

# **Natural Resources Evaluation**

**US 301 (SR 41)**

**From Fowler Avenue to SR 56**

**Project Development & Environment (PD&E) Study**



**Florida Department of Transportation**

**District 7**

Work Program Item Segment No. 255796-1

ETDM Project No. 14194

Hillsborough and Pasco Counties, Florida

March 2022

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Prepared for:



Florida Department of Transportation

District Seven

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# Executive Summary

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The Florida Department of Transportation (FDOT) District Seven is conducting a Project Development and Environment (PD&E) study along US Highway 301 (US 301) in Hillsborough and Pasco Counties to determine alternative roadway improvements along the corridor. The study limits are from Fowler Avenue (SR 582) in Hillsborough County to SR 56 in Pasco County, a distance of approximately 13.1 miles. The study will focus on widening this section of US 301 from a 2-lane undivided roadway to a 4-lane divided roadway and include pedestrian and bicycle accommodations. The study will also evaluate issues related to traffic operations, safety, access management, freight movements and transit. The project will improve safety along this segment of US 301 and continue to improve an important freight route for this area.

The PD&E study objectives include: determine proposed typical sections and develop preliminary conceptual design plans for proposed improvements, while minimizing impacts to the environment; consider agency and public comments; and ensure project compliance with all applicable federal and state laws. Federal funds are not planned to be used for the project, so this study is being conducted in accordance with the PD&E Manual, Part 1, Chapter 10 (July 1, 2020), which addresses non-federal projects. A State Environmental Impact Report (SEIR) is being prepared as the environmental document for this study. The proposed improvements will include construction of stormwater management facility (SMF) and floodplain compensation (FPC) sites.

This Natural Resources Evaluation (NRE) has been prepared as part of this PD&E study. This report reviews the possible impacts to federal and state protected species, wetland systems, and essential fish habitat. The identification of measures to avoid, minimize, and mitigate for potential impacts is also discussed. During initial planning for the proposed project, several alignment alternatives were developed and considered. The alignment alternatives were reviewed to determine the least environmentally damaging practicable alternative while still meeting the project's purpose and need. As a result, one alternative, the preferred alternative, was carried forward and assessed. The preferred mainline alignment and preferred ponds sites are included in the preferred alternative for the proposed project. A summary of the analysis of potential project impacts for the preferred alternative is presented below.

## **Protected Species and Habitat**

The project study area was evaluated for potential occurrences of federal and state protected plant and animal species in accordance with the Endangered Species Act of 1973, as amended, and Chapters 5B-40 and 68A-27 of the Florida Administrative Code (F.A.C.). The evaluation included coordination with the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the Florida Fish and Wildlife Conservation Commission (FWC), and the Florida Natural Areas Inventory (FNAI). The evaluation also included literature and database reviews, and field assessments of the project study area, to identify the potential occurrence of protected species and/or presence of federally designated critical habitat. Project biologists conducted field evaluations of the project study area and adjacent habitats in February 2016, July and September 2018, and March and April 2021.

Based on the evaluation of collected data and field reviews, the federal and state protected species presented in **Table ES-1** and **Table ES-2** were observed or were determined to have the potential to occur within or adjacent to the project study area. An effect determination was made for each of these protected species based on an analysis of the potential impacts resulting from the proposed project on the species and/or their respective habitats. In addition to the federal and state listed species identified, other protected species, including the bald eagle and Florida black bear, have the potential to occur within the project study area. It was determined that no adverse effects are anticipated for these other protected species as a result of construction and operation of the preferred alternative.

**Table ES-1 Federal Protected Species Effect Determinations**

Effect Determination	Species
"no effect"	Chaffseed ( <i>Schwalbea americana</i> )
	Blue-tailed Mole Skink ( <i>Plestiodon egregius lividus</i> )
	Sand Skink ( <i>Plestiodon reynoldsi</i> )
	Eastern black rail ( <i>Laterallus jamaicensis jamaicensis</i> )
	Florida Scrub-Jay ( <i>Aphelocoma coerulescens</i> )
"may affect, not likely to adversely affect"	Brooksville Bellflower ( <i>Campanula robinsiae</i> )
	Eastern Indigo Snake ( <i>Drymarchon couperi</i> )
	Wood Stork ( <i>Mycteria americana</i> )

**Table ES-2 State Protected Species Effect Determinations**

Effect Determination	Species
"no effect anticipated"	Pinewoods Bluestem ( <i>Andropogon arctatus</i> )
	Auricled Spleenwort ( <i>Asplenium erosum</i> )
	Tampa Vervain ( <i>Glandularia tampensis</i> )
	Pondspice ( <i>Litsea aestivalis</i> )
	Celestial Lily ( <i>Nemastylis floridana</i> )
	Plume Polypody ( <i>Pecluma plumula</i> )
	Giant Orchid ( <i>Pteroglossaspis ecristata</i> )
	Toothed Maiden Fern ( <i>Thelypteris serrata</i> )
	Broad-leaved Nodding-caps ( <i>Triphora amazonica</i> )
"no adverse effect anticipated"	Chapman's Sedge ( <i>Carex chapmanii</i> )
	Hand Fern ( <i>Ophioglossum palmatum</i> )
	Gopher Tortoise ( <i>Gopherus polyphemus</i> )
	Short-tailed Snake ( <i>Lampropeltis extenuata</i> )
	Florida Pine Snake ( <i>Pituophis melanoleucus mugitus</i> )
	Florida Sandhill Crane ( <i>Antigone canadensis pratensis</i> )
	Little Blue Heron ( <i>Egretta caerulea</i> )
	Tricolored Heron ( <i>Egretta tricolor</i> )
	Roseate Spoonbill ( <i>Platalea ajaja</i> )
	Florida Burrowing Owl ( <i>Athene cunicularia floridana</i> )
	Southeastern American Kestrel ( <i>Falco sparverius paulus</i> )

## Wetland Evaluation

For the purposes of this report, wetlands are defined pursuant to 62-340 F.A.C., Section 373.019 (27) Florida Statutes (F.S.), and surface waters are defined as open water bodies or man-made, upland-cut water courses with a defined channel and bank structure.

Identified and mapped within the project study area were 175.33 acres of wetlands and 60.59 acres of surface waters. Of the mapped wetlands and surface waters, approximately 31.11 acres of wetlands and 38.77 acres of surface waters will be impacted from construction of the preferred alternative. A description of land use, dominant vegetation, soil types, and other pertinent remarks are provided in subsequent sections of this report. The Uniform Mitigation Assessment Method (UMAM) analysis was performed on representative wetland and surface water impact areas. Anticipated wetland and surface water impacts are presented in **Table ES-3**.

**Table ES-3 Proposed Wetland and Surface Water Impacts by Habitat Type**

<b>FLUCFCS Code</b>	<b>FLUCFCS Description</b>	<b>Acreage within the Project Study Area</b>	<b>Preferred Alternative Impact Acreage</b>
<i>Surface Waters</i>			
510	Streams and Waterways	51.26	35.79
534	Reservoirs <10 acres	9.33	2.98
<b>Subtotal Surface Waters</b>		<b>60.59</b>	<b>38.77</b>
<i>Wetlands</i>			
615	Stream and Lake Swamps	114.31	25.24
617	Mixed Wetland Hardwoods	1.18	0.00
621	Cypress	31.75	2.45
630	Wetland Forested Mixed	9.43	0.66
631	Wetland Scrub	1.06	0.00
641	Freshwater Marshes	13.93	2.26
644	Emergent Aquatic Vegetation	3.67	0.50
<b>Subtotal Wetlands</b>		<b>175.33</b>	<b>31.11</b>
<b>Total</b>		<b>235.92</b>	<b>69.88</b>

Although unavoidable wetland impacts will occur as a result of implementing the preferred alternative, the majority of these wetlands are located adjacent to, and/or within, the existing roadway right-of-way (ROW) and were previously disturbed by roadway construction, maintenance activities, and the invasion of nuisance and exotic species. Wetlands to be impacted by the proposed improvements include forested and herbaceous communities. Impacted surface waters consist of both natural rivers and creeks, and man-made excavated ditches and reservoirs.

Final determination of jurisdictional boundaries, in addition to mitigation requirements, will be



coordinated between the FDOT and permitting agencies during the final design phase of the project.

The results of this PD&E Study indicate there are no practicable alternatives to the proposed impacts due to the need to increase roadway capacity and safety considerations. Furthermore, wetland impacts have been avoided where possible; however, complete avoidance of impacts is not possible due to the need for the roadway to meet minimum safety requirements. Unavoidable wetland impacts have been minimized to the greatest extent possible.

### **Essential Fish Habitat**

The proposed project will have no involvement with Essential Fish Habitat as none exists within the project study area.

# 1.0 Introduction

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## 1.1 PD&E Study Purpose

The objective of the PD&E study is to assist FDOT District Seven in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of US 301, including SMF and FPC sites. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvements, including elements such as proposed typical sections, preliminary horizontal alignments, and intersection enhancement alternatives.

Federal funds are not planned to be used for the project, so this study is being conducted in accordance with the *PD&E Manual*, Part 1, Chapter 10 (July 1, 2020), which addresses non-federal projects. The PD&E study satisfies all applicable requirements for a state funded project and development of a SEIR as the environmental document for the project. This project was screened through the FDOT's Efficient Transportation Decision Making (ETDM) process as ETDM Project No. 14194. The ETDM Final Programming Screen Summary Report was published on April 21, 2015, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources.

## 1.2 Project Purpose and Need

The purpose of this project is to provide additional roadway capacity and improve safety on this portion of US 301 in unincorporated Hillsborough and Pasco Counties. US 301 is a major north-south roadway in close proximity to the City of Temple Terrace in Hillsborough County, and the City of Zephyrhills in Pasco County. This roadway extends from the Sarasota-Bradenton-Venice Metropolitan Statistical Area to the Georgia state line northwest of Jacksonville, thus providing a route between the Tampa Bay area and Jacksonville/I-95 corridor. US 301 serves both regional and local travel and connects residential centers in the Zephyrhills and Temple Terrace areas with employment centers in the Tampa area. It provides regional connectivity with I-75, SR 52, SR 54 and I-4. US 301 has been designated by both Hillsborough and Pasco Counties' Emergency Management as an emergency evacuation route. In addition to increasing capacity, this project will add or enhance the multimodal facilities in this corridor.

