccharis* sp.) and bahia grass. The FLUCFCS Code is 212.

4.3 Wetland Communities

4.3.1 Freshwater Marsh

This community, along the project limits, has water regimes that range from temporarily flooded to permanently flooded. The freshwater marshes have a variety of emergent

species which include water primrose (*Ludwigia peruviana*), cattail (*Typha* sp.), duck potato (*Sagittaria latifolia*), soft rush (*Juncus effuses*), panic grass (*Panicum* sp.), and American lotus (*Nelumbo lutea*). Some of the freshwater marshes are associated with lakes in the area but the open water portions of the lakes are outside the impact areas of this project. The FLUCFCS Code is 641. The National Wetlands Inventory Classification is Palustrine Emergent (PEM).

4.3.2 Forested Wetland

This community has a variety of hardwood species adapted to life in wet environments and has water regimes that are mostly controlled by seasonal rain events. The species include laurel oak (*Quercus laurifolia*), sweetgum, blackgum (*Nyssa sylvatica*), cabbage palm (*Sabal palmetto*), red maple (*Acer rubrum*), cypress (*Taxodium* sp.), and Carolina willow (*Salix caroliniana*) with a good component of vines such as greenbriar. The FLUCFCS Code is 610. The National Wetlands Inventory Classification is Palustrine Forested (PFO).

4.3.3 Riverine

This community includes streams, creeks, and rivers. Water regimes range from temporarily flooded to permanently flooded. Some of the streams have marsh species such as water primrose, especially in the right of way. The FLUCFCS Code is 510. The National Wetlands Inventory Classification is Palustrine Unconsolidated Bottom (PUB).

4.3.4 Scrub/Shrub

This community has a water regime that is mostly controlled by seasonal rain events and ranges from seasonally flooded to permanently flooded. Some of the scrub/shrub wetlands are associated with lakes in the area but the open water portions of the lakes are outside the impact areas of this project. The dominant species in this wetland type along the project is Carolina willow with some buttonbush (*Cephalanthus occidentalis*). Some emergent marsh species such as cattail and soft rush can also be found in this community. The FLUCFCS Code is 631. The National Wetlands Inventory Classification is

Palustrine Scrub Shrub (PSS).

4.3.5 Man Made (Swale)

This community is associated with stormwater management facilities currently in place to serve the I-75 corridor. It includes swales, ditches and wet retention areas. The vegetation in these areas mostly resembles the emergent vegetation found in freshwater marshes such as cattail and duck potato. The FLUCFCS Code is 641. The National Wetlands Inventory Classification is Palustrine Emergent (PEMx). Note: x denotes excavated.

4.4 Wetland Effects

A total of 30 aquatic features (does not include swales) have been identified along the project corridor that have the potential to be impacted by the proposed improvements. All wetlands affected by the project have been grouped and classified according to the USFWS’s Classification of Wetlands and Deepwater Habitats of the United States and the Florida Land Use/Cover and Forms Classification System.

4.5 Proposed Conditions

It is anticipated that all widening will occur within the current right-of-way for the I-75 corridor. However, some of the upland and wetland habitats outside the current right-of-way will be affected due to the construction of the stormwater management facilities or, for the WSF – Croom Tract, the storage of stormwater in natural depression areas. **Table 1** quantifies the wetland effects per wetland type. All effects will be mitigated.

Table 1 - Wetland Effects (Acres) by Wetland Type

Wetland Type	NWI	FLUCFCS	Impact (acres)
Freshwater Marsh	PEM	641	3.34
Forested Wetland	PFO	610	23.90
Riverine	PUB	510	3.17
Wetland Scrub	PSS	631	2.32
Man-Made Swale & Wet Retention	PEMx	641	2.51
Total			35.24

4.6 Functional Analysis

The Uniform Mitigation Assessment Method (UMAM) analyses were conducted to assess wetland functions and values for the representative wetlands within the study corridor. The final rating is expressed numerically with a number between 0 and 1, with 1 representing the highest quality wetland; 0 reflecting low quality.

Four UMAMs were performed on representative wetland types. Scores reflect current conditions only. The scores were 0.4 for the stream, 0.7 for the scrub/shrub, 0.3 for the freshwater marsh, and 0.6 for the forested wetland. The UMAM data sheets are included in **Appendix B**.

4.7 Coordination with the Permitting Agencies

Environmental permits will be required from the following agencies:

- U.S. Army Corps of Engineers (ACOE)
- Southwest Florida Water Management District (SWFWMD)
- Florida Department of Environmental Protection (FDEP)
- National Pollution Discharge Elimination System (EPA)

4.8 Wetland Effects Mitigation

There are no practical alternatives to this construction in wetlands. All practicable measures will be used to reduce harm to wetlands. Short term construction related effects will be minimized by the adherence to FDOT's "Standard Specifications for Road and Bridge Construction."

There are several options available for FDOT to compensate for the anticipated wetland effects. FDOT may participate in a public or private mitigation bank provided wetland credits are available for use on this project during the permitting and final design phase. Another option would be to create, restore, enhance, or preserve wetlands in the project's watershed. Depending on the type or combination of types employed, the offsetting ratios will vary considerably. Adhering to SWFWMD's Environmental Resource Permitting Information Manual, mitigation ratio guidelines will be 2:1 to 5:1 (created/restored) for forested effects and 1.5:1 to 4:1 for non-forested effects. The

estimated ratio for enhancement will range from 4:1 to 20:1 and the ratio for wetland preservation will be in the range of 10:1 to 60:1.

Another option available to the FDOT would be to utilize Chapter 373.4137 of the Florida Statutes. This legislation allows the Department to offset wetland effects with a monetary payment through the Department of Environmental Protection to the Southwest Florida Water Management District. The Water Management District will then provide a regional wetland mitigation plan on an annual basis to be approved by the Florida State Legislature, which will include mitigation for specific FDOT project effects.

The above options will be explored and utilized during the final design phase during the permitting negotiations.

4.9 Essential Fish Habitat

There is no Essential Fish Habitat associated with this project.

4.10 Outstanding Florida Waters (OFW)

The Withlacoochee River system is an OFW.

5.0 WILDLIFE AND HABITAT

Suitable habitat for federally listed species was investigated for presence or absence by FDOT staff. Surveys were then conducted in each habitat type for species known to occur or utilize the classified habitats. These surveys were performed in the Fall of 2005 and Spring of 2006. In addition, random surveys were performed along the corridor throughout the duration of the study to obtain data on resident and transient species. Habitat mapping can be found in the appendix for all areas impacted by this project.

5.1 Threatened and Endangered Species

This project occurs through a predominantly rural part of the state. Agriculture land, forested uplands, and wetlands –which make up the majority of the study area– are home to a variety of common wildlife as well as having the potential for rare and listed species. The species described in the following sections were either observed by project

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biologists, have historic occurrences in the area as gleaned from the State's listed species database, or possibly occur because their preferred habitat is present. **Table 2** presents the state- and federally-listed species with the potential to occur in the study area. A map provided in **Appendix C** depicts the location of the listed species in the study area.

Table 2 - Federally and State Listed Species Potentially Occurring in the Study Area

SCIENTIFIC NAME	COMMON NAME	USFWS	FWC	OBSERVED
AVIAN				
<i>Aramus guarana</i>	Limpkin		SSC	
<i>Mycteria americana</i>	Wood stork	E	E	
<i>Egretta caerulea</i>	Little blue heron		SSC	
<i>Egretta rufescens</i>	Reddish egret		SSC	
<i>Egretta thula</i>	Snowy egret		SSC	
<i>Egretta tricolor</i>	Tricolored heron		SSC	
<i>Eudocimus albus</i>	White ibis		SSC	
<i>Grus canadensis</i>	Florida sandhill crane		T	X
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	T	X
<i>Atiencunicularia floridana</i>	Florida burrowing owl		SSC	
<i>Falco sparverius paulus</i>	Southeastern American kestrel		T	
MAMMALS				
<i>Podomys floridanus</i>	Florida mouse		SSC	
<i>Sciurus niger shermanii</i>	Sherman's fox squirrel		SSC	
REPTILES & AMPHIBIANS				
<i>Drymarchon corais couperi</i>	Eastern indigo snake	T	T	
<i>Gopherus polyphemus</i>	Gopher tortoise		SSC	X
<i>Alligator mississippiensis</i>	American alligator		SSC	X
<i>Rana capito</i>	Gopher frog		SSC	
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake		SSC	

USFWS - United States Fish and Wildlife Service
FWC - Florida Fish and Wildlife Conservation Commission
E - Endangered
T - Threatened
SSC - Species of Special Concern

5.1.1 Federally Listed Species

No federally threatened or endangered floral species were observed or are known to occur within the project corridor. The entire corridor was surveyed on numerous occasions, strongly indicating the absence of these species. Faunal species federally classified as threatened or endangered that are present or have the potential to be present include the American bald eagle (*Haliaeetus leucocephalus*), wood stork (*Mycteria Americana*) and eastern indigo snake (*Drymarchon corais couperi*). It should be noted that the federally listed species are also listed by the State.

A description of the federally listed species with the potential to occur in the study area follows below:

- **American Bald Eagle:** The bald eagle (*Haliaeetus leucocephalus*) is a threatened species with a preferred habitat that is primarily riparian, either associated with the coast or with lake and river shores, usually nesting along open bodies of water where they feed. There is one active bald eagle nest (HN012) located approximately 1000 feet east of the I-75 right-of-way in the vicinity of Oriole Lake in the northern portion of Hernando County (see Sheet 34 in **Appendix A**).

The project is not expected to impact any existing foraging areas or any potential nesting trees in or adjacent to the corridor. Per recent guidelines from the USFWS the nest is located greater than 660 feet from the proposed action, therefore, the proposed action will have no effect on this nest.

Conclusion: No Effect.

- **Wood Stork:** The wood stork is primarily associated with freshwater and estuarine habitats for nesting, roosting, and foraging. Wood storks typically construct their nests in medium to tall trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water.

According to the Florida Atlas Of Breeding Sites For Herons And Their Allies there are nine historic wood stork rookeries within 20 miles of this project. One is

within one mile in Pasco County at the beginning of the project.

Foraging habitat for this species is available depending on the existing water levels in ditches, swales, and other wetlands. Wetland mitigation will replace any lost wetlands and the creation of wet stormwater management facilities may increase the amount of foraging areas available to this species in the project area. Mitigation will occur within the core foraging area of the wood stork rookery adjacent to this project. This species could possibly be affected as wetlands in the area will be affected.

Conclusion: May affect.

- **Eastern Indigo Snake:** The eastern indigo snake is a large, black, non-venomous snake found in the southeastern U.S. It is widely distributed throughout central and South Florida, but primarily occurs in sandhill habitats in northern Florida and southern Georgia.

Although indigo snakes in the project area could be unintentionally killed during construction, their secretive habits confound capture, so no effort would be made to relocate indigo snakes prior to construction. The construction contract will include special provisions for supplying construction personnel with a species description and a warning of the penalties for intentional harm. Contact with any individuals discovered during construction will be discouraged. If eastern indigo snakes are discovered, the FDOT will be notified immediately and will coordinate, as necessary, with the USFWS and FWC in accordance with Section 7 of the Endangered Species Act of 1973, as amended through 1982. Through adhering to these precautions, the proposed project will not have a significant impact on the eastern indigo snake. **Appendix D** provides FDOT Standard Protection Measures for the Eastern Indigo Snake.

Conclusion: Not Likely To Adversely Affect.

5.1.2 State Listed Species

A description of the state listed species with the potential to occur in the study area follows below:

- **Gopher Tortoise:** The gopher tortoise is a medium sized tortoise with a broad muscular head, short tail, and flattened, clawed forelimbs used for digging. A tortoise's diet consists of large amounts of grasses and leaves, fruits, and insects. Gopher tortoises live on well-drained, sandy soils generally in the ecotones between broad-leafed woodland and grasslands where they construct burrows. The burrow is also used for protection from fire and predation and is important habitat to many other species of wildlife, some that are wholly dependent on the gopher tortoise's burrow. Gopher tortoises were observed in the northern reaches of the project. See Sheet 41 in the appendix for this location. These tortoises are located within the current right-of-way and may be affected by this project. Coordination with the Florida Fish and Wildlife Conservation Commission (FWC) regarding these tortoises will be required during construction of this project.

Conclusion: May Affect.

- **Sandhill Crane:** Sandhill cranes are gray or brown in color and the adults have a red crown. Florida populations of this species are nonmigratory and are found in Florida year round. Migrant cranes come from the Midwest to winter in Florida. Nesting takes place from January through June. Large nests are constructed in patches of marsh vegetation, such as pickerelweed and maidencane. Nests contain two large brown-spotted buff eggs. Sandhill cranes feed on a variety of plants and invertebrates. The Florida sandhill crane prefers wet prairies, marshy lake margins, sparsely vegetated marshes and shallow flooded open areas. It avoids forests and deep marshlands. This subspecies is listed as threatened by the FWC. The migratory species is not a listed species, but is conferred protection under the Migratory Bird Treaty Act.

One sandhill crane nest was found in the project area (see Sheet 8 in **Appendix A**). This nest was inside a potential pond site. The pond site has since been moved so as not to impact this nest.

Conclusion: Not Likely To Adversely Affect.

- **Sherman's Fox Squirrel:** Sherman's fox squirrel is quite different in size and appearance from the gray squirrel (*Sciurus carolinensis*). The fox squirrel is considerably larger, and the top of the head is typically black, with white nose and ears. The rest of the pelage is variable in color ranging from agouti to black, light agouti to tan, or dark over tan, or tan over dark. Fox squirrels utilize large leaf nests, most build in large oaks. Habitat dependent, the fox squirrel may skip a breeding season, depending on resource abundance. This species depends on a variety of food sources for its survival. Major food resources include turkey oak acorns, longleaf pine seeds, and live oak acorns. Other acorns and nuts, fungi, bulbs, vegetative buds, insects and staminate pinecones also are eaten.

To accommodate the squirrel's large home range and varied food resources, suitable habitat must be fairly extensive. The mature, fire-maintained longleaf pine-turkey oak sandhills and flatwoods are the optimal habitat for Sherman's fox squirrel.

No fox squirrels were observed during field surveys, however, there is habitat located in the WSF and other areas. It is not anticipated that there will be negative effects to this species due to the limits of construction.

Conclusion: No Effect.

6.0 CONCLUSIONS

I-75 will be widened within its current right-of-way. However, some of the upland and wetland habitats outside the current right-of-way will be affected due to the construction of the stormwater management facilities or –for the WSF – Croom Tract– the storage of stormwater in natural depression areas and the expansion of the interchanges at CR 41 and SR 50. All effects will be mitigated as not to have a net negative affect on wetlands and resources involved.

A total of 30 aquatic features (does not include swales) have been identified along the project corridor as having the potential to be impacted by the proposed improvements. All wetlands affected by the project have been grouped and classified according to the USFWS’s Classification of Wetlands and Deepwater Habitats of the United States and the Florida Land Use/Cover and Forms Classification System. It is estimated that a total of 35.24 acres of wetlands will be affected by the proposed project improvements.

The project has been evaluated for effects on state and federally protected threatened and endangered species. A literature review was conducted to determine those possible threatened or endangered species which may inhabit the project area.

The federally protected eastern indigo snake may occur in wetland and upland habitats along the project corridor, although the prevalence of open rangeland and residential areas within the region probably restricts utilization of habitat by this species except in the area of the WSF. To minimize effects to individual indigo snakes during construction, a special provision will be included in the contract to advise the contractor of the potential presence of this species and its protected status (see **Appendix D**). If an indigo snake is sighted during construction, the contractor will be required to cease any operations(s) that might cause harm to the snake. If the snake does not move away from the construction area, FWC will be contacted to capture and relocate it to other suitable habitat.

Effects to the state-listed (SSC) gopher tortoise populations are unavoidable, since the occurrence of these tortoises occurs in the current right of way. Gopher tortoises are common in upland areas of the region and the loss of gopher tortoise habitat due to the

project would be insignificant on a regional scale. Coordination with the Florida Game and Freshwater Fish Commission (FWC) will continue throughout final design stages of the project. Relocations of any affected tortoises may be recommended. This relocation should take place immediately prior to the clearing of areas for roadway construction.

During the field review state-listed Florida sandhill cranes were observed foraging and nesting in the study area. The habitat was determined to be insufficient for the federally protected red cockaded woodpecker. The state-listed (SSC) Sherman's fox squirrel likely utilizes portions of the study area, although none were observed.

Based on the previously mentioned data collection efforts, it has been determined that the proposed project will not likely have an adverse affect or jeopardize the existence of any federally- and/or state-listed threatened or endangered species, even though they are known or expected to occur in the study area. The project should have **no effect** on the bald eagle. The project **may affect** the wood stork as the project is very close to a known rookery. The project is **not likely to adversely affect** the eastern indigo snake with use of the proposed construction conditions. Furthermore, the proposed project is not located in an area designated as critical habitat by the U.S. Department of the Interior.

Table 3 summarizes the wetland and species involvement at each of the recommended stormwater management facility locations as well as the natural depression areas of the WSF will be used for this purpose.

Table 3 - Natural Environment Effects at the Recommended Stormwater Management Sites

Drainage Basin No.	Recommended SMF Alternative		Location along I-75 (station)	SMF Size (acres)	Wetland Involvement		Species Involvement	
	SMF ¹	Alternative			Type	Size (acres)	Federally Listed	State Listed
2	SMF ¹	2A	1252+00 RT	2.7	PEM	0.17	Close to wood stork rookery	Close to wood stork rookery
3	SMF	3C	1279+00 RT	2.2	PFO	0.12	NI	NI
4	SMF	4B	1296+00 RT	4.1	PFO	0.03	NI	NI
5	SMF	5C	1333+00 RT	4.3	PEM/R	0.03	NI	NI
6	SMF	6C	1379+00 LT	3.1	NI	NI	NI	NI
7	SMF	7C	1403+00 LT	1.5	NI	NI	NI	NI
8	SMF	8A	1419+00 LT	2.2	NI	NI	NI	NI
9	SMF	9A	1425+00 LT	2.2	NI	NI	NI	NI
10	SMF	10B	1451+00 LT	4.1	PEM	NI	NI	NI
11	SMF	11B	1481+00 RT	1.7	NI	NI	NI	NI
12	SMF	12A	1497+00 LT	1.7	NI	NI	NI	NI
13	SMF	13C	1543+00 LT	5.1	PFO	0.53	NI	NI

¹ SMF: stormwater management facility
NI: No Involvement

Table 3 - Natural Environment Effects at the Recommended Stormwater Management Sites (continued)

Drainage Basin No.	Recommended SMF Alternative	Location along I-75 (station)	SMF Size (acres)	Wetland Involvement		Species Involvement	
				Type	Size (acres)	Federally Listed	State Listed
14	SMF ¹ 14C	1578+00 RT	2.1	PFO	0.35	NI	NI
15	SMF 15A	1590+00 LT & RT	7.8	PFO	0.38	NI	NI
16	SMF 16A	1607+00 LT & RT	7.9	NI	NI	NI	NI
17	SMF 17B	1689+00 LT	8.7	PSS	0.03	NI	NI
18	SMF 18B	1704+00 RT	7.5	PFO	5.82	NI	NI
19	SMF 19B	1763+00 LT	7.8	NI	NI	NI	NI
20	SMF 20B	1795+00 LT	4.7	PFO	0.21	NI	NI
21	SMF 21B	1825+00 RT	6.7	NI	NI	NI	NI
22	SMF 22A	1860+00 LT	7.1	PEMx	0.04	NI	NI
23	SMF 23A	1896+00 RT	4.8	NI	NI	NI	NI
24	SMF 24B	1933+00 LT	7.1	NI	NI	NI	NI
25	SMF 25C	1988+00 LT	5.1	NI	NI	NI	NI

¹ SMF: stormwater management facility

NI: No Involvement

Table 3 - Natural Environment Effects at the Recommended Stormwater Management Sites (continued)

Drainage Basin No.	Recommended SMF Alternative	Location along I-75 (station)	SMF Size (acres)	Wetland Involvement		Species Involvement	
				Type	Size (acres)	Federally Listed	State Listed
26	SMF ¹ 26C	2006+00 RT	5.2	NI	NI	NI	NI
27	SMF 27C	2027+00 RT	3.7	NI	NI	NI	NI
29	SMF 29C	2068+00 RT	7.6	NI	NI	NI	NI
30	SMF 30B	2162+00 RT	15.0	NI	NI	NI	NI
31	COMB ¹						
	SMF 31D	2200+00 RT	6.7	NI	NI	NI	NI
	DDA ¹ 4b(e)C 4b(w)C	2233+00 RT 2233+00 LT	4.7 2.5 ²				
32	DDA 5aC 5bC	2252+00 LT 2265+00 LT	6.8 5.2	NI	NI	NI	NI
	DDA 6a/bC 6cC	2300+00 RT 2339+00 RT	3.7 5.7	PEM	3	NI	NI
34	DDA 7C	2345+00 LT	7.4	PSS	3	NI	NI
Total Area of Wetlands Involvement in SMF's					7.71		

¹ SMF: stormwater management facility; DDA: discharge to a depression area; COMB: combined use of SMF and DDA.

² For DDAs, the reported area represents the new area of water level increase caused by the additional stormwater runoff from the project.

³ No dredge/fill effects, just increased hydrologic input.