The proposed widening of this portion of US 301 is expected to have positive mobility impacts. The Hillsborough County City-County Planning Commission's 2045 Long Range Transportation Plan (LRTP) socioeconomic projections (November 2019) contain both population and employment projections. These projections show Hillsborough County's population increasing from 1,292,800 to 2,006,200 (a 55% increase) between 2015 and 2045. Employment is projected to increase from 830,800 to 1,705,400 (a 105% increase) between 2015 and 2045, mostly within the urban service area. The Mobility 2045 Pasco Long Range Transportation Plan (March 2020) also documents socioeconomic projections for Pasco County. These projections show Pasco County's population increasing from 483,9972 to 795,000 (a 64% increase) between 2015 and 2045. Employment is projected to increase from 157,500 to 266,561 (a 69% increase) between

2015 and 2045. Based on projected population and employment growth, the existing study corridor would experience failing levels of service in the future.

US 301 is a truck route that provides north-south access within eastern Pasco County and connections to the surrounding Tampa Bay area. There is no existing bus service within the project area; however, the Tampa Bay Area Regional Transportation Authority (TBARTA) Regional Transit Development Plan (adopted June, 2020) shows Regional Commuter Express Bus Service adjacent to the project from SR 56 to Zephyrhills.

Safety within the US 301 corridor is also projected to improve with an increase in capacity and a reduction in congestion, thereby decreasing potential conflict with other vehicles.

### ***1.3 Project Description***

The proposed action involves widening US 301 from the existing two-lane undivided roadway and includes pedestrian and bicycle accommodations. The project is located in both Hillsborough and Pasco Counties and is approximately 13.1 miles long. A project location map is provided in **Figure 1-1**.

The widening of the Hillsborough County portion of the study corridor (from Fowler Avenue to the County line) is not identified in the Hillsborough MPO's 2045 LRTP Cost Feasible Plan but is identified in the 2045 LRTP Needs Plan. Similarly, the widening of the Pasco County portion of the study corridor (from the County line to SR 56) is not identified in the Pasco MPO's 2045 LRTP Cost Feasible Plan, but is identified in the 2045 Needs Plan.

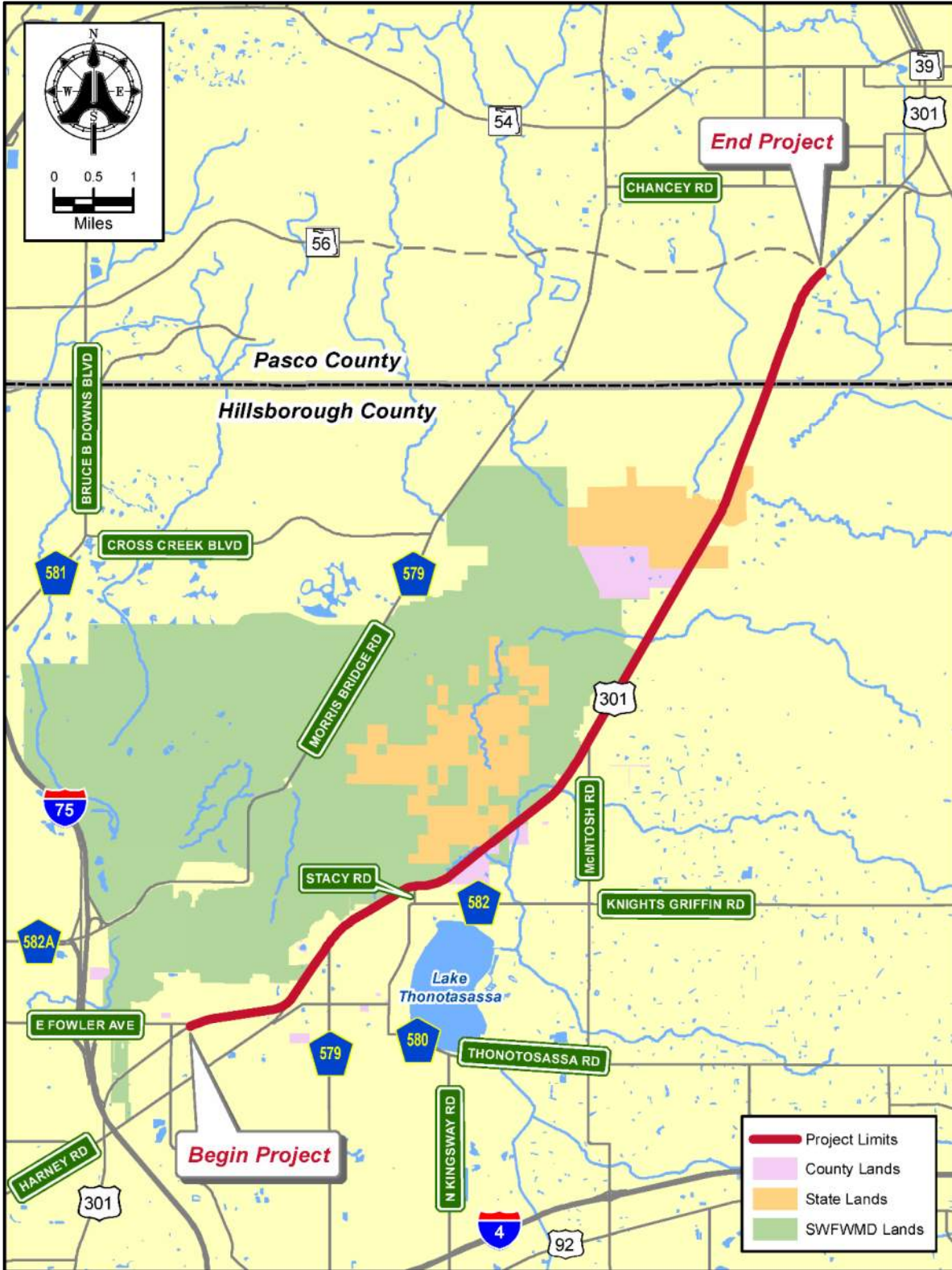


Figure 1-1 Project Location Map

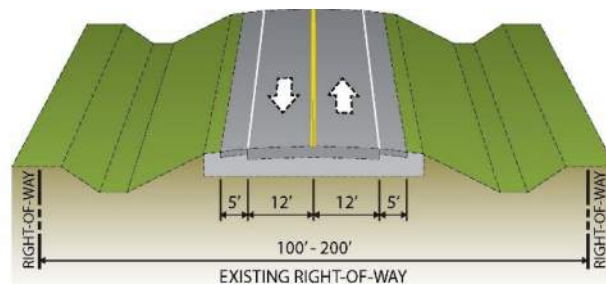
## 1.4 Existing Facility and Proposed Improvements

### 1.4.1 Existing Facility

The existing US 301 has a two-lane undivided rural typical section from Fowler Avenue to SR 56. The roadway is functionally classified by FDOT as an Urban Other Principal Arterial from Fowler Avenue to just north of CR 579 (Mango Road) and from the County line to the SR 56 extension. The remaining portion of the project is classified as a Rural Other Principal Arterial. The posted speed limits within the study corridor are 55 miles per hour (mph) from Fowler Avenue to Flint Creek and 60 mph from Flint Creek to SR 56.

The existing typical section consists of one 12-foot travel lane and a 5-foot paved shoulder, in each direction and a 2.2-mile, variable width, shared-use path (known as the Old Fort King Trail) running along the east side of US 301 beginning just north of Stacy Road. Drainage is collected in roadside ditches and is ultimately conveyed to the Hillsborough River. The existing right-of-way (ROW) width ranges from 100 feet to 200 feet.

There are also eight structures located within the study corridor. Five of the structures are roadway bridges located over rivers/streams/creeks including Flint Creek, Flint Creek Relief, Holloman's Branch, Two Holes Branch and the Hillsborough River. The Old Fort King Trail also has three pedestrian bridges over Flint Creek, Flint Creek Relief and Holloman's Branch. The existing typical section is provided in **Figure 1-2**.

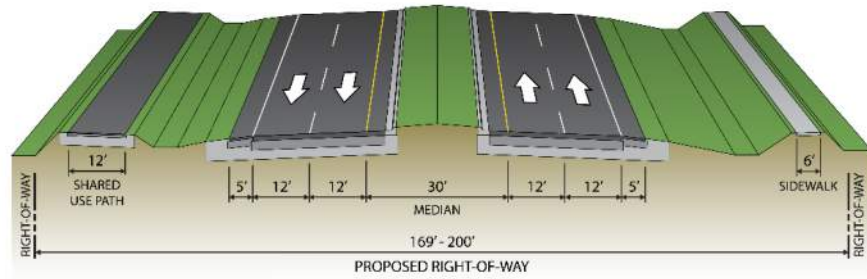


US 301 Existing Typical Section  
from Fowler Avenue to SR 56

**Figure 1-2 Existing US 301 Typical Section**

### 1.4.2 Proposed Improvements

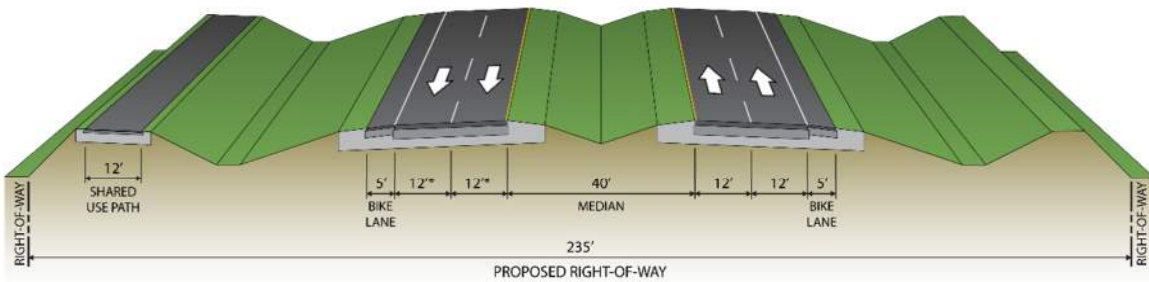
The proposed build alternative is composed of two typical sections. A suburban typical section with a target design speed of 55 mph is proposed from Fowler Avenue to Stacy Road. This typical section has two 12-ft travel lanes in each direction, a 30-ft raised median, 4-ft paved inside shoulders, and 5-ft paved outside shoulders. There is a 6-ft sidewalk on the east side of the roadway and a 12-ft shared use path on the west side of the road, as seen in **Figure 1-3**. The proposed typical ROW width varies from 169 ft. to 200 ft.



US 301 Proposed Typical Section  
from Fowler Avenue to Stacy Road

**Figure 1-3 Proposed Suburban Typical Section**

A rural typical section with a design speed of 65 mph is proposed from Stacy Road to SR 56. This typical section has two 12-ft travel lanes in each direction, a 40-ft depressed median, 8-ft unpaved inside shoulders, and 5-ft paved outside shoulders. There is a 12-ft shared use path on the west side of the roadway, as shown in **Figure 1-4**. The proposed ROW is 235 ft in width. Where possible, pavement savings will be achieved by converting the existing two-lane roadway to southbound operation.



US 301 Proposed Typical Section  
from Stacy Road to SR 56

\* Southbound lanes will utilize existing pavement, where possible.