NI: No Involvement

7.0 REFERENCES

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APPENDIX

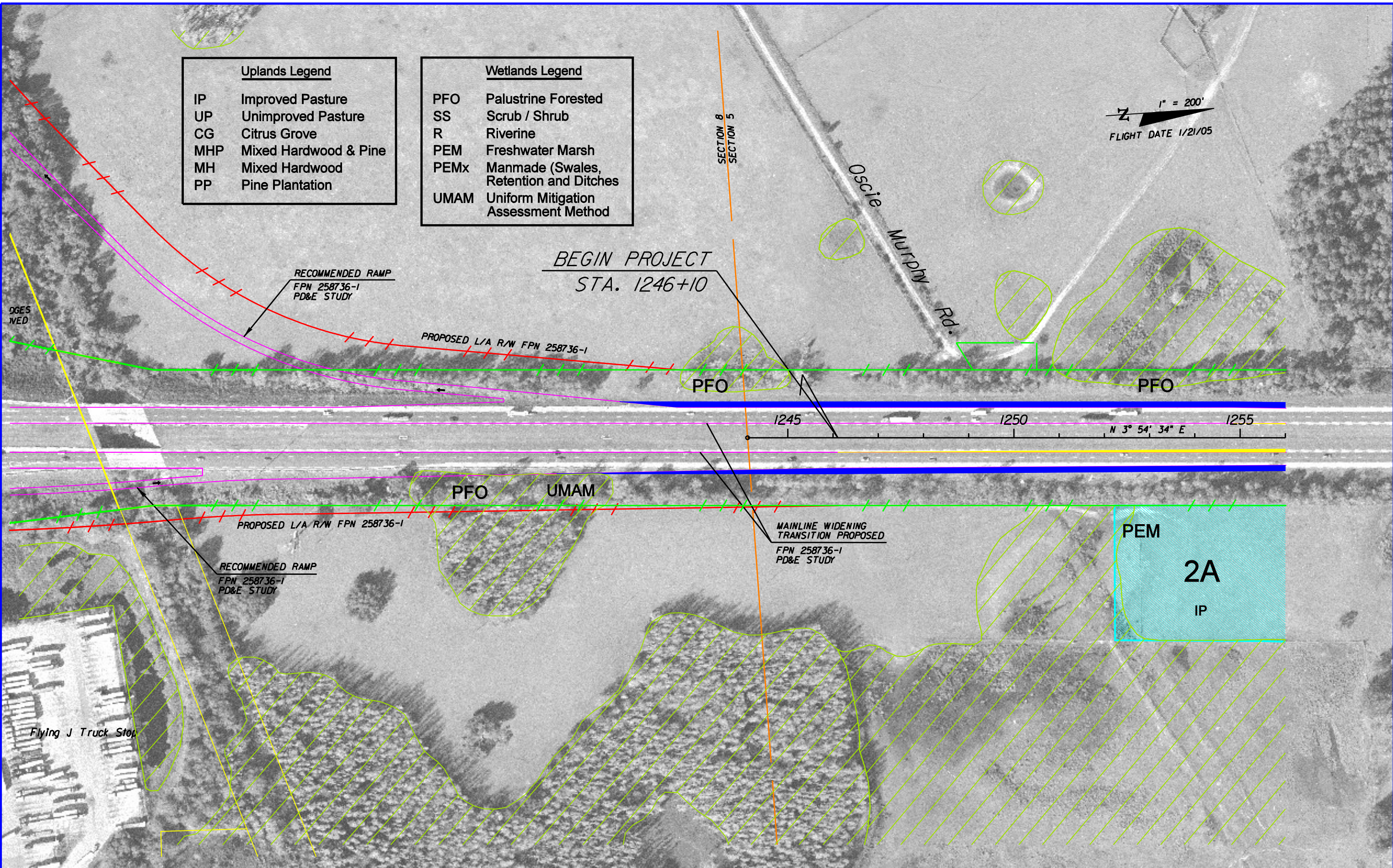
APPENDIX A

Conceptual Plans of the Proposed Improvements for I-75

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

1" = 200'
 FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

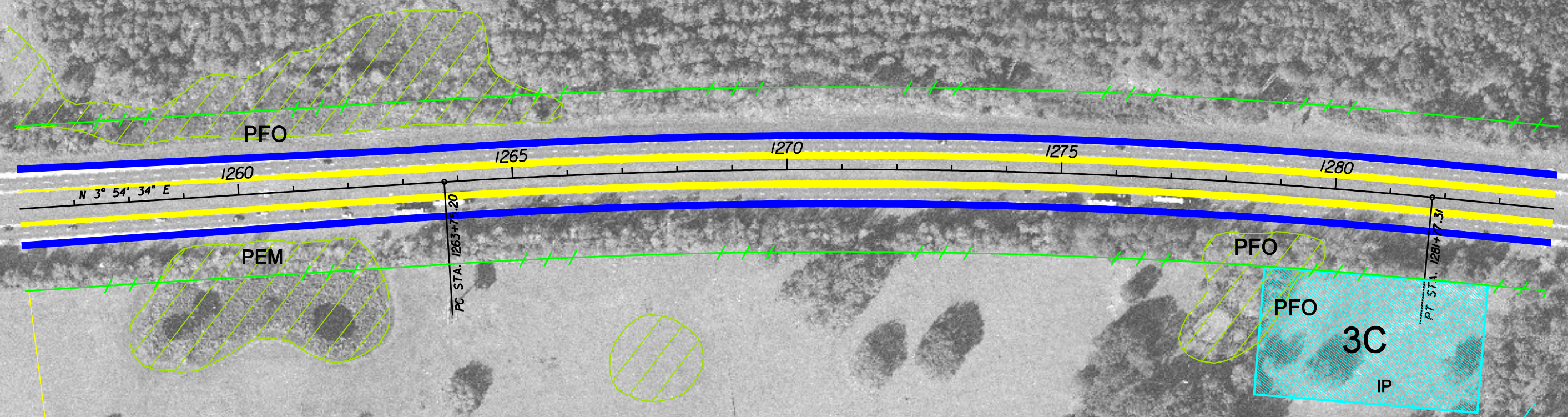
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 13577 FEATHER SOUND DR. SUITE 600
 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
1

1" = 200'
 FLIGHT DATE 1/21/05



Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
2

1" = 200'
 FLIGHT DATE 1/21/05

R PFO

1285 1290 1295 1300 1305 1310
 N 12° 55' 12" E

PFO R PFO

4B

IP

SECTION 5
 SECTION 32
 SECTION 4
 SECTION 35

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

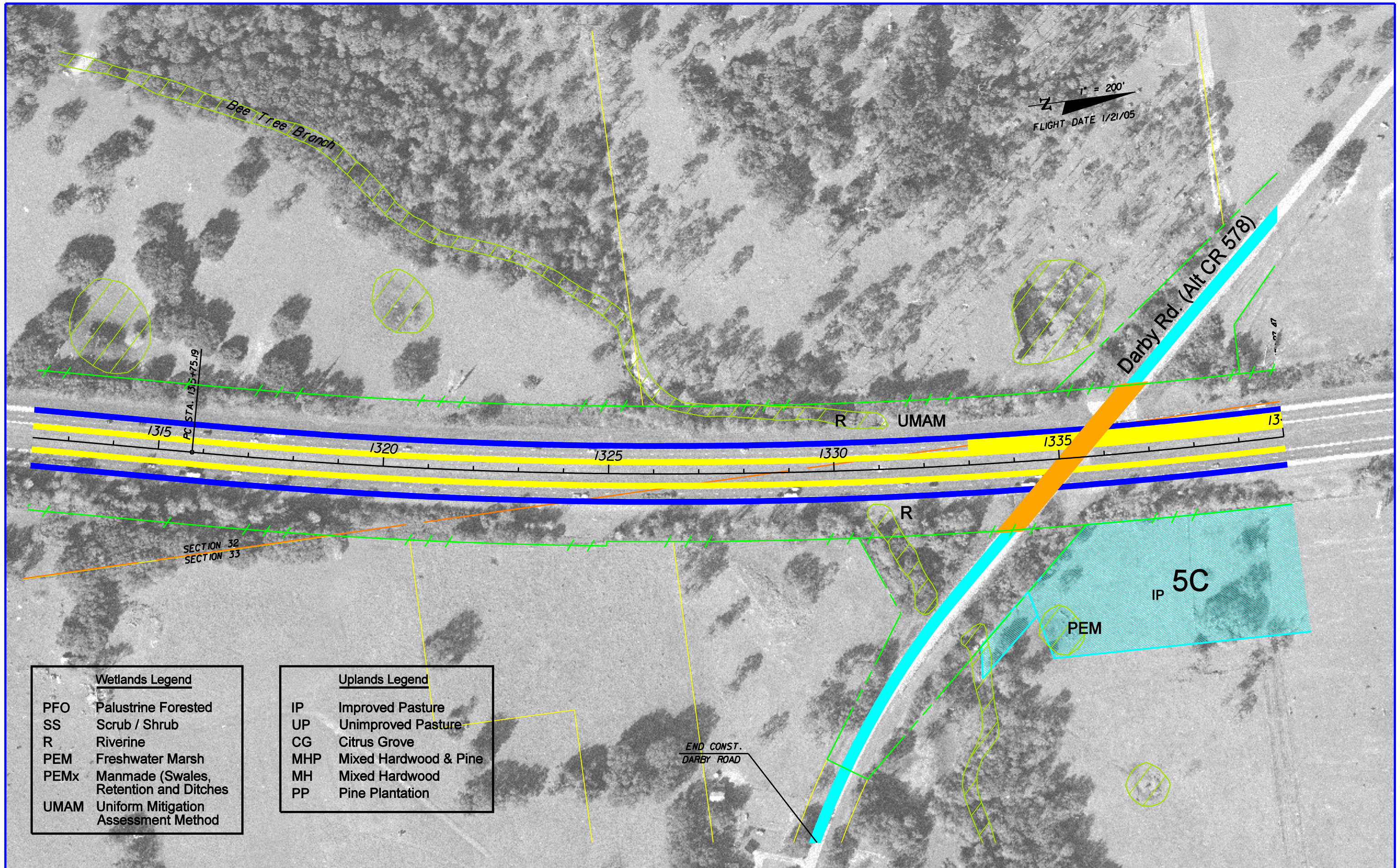
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
3

1" = 200'
 FLIGHT DATE 1/21/05



Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		SECTION LINES
	INTERIM 6-LANE WIDENING		SECTION LINES		STATE FOREST BOUNDARY
	ULTIMATE 8-LANE WIDENING		WETLANDS		

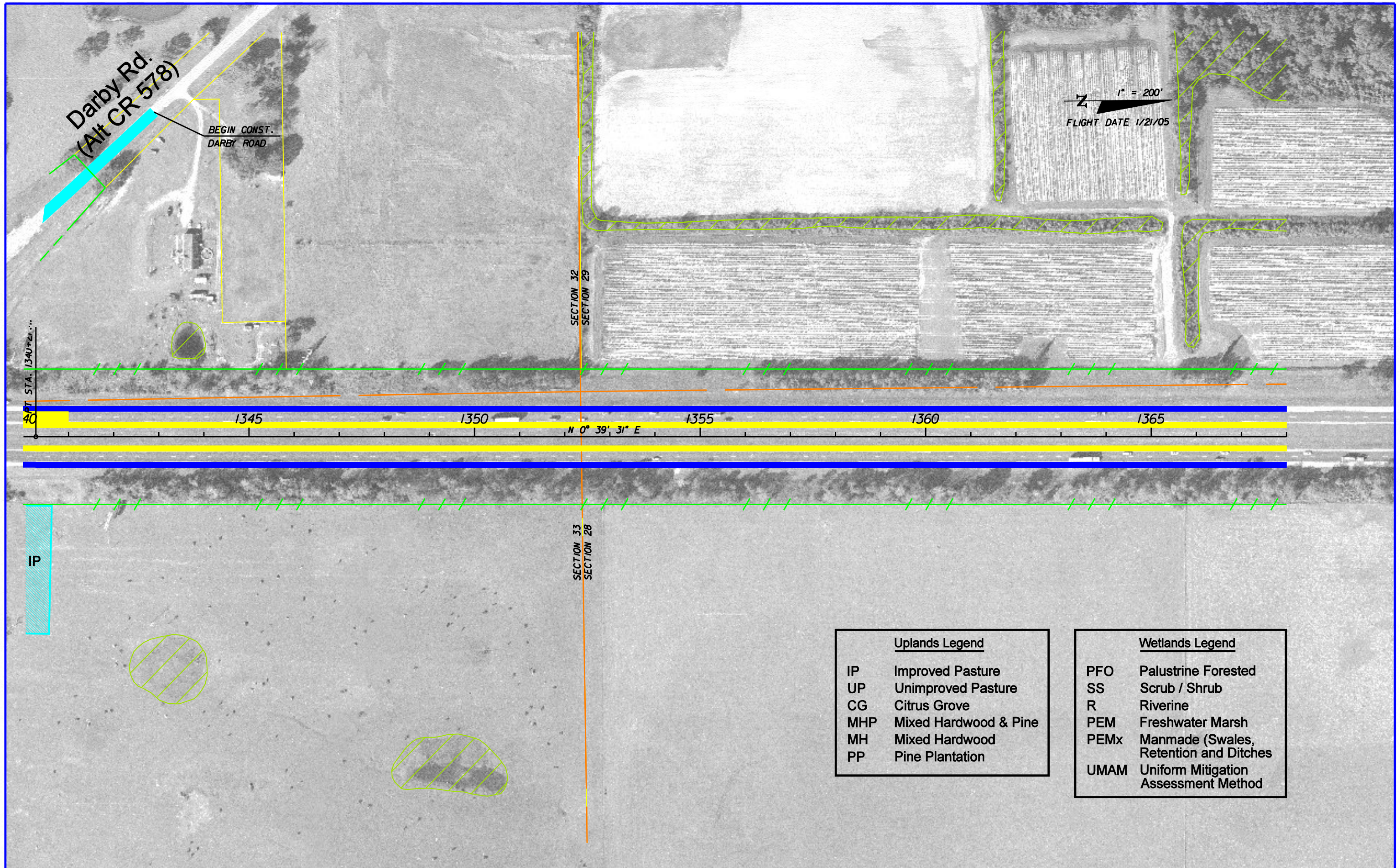
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STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
 4



1" = 200'
FLIGHT DATE 1/21/05

PT STA. 1340+21.00

IP

1345 1350 1355 1360 1365
N 0° 39' 31" E

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

Uplands Legend

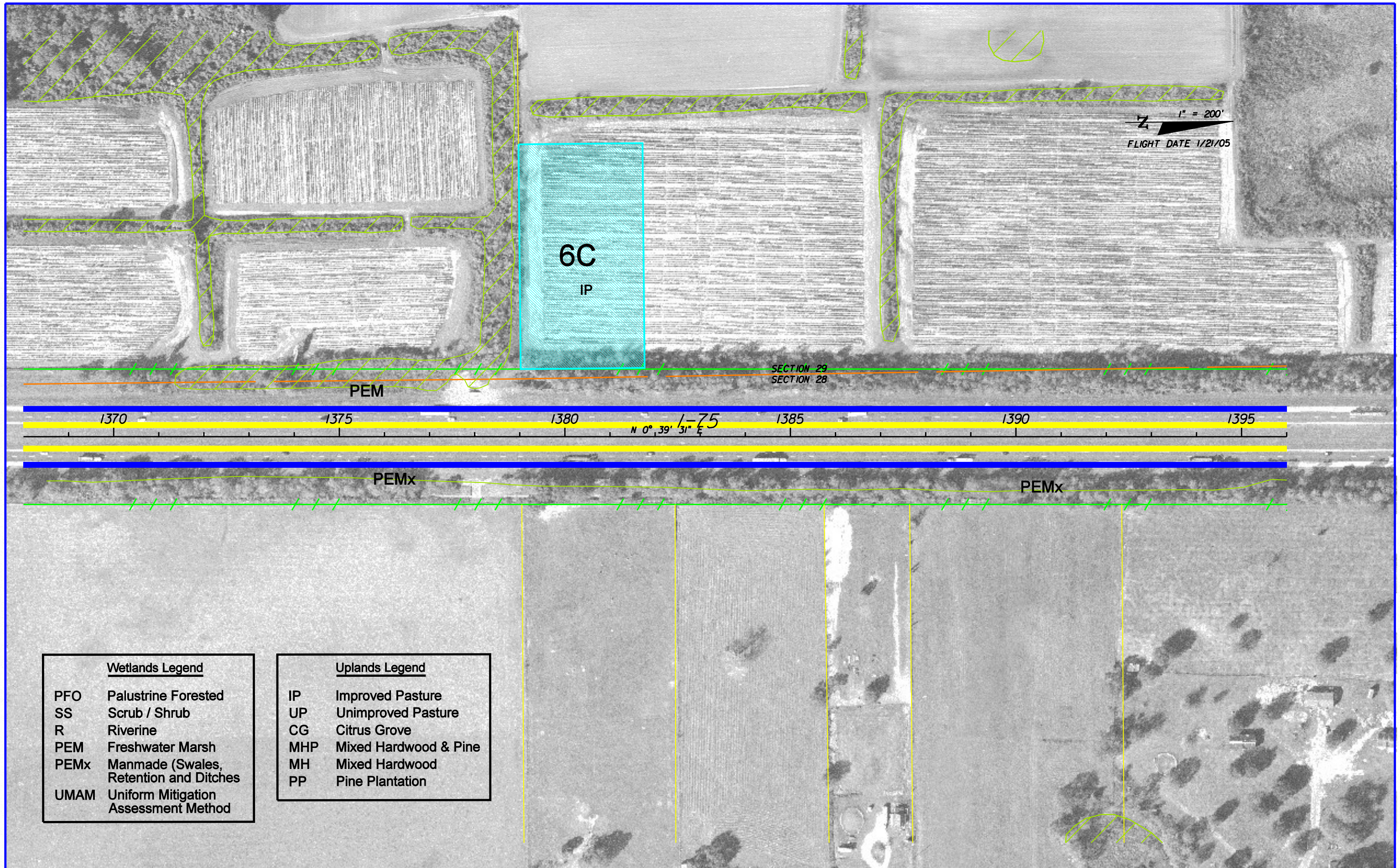
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

CONCEPT PLANS

SHEET NO.
5



1" = 200'
 FLIGHT DATE 1/21/05

6C
 IP

SECTION 29
 SECTION 28

PEM

1370

1375

1380

N 0° 39' 31" E
 1-75

1385

1390

1395

PEMx

PEMx

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

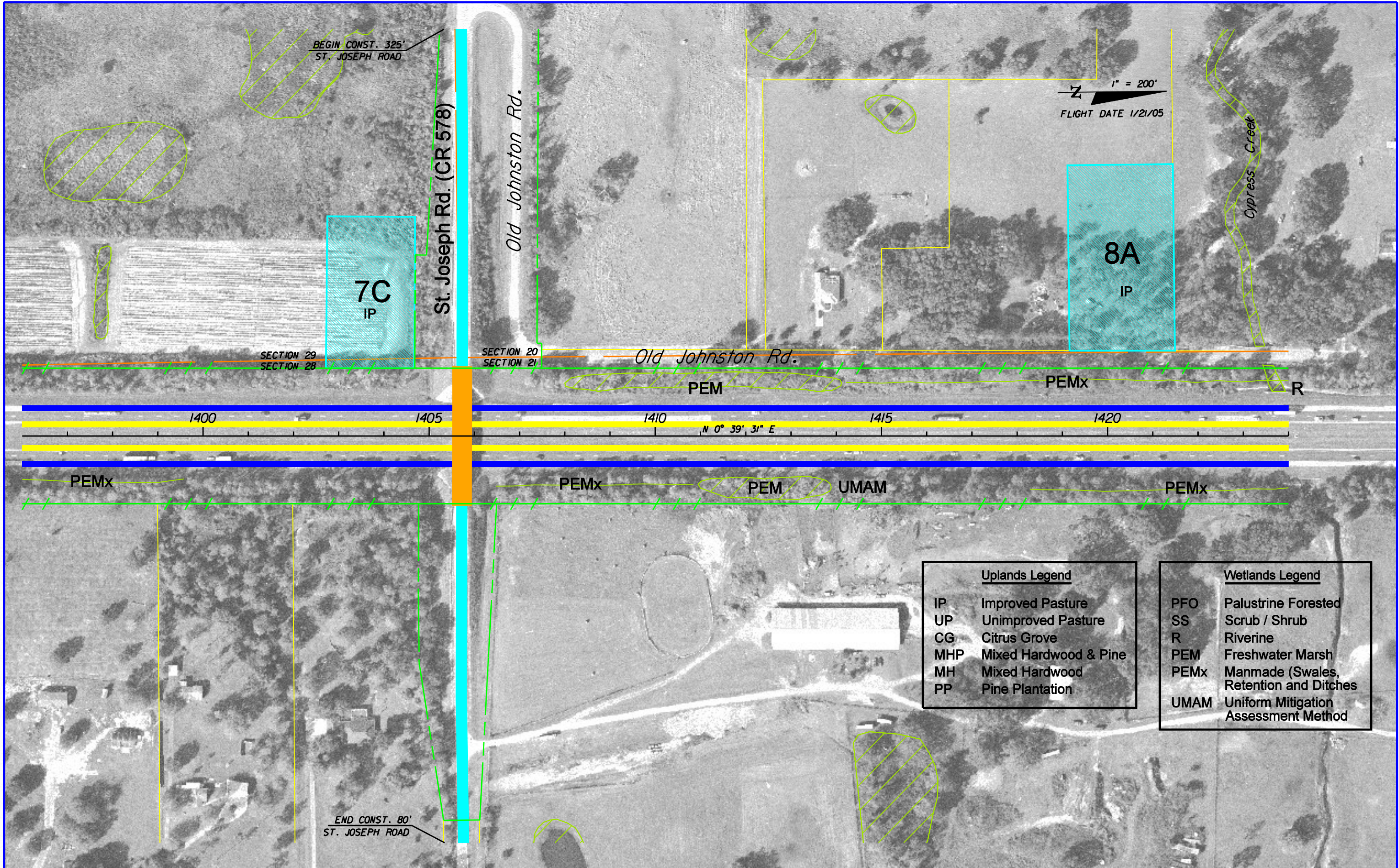
	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
 6



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
7

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

9A

IP

Old Johnston Rd.