**Figure 1-4 Proposed Rural Typical Section**

The preferred alternative was selected based on the natural, physical, social, and right-of-way information. A detailed alternatives analysis and conceptual designs are included in the Preliminary Engineering Report prepared for the project. The preferred alternative concept plans are provided in **Appendix A**.

### 1.5 Purpose of Report

The purpose of this Natural Resources Evaluation is to document wetlands and protected species within the proposed project's study corridor. This report was prepared in accordance with Part 2, Chapter 9 – Wetlands and Other Surface Waters of the FDOT PD&E Manual for addressing potential wetland impacts associated with transportation projects (FDOT 2020). Additionally, this

report documents existing wildlife resources and includes an assessment of existing habitat types found within the project study area, in addition to the potential occurrence of federal and state protected plant and animal species in accordance with Part 2, Chapter 16 – Protected Species and Habitat, of the FDOT PD&E Manual (FDOT 2020). In accordance with these guidelines, two (2) project alternatives, the preferred build alternative and the no-build alternative, were assessed to determine the potential wetland and protected species impacts associated with construction of each alternative. The no-build alternative would result in no impacts to wetlands or protected species.

# 2.0 Existing Conditions

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## 2.1 Introduction

This section presents a description of existing environmental conditions within the footprint of the preferred alternative and within the larger project study area. For this report, the project study area is defined as the proposed right-of-way (ROW) of the preferred alternative roadway encompassed by a 200-foot buffer and the preferred pond site limits. The preferred alternative footprint is defined as the proposed ROW of the roadway and pond sites with no additional buffer.

There are 13 preferred stormwater management facilities (SMF) and eight (8) preferred floodplain compensation (FPC) ponds associated with the preferred alternative described above. The preferred pond site footprints were included in the project study area for analysis and field reviews to evaluate protected species and wetland involvement. Field reviews of the pond sites were conducted in April and May 2021.

## 2.2 Methodology

In order to assess the approximate locations and boundaries of existing wetland and upland communities within the project area, the following site-specific data were collected and reviewed:

- True color aerials of the project study area, (1 inch = 200 feet) (ESRI 2020);
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), Soil Survey of Hillsborough County, Florida (NRCS 1989);
- USDA, NRCS, Soil Survey of Pasco County, Florida (NRCS 1982);
- USDA, NRCS, Web Soil Survey (NRCS 2021);
- U.S. Geological Survey (USGS), Topographic Quadrangle Maps, 7.5-minute series, Zephyrhills, Plant City, and Thonotosassa, FL (USGS 2012a, USGS 2012b, USGS 2015);
- U.S. Fish and Wildlife Service (USFWS), Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al. 1979);
- USFWS, National Wetlands Inventory, Wetlands Online Mapper (USFWS 2021c);
- Florida Department of Transportation (FDOT), *Florida Land Use Cover, and Forms Classification System* (FLUCFCS), 3rd ed., (FDOT 1999);
- Florida Natural Areas Inventory (FNAI), Florida Conservation Lands, May 2021 (FNAI 2021b)
- Southwest Florida Water Management District (SWFWMD) Geographic Information System (GIS) FLUCFCS Database (SWFWMD 2011).



Project biologists familiar with Florida’s natural communities conducted field reviews of the project study area in February 2016, July and September 2018, and March and April 2021. The purpose of these reviews was to verify and/or refine preliminary habitat boundaries and classification codes established through in-office literature reviews and aerial photographic interpretation.

All upland, wetland, and surface water habitat types within the project study area were classified using FLUCFCS (FDOT 1999). Additionally, wetlands and surface waters were classified using the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). During field investigations, wetland and surface water habitats within the project study area were visually inspected and photographed. Exotic plant infestations, altered hydrologic conditions, shifts in historical plant communities, and any other disturbances were noted. Attention was given to identifying wildlife and/or signs of wildlife utilization at each wetland and their adjacent upland habitats.

## **2.3 Results**

### **2.3.1 Soils**

Based on the online NRCS Web Soil Survey tool (NRCS 2021), 22 soil types are mapped within the project study area. **Appendix A** provides maps of the location of each soil type within the project study area. Ten of the 22 soil types reported within the project study area are defined as hydric. Of the 12 non-hydric soils, seven are reported as having possible hydric soil inclusions. Mapped hydric soils comprise approximately 429.23 acres (40.12%) of the project study area and non-hydric soils comprise approximately 640.76 acres (59.88%) of the project study area. **Table 2-1** provides the approximate acreage of each soil type located within the preferred alternative and the project study area, along with the overall percentage of each soil type mapped within the project study area.

### **2.3.2 Existing Land Use and Vegetative Cover**

A total of 25 upland, seven wetland, and two surface water habitat types were found within the project study area. Aerial maps depicting existing land uses and habitats within the project study area are provided in **Appendix B**. **Table 2-2** provides land use and habitat types, their classifications, total acreage within the preferred alternative and project study area, and percent coverage within the project study area.

Upland communities comprise 834.07 acres (77.96%) of the project study area. Developed uplands include residential development, commercial and services, industrial, extractive, institutional and recreational facilities, roads and highways, and communication facilities. Undeveloped uplands of the project study area consist of open land, inactive land, cropland and pastureland, improved pastures, tree crops, specialty farms, rural open land, shrub and brushland, mixed rangeland, pine flatwoods, upland hardwood forests, hardwood-conifer mixed uplands, mixed hardwoods, and tree and coniferous plantations.

**Table 2-1 Soils within the Project Study Area**

Soil Type	Hydric (Y/N)	Acreage within Preferred Alternative	Acreage within Project Study Area <sup>1</sup>	Percent of Project Study Area
2 – Pomona Fine Sand	N*	8.48	22.03	2.06
4 – Arents, nearly level	N	3.89	18.79	1.76
5 – Basinger, Holopaw, and Samsula Soils, depressional	Y	11.40	43.70	4.08
7 – Candler Fine Sand, 0 to 5 percent slopes	N	47.50	139.56	13.04
12 – Chobee Sandy Loam, frequently flooded	Y	58.89	158.17	14.78
15 – Felda Fine Sand	Y	3.85	9.04	0.85
16 – Felda Fine Sand, occasionally flooded	Y	1.24	1.24	0.12
16 – Zephyr Muck	Y	2.72	7.10	0.67
18 – Electra Variant Fine Sand, 0 to 5 percent slopes	N	33.33	78.26	7.31
21 – Immokalee Fine Sand	N*	2.83	3.76	0.35
29 – Myakka Fine Sand	N*	69.48	119.53	11.17
37 – Paisley Fine Sand, depressional	Y	3.10	7.92	0.74
43 – Quartzipsaments, nearly level	N*	3.75	3.76	0.35
46 – St. Johns Fine Sand	Y	5.15	13.37	1.25
47 – Seffner Fine Sand	N*	<0.01	0.91	0.09
53 – Tavares-Millhopper Fine Sands, 0 to 5 percent slopes	N	75.80	163.80	15.31
54 – Tavares-Millhopper Fine Sands, 5 to 8 percent slopes	N	2.88	8.48	0.79
57 – Wabasso Fine Sand	N*	26.87	54.36	5.08
59 – Winder Fine Sand	Y	75.82	161.15	15.06
60 – Palmetto-Zephyr-Sellers Complex	Y	8.34	22.90	2.14
60 – Winder Fine Sand, frequently flooded	Y	2.24	4.64	0.43
61 – Zolfo Fine Sand	N*	14.41	27.52	2.57
<b>Total Hydric</b>		<b>172.75</b>	<b>429.23</b>	<b>40.12</b>
<b>Total Non-Hydric</b>		<b>289.22</b>	<b>640.76</b>	<b>59.88</b>
<b>Total</b>		<b>461.97</b>	<b>1069.99</b>	<b>100.00</b>

\*Possible hydric inclusions

<sup>1</sup> Includes footprint of preferred alternative

Wetland and surface water communities comprise 235.92 acres (22.04%) of the project study area. Wetland and surface water habitats include natural rivers and creeks and manmade ditches classified as streams and waterways, reservoirs, stream and lake swamps, mixed wetland hardwoods, cypress, wetland forested mixed, wetland scrub, freshwater marshes, and emergent aquatic vegetation. **Appendix C** provides aerial maps depicting the location of wetland and surface water habitats within the project study area. Representative photographs of wetland and surface water habitat types are provided in **Appendix D**.

**Table 2-2 Land Use within the Project Study Area**

Habitat Type	FLUCFCS Code <sup>1</sup>	FLUCFCS Description	USFWS Classification <sup>2</sup>	Acreage within Preferred Alternative	Acreage within Project Study Area <sup>3</sup>	Percent of Project Study Area
Developed Areas	110	Residential, Low Density	N/A	28.61	103.00	9.63
	120	Residential, Medium Density	N/A	4.50	20.35	1.90
	130	Residential, High Density	N/A	1.96	10.87	1.02
	140	Commercial and Services	N/A	5.04	37.49	3.50
	150	Industrial	N/A	0.64	8.48	0.79
	160	Extractive	N/A	0.00	1.28	0.12
	170	Institutional	N/A	0.05	4.23	0.40
	180	Recreational	N/A	13.06	33.13	3.10
	814	Roads and Highways	N/A	183.70	189.26	17.69
	820	Communications	N/A	0.00	2.68	0.25
Undeveloped Areas	190	Open Land	N/A	8.63	45.84	4.28
	192	Inactive Land with Street Patterns but without Structures	N/A	0.21	0.80	0.07
	210	Cropland and Pastureland	N/A	55.41	137.67	12.87
	211	Improved Pastures	N/A	0.00	0.31	0.03
	220	Tree Crops	N/A	0.00	0.62	0.06
	250	Specialty Farms	N/A	0.00	2.82	0.26
	260	Other Open Lands Rural	N/A	3.99	14.14	1.32
	320	Shrub and Brushland	N/A	0.00	0.85	0.08
	330	Mixed Rangeland	N/A	2.69	4.79	0.45
	411	Pine Flatwoods	N/A	1.28	8.74	0.82
	420	Upland Hardwood Forest	N/A	0.00	4.43	0.41
	434	Hardwood-Conifer Mixed	N/A	79.12	182.34	17.04
	438	Mixed Hardwoods	N/A	0.00	2.81	0.26
	440	Tree Plantations	N/A	0.59	11.73	1.10
441	Coniferous Plantations	N/A	2.61	5.41	0.51	
<b>Subtotal Uplands</b>				<b>392.09</b>	<b>834.07</b>	<b>77.96</b>
Surface Water Habitats	510	Streams and Waterways	PEM1Cx, PEM1Ax, PFO1Cx, PFO1Ax, R2UB2G, R2UB2H	35.79	51.26	4.79
	534	Reservoirs <10 acres	PEM1Cx, PEM1Ax	2.98	9.33	0.87

Habitat Type	FLUCFCS Code <sup>1</sup>	FLUCFCS Description	USFWS Classification <sup>2</sup>	Acreage within Preferred Alternative	Acreage within Project Study Area <sup>3</sup>	Percent of Project Study Area
Wetland Habitats	615	Stream and Lake Swamps	PFO1/2C	25.24	114.31	10.68
	617	Mixed Wetland Hardwoods	PFO1C	0.00	1.18	0.11
	621	Cypress	PFO2C	2.45	31.75	2.97
	630	Wetland Forested Mixed	PFO1/2C	0.66	9.43	0.88
	631	Wetland Scrub	PSS1C	0.00	1.06	0.10
	641	Freshwater Marshes	PEM1C	2.26	13.93	1.30
	644	Emergent Aquatic Vegetation	PAB4H	0.50	3.67	0.34
<b>Subtotal Wetlands and Surface Waters</b>				<b>69.88</b>	<b>235.92</b>	<b>22.04</b>
<b>Total</b>				<b>461.97</b>	<b>1069.99</b>	<b>100.00</b>

<sup>1</sup> FDOT 1999

<sup>2</sup> Cowardin *et al.* 1979

<sup>3</sup> Includes footprint of preferred alternative

PAB4H - Palustrine, Aquatic Bed, Floating Vascular, Permanently Flooded

PEM1C - Palustrine, Emergent, Persistent, Seasonally Flooded

PEM1Cx - Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated

PEM1Ax - Palustrine, Emergent, Persistent, Temporarily Flooded, Excavated

PFO1/2C - Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Deciduous, Seasonally Flooded

PFO1C - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded

PFO1Cx - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded, Excavated

PFO1Ax - Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded, Excavated

PFO2C - Palustrine, Forested, Needle-Leaved Deciduous, Seasonally Flooded

PSS1C - Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded

R2UB2G - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Intermittently Exposed

R2UB2H - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded

### 2.3.3 Natural and Biological Features

Riverine systems provide travel corridors for wildlife through developed and undeveloped habitats in addition to habitats and foraging areas for wetland dependent species.

A total of five natural waterway systems intersect the project study area, including the Hillsborough River, Two Holes Branch, Flint Creek, Flint Creek Relief, and Hollomans Branch. All five are within the Hillsborough River Watershed. Two Holes Branch crosses under US 301 through a bridge box culvert. The remaining four waterways cross under piling supported bridges.

### 2.3.4 Special Designations

The Hillsborough River is classified as Outstanding Florida Waters (OFW) based on Chapter 62-302.700, F.A.C. where it notes: "Hillsborough River from Fletcher Avenue (State Road 582A) in Hillsborough County upstream to the Withlacoochee River Overflow in Pasco County, and the following tributaries:

- a. Crystal Springs; and
- b. Blackwater Creek westward of the Hillsborough – Polk County line; and
- c. Cypress Creek, Thirteenmile Run eastward of Livingston Avenue, and Big Cypress Swamp upstream to and including the Cypress Creek Wellfield, as delineated in the maps entitled “Cypress Creek OFW Boundary Maps,” incorporated herein by reference; and
- d. Trout Creek upstream to Bruce B. Downs Boulevard (State Road 581);
- e. But excluding all other tributaries as well as the proposed transportation corridor, which crosses Cypress Creek in Section 21, Township 27 South, Range 19 East, as identified in the Adopted 2010 Long Range Transportation Plan of the Metropolitan Planning Organization, dated May 26, 1993.”

Additionally, conservation lands border US 301 to the west/northwest throughout the majority of the project limits and fall within the project study area (FNAI 2021b). The Lower Hillsborough Wilderness Preserve (LHWP), owned by SWFWMD, is one of the largest contiguous recreation areas in Hillsborough County and covers 16,000 acres. While an active recreation site, the primary purpose of the LHWP is water storage and flood protection. Additionally, this preserve is focused on natural resource conservation. Location within and immediately adjacent to the LHWP is the 3,000-acre Hillsborough River State Park (HRSP), managed by Florida Department of Environmental Protection (FDEP). Portions of HRSP fall on both sides of US 301 and it occurs within the project study area. The HRSP contains Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF) and Hillsborough County designated Environmental Lands Acquisition and Protection Program (ELAPP) lands. A map of the conservation lands within and adjacent to the project study area is provided in **Appendix F**.

## 3.0 Protected Species and Habitat

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### 3.1 Introduction

Listed species are afforded special protection by federal and state agencies. This special protection is federally administered by the U.S. Department of the Interior, USFWS pursuant to the Endangered Species Act of 1973, as amended (ESA). The USFWS administers the federal list of animal species (50 CFR 17) and plant species (50 CFR 23).

Administered by the FWC, the State of Florida affords special protection to animal species designated as State-designated Threatened, pursuant to Chapter 68A-27, F.A.C. The State of Florida also protects and regulates plant species designated as endangered, threatened, or commercially exploited as identified on the Regulated Plant Index (5B-40.0055, F.A.C.), which is administered by the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry, pursuant to Chapter 5B-40, F.A.C. Other protected species regulated outside of the ESA and Chapter 68A-27, F.A.C. are also included in this report.

The following sections describe the methodology used to assess the potential for occurrence of federal, state and other protected species, and to identify the effects that construction of the preferred alternative may have on protected species.

### 3.2 Methodology

In order to determine which protected plant and animal species have the potential to occur within or adjacent to the project study area, available site-specific data was collected and evaluated. Literature reviewed and databases searched as part of this evaluation included:

- Audubon Center for Birds of Prey, EagleWatch Public View Nest Locations website, (Accessed March 2021);
- Florida Department of Transportation (FDOT), *Florida Land Use Cover, and Forms Classification System* (FLUCFCS), (FDOT 1999);
- Florida Department of Agriculture and Consumer Services (FDACS), Endangered, Threatened and Commercially Exploited Species Information (FDACS 2018), (Accessed April 2021);
- Florida Fish and Wildlife Conservation Commission (FWC), Florida's Endangered Species and Threatened Species, (FWC 2018);
- FWC, Historical Eagle Nest Locations website (Accessed March 2021);
- FWC, Florida Black Bear Management Plan, (FWC 2012);
- Florida Natural Areas Inventory (FNAI), Standard Element Occurrence Data Report, (Accessed February 2016);

- FNAI Biodiversity Matrix Map Server, (FNAI 2021a);
- U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12, June 2007;
- USFWS, Wood Stork Nesting Colonies Maps (USFWS 2021d);
- USFWS, Critical Habitat Portal website, (USFWS 2021a);
- USFWS, Information for Planning and Consultation (IPaC) Mapper, (USFWS 2021b).

Additionally, project biologists familiar with Florida natural communities conducted on-site field reviews of the project study area in February 2016, July and September 2018, and March and April 2021. During field reviews, the project study area was canvassed for direct observations of protected species or evidence of protected species utilization including trails, tracks, scat, nests, burrows, or vocalizations. The purpose of the reviews was to verify and/or refine preliminary habitat boundaries and classification codes established through in-office literature reviews and aerial photo interpretation, and to document flora and fauna. Attention was given to identifying dominant plant species composition for each community and identifying wildlife or signs of wildlife utilization within each wetland and upland community. The FNAI was contacted in 2016 for documented occurrences of protected species within one mile of the project study area (**Appendix G**).

Based on the evaluation of collected data, field reviews, FNAI data and database searches, the protected species discussed below were considered as having the potential to occur within or adjacent to the project study area. For a species to be considered potentially present, the project study area must be within the species' distribution range. An effect determination was then made for each protected species based on an analysis of the potential impacts resulting from construction and operation of the preferred alternative on each species.

### ***3.2.1 ETDM Coordination***

During the ETDM screening (No. 14194), resource agencies provided comments on the degree of effect the proposed project may have on wildlife and habitat. FWC stated that the primary wildlife issues associated with the proposed project include the loss of valuable forested wetland and upland wildlife habitat, particularly in the area of public conservation lands; increasing the habitat fragmentation effect of US 301 by more than doubling the width of the highway footprint; potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened; potential increase in wildlife roadkill; and potential water quality degradation as a result of additional stormwater runoff from the expanded roadway surface draining into adjacent wetlands, creeks, and the Hillsborough River. The USFWS noted that potential habitat may be present for the wood stork and eastern indigo snake. The potential for sand skinks within this proposed corridor is very low. However, any areas that do meet the current soils and elevation criteria should be submitted to USFWS for further coordination and possible field review.

### 3.3 Results

Based on literature reviews, database searches, site-specific habitat evaluations, and agency coordination, a list of protected plant and animal species with the potential to occur within the project study area was generated. A total of 31 protected species were identified as having the potential to occur within or adjacent to the project study area. **Table 3-1** presents the list of protected species with the potential to occur within the project study area, their federal or state protection status, preferred habitat, and ranking of their potential for occurrence. A map of the locations of protected species previously documented within one mile of the project study area, as well as the locations of protected species observed during field reviews, is provided in **Appendix H**.

A species potential for occurrence within the project study area was designated as *Low*, *Moderate*, or *High*. This determination was based on the habitat requirements for each species, the presence and relative condition of the habitat within the project study area, if the species has been documented within one mile of the project study area, or if it was observed during field reviews. A *Low* rating indicates that preferred habitat for that species was limited within the project study area and the species was not documented during field reviews or previously documented in agency databases. A *Moderate* rating indicates that suitable habitat is found within the project study area and the species has been observed within one mile of the project study area, or it is reasonable to assume this species could be present. A *High* rating indicates that suitable habitat exists within the project study area and the species was observed during field reviews or previously documented as being within or adjacent to the project study area in agency databases.