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

1" = 200'
 Z
 FLIGHT DATE 1/21/05

SECTION 20
 SECTION 21

PEM

IP

PEMx

PEMx

R

1425

1430

1435

N 0° 39' 31" E

1440

1445

1450

R

PFO

R

Cypress Creek

Cypress Creek

Sandhill Crane Nest

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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 CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

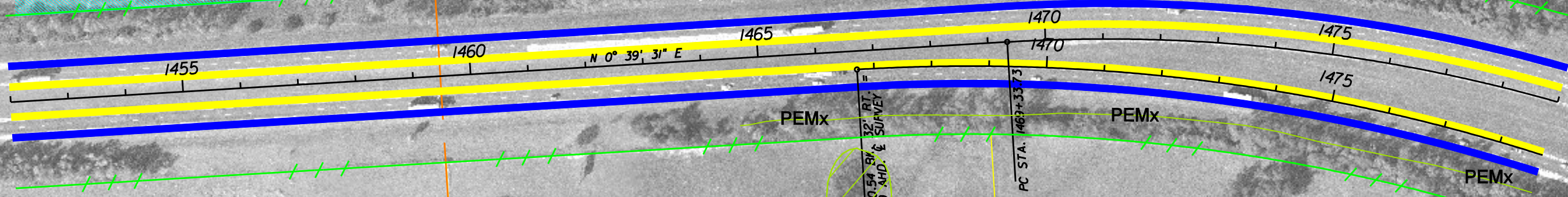
SHEET NO.
 8

1" = 200'
FLIGHT DATE 1/21/05

IP
10B

SECTION 20
SECTION 21

SECTION 17
SECTION 16



PC STA. 1466+70.54 BY 32' RT. SURVEY
STA. 1466+70.59 AHD. & SURVEY

PC STA. 1467+33.73

PEMx

PEMx

PEMx

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

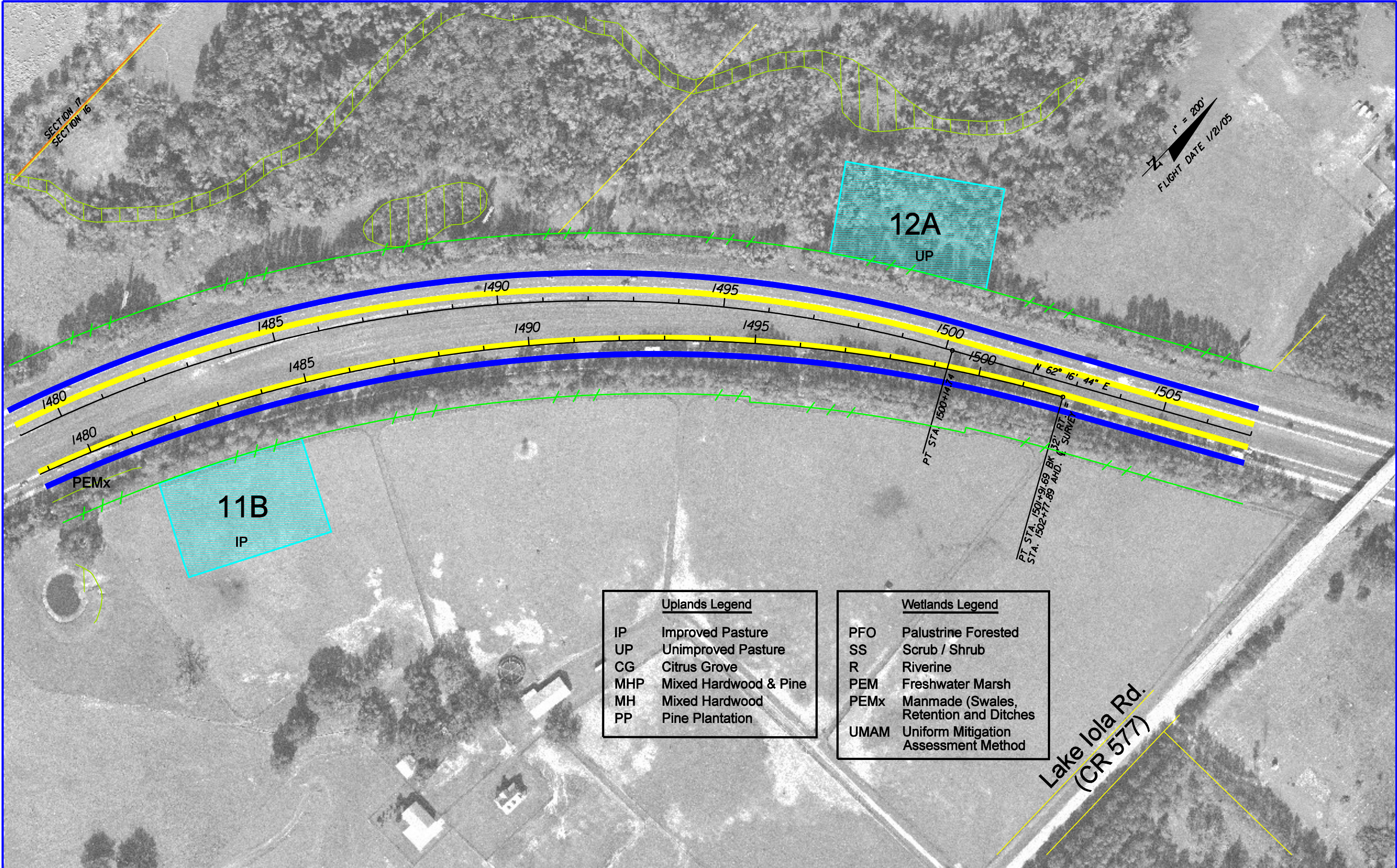
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	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.
9



1" = 200'
 FLIGHT DATE 1/21/05

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

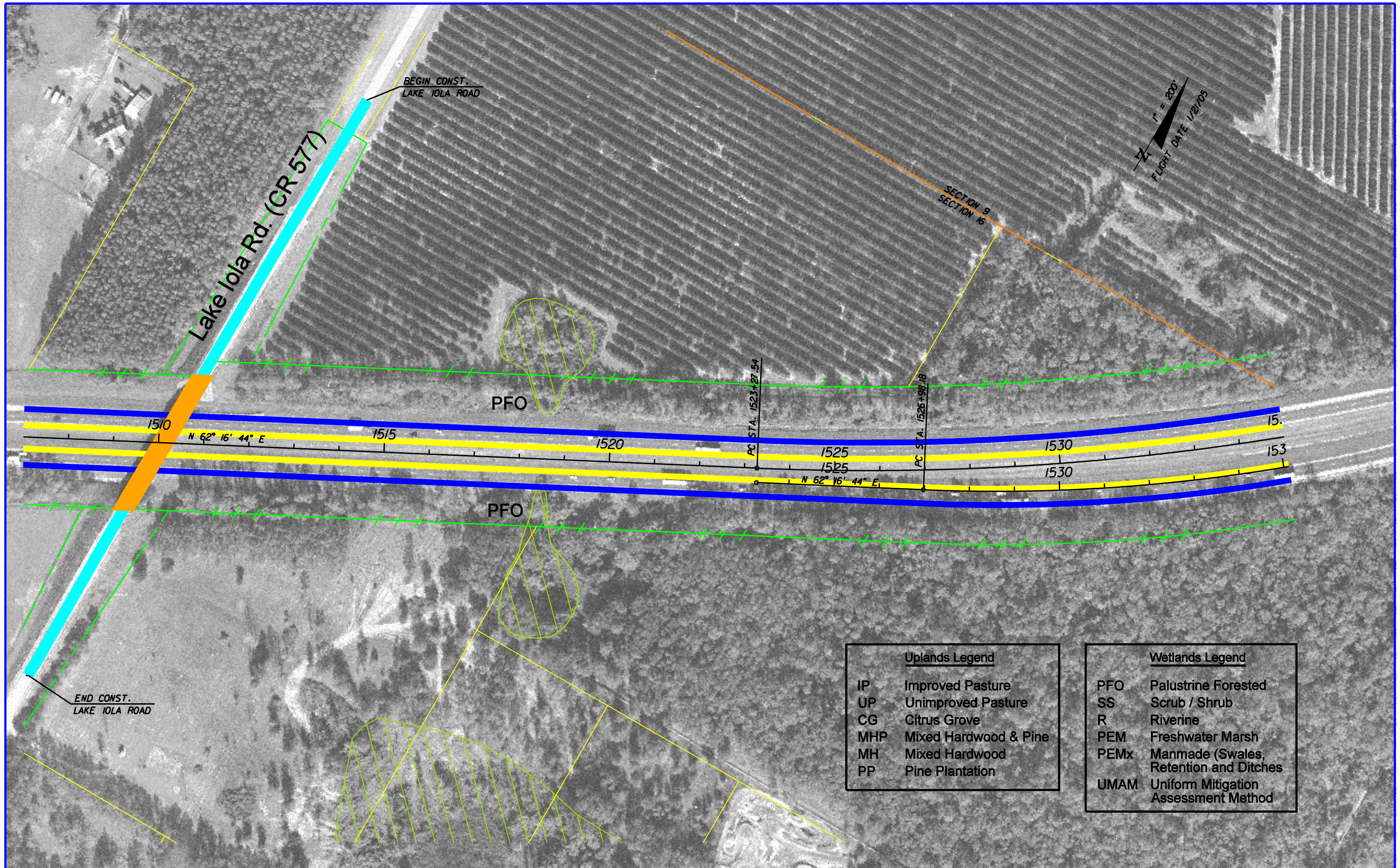
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	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		WETLANDS
	ULTIMATE 8-LANE WIDENING				

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SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.	10
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1" = 200'
 FLIGHT DATE 1/21/05

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

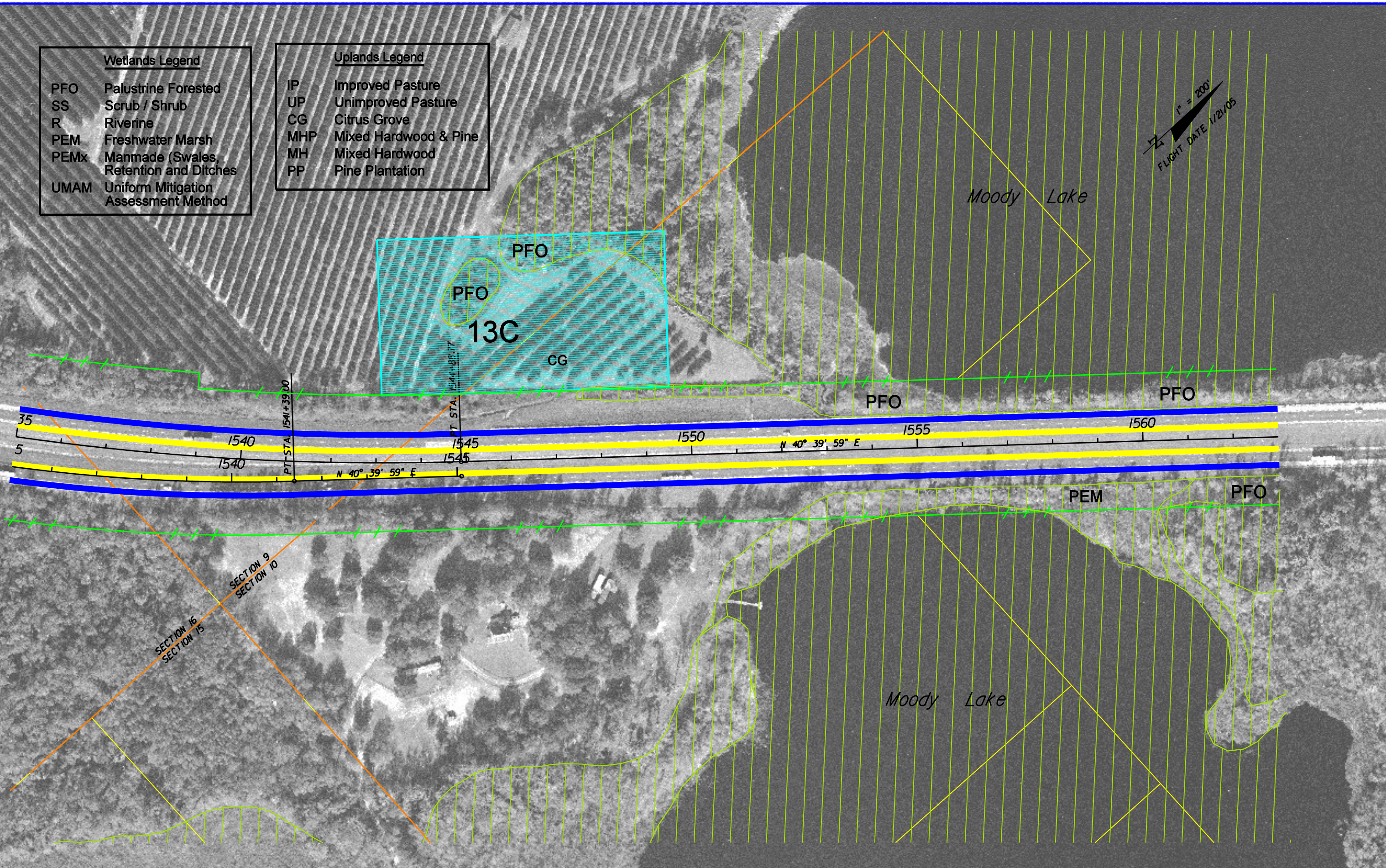
CONCEPT PLANS

SHEET NO.
11

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		NATURAL DISCHARGE AREAS
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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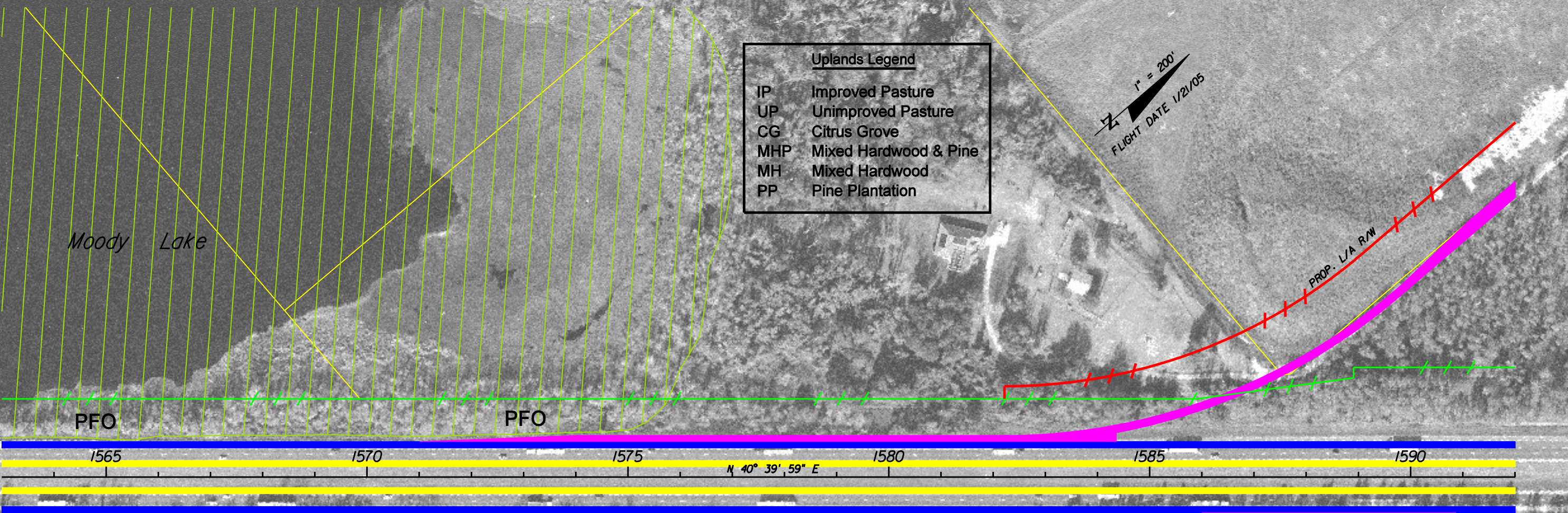
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
12

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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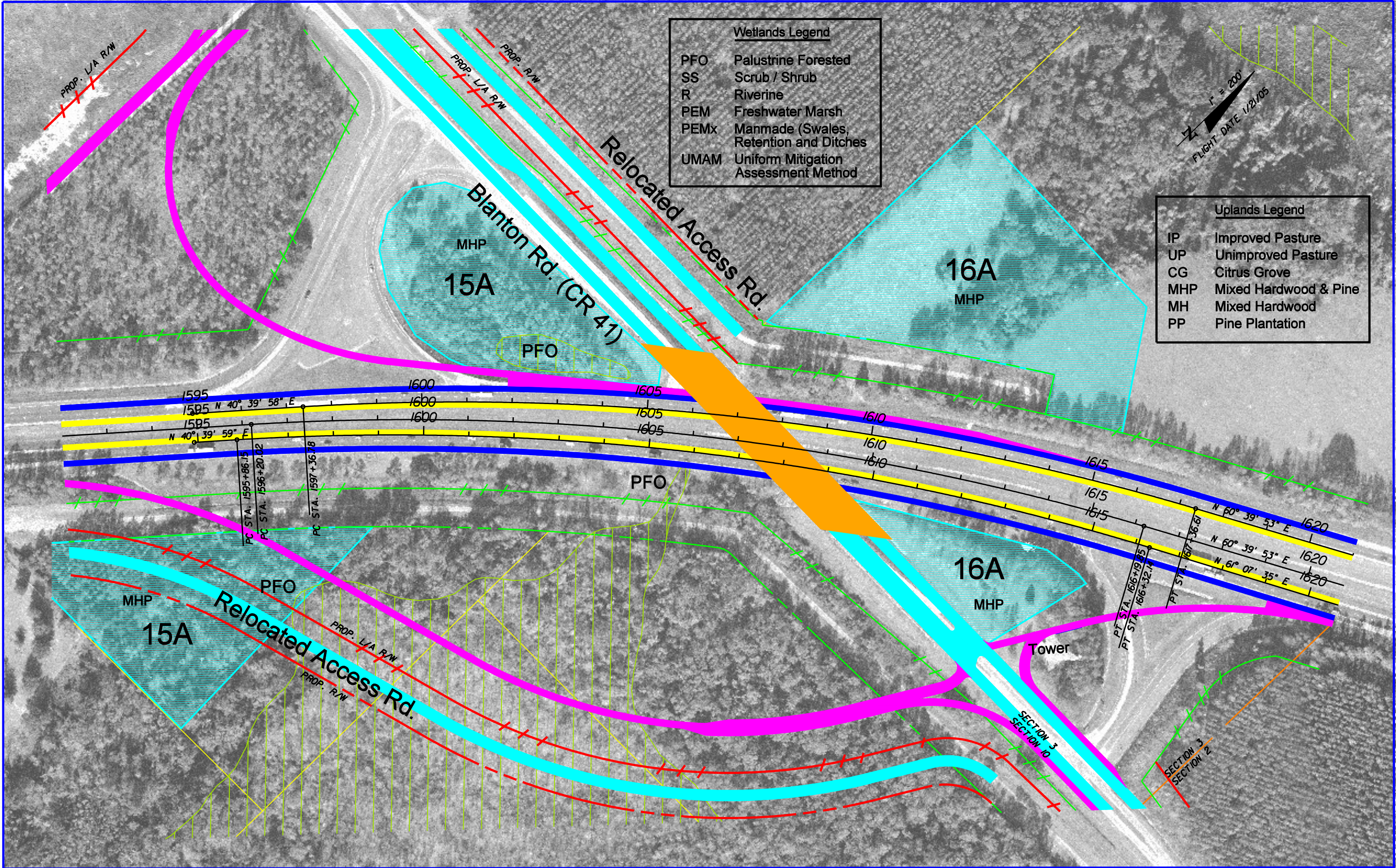
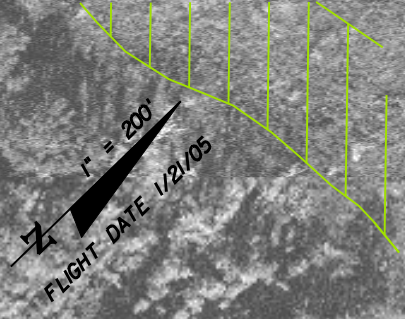
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
13

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.	14
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1" = 200'
 FLIGHT DATE 1/21/05

END L/A R/W

Relocated Access Rd.

Blanton Rd. (CR 41)

PROP. R/W

PROP. R/W

PROP. L/A R/W

PROP. L/A R/W

PROP. L/A R/W

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		WETLANDS
	INTERIM 6-LANE WIDENING		STATE FOREST BOUNDARY		
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.
15



Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
 N
 FLIGHT DATE 1/21/05

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

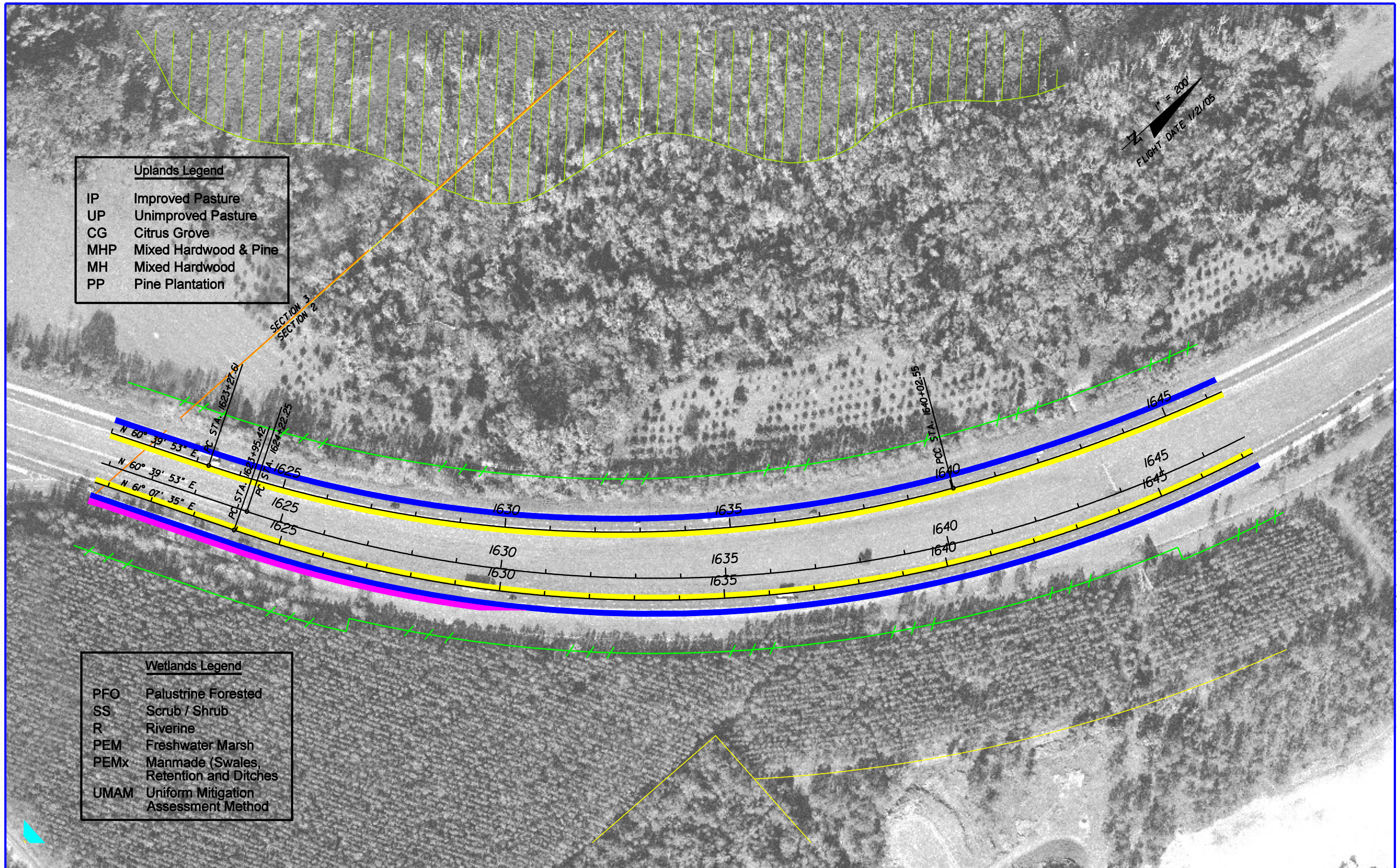
CONCEPT PLANS

SHEET NO.
16

1" = 200'
 FLIGHT DATE 1/21/05

- Uplands Legend**
- IP Improved Pasture
 - UP Unimproved Pasture
 - CG Citrus Grove
 - MHP Mixed Hardwood & Pine
 - MH Mixed Hardwood
 - PP Pine Plantation

- Wetlands Legend**
- PFO Palustrine Forested
 - SS Scrub / Shrub
 - R Riverine
 - PEM Freshwater Marsh
 - PEMx Manmade (Swales, Retention and Ditches)
 - UMAM Uniform Mitigation Assessment Method



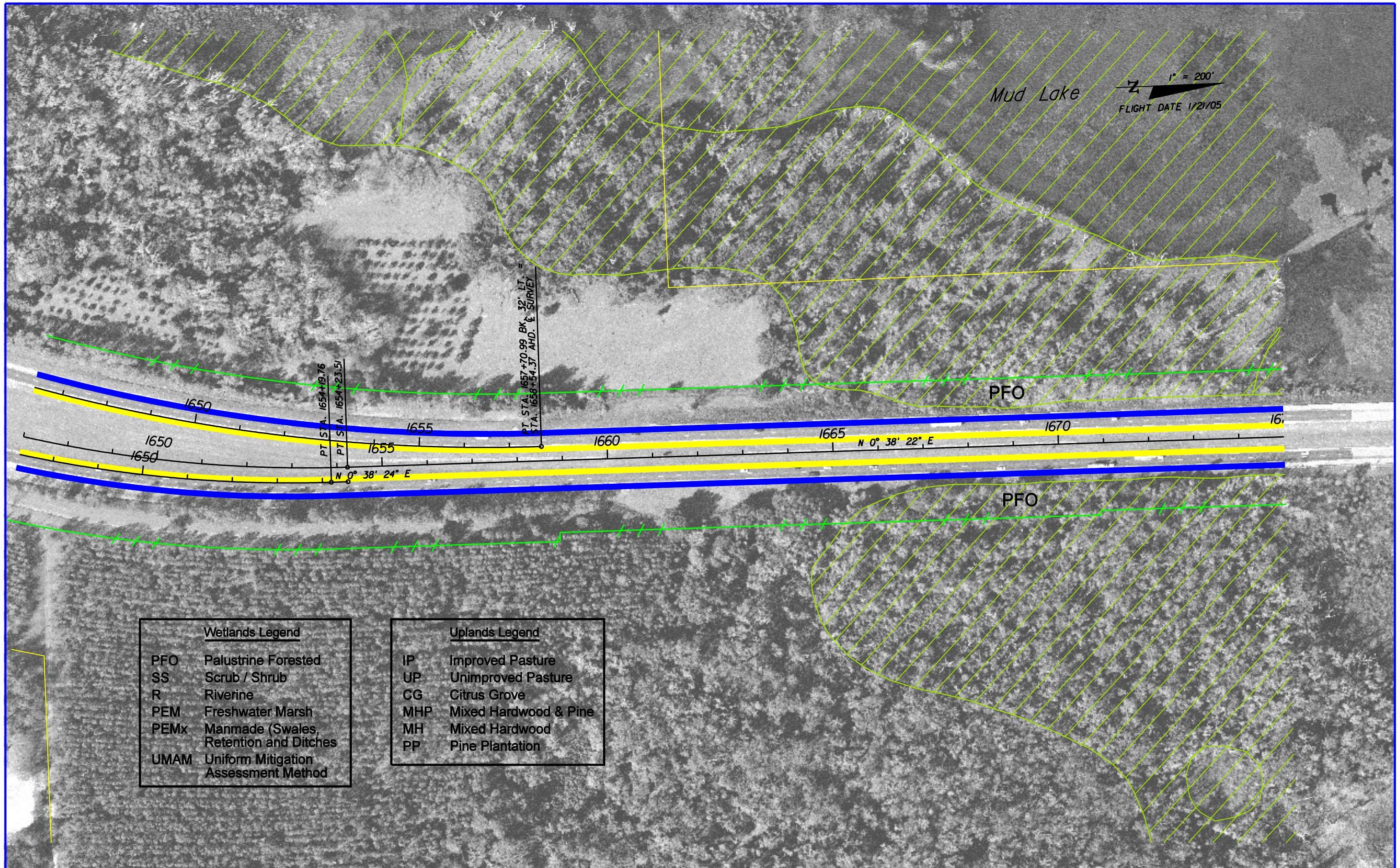
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	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.
17



1" = 200'
FLIGHT DATE 1/21/05

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		PROPOSED BRIDGE		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPERTY LINES		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		WETLANDS		
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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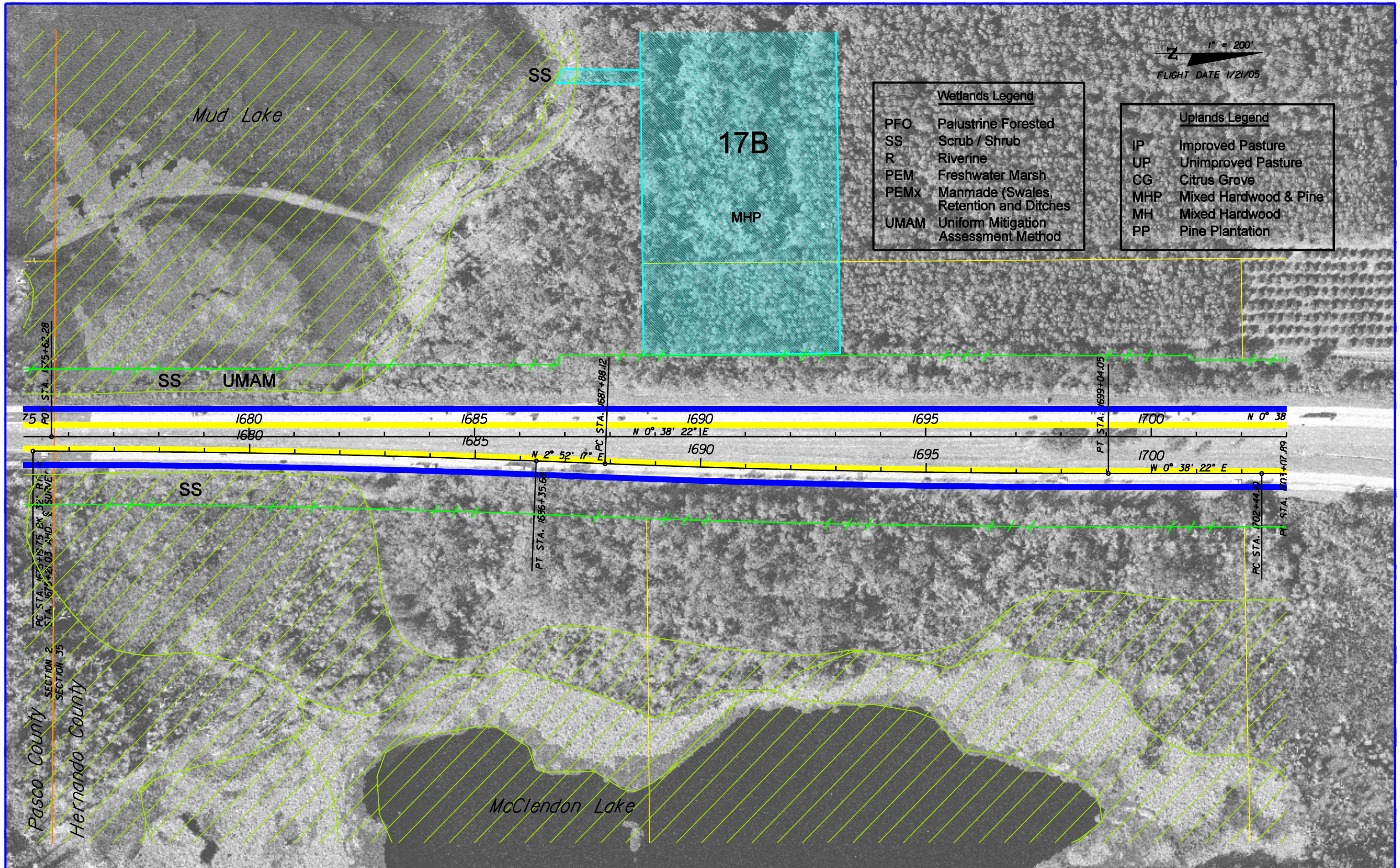
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
18

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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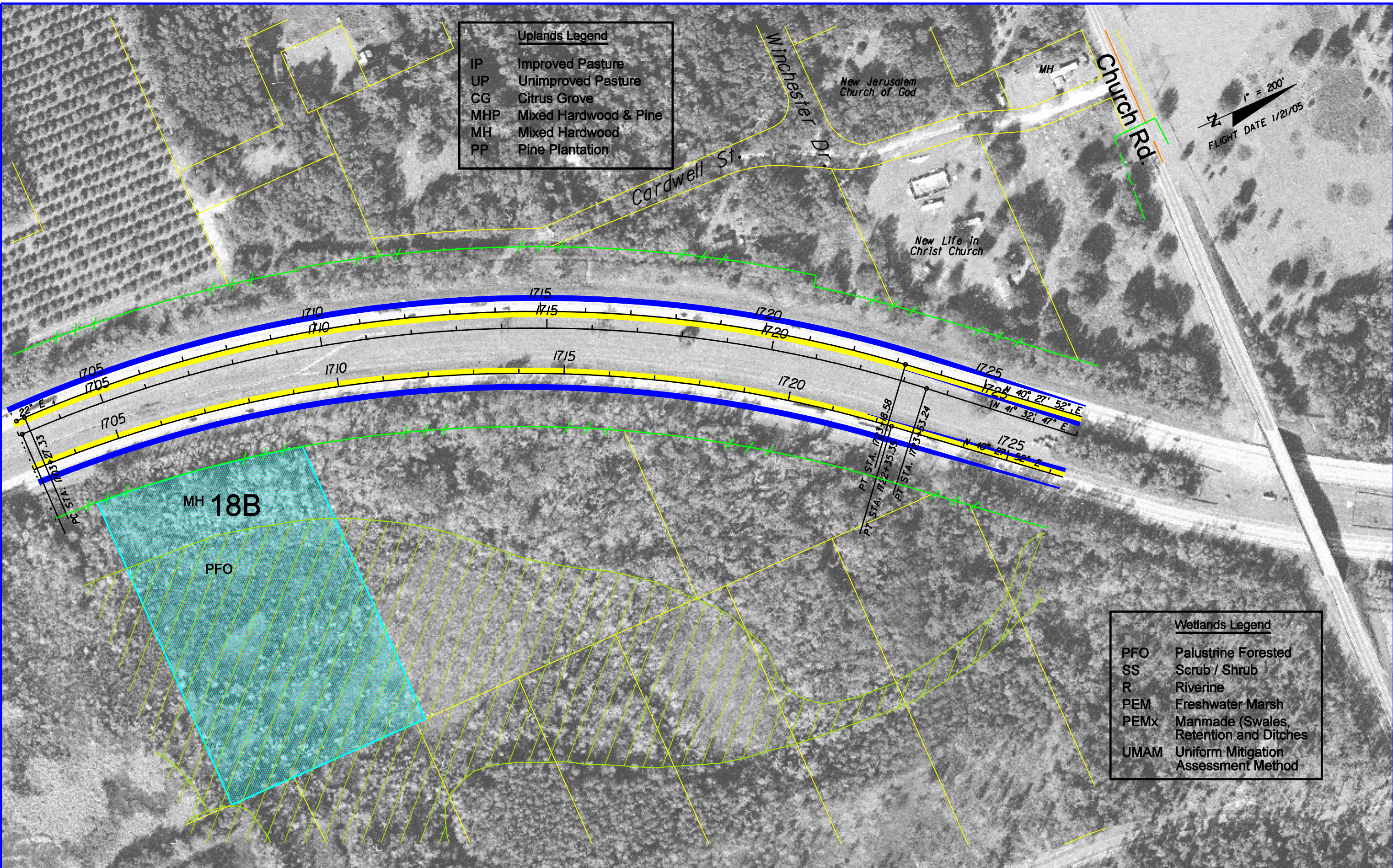
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
19

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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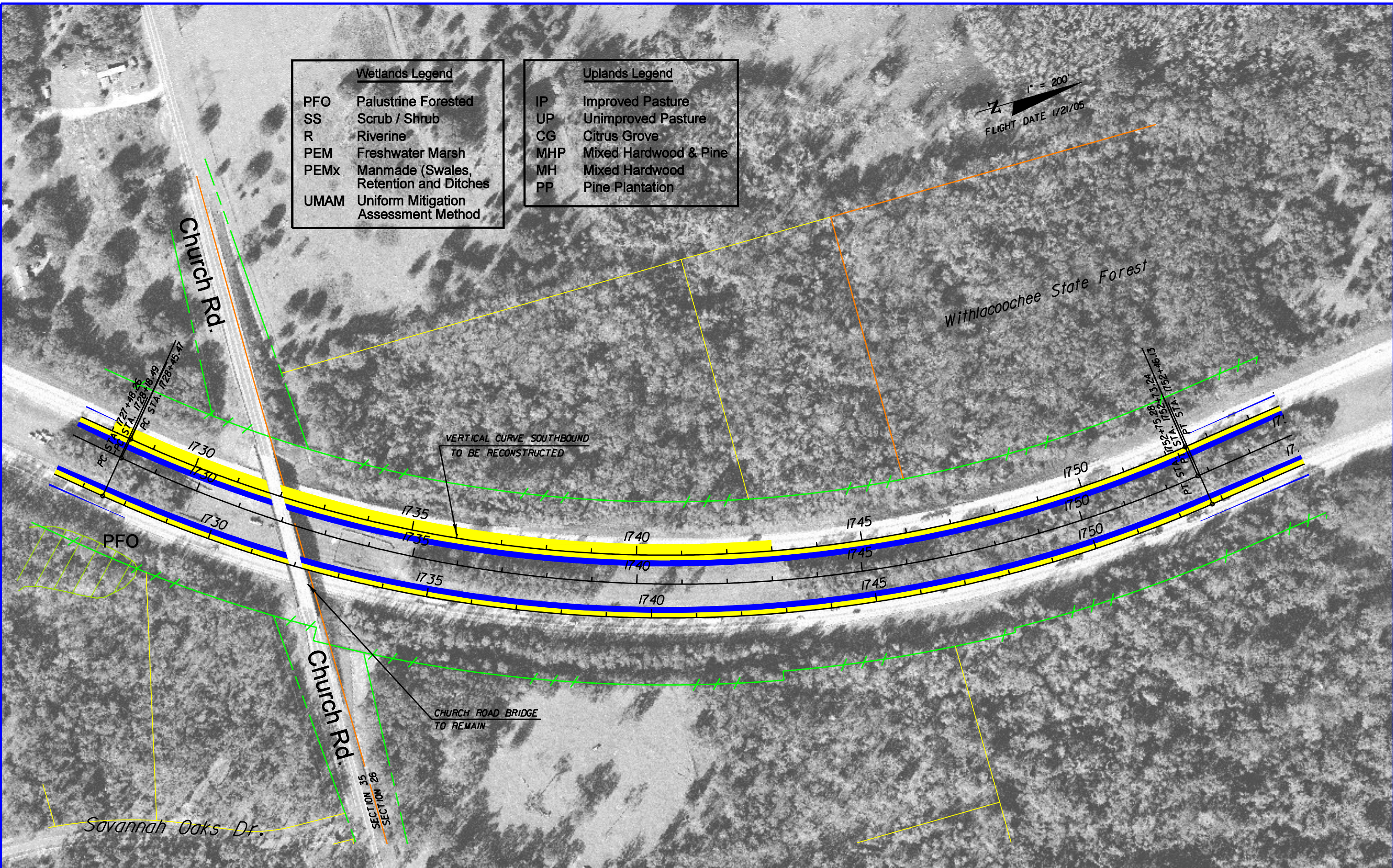
CONCEPT PLANS

SHEET NO.
20

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		SECTION LINES		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS		
	ULTIMATE 8-LANE WIDENING				

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SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