**Table 3-1 Protected Species with the Potential to Occur within the Project Study Area**

Species	Designated Status			Habitat Preference	Potential for Occurrence On-Site
	USFWS	FDACS	FWC		
<b>Plants</b>					
Pine-woods Bluestem ( <i>Andropogon arctatus</i> )	-	T	-	Dry to wet flatwoods and sand pine scrub.	Low
Auricled Spleenwort ( <i>Asplenium erosum</i> )	-	E	-	Wet hammocks and swamps; epiphytic on fallen logs, trees, and stumps.	Low
Brooksville Bellflower ( <i>Campanula robinsiae</i> )	E	-	-	Seepage areas on slopes and pond margins.	High (Observed FDEP)
Chapman's Sedge ( <i>Carex chapmanii</i> )	-	T	-	Calcareous hydric hammocks; well-drained hammock woodlands, sandy hammocks; floodplains of blackwater streams.	Low
Tampa Vervain ( <i>Glandularia tampensis</i> )	-	E	-	Clearings in moist hammocks; live oak-cabbage palm hammocks and pine-palmetto flatwoods; disturbed sandy areas.	Low
Pondspice ( <i>Litsea aestivalis</i> )	-	E	-	Edges of bayheads, flatwoods ponds, and cypress domes.	Low



Species	Designated Status			Habitat Preference	Potential for Occurrence On-Site
	USFWS	FDACS	FWC		
Celestial Lily ( <i>Nemastylis floridana</i> )	-	E	-	Wet flatwoods, prairies, marshes, cabbage palm hammocks edges.	Low
Hand Fern ( <i>Ophioglossum palmatum</i> )	-	E	-	Hammocks and cypress swamps; epiphytic, usually on <i>Sabal palmetto</i> .	Low
Plume Polypody ( <i>Pechuma plumula</i> )	-	E	-	Wet hammocks and swamps; epiphytic, occasionally on rocks or terrestrial.	Low
Giant Orchid ( <i>Orthochilus ecristatus</i> )	-	T	-	Sandhills, pinelands, and oak hammocks.	Low
Chaffseed ( <i>Schwalbea americana</i> )	E	-	-	Moist, grassy ecotones around ponds in longleaf pine sandhills; longleaf pine savannas, sandhills, and flatwoods.	Low
Toothed Maiden Fern ( <i>Thelypteris serrata</i> )	-	E	-	Cypress swamps, sloughs, and floodplains.	Low
Broad-leaved Nodding-caps ( <i>Triphora amazonica</i> )	-	E	-	Rich, well-drained, moist humus of upland hardwood hammocks.	Low
<b>Reptiles</b>					
Eastern Indigo Snake ( <i>Drymarchon couperi</i> )	T	-	-	Scrub and sandhill to wet prairies and mangrove swamps; often utilizes gopher tortoise burrows for winter refugia.	Low
Gopher Tortoise ( <i>Gopherus polyphemus</i> )	-	-	T	Dry upland habitats, including sandhills, scrub, xeric oak hammock, pine flatwoods, pastures, old fields, and road shoulders.	High (Observed 2021)
Short-tailed Snake ( <i>Lampropeltis extenuata</i> )	-	-	T	Dry sandy uplands, including longleaf pine-turkey oak (sandhill) and adjacent xeric oak hammocks and rosemary-sand pine scrub.	Low
Florida Pine Snake ( <i>Pituophis melanoleucus mugitus</i> )	-	-	T	Open canopies and dry sandy soils; sandhill and former sandhill, including old fields and pastures, but also sand pine scrub and scrubby flatwoods.	Low
Blue-Tailed Mole Skink ( <i>Plestiodon egregius lividus</i> )	T	-	-	Central Florida in habitat with loose sandy areas, such as rosemary scrub, sand pine scrub, oak scrub, scrubby flatwoods, and turkey oak barrens	Low
Sand Skink ( <i>Plestiodon reynoldsi</i> )	T	-	-	Central Florida in habitat with loose sandy areas, such as rosemary scrub, sand pine scrub, oak scrub, scrubby flatwoods, and turkey oak barrens	Low

Species	Designated Status			Habitat Preference	Potential for Occurrence On-Site
	USFWS	FDACS	FWC		
<b>Birds</b>					
Florida Sandhill Crane ( <i>Antigone canadensis pratensis</i> )	-	-	T	Prairies, freshwater marshes, and pasture lands.	High (Observed 2021)
Florida Scrub-Jay ( <i>Aphelocoma coerulescens</i> )	T	-	-	Fire dominated, low-growing, oak scrub habitat found on well-drained sandy soils.	Low
Florida Burrowing Owl ( <i>Athene cunicularia floridana</i> )	-	-	T	Natural and ruderal habitats in high, sparsely vegetated, sandy ground; natural habitats including dry prairie and sandhill.	Low
Little Blue Heron ( <i>Egretta caerulea</i> )	-	-	T	Permanently and seasonally flooded wetlands, streams, lakes, and swamps, manmade impoundments, and ditches.	High (Observed 2016)
Tricolored Heron ( <i>Egretta tricolor</i> )	-	-	T	Permanently and seasonally flooded wetlands, streams, lakes, and swamps, manmade impoundments, and ditches.	Moderate
Southeastern American Kestrel ( <i>Falco sparverius paulus</i> )	-	-	T	Open pine habitats, woodland edges, prairies, and pastures.	Low
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	N <sup>1</sup>	-	N <sup>1</sup>	Areas close to coastal areas, bays, rivers, lakes, or other bodies of water; nests in tall trees, particularly live pines.	High
Eastern Black Rail ( <i>Laterallus jamaicensis jamaicensis</i> )	T	-	-	Tidally or non-tidally influenced salt and brackish marshes with dense cover but can also be found in upland areas of these types of marshes	Low
Wood Stork ( <i>Mycteria americana</i> )	T	-	-	Shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures, and ditches.	Moderate
Roseate Spoonbill ( <i>Platalea ajaja</i> )	-	-	T	Shallow water of variable salinity, including marine tidal flats and ponds, coastal marshes, mangrove-dominated inlets and pools, and freshwater sloughs, and marshes.	Moderate
<b>Mammals</b>					
Florida Black Bear ( <i>Ursus americanus floridanus</i> )	-	-	N <sup>2</sup>	Forested communities, including wetlands.	Moderate

**Notes:**

E= Endangered T= Threatened N= Not listed

Low = Preferred habitat limited within the project study area, and the species has not been documented within one mile of project study area.

Moderate = Suitable habitat exists, and the species has been documented within one mile of project study area.

High = Suitable habitat exists, and the species has been documented within or adjacent to the project study area, or species observed on-site.

<sup>1</sup> The bald eagle is afforded federal protection by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act and afforded state protection by the FWC's bald eagle rule (F.A.C. 68A-16.002).

<sup>2</sup> The Florida black bear is managed by the FWC's Florida Black Bear Conservation rule (68A-4.009, F.A.C.).

While the proposed project has taken all practicable measures to avoid and minimize impacts to potentially occurring protected species and their habitats, unavoidable impacts may occur as a result of project construction. A determination of the anticipated project “effect” on protected species was made based on their potential for occurrence within the project study area, the proposed changes to their habitat quality, quantity, and availability as a result of project construction, and how each species is expected to respond to anticipated habitat changes. Listed below are the “effect” determinations for each species. The no-build alternative would have “**no effect**” on protected species.

### ***3.3.1 Federal Species***

Pursuant to Chapter 68A-27.0012, F.A.C. (Effective November 11, 2017), species that are federally listed under the ESA are also considered state listed species.

#### ***3.3.1.1 Plants***

##### **Brooksville bellflower (*Campanula robinsiea*)**

Brooksville bellflower, a member of the bellflower (*Campanulaceae*) family, is an annual herb that reaches 6 inches in height, though is usually smaller, inconspicuous, and sprawling. The species is listed as **endangered** by the **USFWS** and occurs in seepage areas on slopes and pond margins. Suitable habitat exists for this species along the edges of ponds and wetlands. According to FNAI data, the Brooksville bellflower has been documented within Hillsborough County and within one mile of the project study area near freshwater marshes and cypress wetlands (**Appendix G**). Additionally, Hillsborough River State Park personnel have documented the Brooksville bellflower within, and adjacent to, the project study area (**Appendix H**). However, this species was not observed during field reviews. Based on this information, this species’ potential for occurrence within the project study area has been designated as *high*. The FDOT will survey the project study area prior to construction to determine the presence and location of the Brooksville bellflower within the project area. If the species is identified within the limits of construction, the USFWS will be contacted to determine the appropriate avoidance, minimization, and mitigation measures. Based on the implementation of this commitment, it has been determined that the proposed project “**may affect, not likely to adversely affect**” the Brooksville bellflower.

##### **Chaffseed (*Schwalbea americana*)**

Chaffseed, a member of the snapdragon (*Scrophulariaceae*) family, is a perennial herb with an erect, typically unbranched, hairy stem. The species is listed as **endangered** by the **USFWS** and is known to occur in moist, grassy ecotones around ponds in longleaf pine sandhills and in longleaf pine savannas, sandhills, and flatwoods. Suboptimal habitat for this species may be present along the edges of ponds within the project study area. According to FNAI data, the chaffseed has been documented within Hillsborough County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, this species’ potential for occurrence within the project study area has been designated as *low*. Based on the lack of preferred habitat and lack of documented occurrences, it has been determined that the proposed project will have “**no effect**” on the chaffseed.

### 3.3.1.2 Reptiles

#### **Eastern indigo snake (*Drymarchon couperi*)**

The eastern indigo snake is a large, shiny black snake listed as **threatened** by the USFWS. The species can be found in a variety of habitats including wet prairies, xeric pinelands, and scrub. Additionally, eastern indigo snakes are known to utilize burrows of the gopher tortoise. Suitable habitat for this species is available within the project study area within open lands, cropland and pastureland, wetland habitats, and upland mixed forests. Additionally, gopher tortoise burrows have been documented adjacent to the project study area (**Appendix H**). According to FNAI data, there are historical observations from 1989 of the eastern indigo snake within the project study area (**Appendix G**). However, the species was not observed on site during field reviews. Since there have been no recent documented occurrences (within 25 years), the likelihood of this species occurring within the project study area was designated as *low*.

To minimize potential impacts to the eastern indigo snake, the FDOT will commit to using the USFWS-approved *Standard Protection Measures for the Eastern Indigo Snake* during construction of the proposed project (USFWS 2013). Additionally, the FDOT will survey the project study area prior to construction to determine the presence and location of gopher tortoise burrows within the project area. If gopher tortoises or burrows are found within 25 feet of the limits of construction, the FDOT will coordinate with the FWC to secure all permits needed to relocate the tortoises and associated commensal species. FDOT will commit to reinitiating technical assistance with USFWS if more than 25 burrows are observed within the project area before construction begins. Based on the lack of recent observations and the implementation of the *Standard Protection Measures for the Eastern Indigo Snake*, it has been determined that the proposed project “**may affect, but is not likely to adversely affect**” the eastern indigo snake. The FDOT commits to reassess proposed impacts and initiate informal or formal consultation with the USFWS, as necessary, during the design and permitting phase of the proposed project.