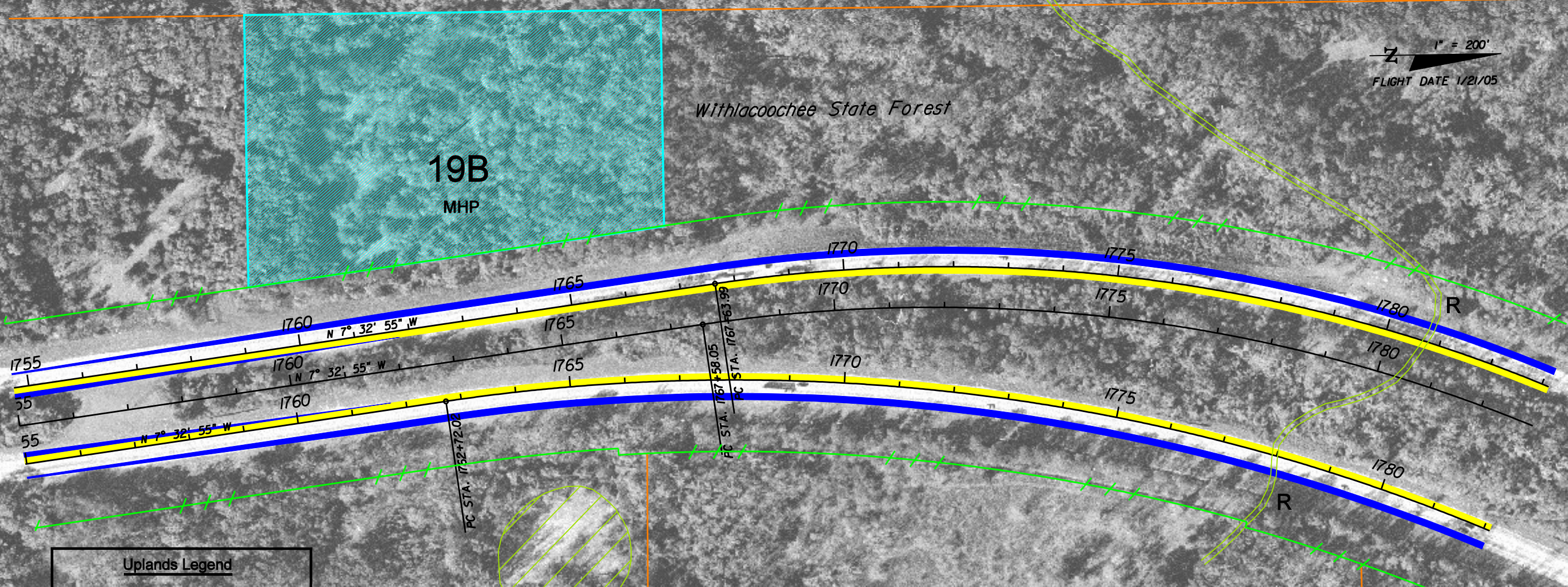
CONCEPT PLANS

SHEET NO.
21

1" = 200'
 FLIGHT DATE 1/21/05

Withlacoochee State Forest

19B
 MHP



Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Withlacoochee State Forest

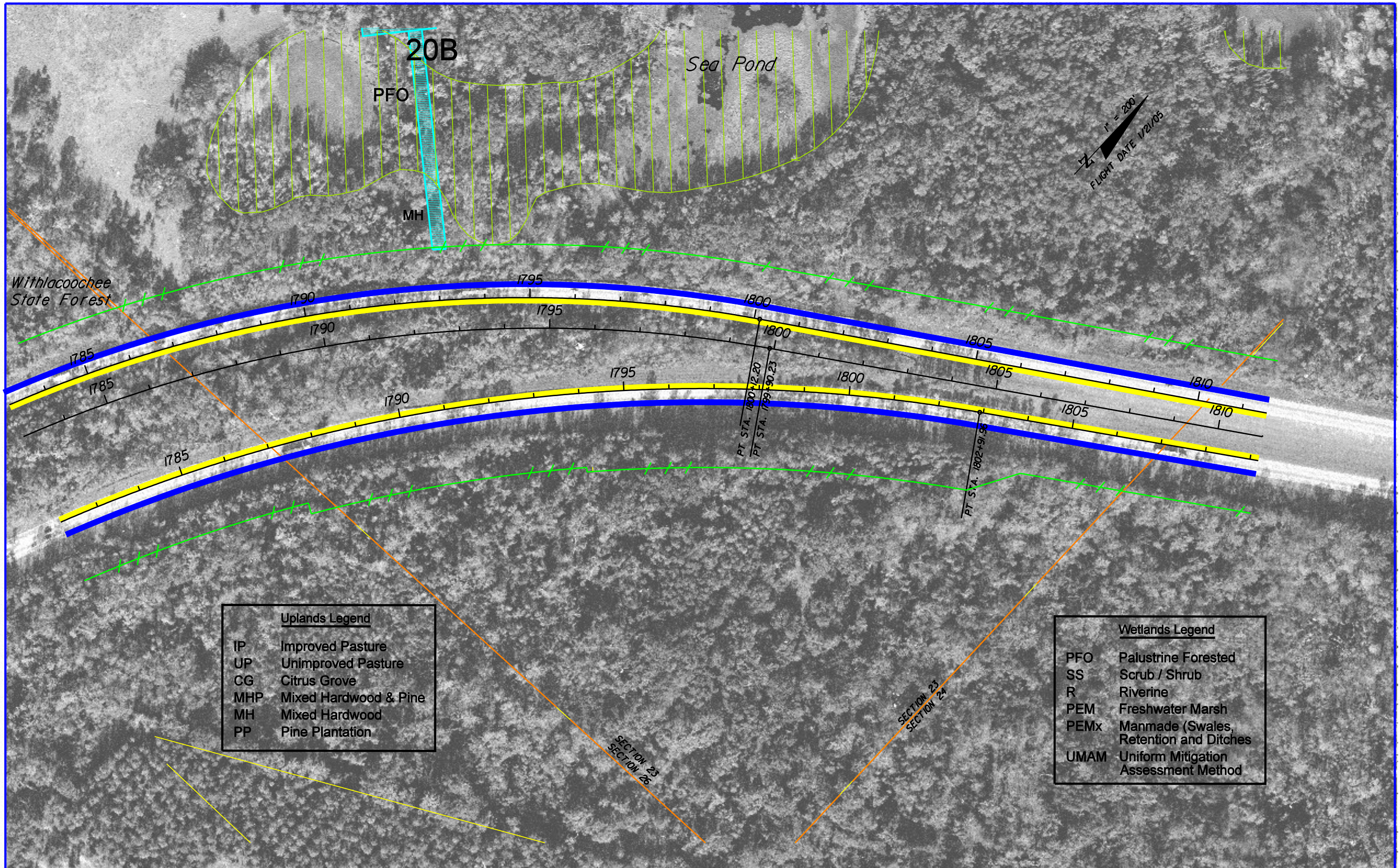
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	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD
	PROPOSED RIGHT-OF-WAY		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES
	INTERIM 6-LANE WIDENING		STATE FOREST BOUNDARY
	ULTIMATE 8-LANE WIDENING		WETLANDS
	RECONSTRUCTED RAMP		
	PROPOSED BRIDGE		

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CONCEPT PLANS

SHEET NO.
 22



1" = 200'
FLIGHT DATE 1/21/05

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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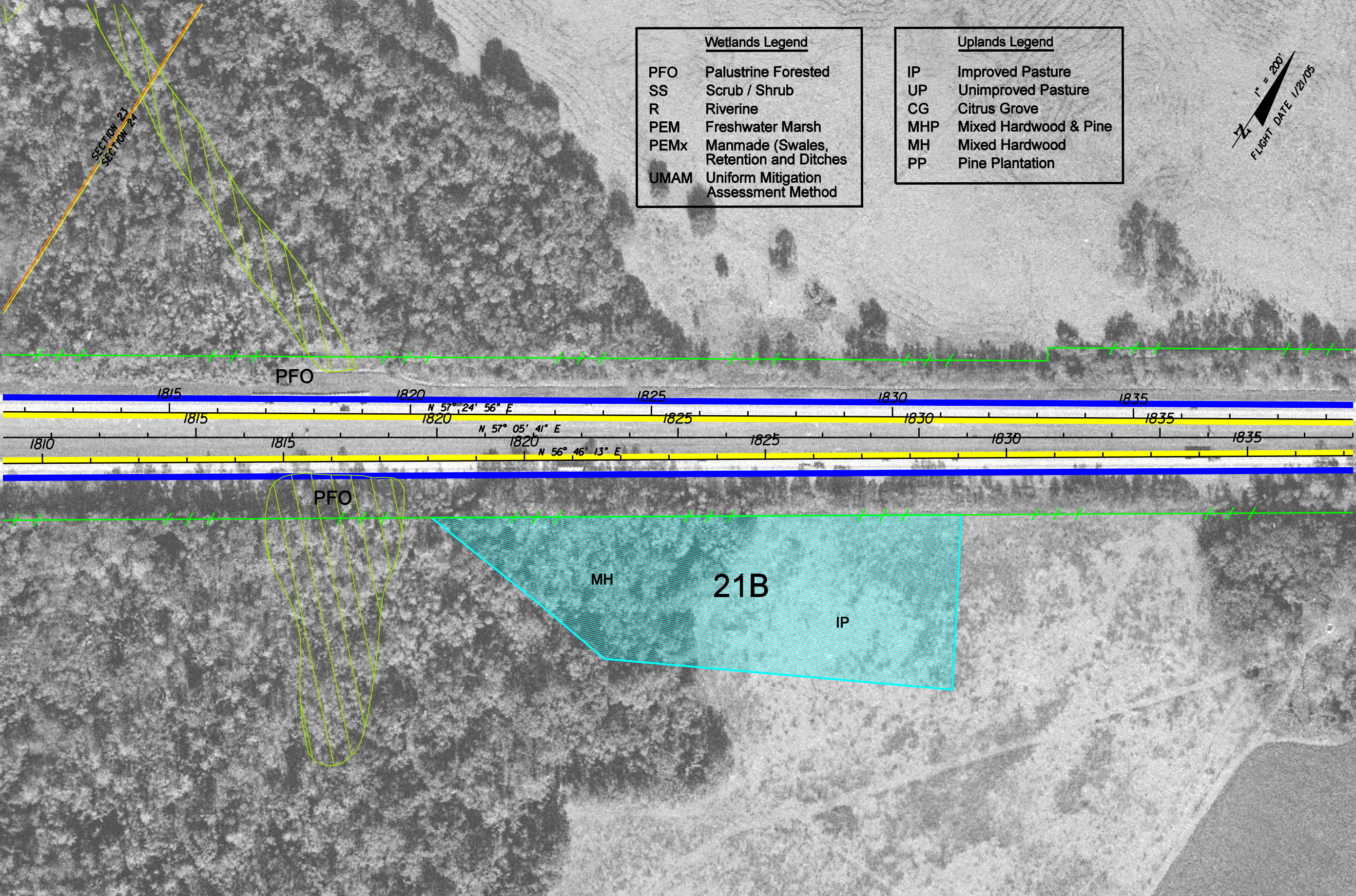
CONCEPT PLANS

SHEET NO.
23

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

LOCHNER
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 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

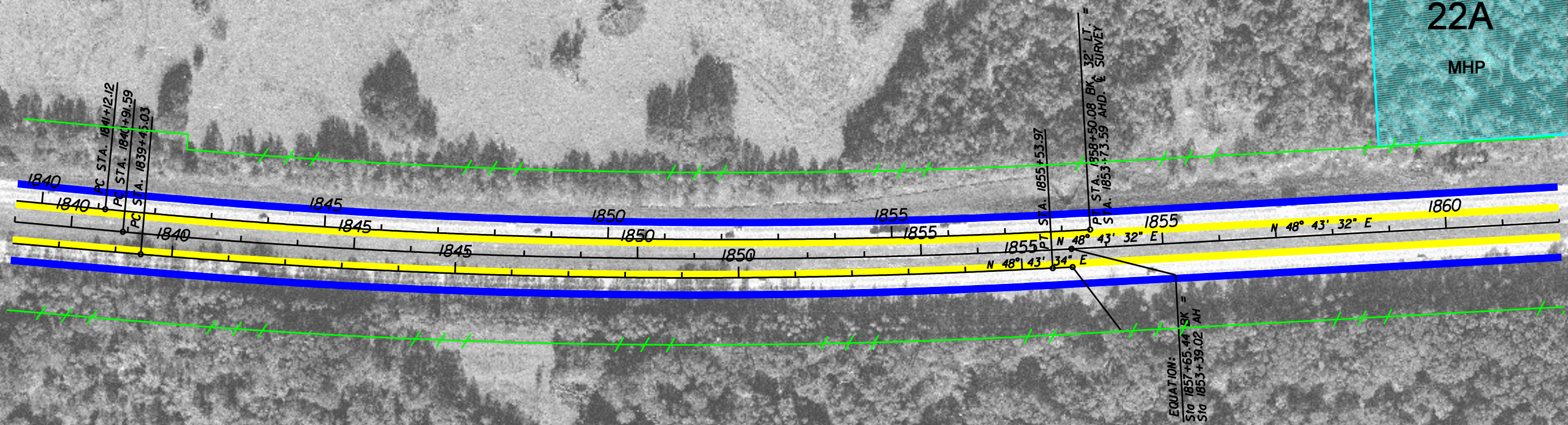
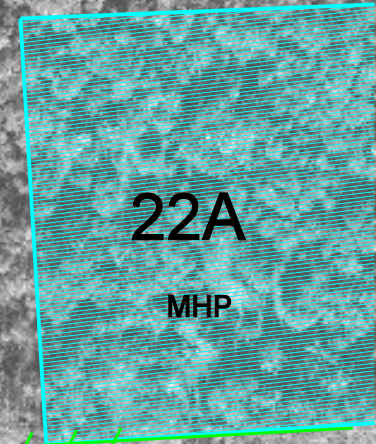
SHEET NO.
24

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE: 1/21/05

Hickory Hill Rd.



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

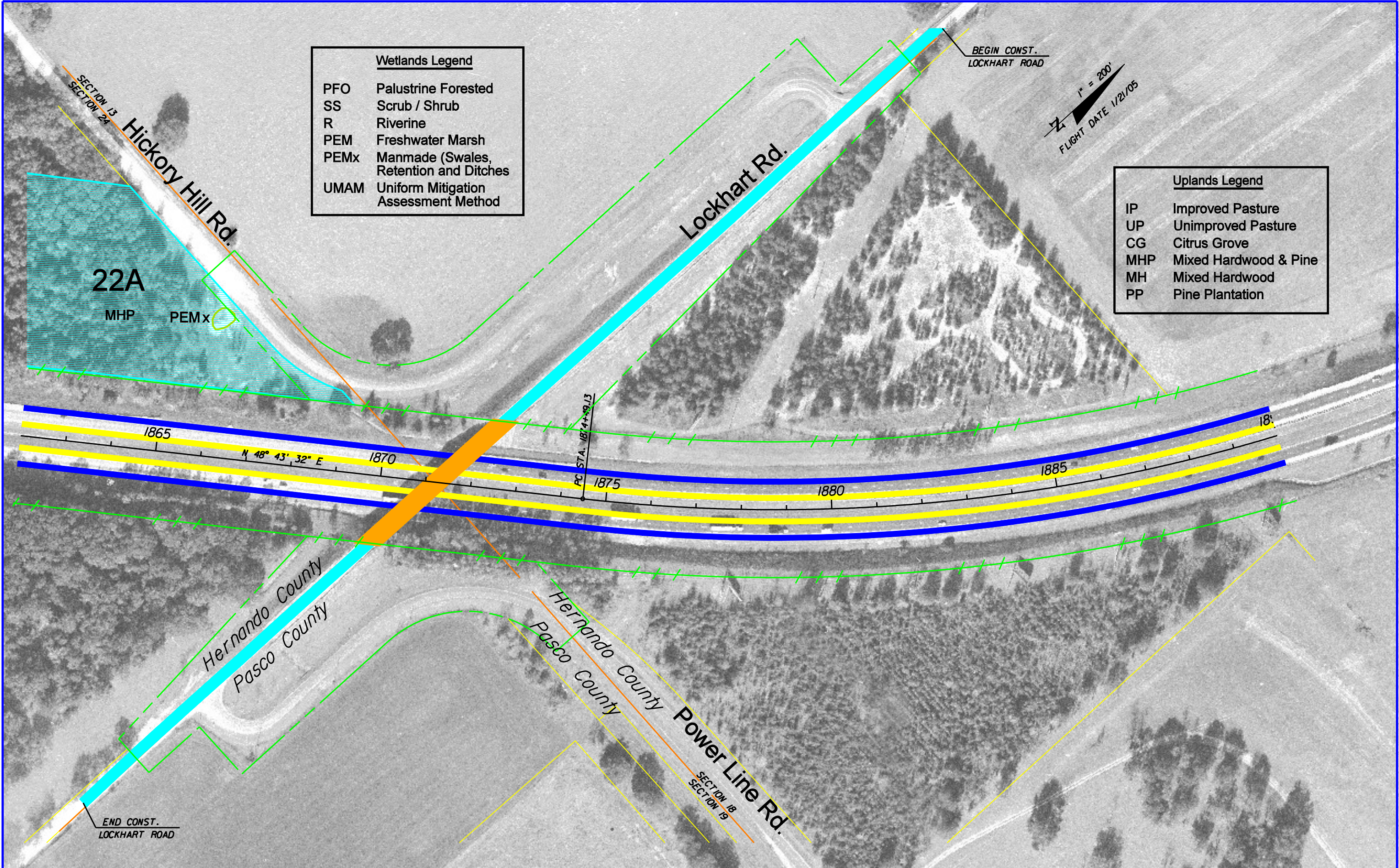
CONCEPT PLANS

SHEET NO.
25

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



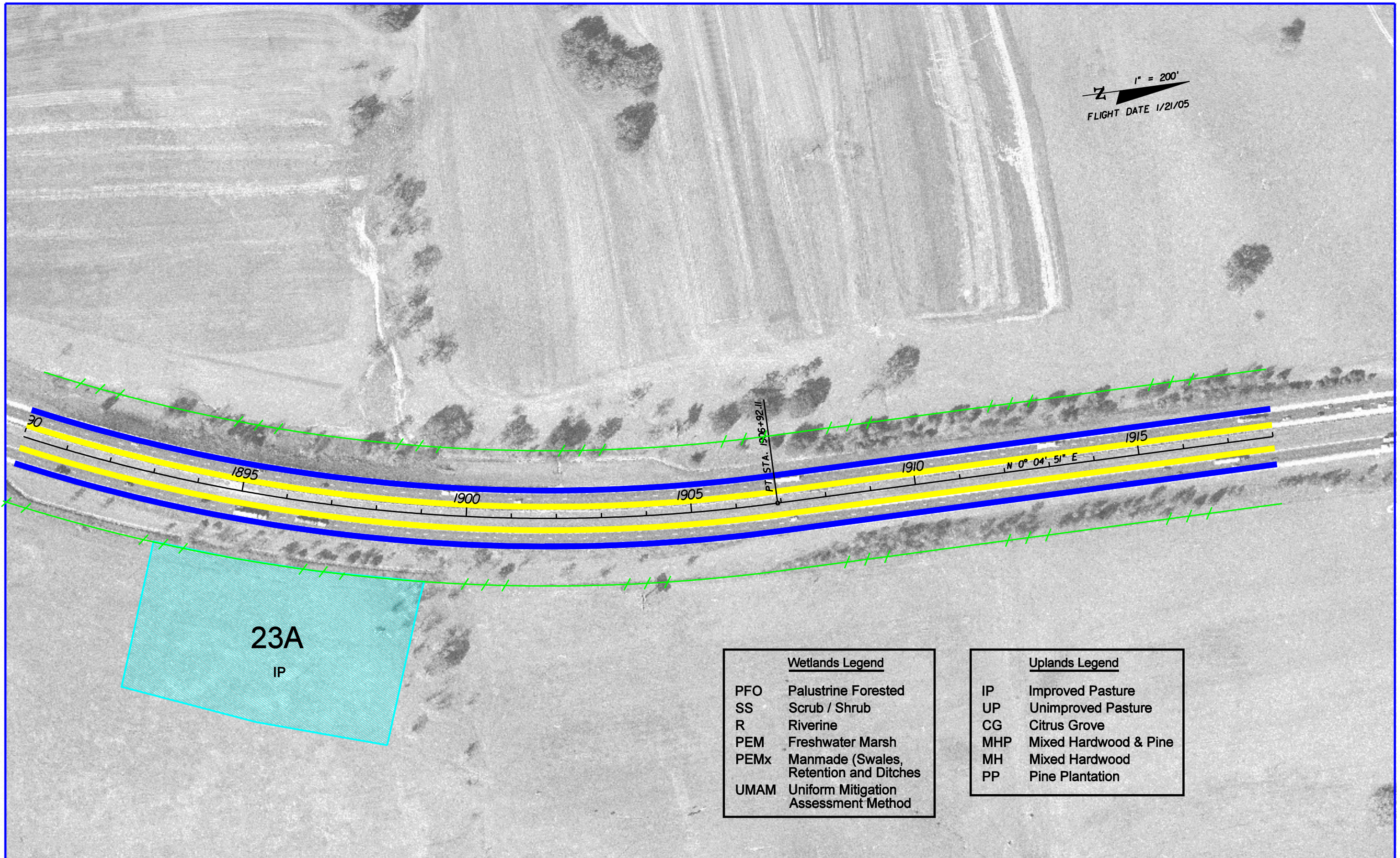
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	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		PROPERTY LINES
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		SECTION LINES
	INTERIM 6-LANE WIDENING		SECTION LINES		STATE FOREST BOUNDARY
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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CONCEPT PLANS	
SHEET NO.	26

1" = 200'
 FLIGHT DATE 1/21/05



23A
IP

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD
	PROPOSED RIGHT-OF-WAY		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED L/A RIGHT-OF-WAY		STATE FOREST BOUNDARY
	INTERIM 6-LANE WIDENING		WETLANDS
	ULTIMATE 8-LANE WIDENING		
	RECONSTRUCTED RAMP		
	RECONSTRUCTED CROSS ROAD		
	PROPOSED BRIDGE		
	PROPERTY LINES		
	SECTION LINES		

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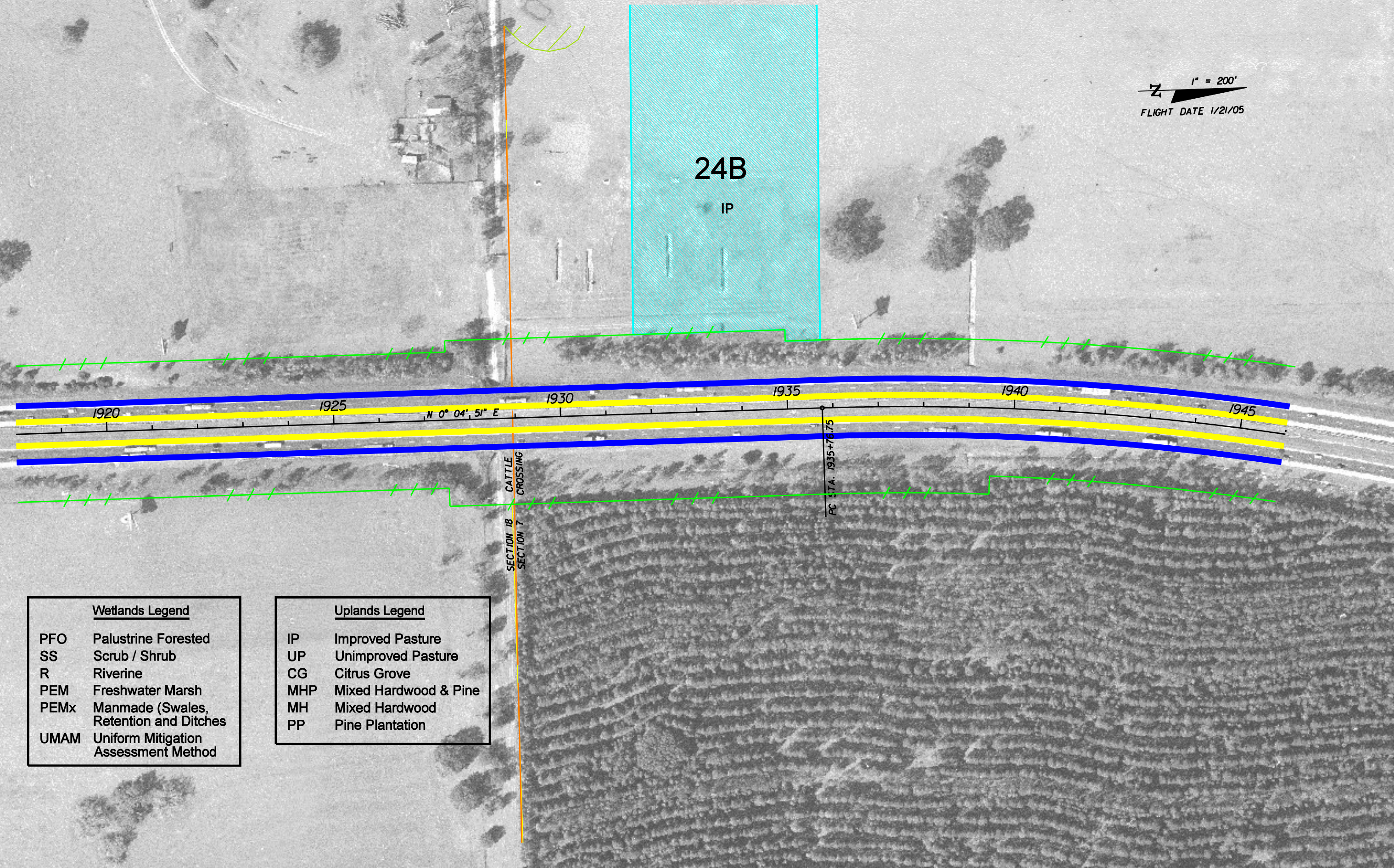
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
27

1" = 200'
 FLIGHT DATE 1/21/05

24B
 IP



Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

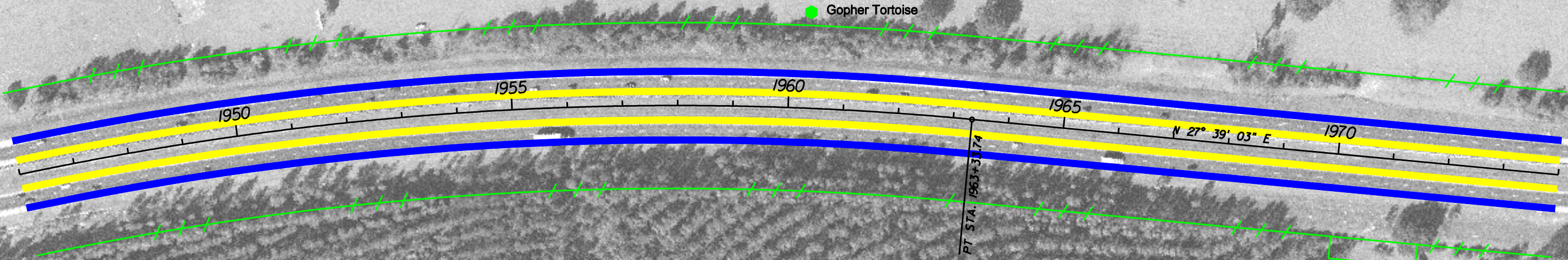
CONCEPT PLANS

SHEET NO.
 28

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

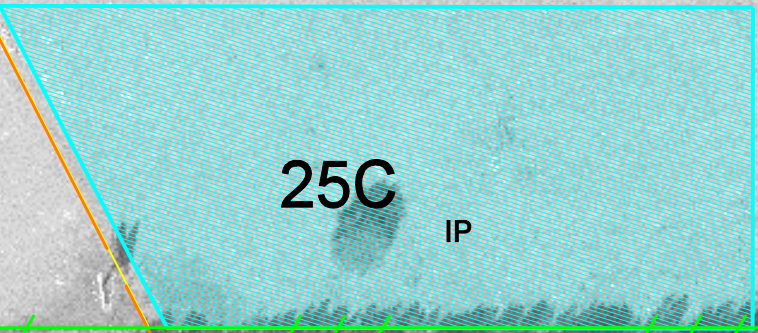
CONCEPT PLANS

SHEET NO.
29

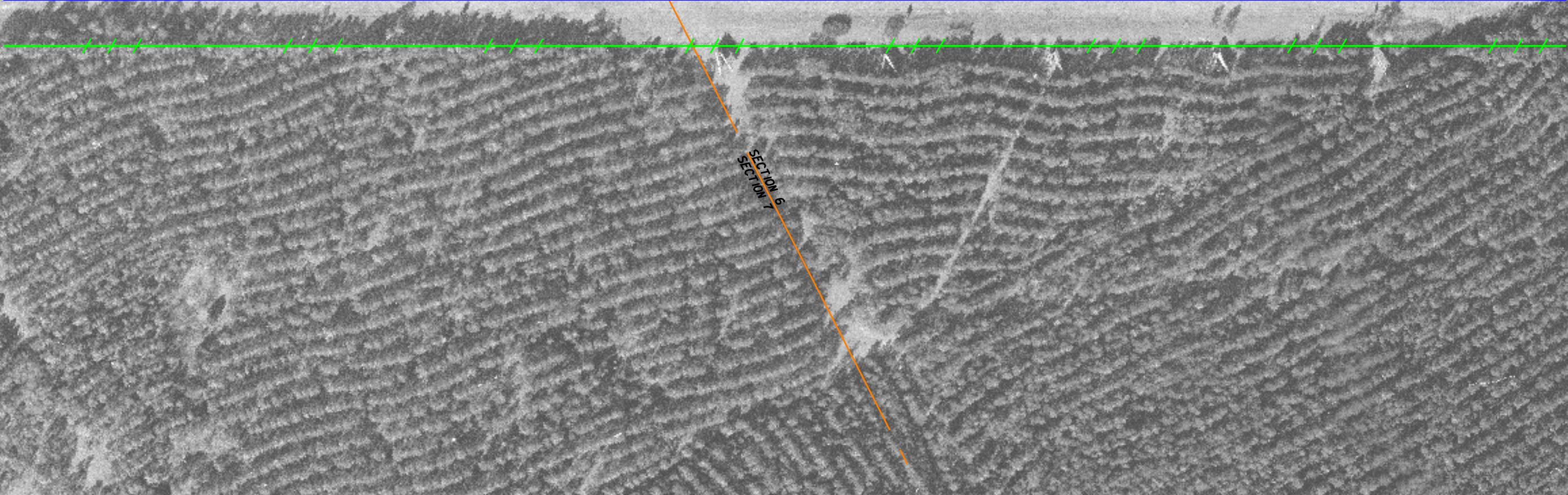
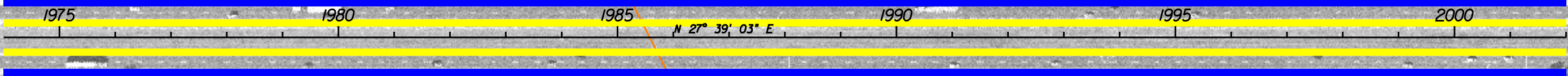
Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



25C IP



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

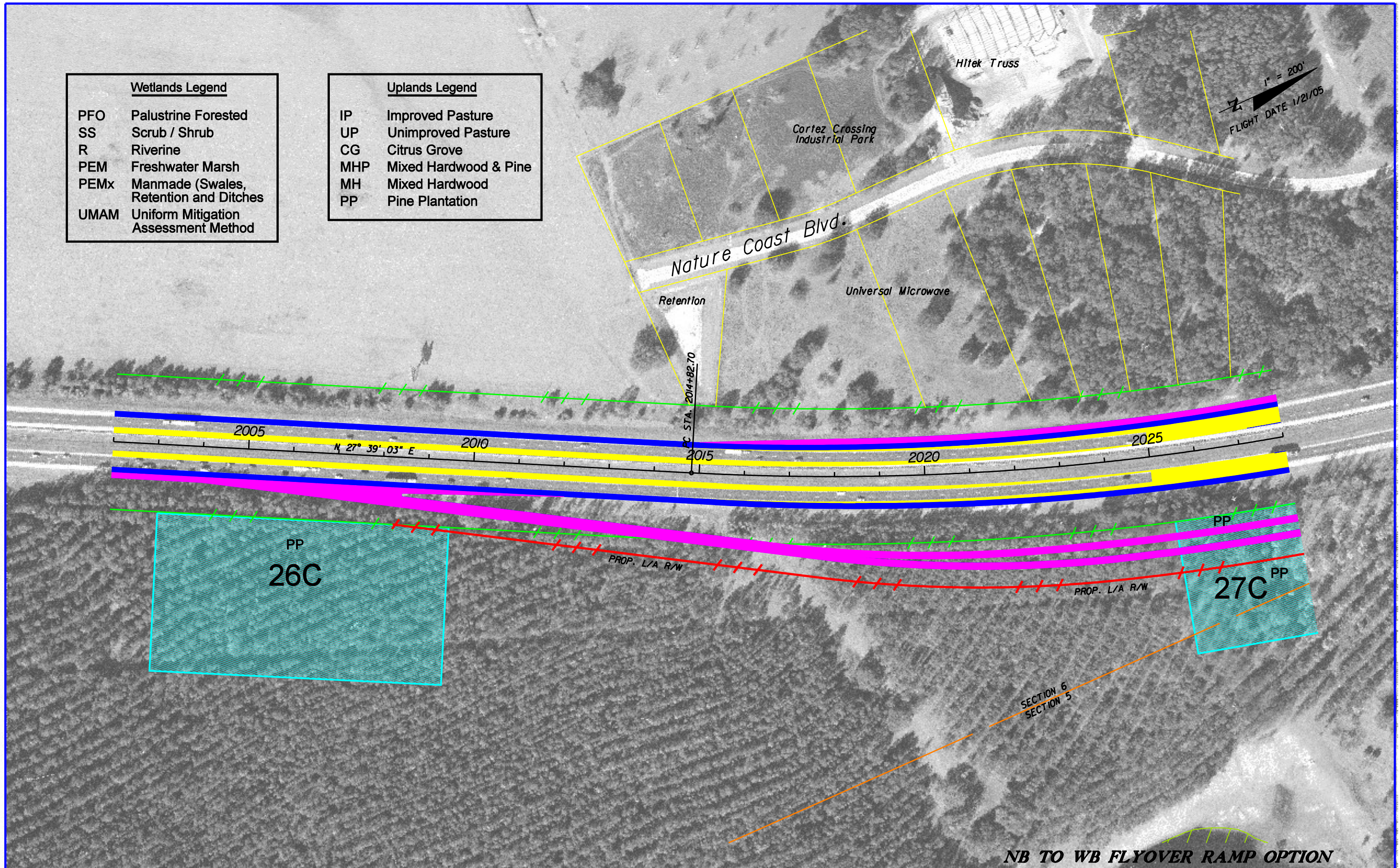
CONCEPT PLANS

SHEET NO.
30

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.
31

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

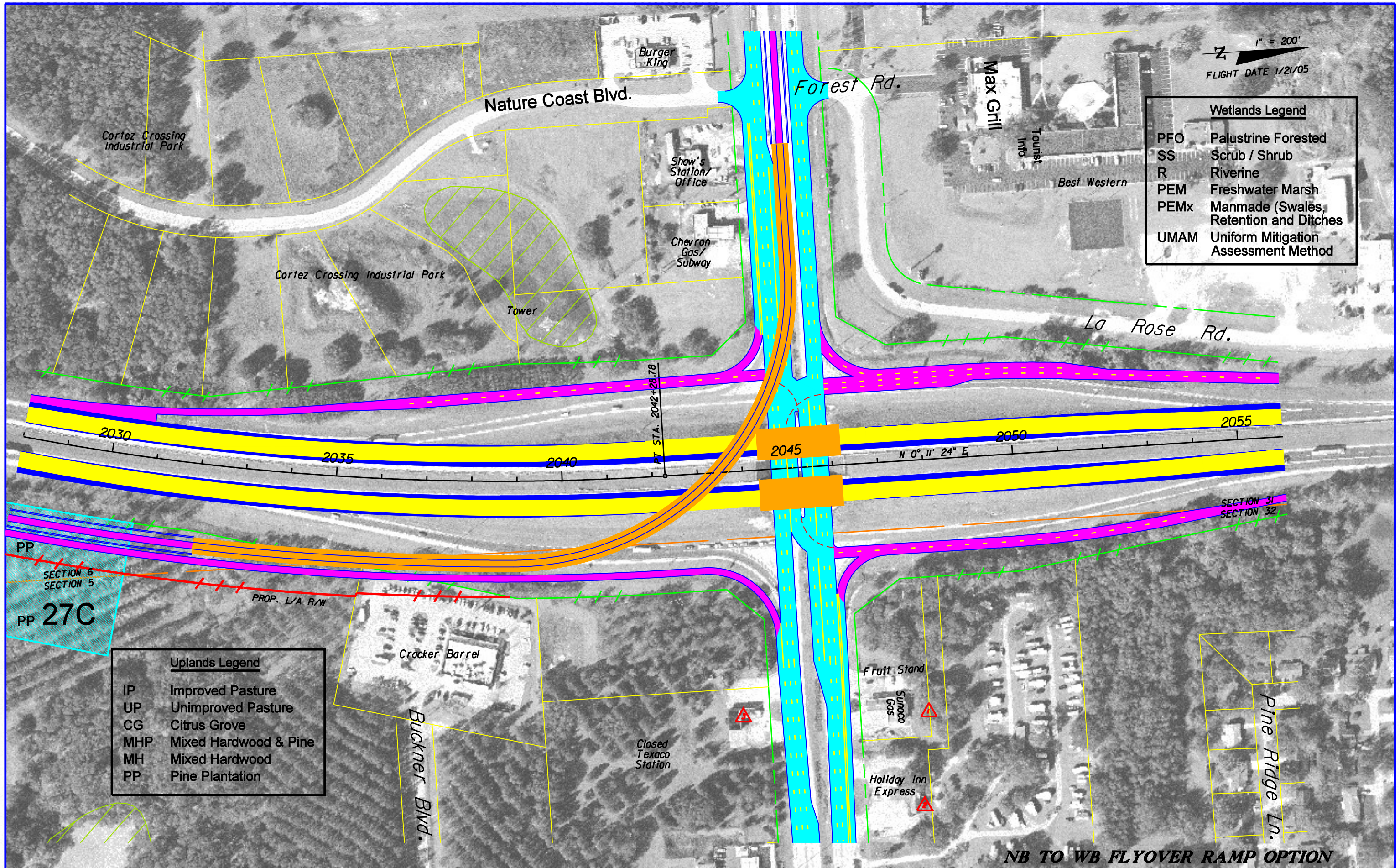
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 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
32

NB TO WB FLYOVER RAMP OPTION



1" = 200'
 FLIGHT DATE 1/21/05

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

Hampton Inns

U.S. 98/S.R. 50

SECTION 3
SECTION 6

U.S. 98/S.R. 50

NB TO WB FLYOVER RAMP OPTION

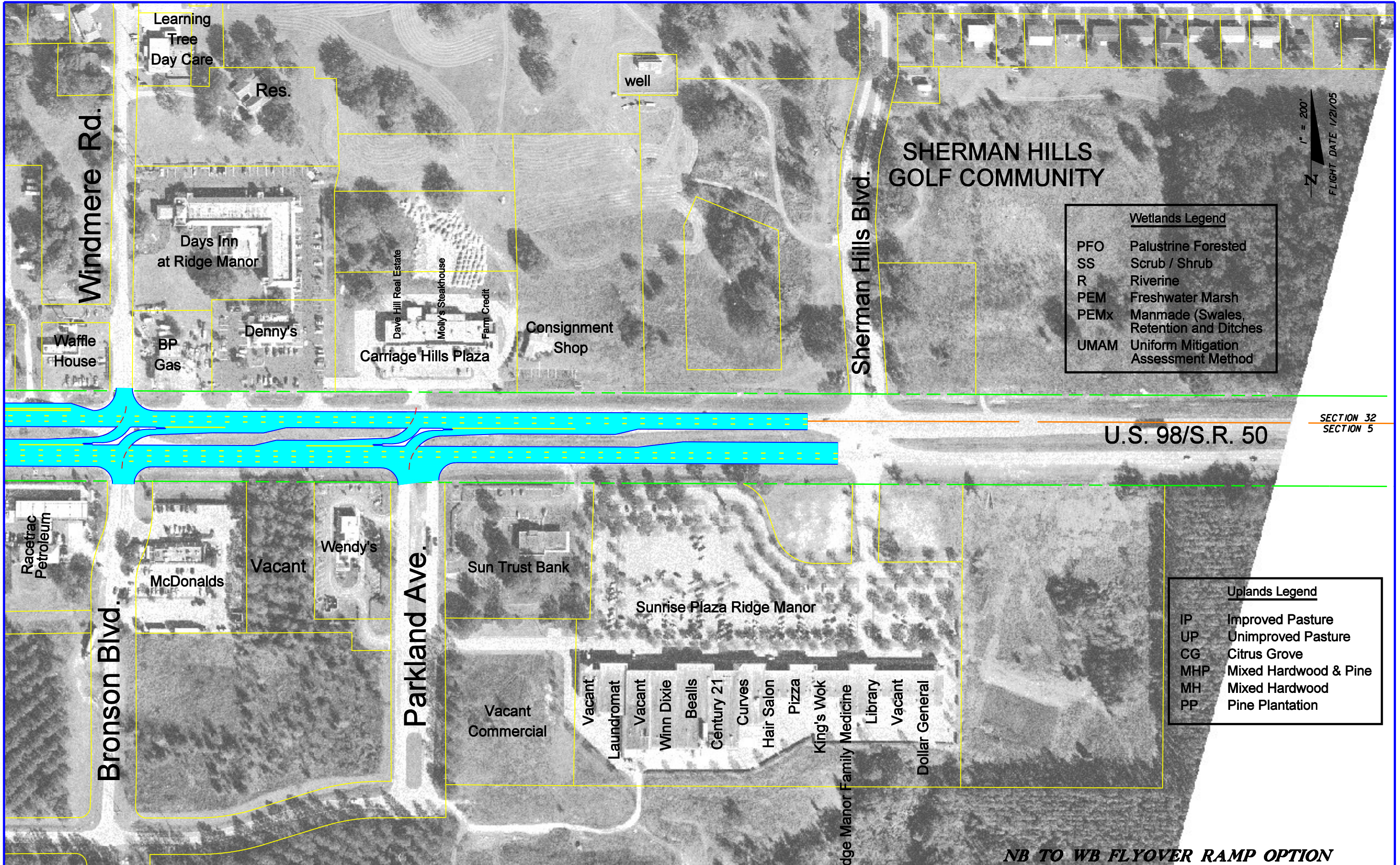
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	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
33



1" = 200'
N
FLIGHT DATE 1/21/05

Wetlands Legend

PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend

IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

SECTION 32
SECTION 5

U.S. 98/S.R. 50

NB TO WB FLYOVER RAMP OPTION

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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CONCEPT PLANS

SHEET NO.
34

1" = 200'
 FLIGHT DATE 1/21/05

Withlacoochee State Forest
 (Croom Motorcycle Area)

Withlacoochee State Forest
 (Croom Motorcycle Area)

Mini Storage
 Motorsports
 Motorcycle Shop

Gate

La Rose Rd.

2060

2065

2070

2075

2080

N. 0° 11' 24" E

SECTION 31
 SECTION 32

Tower

29C

IP

MH

IP

Sherman Hills Golf Course

First
 Lutheran
 Church

East Hernando
 Branch Library

Willow Bank Ave.

Park Ridge Dr.

Lexington Circle

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

NB TO WB FLYOVER RAMP OPTION

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
 35

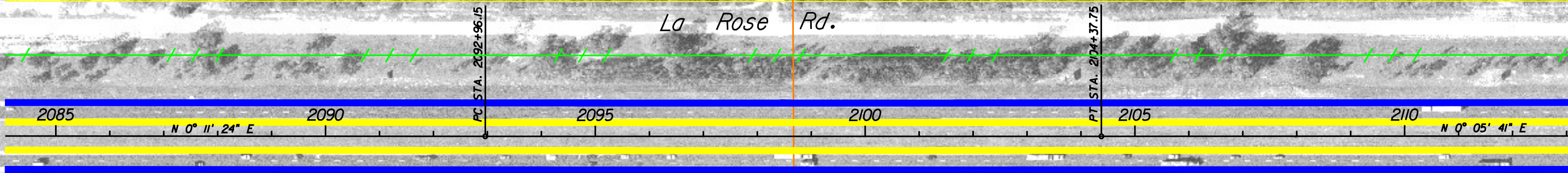
Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
 FLIGHT DATE 1/21/05

*Withlacoochee State Forest
 (Croom Motorcycle Area)*

La Rose Rd.



SECTION 31 / SECTION 32 SECTION 30 / SECTION 29

Sherman Hills Golf Course

Withlacoochee State Forest

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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CONCEPT PLANS

SHEET NO.
36

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

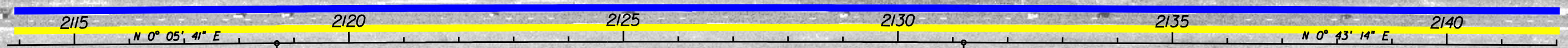


 1" = 200'

 FLIGHT DATE 1/21/05

*Withlacoochee State Forest
(Croom Motorcycle Area)*

La Rose Rd.