#### **Blue-Tailed Mole Skink (*Plestiodon egregius lividus*) and Sand Skink (*Plestiodon reynoldsi*)**

The blue-tailed mole skink and sand skink are small lizards that are listed as **threatened** by the USFWS. Blue-tailed mole skinks are expected to occur with sand skinks where the two species overlap in distribution. These species are found in central Florida in habitat with loose sandy soils, such as rosemary scrub, sand pine scrub, oak scrub, scrubby flatwoods, and turkey oak barrens. They are also known to utilize disturbed habitats with suitable soils, such as pine plantations, citrus groves, open field, and pastures. According to the *Sand and Blue-tailed Mole Skink Consultation Guide* (USFWS 2020), skink distribution is defined by three factors: location within a county designated by the USFWS with primary populations, at an elevation of 82 feet above sea level or higher, and is comprised of any of the 24 soils types designated as sand sink soil by the USFWS. The project is not located within the USFWS Sand and Blue-tailed Mole Skink Consultation Area. The project is also not located within USFWS designated habitat for the blue-tailed mole skink or sand skink. However, USFWS made an ETDM comment in regard to the sand skink; therefore, it is included in this protected species evaluation. According to FNAI, these species have not been documented within one mile of the project study area. Additionally, neither the species nor their tracks were observed on-site during field reviews. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of suitable habitat and the lack of documented occurrences, it has been determined that the proposed project will have “**no effect**” on the blue-tailed mole skink and sand skink.

### 3.3.1.3 Birds

#### **Florida scrub-jay (*Aphelocoma coerulescens*)**

The Florida scrub-jay, similar to the common blue jay in size and shape with a pale blue crestless head, nape, wings, and tail, is listed as **threatened** by the **USFWS**. The Florida scrub-jay primarily inhabits xeric oak habitats. Other habitats utilized by the scrub-jay include sand pine scrub, xeric pines, and agricultural or residential lands where sufficient native oaks have been retained to support acorn caching. The project study area is located within the USFWS scrub-jay consultation area. However, preferred habitat for this species is not present within the project study area. According to FNAI data, this species has not been documented within one mile of the project study area. Additionally, they were not observed on-site during field reviews. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of preferred habitat and lack of documented occurrences, it has been determined that the proposed project will have “**no effect**” on the Florida scrub-jay.

#### **Eastern black rail (*Laterallus jamaicensis jamaicensis*)**

The eastern black rail is a small, secretive marsh bird with adults being pale to blackish-gray with a small black bill and bright red eyes that is listed as **threatened** by the **USFWS**. The eastern black rail primarily inhabits tidally or non-tidally influenced salt and brackish marshes with dense cover but can also be found in upland areas of these types of marshes. Preferred habitat for this species is not present within the project study area. According to FNAI data, this species has not been documented within one mile of the project study area. Additionally, it was not observed on-site during field reviews. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of preferred habitat and lack of documented occurrences, it has been determined that the proposed project will have “**no effect**” on the eastern black rail.

#### **Wood stork (*Mycteria americana*)**

The wood stork is a large, white, wading bird listed as **endangered** by the **USFWS**. The wood stork is opportunistic and utilizes various habitat types, including forested wetlands, freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures, and ditches for feeding. Water that is relatively calm, uncluttered by dense aquatic vegetation, and with a permanent or seasonal water depth between two (2) and 15 inches is considered optimal foraging habitat for this species. Suitable habitat for this species is found within the wetland and surface water habitats in the project study area. However, this species was not observed during field reviews.

A 15-mile buffer surrounding the project study area was created to depict which colonies are located within core foraging distance to the proposed project (**Figure 3-1**). According to the USFWS wood stork colony data, the project study area is located within the 15-mile Core Foraging Area (CFA) of nine (9) wood stork nesting colonies. Due to the presence of preferred habitat within the project study area and its location within the CFA of multiple colonies, the wood stork’s potential for occurrence within the project study area was designated as *moderate*. The primary concern for this species is loss of foraging habitat within the CFA. As part of this project, impacts to wetlands will be mitigated for within the CFA of the affected colonies or at a regional mitigation

bank that has been approved by the USFWS or pursuant to Section 373.4137, F.S. The path followed through the *Wood Stork Key for Florida Northern Counties* (USFWS 2008) was A>B>C>E>NLAA (**Appendix I**). Based on the effect determination key, it has been determined that the proposed project “**may affect, but is not likely to adversely affect**” the wood stork.

### ***3.3.2 State Species***

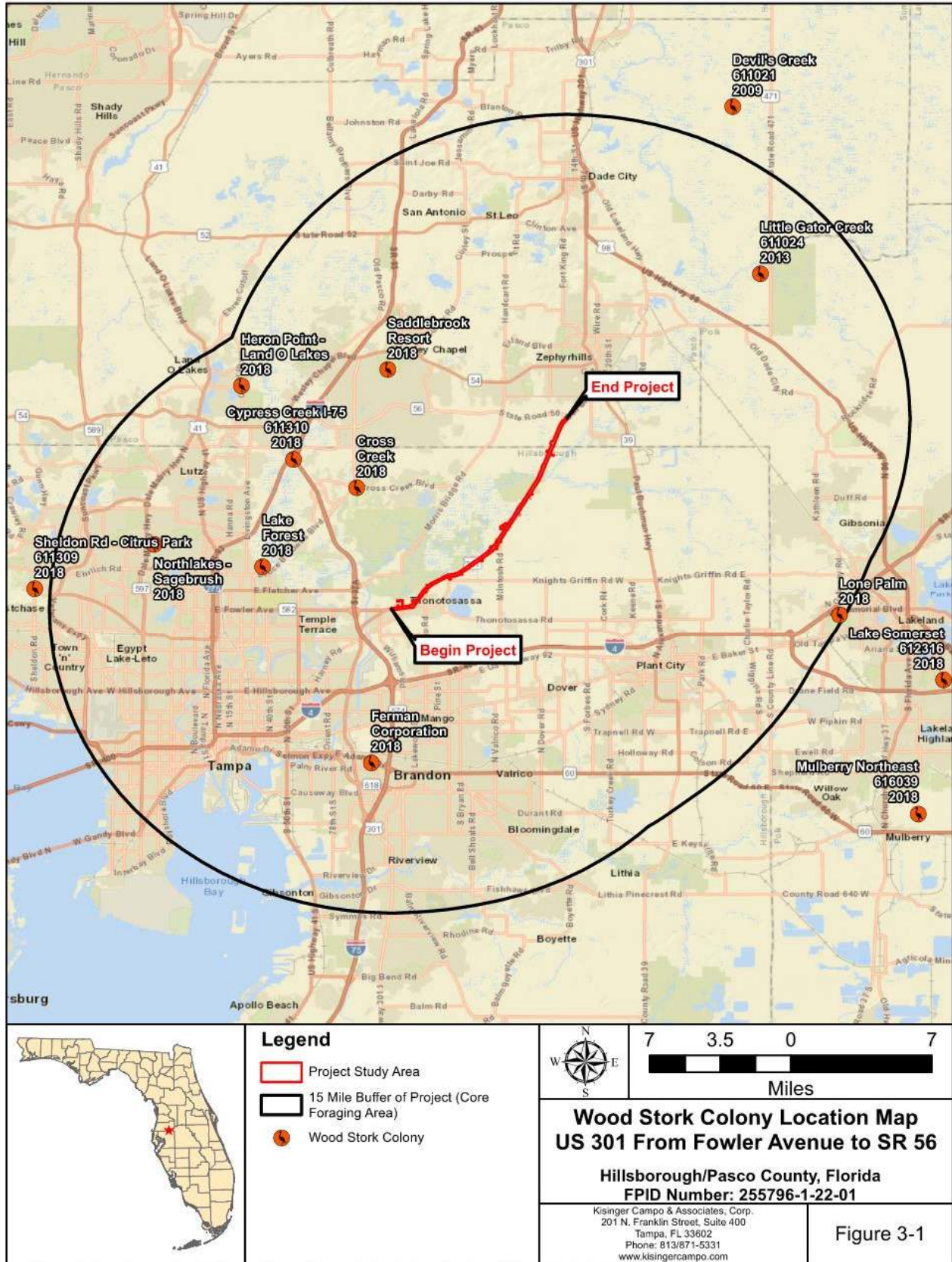
#### ***3.3.2.1 Plants***

##### **Pinewoods bluestem (*Andropogon arctatus*)**

Pinewoods bluestem, a member of the grass (*Poaceae*) family, is a perennial grass that reaches 1.5 meters in height, with long narrow leaves. The species is listed as **threatened** by the **FDACS** and is known to inhabit dry to wet flatwoods and sand pine scrub. Suitable habitat exists for this species within the dry and wet flatwood communities in the project study area. According to FNAI data, the pine-woods bluestem has been documented within Hillsborough County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, the pinewoods bluestem’s potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the pinewoods bluestem.

##### **Auricled spleenwort (*Asplenium erosum*)**

Auricled spleenwort, a member of the spleenwort (*Aspleniaceae*) family, is listed as **endangered** by the **FDACS**. The species is known to be epiphytic on tree trunks and logs in swamps and hammocks. Suitable habitat exists for this species on tree trunks and logs within the wetland hammock communities in the project study area. According to FNAI data, the auricled spleenwort has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, the auricled spleenwort’s potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the auricled spleenwort.



**Figure 3-1 Wood Stork Colony Location Map**

### **Chapman's sedge (*Carex chapmannii*)**

Chapman's sedge, a member of the sedge (*Cyperaceae*) family, is a perennial smooth sedge that forms small to large tufts by slender, spreading rhizomes and is listed as **threatened** by the **FDACS**. This species is known to inhabit hydric hammocks, hammock woodlands, sandy hammocks, and floodplains of blackwater streams. Suitable habitat for this species is found in the project study area within wetland hammock communities. According to FNAI data, there are historical observations of the Chapman's sedge from 1992 within one mile of the project study area (**Appendix H**). However, this species was not observed during field reviews of the project study area. Since there have been no recent documented occurrences (within 25 years) within or adjacent to the project study area, the likelihood of this species occurring within the project study area was designated as *low*. Based on the lack of documented occurrences within the project study area, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the Chapman's sedge.

### **Tampa vervain (*Glandularia tampensis*)**

Tampa vervain, a member of the vervain (*Verbenaceae*) family, is a perennial herb with four-sided, sprawling stems up to 2 feet long that is listed as **endangered** by the **FDACS**. This species occurs in live oak–cabbage palm hammocks and pine–palmetto flatwoods. There is minimal suitable habitat within and adjacent to the project study area in pine flatwoods. According to FNAI data, the Tampa vervain has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, Tampa vervain's potential for occurrence within the project study area was designated as *low*. Based on the minimal amount of suitable habitat present and the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the Tampa vervain.

### **Pondspice (*Litsea aestivalis*)**

Pondspice, a member of the laurel (*Lauraceae*) family, is a perennial shrub that is listed as **endangered** by the **FDACS**. The species is known to inhabit margins of ponds, bayheads, and hammocks in cypress swamps. Suitable habitat for this species is found within and adjacent to the project study area within cypress swamps and stream and lake swamps. According to FNAI data, the pondspice has been documented within Pasco County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, pondspice's potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the pondspice.