SECTION 30
SECTION 29

Withlacoochee State Forest

Eagle Nest HN-12B



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING				

LOCHNER

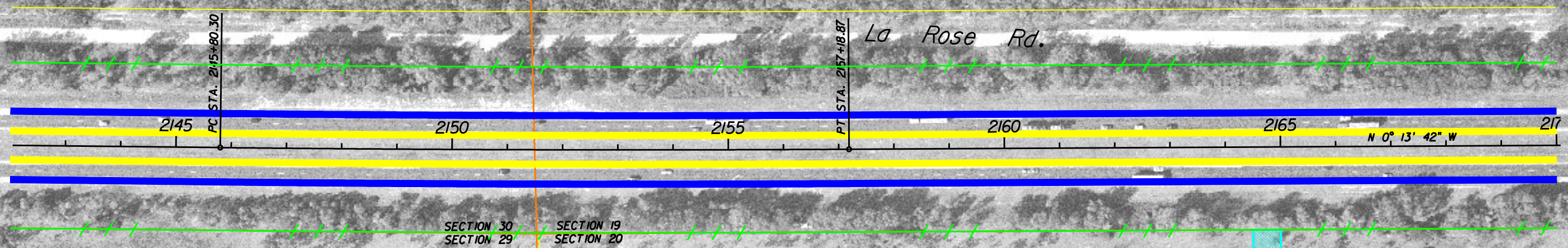
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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CONCEPT PLANS

SHEET NO.
37

Withlacoochee State Forest
(Croom Motorcycle Area)



SECTION 30
SECTION 29

SECTION 19
SECTION 20

IP

30B

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

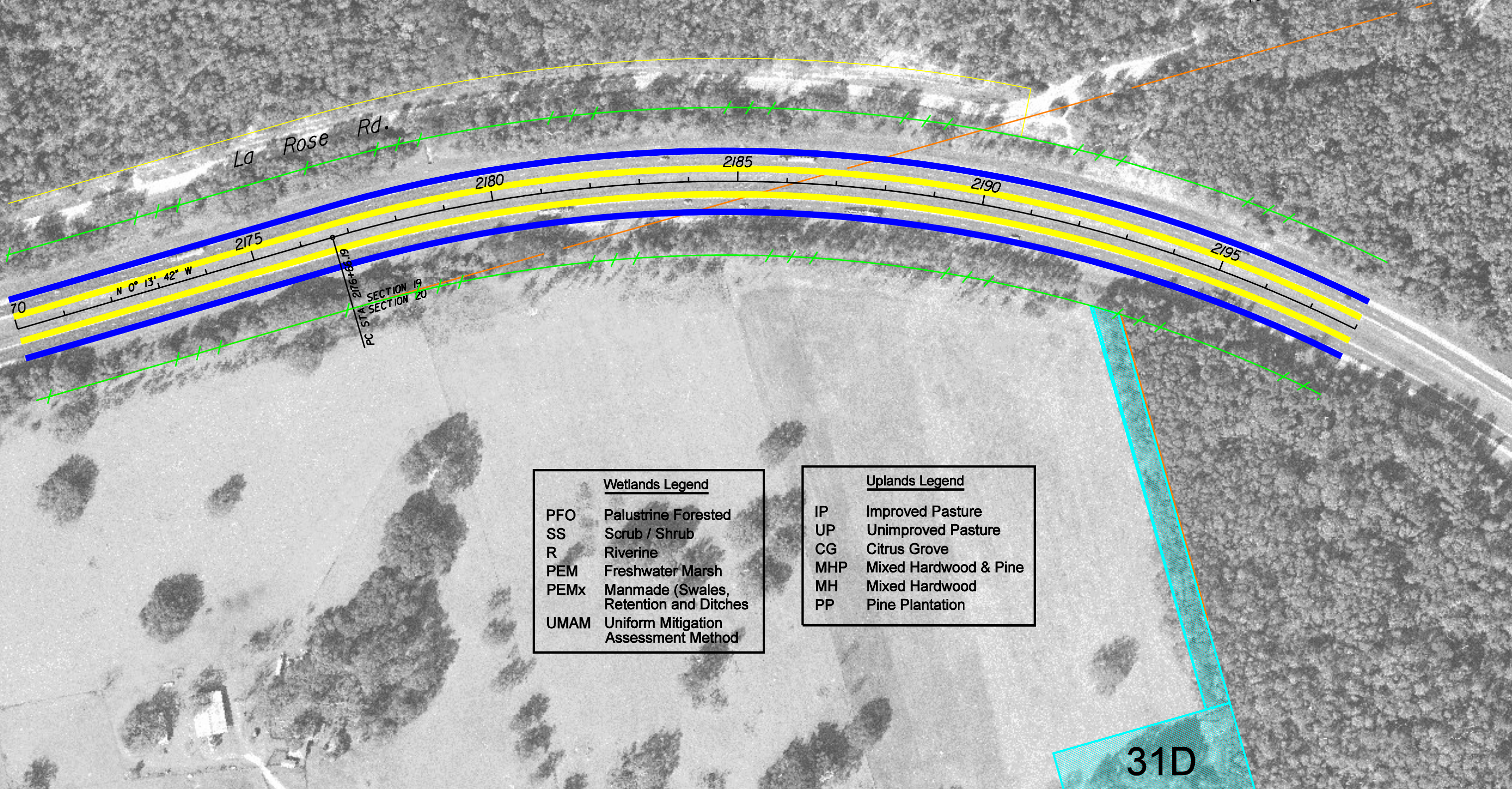
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

Withlacoochee State Forest
(Croom Motorcycle Area)

1" = 200'
FLIGHT DATE 1/21/05



Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

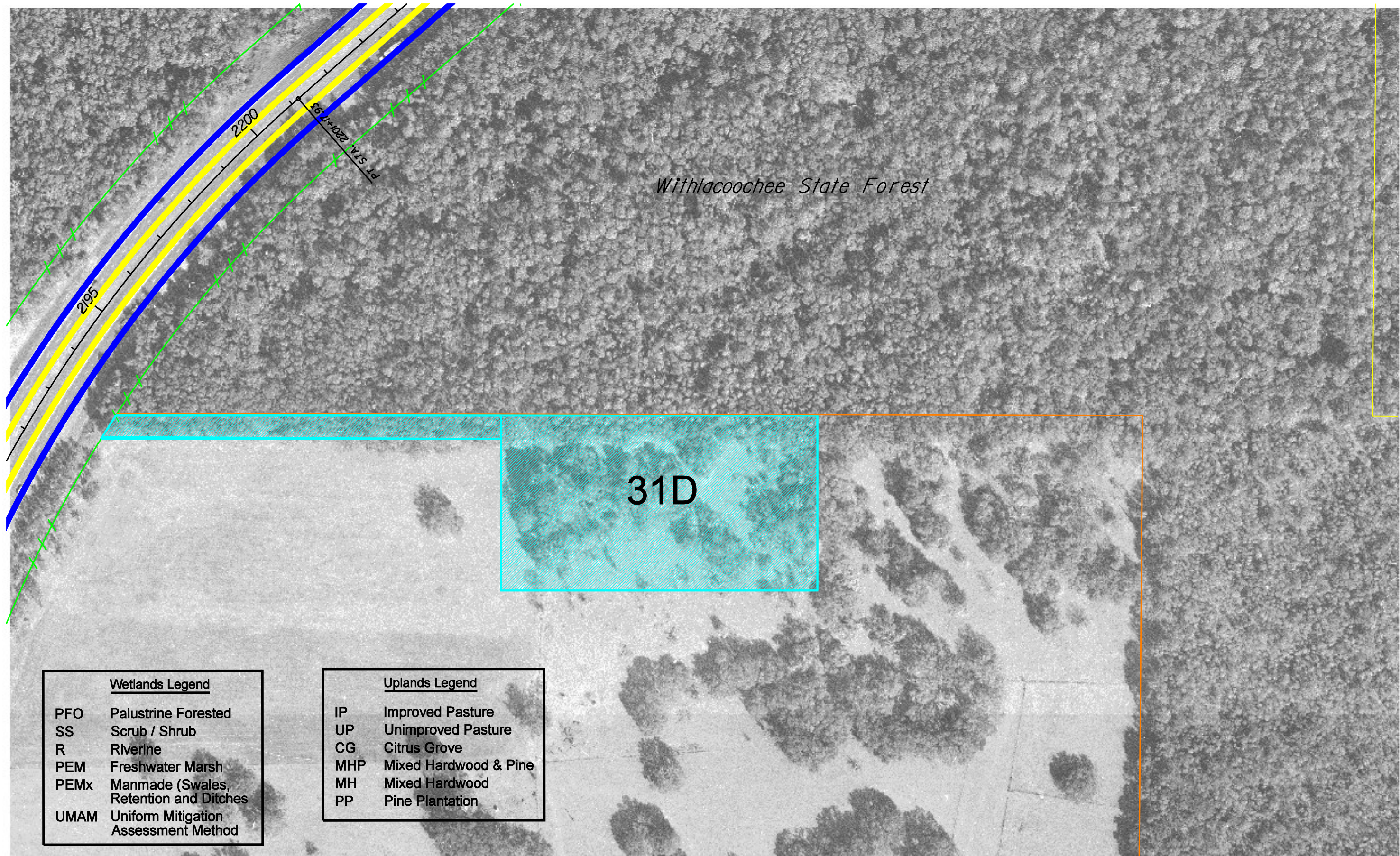
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	EXISTING L/A RIGHT-OF-WAY		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES
	INTERIM 6-LANE WIDENING		WETLANDS
	ULTIMATE 8-LANE WIDENING		RECONSTRUCTED RAMP
			RECONSTRUCTED CROSS ROAD

LOCHNER
13577 FEATHER SOUND DR. SUITE 600
CLEARWATER, FLORIDA 33762
FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
39



Withlacoochee State Forest

31D

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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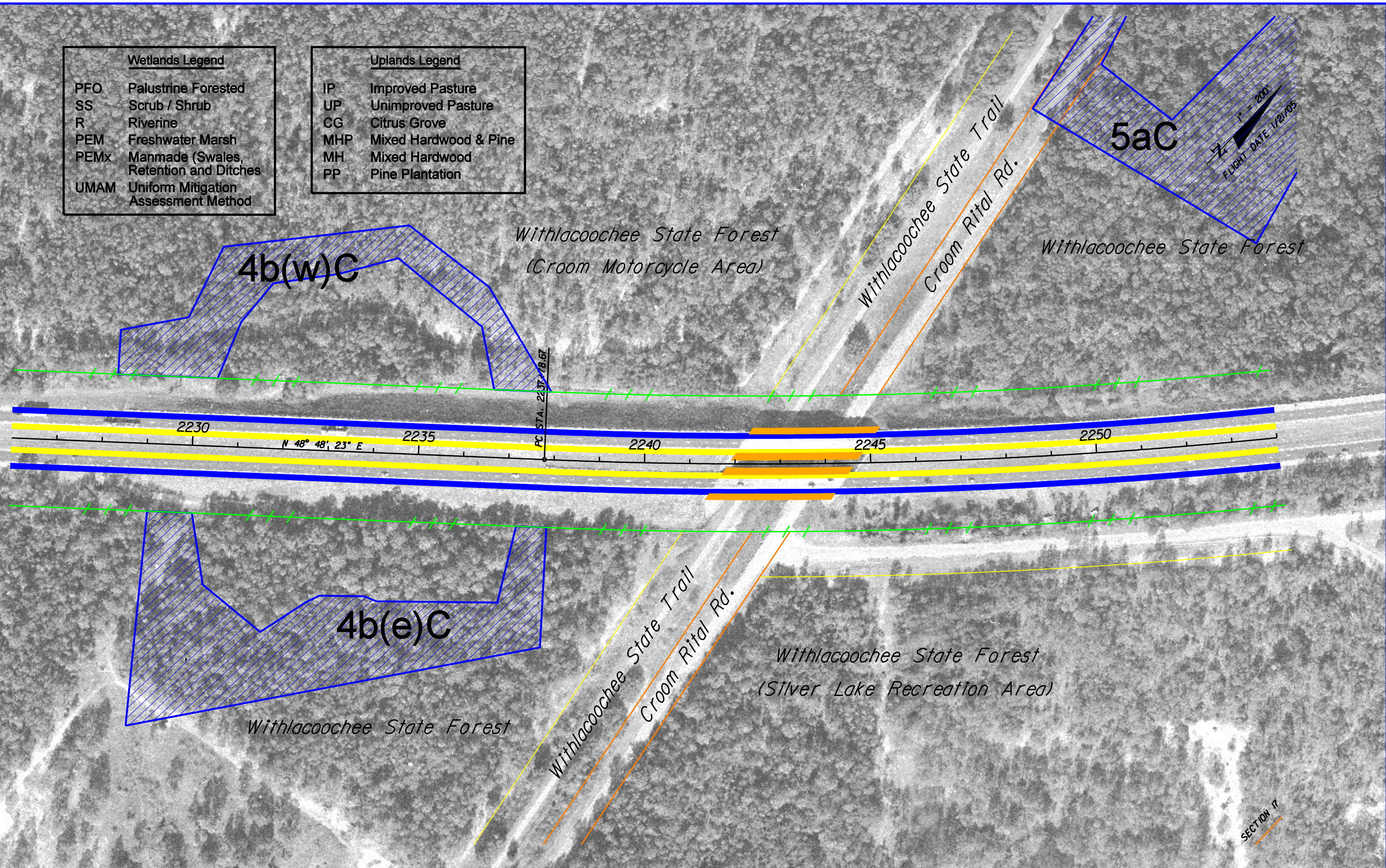
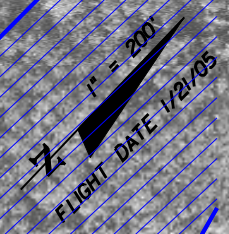
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
40

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.	41
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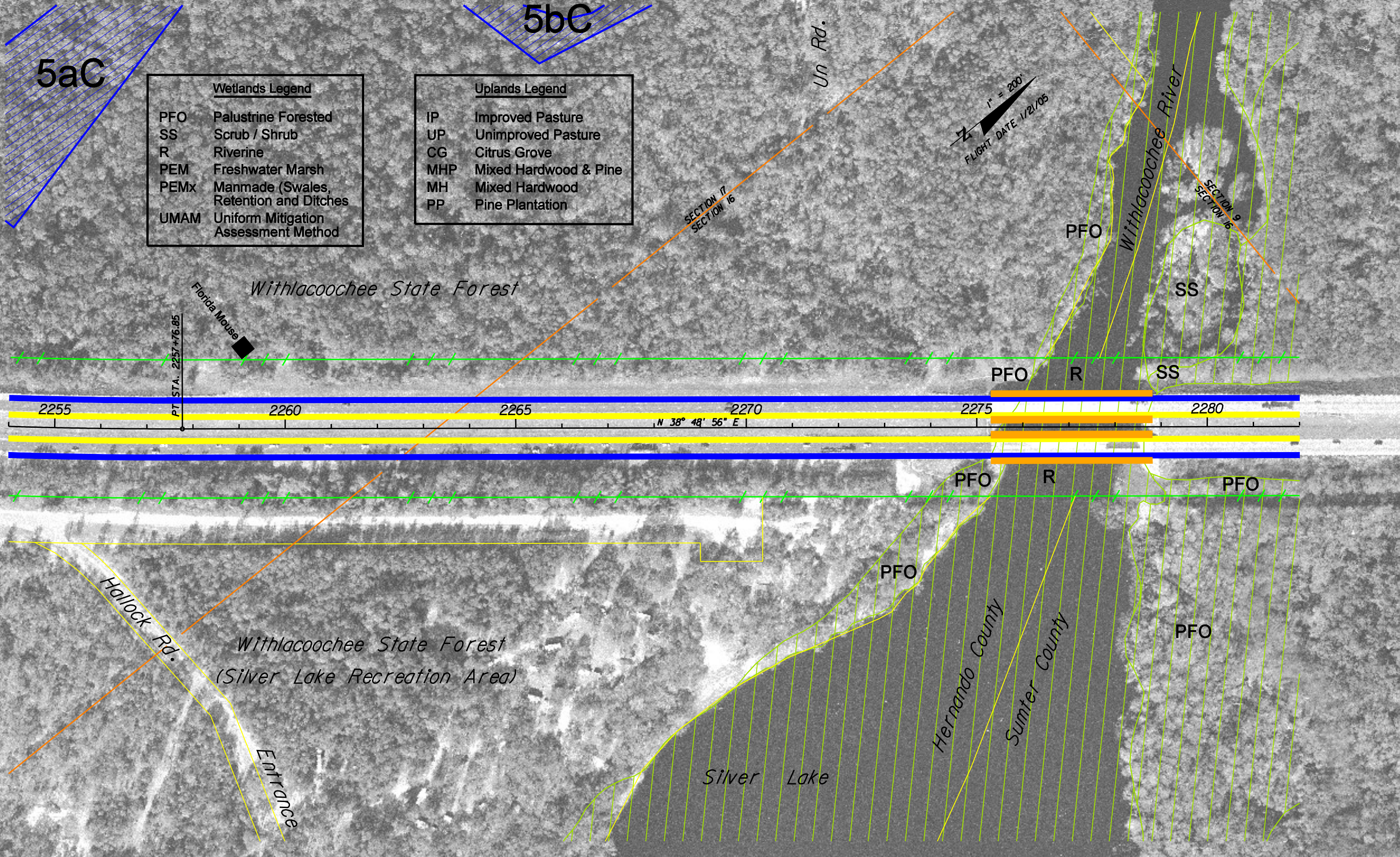
5aC

5bC

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

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 13577 FEATHER SOUND DR. SUITE 600
 CLEARWATER, FLORIDA 33762
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

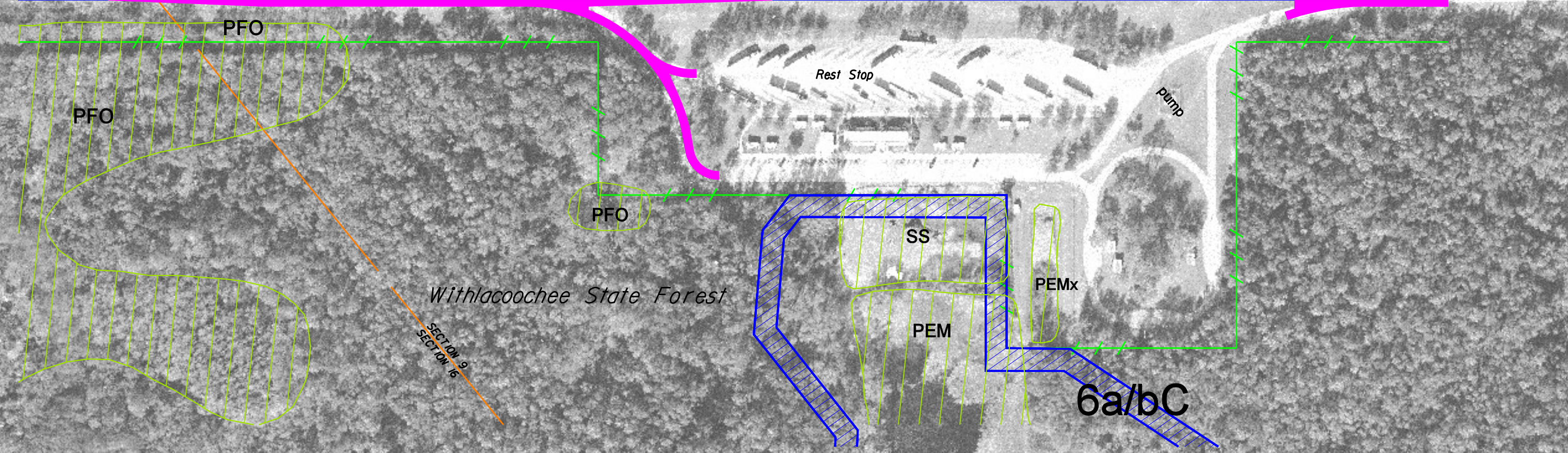
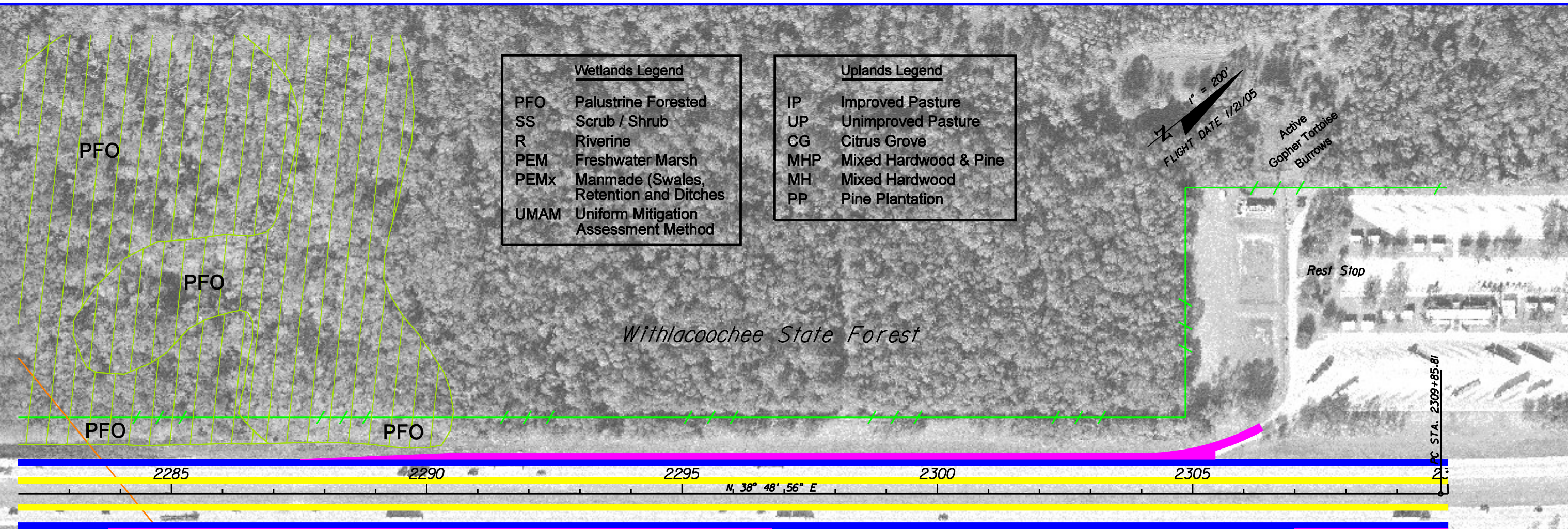
CONCEPT PLANS

SHEET NO.
42

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

1" = 200'
FLIGHT DATE 1/21/05



	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

LOCHNER
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 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
43

Withlacoochee State Forest

1" = 200'
FLIGHT DATE 1/21/05

Rest Stop

PEMx

110

2315

2320

2325

PT STA. 2326+36.86

2330

2335

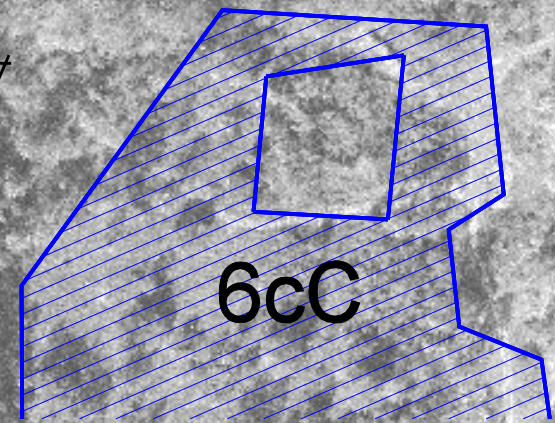
N 22° 18' 18" E

Active Gopher Tortoise Burrows

Forestry Rd.