### **Celestial lily (*Nemastylis floridana*)**

Celestial lily, a member of the iris (*Iridaceae*) family, is a perennial herb with a single, tall, slender stem from a bulb that is listed as **endangered** by the **FDACS**. This species is known to occur in wet flatwoods, prairies, marshes, and cabbage palm hammocks edges. Suitable habitat for this species is present in the project study area within freshwater marshes. According to FNAI data, the celestial lily has been documented within Pasco County, but not within one mile of the project



study area. Additionally, this species was not observed during field reviews of the project study area. As a result, the celestial lily's potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the celestial lily.

#### **Hand fern (*Ophioglossum palmatum*)**

Hand fern, a member of the adder's tongue (*Ophioglossaceae*) family, is a fern with flat, fleshy, drooping, coarsely veined, evergreen leaves that is listed as **endangered** by the FDACS. This species is known to inhabit cabbage palm “boots” in hammocks and cypress swamps. Suitable habitat for this species is present in the project study area within wetland hammocks and cypress swamps. According to FNAI data, there are historical observations of the hand fern from 1979 within one mile of the project study area (**Appendix G**). However, this species was not observed during field reviews of the project study area. Since there have been no recent documented occurrences (within 25 years) within or adjacent to the project study area, the likelihood of this species occurring within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the hand fern.

#### **Plume polypody (*Pecluma plumula*)**

Plume polypody, a member of the polypody (*Polypodiaceae*) family, is a fern with leaves that are often drooping and a black leaf stalk that is listed as **endangered** by the FDACS. This species is known to occur on tree branches or limestone in hammocks, wet woods, and limesinks. Suitable habitat for this species is present in the project study area within wetland hammock communities. According to FNAI data, the plume polypody has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the plume polypody.

#### **Giant Orchid (*Orthochilus ecristatus*)**

Giant orchid, a member of the orchid (*Orchidaceae*) family, is a perennial herb that is listed as **threatened** by the FDACS. This species inhabits sandhill, scrub, pine flatwoods, and pine rocklands. Suitable habitat for this species is found in the project study area within pine flatwoods. According to FNAI data, the giant orchid has been documented within Hillsborough County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the giant orchid.

#### **Toothed maiden fern (*Thelypteris serrata*)**

Toothed maiden fern, a member of the maiden or marsh fern (*Thelypteridaceae*) family, is a fern with large, evergreen fronds reaching two (2) to six (6) feet in height that is listed as **endangered** by the FDACS. This species is known to inhabit cypress swamps, sloughs, and floodplains. Suitable habitat for this species is present in the project study area within cypress swamps.

According to FNAI data, the toothed maiden fern has been documented within Hillsborough County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on the toothed maiden fern.

#### **Broad-leaved noddling-caps (*Triphora amazonica*)**

Broad-leaved noddling-caps, a member of the orchid (*Orchidaceae*) family, is listed as **endangered** by the **FDACS**. This species inhabits rich, well-drained, moist humus of upland hardwood hammocks. Suitable habitat is present in the project study area within upland forested communities. According to FNAI data, broad-leaved noddling-caps has been documented within Hillsborough County, but not within one mile of the project study area. Additionally, this species was not observed during field reviews of the project study area. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no effect anticipated**” on broad-leaved noddling-caps.

#### ***3.3.2.2 Reptiles***

##### **Gopher tortoise (*Gopherus Polyphemus*)**

The gopher tortoise is listed as **threatened** by the **FWC**. The gopher tortoise prefers areas of well-drained loose soils that support adequate low-growing herbs and is most often found in xeric or scrub habitats. Suitable habitat is present throughout the project study area in open lands and upland forested habitats. According to FNAI data, this species has been documented within Hillsborough and Pasco counties, within one mile of the project study area (**Appendix G**). Additionally, gopher tortoise burrows were identified during field reviews of the project study area (**Appendix H**). As a result, the gopher tortoise’s potential for occurrence within the project study area was designated as *high*. To avoid adverse impacts to the gopher tortoise, the FDOT will commit to survey suitable habitat within the project area for gopher tortoises prior to construction. If gopher tortoises are found within 25 feet of the project area, the FDOT will coordinate with the FWC to secure the necessary permits to relocate the gopher tortoises prior to construction. Based on the commitment to relocate tortoises within 25 feet of the project area, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the gopher tortoise.

##### **Short-tailed snake (*Lampropeltis extenuata*)**

The short-tailed snake is listed as **threatened** by the **FWC**. The short-tailed snake is a small, slender fossorial snake with smooth scales, reaching up to 20 inches in length. It is gray with large circular brown spots along its back. The short-tailed snake burrows in sandy soils most commonly associated with longleaf pine and xeric oak sandhills. They can also be found in xeric hammocks, and scrub habitats. There is potentially suitable habitat for the short-tailed snake within upland forested habitats throughout the project study area. According to FNAI data, this species has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, no short-tailed snakes were identified during field reviews. As a result, the potential for occurrence within the project study area for the short-tailed snake was designated as

*low*. Based on this information, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the short-tailed snake.

#### **Florida pine snake (*Pituophis melanoleucus mugitus*)**

The Florida pine snake is listed as **threatened** by the FWC. The Florida pine snake is a large, stocky snake with keeled scales. Its back is tan to brown with indistinct blotches with a white stomach. The Florida pine snake inhabits dry upland habitats such as sandhill, xeric hammocks, sand pine scrub, scrubby flatwoods and old fields and pastures. This species often coexists with pocket gophers and gopher tortoises and can be found within their burrows. There is available habitat for the Florida pine snake within the upland forests, open lands, and rangelands. According to FNAI data, this species has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, no Florida pine snakes were identified during field reviews. As a result, it’s potential for occurrence within the project study area was designated as *low*. If gopher tortoise burrows are identified within the project area, FDOT commits to obtaining the necessary permits to relocate the gopher tortoise and any commensal species including the Florida pine snake. Based on this commitment, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the Florida pine snake.

#### ***3.3.2.3 Birds***

#### **Florida sandhill crane (*Antigone canadensis pratensis*)**

The Florida sandhill crane is a tall, long-necked and long-legged bird with a dull-reddish forehead listed as **threatened** by the FWC. The species is associated with shallow freshwater areas, pasture, and open woods habitats. Nests can be found on dry land or on floating mats of vegetation. Habitats such as wet and dry prairies, marshes, and marshy lake margins are optimum for the Florida sandhill crane. Suitable habitat for the Florida sandhill crane is available within herbaceous wetland habitats and pastures in the project study area. Several sandhill cranes were documented during field reviews. These sandhill crane observations were made during winter months when the unprotected greater sandhill cranes (*A. c. tabida*) are also in Florida and identification to the protected subspecies (*A. c. pratensis*) was not possible. However, pairs of adult Florida sandhill cranes were observed foraging within the US 301 ROW during field reviews in April, when the unprotected greater sandhill cranes migrate out of Florida. Based on the timing of this observation and the observed pairing of adults, this observation was confirmed as the protected Florida sandhill crane subspecies (**Appendix H**).

Based upon the visual observations of the species within the project study area, the potential for occurrence within the project study area for the Florida sandhill crane was designated as *high*. The primary concern for impacts to this species is the loss of habitat (wetlands) for nesting. As part of this project, wetland impacts will be mitigated to prevent a net loss of wetland functions and values. Additionally, the FDOT will commit to survey areas of suitable nesting habitat prior to construction if construction activities take place during the nesting season (January through July), and to coordinate with the FWC if nesting pairs are identified. With these commitments, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the Florida sandhill crane.

### **Florida burrowing owl (*Athene cunicularia floridana*)**

The Florida burrowing owl is a small, long legged, ground-dwelling owl currently listed as **threatened** by the FWC. Habitats with sandy soils that offer an expanse of short, herbaceous groundcover, such as prairies, sandhills, farms, or airfields are preferable areas for the Florida burrowing owl to nest. Suitable habitat for the species exists within the project study area within pastures and agricultural lands. According to FNAI data this species has been documented within Hillsborough and Pasco counties, but not within one mile of the project study area. Additionally, no Florida burrowing owls were observed during field reviews of the project study area. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the Florida burrowing owl.

### **Wading Birds**

#### **Little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Platalea ajaja*)**

The little blue heron, tricolored heron and roseate spoonbill are listed as **threatened** by the FWC. While each species is distinct, wading birds are discussed collectively since they occupy similar habitats and have similar feeding patterns. These wading birds nest and forage among both fresh and saltwater habitats such as freshwater marshes, coastal beaches, mangrove swamps, cypress swamps, hardwood swamps, wet prairies, and bay swamps. Suitable foraging habitat for wading birds is available throughout the project study area. According to FNAI data, these species have the potential to occur in Hillsborough and Pasco counties; however, they have not been previously documented within one mile of the project study area. There is a historical observation of the tricolored heron from 1987; however, this observation is located more than one mile from the project study area (**Appendix G**). During the February 2016 field reviews, a little blue heron was documented in an emergent aquatic wetland near the northern terminus of the project study area (**Appendix H**). Given the observation of the little blue heron, its potential for occurrence within the project study area was designated as *high*. While FNAI data has not documented the tricolored heron or the roseate spoonbill within one mile of the project study area, given the large availability of suitable habitat, the observation of one wading bird species, and their similarities in habitat utilization, the potential for occurrence was designated as *moderate* for the tricolored heron and roseate spoonbill.

The primary concern for impacts to these wading birds is the loss of foraging habitat (i.e., wetlands). As part of implementing the proposed project, all wetland impacts will be mitigated to prevent a net loss of wetland habitat functions and values. Based on this commitment to mitigate for wetland impacts, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the little blue heron, tricolored heron, or roseate spoonbill.

### **Southeastern American kestrel (*Falco sparverius paulus*)**

The southeastern American kestrel is a small falcon with blue-grey wings listed as **threatened** by the FWC due to population declines. The species utilizes open habitats for foraging and nests in tree or wooden utility pole cavities. The southeastern American kestrel prefers habitats such as pine scrub, dry prairies, mixed pine, hardwood forests, and pine flatwoods. Suitable foraging habitat is available within the project study area for the southeastern American kestrel within

pastures and rangelands. According to FNAI data, this species has been documented within Pasco County but not within one mile of the project study area. Additionally, no individuals or nesting habitat (i.e., snags) were observed within the project study area during field reviews. As a result, this species potential for occurrence within the project study area was designated as *low*. Based on the lack of documented occurrences, and its mobility and ability to use adjacent open areas for foraging, it has been determined that the proposed project will have “**no adverse effect anticipated**” on the southeastern American kestrel.