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Withlacoochee State Forest



Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		STORMWATER NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		WETLANDS
	INTERIM 6-LANE WIDENING				
	ULTIMATE 8-LANE WIDENING				

LOCHNER
 13577 FEATHER SOUND DR. SUITE 600
 CLEARWATER, FLORIDA 33762
 FBPR CERTIFICATE OF AUTH. # 894

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
44

1" = 200'
FLIGHT DATE 1/21/05

St. Catherine Rd.
(CR 476B)

Withlacoochee State Forest

7C

END PROJECT
STA. 2356+25

2340 2345 2350 2355 2360 2365
N 22° 18' 18" E

RECOMMENDED RAMP
FPN 242626-1
PD&E STUDY

Withlacoochee State Forest

Wetlands Legend	
PFO	Palustrine Forested
SS	Scrub / Shrub
R	Riverine
PEM	Freshwater Marsh
PEMx	Manmade (Swales, Retention and Ditches)
UMAM	Uniform Mitigation Assessment Method

Uplands Legend	
IP	Improved Pasture
UP	Unimproved Pasture
CG	Citrus Grove
MHP	Mixed Hardwood & Pine
MH	Mixed Hardwood
PP	Pine Plantation

SECTION 9
SECTION 10
SECTION 4
SECTION 3

	EXISTING RIGHT-OF-WAY		RECONSTRUCTED RAMP		PREFERRED STORMWATER PONDS
	EXISTING L/A RIGHT-OF-WAY		RECONSTRUCTED CROSS ROAD		NATURAL DISCHARGE AREAS
	PROPOSED RIGHT-OF-WAY		PROPOSED BRIDGE		STATE FOREST BOUNDARY
	PROPOSED L/A RIGHT-OF-WAY		PROPERTY LINES		
	INTERIM 6-LANE WIDENING		SECTION LINES		
	ULTIMATE 8-LANE WIDENING		WETLANDS		

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 93	PASCO, HERNANDO AND SUMTER	411014-1-32-01

CONCEPT PLANS

SHEET NO.
45

APPENDIX B

UMAM Data Sheets

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name I-75		Application Number	Assessment Area Name or Number PFO 1
FLUCCs code 610	Further classification (optional)	Impact or Mitigation Site? Impact	Assessment Area Size
Basin/Watershed Name/Number Hillsboro River	Affected Waterbody (Class)	Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands wetland wetland is isolated but in close proximity to other wetlands. surface water generally flows west toward cypress creek & ultimately into the Hillsboro River			
Assessment area description within Row of I-75 Hardwood SP. is mostly maple w/ lots of skunk vine. Highly Disturbed. outside of Row (and impact area) it is nicer & dominated by cypress			
Significant nearby features in close proximity to a historic wood stork Rookery	Uniqueness (considering the relative rarity in relation to the regional landscape.) None using wetland as R		
Functions provides natural storage area, flow attenuation & water quality improvement. In Row so not so beneficial to wildlife	Mitigation for previous permit/other historic use Highway ROW		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Not much can be found w/in Row but area in general should have lots of deer, turkey, med. & small mammals & a variety of Herps	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) None		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): None			
Additional relevant factors:			
Assessment conducted by: DAVID Petti		Assessment date(s): 10/12/06	

ERAonline:
Resources of Interest Report
Lat 28° 19m 35.93s , Lon -82° 19m 22.43s

[Print](#)


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Introduction:

This report provides the general public and local governments access to a geographic information systems (GIS) analysis of jurisdictional boundaries and environmental resources of interest to the environmental resource permitting process. The purpose of this report to improve this process by providing permit applicants with information and interpretation of the Florida Department of Environmental Protection's role and concerns in this process.

Key:

Two different types of analysis are available...


 **Pinpoint Analysis** - reports resources intersected by analysis point

 **Buffer Analysis** - reports resources within a 1 mile buffer around selected analysis point

Unaffected data layers...

Unaffected - data layers reporting "Unaffected" means no data was found within the analysis area. This may be the result of the analysis area not having been surveyed for a particular resource. Therefore, receiving "Unaffected" in this analysis does not necessarily mean resources are lacking from the area.

Information for Permit Application

 **USGS Quad Map**

SAN ANTONIO

 **Township/Range/Section**

25S20E8


Jurisdictional Boundaries

 **FDEP Regulatory District**

Southwest District

 **Water Management District**

Southwest Florida WMD

 **US Army Corps of Engineers**

WEST PERMITS SECTION

 **County**

PASCO

 **City**

Unaffected

 **Coastal Construction Control Line**

Unaffected

Water Resources

 **Aquatic Preserves**

Unaffected

 **Outstanding Florida Waters**

Name

Unaffected

Type

 **Surface Water Body Classification**

Name

Class

Unaffected

Fish and Wildlife Resources

 **FNAI Bird Aggregation Areas**

BIRD ROOKERY

 **FNAI Rare Animals**

Unaffected

 **FNAI Rare Plants**

Unaffected

 **FNAI Manatee Aggregation Areas**

Unaffected

 **FWCC Manatee Protection Zones**

Unaffected

 **FWCC Biodiversity Hotspots**

Unaffected

 **FWCC Priority Wetlands**

Unaffected

 **FWCC Strategic Habitat Conservation Areas**

Priority Habitat

 **Sea Turtle Nesting**

Unaffected

Habitats

 **FMRI Mangroves**

Unaffected

 **FNAI Rare Habitats**

Unaffected

 **FMRI Salt Marshes**

Unaffected

 **FMRI Seagrasses**

Unaffected

 **FMRI Tidal Flats**

Unaffected

Mitigation and Restoration Opportunities

 **Florida Ecological Restoration Inventory**

Unaffected

 **Mitigation Bank Service Areas**

Unaffected

PART II – Quantification of Assessment Area (Impact or mitigation)
 (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name I-75	Application Number	Assessment Area Name or Number PFO 1
Impact or Mitigation Impact	Assessment conducted by: Dave Petti	Assessment date: 10/2/06

Scoring Guidance
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current <input type="checkbox"/> with <input type="checkbox"/> 6	Proximity to ROW inhibits wildlife Exotics in area Agriculture in area
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current <input type="checkbox"/> with <input type="checkbox"/> 7	Proximity to ROW is limiting factor for water Env. scores. Good healthy wetland outside ROW. Yes slightly stressed in ROW w/ some nuisance & Exotic sp.
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current <input type="checkbox"/> with <input type="checkbox"/> 4	Assessment area outside of impact area is pretty good. However, its proximity to ROW inhibits natural composition

Score = sum of above scores/30 (if uplands, divide by 20)
 current or w/o pres with
0.6

If preservation as mitigation,
 Preservation adjustment factor =
 Adjusted mitigation delta =

For impact assessment areas
 FL = delta x acres =

Delta = [with-current]

If mitigation
 Time lag (t-factor) =
 Risk factor =

For mitigation assessment areas
 RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
 (See Section 62-345.400, F.A.C.)

Site/Project Name I-75		Application Number	Assessment Area Name or Number PEM	
FLUCCs code 641		Further classification (optional)	Impact or Mitigation Site? IMPACT	Assessment Area Size
Basin/Watershed Name/Number Cypress Creek North	Affected Waterbody (Class) Hillsboro River	Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands wetland is isolated & in Highway ROW. Surface water generally flows west toward cypress creek				
Assessment area description w/in ROW for I-75. Mostly <u>Ludwigia peruviana</u> Highly Disturbed site				
Significant nearby features		Uniqueness (considering the relative rarity in relation to the regional landscape.) NONE		
Functions water storage during droughts nutrient assimilation important wildlife habitat		Mitigation for previous permit/other historic use Highway ROW		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) wetlands in the ROW of I-75 Do not generally have lots of wildlife utilization. Directly adjacent to pasture		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) NONE		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): NONE				
Additional relevant factors:				
Assessment conducted by: DAVID Petti		Assessment date(s): 10/2/06		

1440E

FM

PART II – Quantification of Assessment Area (Impact or mitigation)
 (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name I-75	Application Number	Assessment Area Name or Number PEM
Impact or Mitigation IMPACT	Assessment conducted by: DAVID Petti	Assessment date: 10/2/06

Scoring Guidance
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current <input type="checkbox"/> 3 <input type="checkbox"/> with	in Row, Pres maintained By periodic clearings, Heavy exotic component Dominated by <i>Ludwigia peruviana</i>
.500(6)(b) Water Environment (n/a for uplands) w/o pres or current <input type="checkbox"/> 3 <input type="checkbox"/> with	in Row, swale adjacent High nutrient input from adjacent livestock
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current <input type="checkbox"/> 2 <input type="checkbox"/> with	Heavy invasives, cleared periodically (Disturbed) adjacent uplands are roadway + livestock

Score = sum of above scores/30 (if uplands, divide by 20)

current or w/o pres **63** with

If preservation as mitigation,
 Preservation adjustment factor =
 Adjusted mitigation delta =

For impact assessment areas
 FL = delta x acres =

Delta = [with-current]

If mitigation
 Time lag (t-factor) =
 Risk factor =

For mitigation assessment areas
 RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

1329F
L3F

Site/Project Name I-75		Application Number		Assessment Area Name or Number SS1	
FLUCCs code 631		Further classification (optional)		Impact or Mitigation Site? Impact	
Basin/Watershed Name/Number Withlacoochee R. Withlacoochee R. S.		Affected Waterbody (Class) MUD Lake		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands on Edge of Mud Lake RIGHT next to I-75					
Assessment area description scrub shrub wetland Dominated by <u>Salix caroliniana</u>					
Significant nearby features Mud Lake			Uniqueness (considering the relative rarity in relation to the regional landscape.) NOT Unique		
Functions Provides cover & forage for a variety of wildlife			Mitigation for previous permit/other historic use unknown historic use except for the Highway		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Probably used by a host of aquatic species, and wading birds, and herps			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) possibly used by wood storks & alligators & other wading birds		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): No wildlife observed					
Additional relevant factors:					
Assessment conducted by: DAVID Petti			Assessment date(s): 10/2/06		

PART II - Quantification of Assessment Area (impact or mitigation)
 (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name I-75	Application Number	Assessment Area Name or Number R 551
Impact or Mitigation Impact	Assessment conducted by: DAVID Petti	Assessment date: 10/2/06

Scoring Guidance
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Good Buffer on 3 sides Edge of mud lake	
	w/o pres or current 7	with
.500(6)(b) Water Environment (n/a for uplands)	Levels are impacted Dead trees on edge & fennel coming in so veg is stressed. Lots of livestock in Basin impacting quality Road impact water quality & short flow	
	w/o pres or current 7	with
.500(6)(c) Community structure 1. Vegetation and/or 2. Benthic Community	some exotic/invasive structure altered In Row Area Disturbed by maintenance activities an alterations DO to Roadway construction canopy trees stressed & dead	
	w/o pres or current 6	with

Score = sum of above scores/30 (if uplands, divide by 20)

current or w/o pres .7	with
-------------------------------------	------

If preservation as mitigation,

Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas

FL = delta x acres =

Delta = [with-current]

If mitigation

Time lag (t-factor) =
Risk factor =

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

1410

Site/Project Name I-75		Application Number	Assessment Area Name or Number (R2) Bee Branch	
FLUCCs code 510	Further classification (optional)		Impact or Mitigation Site? IMPACT	Assessment Area Size
Basin/Watershed Name/Number Beetree Branch Hillsboro River	Affected Waterbody (Class) Beetree Branch	Special Classification (i.e. OFW, AP, other local/state/federal designation of importance)		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Bee Branch is connected to cypress creek which ultimately flows into the Hillsboro River				
Assessment area description intermittant stream some Ludwisia peruviana & hardwood saplings				
Significant nearby features Cypress creek		Uniqueness (considering the relative rarity in relation to the regional landscape.) None		
Functions Provides Flood abatement, water quality enhancement, ^{or} diffusion & detritus export to downstream system Provides food & cover opportunities for wildlife		Mitigation for previous permit/other historic use unknown historic use except for Highway		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) In ROW so not much utilization by wildlife Maintained by mowing and/or chopping		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) None		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): None				
Additional relevant factors:				
Assessment conducted by: DAVID Petti		Assessment date(s): 10/2/06		

Stream

PART II – Quantification of Assessment Area (impact or mitigation)
 (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name I-75	Application Number	Assessment Area Name or Number (R1) Bee Branch
Impact or Mitigation Impact	Assessment conducted by: DAVID Pettl	Assessment date: 10/2/06

Scoring Guidance
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate (7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

<p>.500(6)(a) Location and Landscape Support</p> <p>w/o pres or current <input type="checkbox"/> 5 <input type="checkbox"/> with <input type="checkbox"/></p>	<p>Ephemeral, not supporting A lot Roadway impedes wildlife movement Dry at time of assessment in Highway ROW</p>
<p>.500(6)(b) Water Environment (n/a for uplands)</p> <p>w/o pres or current <input type="checkbox"/> 4 <input type="checkbox"/> with <input type="checkbox"/></p>	<p>Dry @ time of assessment, nuisance vegetation. water quality impacted by livestock production in basin</p>
<p>.500(6)(c) Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>w/o pres or current <input type="checkbox"/> 4 <input type="checkbox"/> with <input type="checkbox"/></p>	<p>Invasives, maintained periodically constantly setting back succession adjacent uplands impacted by livestock</p>

Score = sum of above scores/30 (if uplands, divide by 20)

current or w/o pres **4** with

If preservation as mitigation,

Preservation adjustment factor =

Adjusted mitigation delta =

For impact assessment areas

FL = delta x acres =

Delta = [with-current]

If mitigation

Time lag (t-factor) =

Risk factor =

For mitigation assessment areas

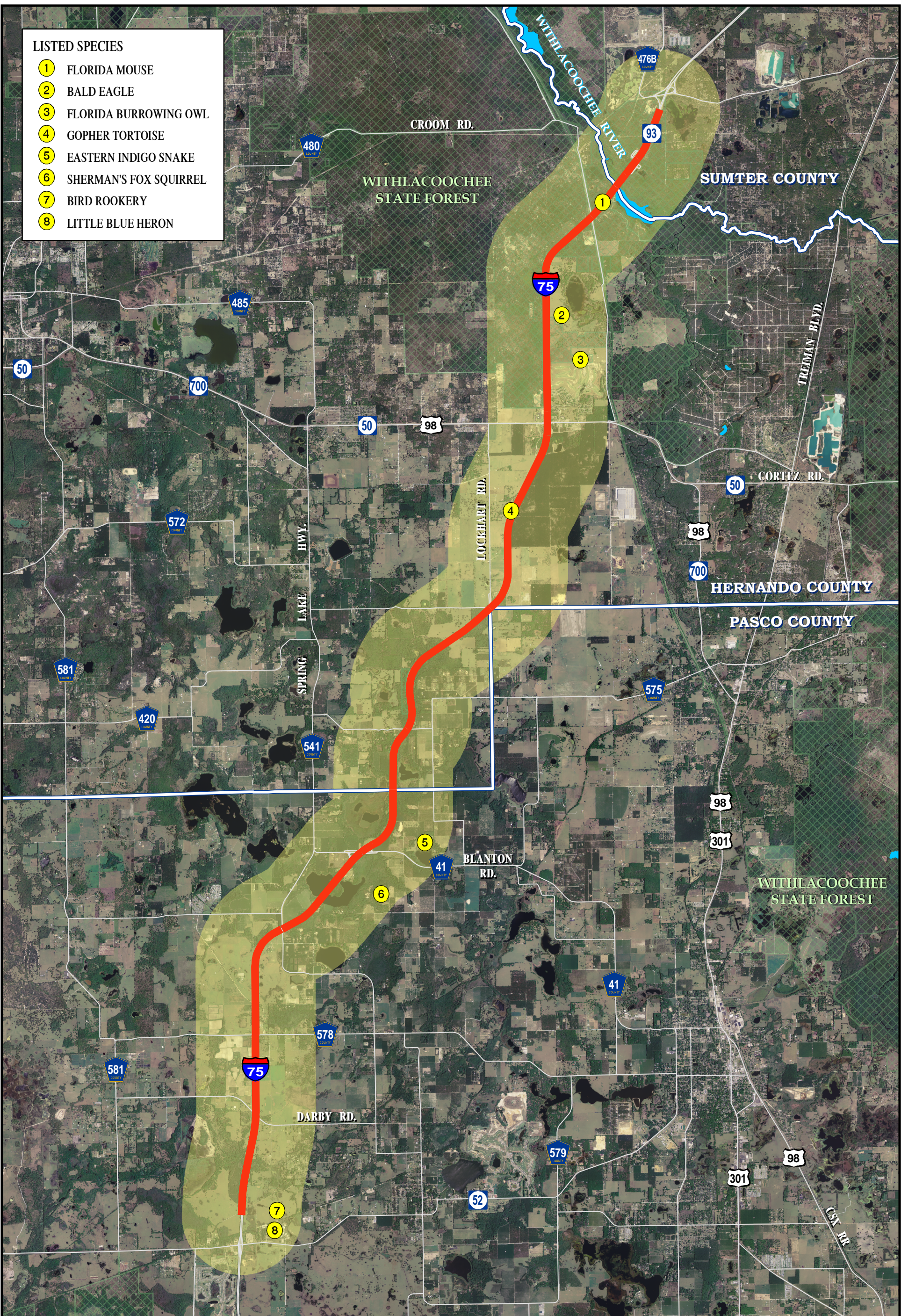
RFG = delta/(t-factor x risk) =

APPENDIX C

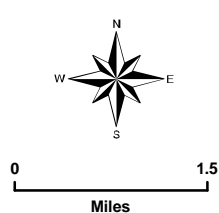
Map of Historic Listed Species Occurrences (FNAI)

LISTED SPECIES

- 1 FLORIDA MOUSE
- 2 BALD EAGLE
- 3 FLORIDA BURROWING OWL
- 4 GOPHER TORTOISE
- 5 EASTERN INDIGO SNAKE
- 6 SHERMAN'S FOX SQUIRREL
- 7 BIRD ROOKERY
- 8 LITTLE BLUE HERON



I-75 PD&E STUDY
FROM N. OF SR 52 TO S. OF CR 476B
PASCO, HERNANDO & SUMTER COUNTIES
WPI SEG. NO.: 411014 I
FAP NO: 0751-120I



HISTORIC LISTED SPECIES OCCURRENCES

DATA SOURCES:
UNIVERSITY OF FLORIDA, GEOPLAN CENTER, 2002
FLORIDA STATE UNIVERSITY, LABINS, 2004

APPENDIX D

FDOT Standard Protection Measures for the Eastern Indigo Snake

FDOT Standard Protection Measures for the Eastern Indigo Snake

The Eastern Indigo Snake (*Drymarchon corais couperi*) could be present in the project area. To minimize harm to this species, the FDOT will implement the following protection measures:

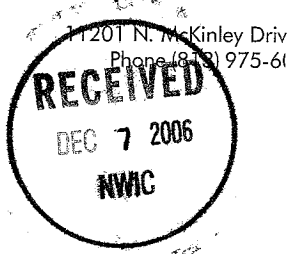
- A. Provide Eastern Indigo Snake educational information to employees prior to the initiation of any clearing or construction. An educational exhibit that has been approved by USFWS shall be posted conspicuously at a site accessible to all employees and a handout will be distributed to employees.
- B. The Contractor shall post and distribute educational information to all its workers. The exhibit and brochure shall include photographs of the Eastern Indigo Snake, information on life history, and legal protection of the species in Florida, and how to avoid effects to the species. This material shall be supplied to the Contractor.
- C. All Construction activities shall cease if live Indigo Snakes are found within the project area. Work may resume after the snake or snakes are allowed to leave the area on their own.
- D. Location of live sightings shall be reported to the FDOT.
- E. If a dead Eastern Indigo Snake is found on the project site, the snake shall be frozen as soon as possible and the FDOT shall be notified immediately for further instructions.

APPENDIX E
USFWS Letter



Florida Department of Transportation

JEB BUSH
GOVERNOR



FWS Log No. 41910-2007-I-0136

December 6, 2006

The proposed action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) This finding fulfills the requirements of the Act.

Mr. Todd Mecklenborg
U.S. Fish and Wildlife Service
9720 Executive Center Drive, Suite 101
St. Petersburg, Florida 33701

Carolee Martino

Date 12/7/06
For David L. Hankla
Field Supervisor

RE: WPI Segment No: 411014 1; FAP No. 0751-120I,
I-75 PD&E Study from N. of SR 52 to S. of CR 476B
Pasco, Hernando, and Sumter Counties, Florida

Dear Mr. Mecklenborg:

The Florida Department of Transportation is conducting a Project Development and Environment (PD&E) Study to address proposed improvements within the limits noted above to accommodate future traffic demands.

As part of the National Environmental Policy Act (NEPA) the Department is initiating informal consultation with the U.S. Fish and Wildlife Service. In order to fulfill the requirements of the NEPA process, the Department solicits comments from federal, state, and local agencies. A Wetland Evaluation and Biological Assessment Report has been prepared for the study corridor.

This proposed project has been evaluated for impacts on federally protected threatened and endangered species. Based on the results of the literature review and field surveys conducted, the Department has determined that the proposed project will not likely have an adverse affect or jeopardize the existence of any federally threatened or endangered species, even though they are known or expected to occur in the study area. Furthermore, the proposed project is not located in an area designated as Critical Habitat by the U.S. Department of the Interior.

If your office concurs with this determination, please respond to the Department by January 8, 2007. Please feel free to call me at (813) 975-6173 if you have any questions.

Sincerely,

Manuel E. Santos

Manuel E. Santos
Project Manager

cc: John Kenty, P.E.