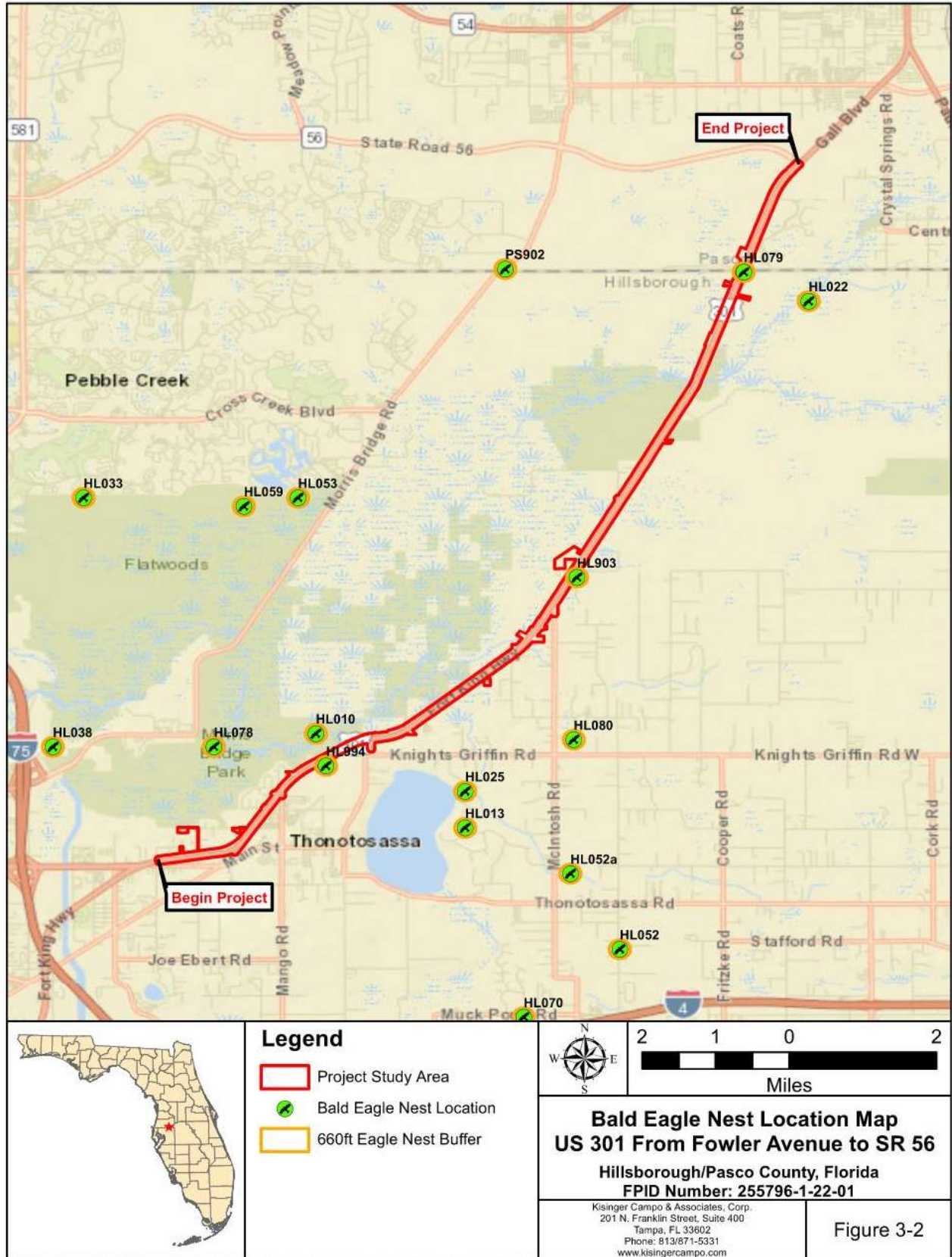
### ***3.3.3 Other Species of Concern***

#### **Bald eagle (*Haliaeetus leucocephalus*)**

The bald eagle is a large raptor with a distinctive white head and yellow bill. This species has been de-listed from the Endangered Species Act by the **USFWS**. However, it remains federally protected under the Bald and Golden Eagle Protection Act (BGEPA) in accordance with 16 United States Code (USC) 668 and the Migratory Bird Treaty Act of 1918. The bald eagle tends to utilize riparian habitats associated with coastal areas, lake shorelines, and riverbanks. Nests are generally located near water bodies that provide a dependable food source. Nests within Florida are closely monitored by the Audubon Center for Birds of Prey. According to the Audubon EagleWatch database, three (3) bald eagle nests have been documented within the project study area: HL079, HL903, and HL994 (**Figure 3-2**). According to Audubon’s data, all three (3) nests were confirmed as active for the 2020 nesting season. During field reviews of the project study area, Nest HL994 was confirmed as present and active for the 2021 nesting season. As a result, the potential for occurrence for the bald eagle was designated as *high*. The project study area falls within the secondary buffer zone (660 feet) of nests HL079, HL903, and HL994. During the project’s design and permitting phase, the FDOT will review the project study area for active bald eagle nests. If an active nest is identified within 660 feet of the proposed project study area, the FDOT will coordinate with the USFWS to secure all necessary approvals prior to the start of construction.

#### **Florida black bear (*Ursus americanus floridanus*)**

Although the Florida black bear has been removed from the State’s threatened species list, the species remains protected and managed by the FWC pursuant to the Florida Black Bear Conservation Rule 68A-4.009, F.A.C. Dens are typically in areas with dense vegetation coverage in remote swamps or thickets, sometimes in tree cavities. Suitable habitat for the Florida black bear is available within project study area in wetland and upland forests; however, no Florida black bears or signs of black bears were observed within the project study area during field reviews. Additionally, there has been one nuisance report documented within one mile of the project study area (**Appendix H**), and the project study area is located within the FWC-designated occasional Florida black bear range for the south-central and big bend bear management units. Based on the low numbers of nuisance calls and the location within the occasional black bear range, this species’ potential for occurrence within the project study area was designated as *moderate*. According to FWC mortality data, there have been no documented roadkill bears within the project study area. Increased road widths and capacity in this location is not anticipated to adversely impact the Florida black bear.



**Figure 3-2 Bald Eagle Nest Location Map**

### ***3.3.4 Critical Habitat***

The project study area was evaluated for the occurrence of listed species Critical Habitat designated by Congress in 17 CFR 35.1532. No designated Critical Habitat for any federal listed species occurs within the project study area. Based on this information, it has been determined that the proposed project will not result in the destruction or adverse modification of any Critical Habitat.

### ***3.3.5 Wildlife Crossings and/or Features***

The increased travel capacity and additional lanes provided by the widening of US 301 may increase the barrier to wildlife movement across US 301. As a result, native wildlife may be negatively impacted via increased habitat fragmentation, reduced gene flow, and higher occurrences of wildlife vehicle collisions, particularly where natural or undeveloped lands border both sides of US 301.

There are four bridged stream and river crossings and several culverted ditch crossings, which allow for habitat connectivity across US 301. Public lands are on both sides of the roadway at the Hillsborough River and Flint Creek crossings. Wildlife crossings and/or features are being evaluated and coordinated with the resource agencies in accordance with the FDOT Wildlife Crossing Guidelines.

### ***3.3.6 Indirect, Secondary, and Cumulative Impacts***

Indirect and secondary effects are those that are reasonably certain to occur later in time as a result of the proposed project. They may occur outside of the area directly affected by the proposed project. Potential secondary effects include increased noise, traffic, and development, which could impact wildlife or result in a change in wildlife migration patterns by reducing habitat connectivity. Cumulative effects include the effects on the environment that results from the incremental impact of the action when added to other past, present, and future state, local, or private actions that are reasonably certain to occur in the project area. Cumulative effects can result from individually minor but collectively significant actions taking place over time. Future federal actions that are unrelated to the proposed project are not considered in the determination of cumulative effects because they require a separate consultation in accordance with Section 7 of the ESA. Indirect, secondary, and cumulative impacts will be further defined and addressed through agency coordination during the project's design phase. However, a brief summary of these impacts is provided below.

#### ***3.3.6.1 Preferred Build Alternative***

Indirect, secondary, and cumulative impacts associated with the proposed project are not anticipated to be high because this is not a new roadway alignment. Indirect, secondary, and cumulative effects are anticipated to impact transportation, habitat connectivity, and native species.

In areas adjacent to the proposed project, including stormwater treatment and floodplain

compensation areas, secondary impacts of increased nuisance/exotic vegetation are anticipated. Species such as Brazilian pepper (*Schinus terebinthifolia*) and cogongrass (*Imperata cylindrica*) are particularly aggressive and successful colonizers of the project study area. Therefore, construction disturbance may allow these species to colonize and outcompete native vegetation. Nuisance/exotic vegetation has negative impacts to native wildlife and their habitats as they take over the natural habitats upon which the species rely.

### ***3.3.6.2 No-Build Alternative***

There are no indirect, secondary, or cumulative impacts to wildlife associated with the No-Build Alternative.



# 4.0 Wetland Evaluation

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## 4.1 Introduction

In accordance with Executive Order 11990, the FDOT has undertaken all actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. Nonetheless, the FDOT has determined that there is no practicable alternative to construction impacts occurring in wetlands. Any unavoidable impacts to wetlands will be mitigated to achieve no net loss of wetland function. Unavoidable wetland impacts have been minimized to the greatest extent possible by choosing an eastern/southeastern alignment that avoids conservation lands to the greatest extent practical and through the incorporation of roadside drainage ditches, thereby minimizing water quality impacts associated with stormwater discharges from roadway and bridge surfaces. An assessment of unavoidable wetland and surface water impacts is provided below.

### 4.1.1 ETDM Coordination

During the ETDM (No. 14194) screening, significant wetland resources were identified within the preliminary project footprint. All regulatory and resource agencies consulted, including the USFWS, U.S. Army Corps of Engineers (USACE), SWFWMD, and U.S. Environmental Protection Agency (USEPA), noted that important wetlands and habitat for fish and wildlife occur immediately adjacent to the project footprint within public conservation lands in the Hillsborough River State Park. All agencies noted that avoidance and minimization efforts should be considered to the greatest extent practicable, and that all unavoidable impacts will need to be mitigated to ensure no net loss in functions.

## 4.2 Methodology

Environmental scientists familiar with Florida natural communities conducted desktop reviews, and on-site field reviews of the project study area and adjacent habitats in February 2016, July and September 2018, and March and April 2021. During field reviews of the project study area, environmental scientists delineated the approximate boundaries of existing wetland and surface water communities on 1" = 200' true-color aerial photographs. Each wetland and surface water habitat within the project study area was classified using FLUCFCS (FDOT 1999) and the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al. 1979). Approximate wetland boundaries were identified in accordance with the *State of Florida Wetlands Delineation Manual* (Chapter 62-340, F.A.C.), the criteria found within the *U.S. Army Corps of Engineers (USACE) 1987 Corps of Engineers Wetland Delineation Manual* (USACE 1987) and *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coast Plain Region* (USACE 2010).

The Uniform Mitigation Assessment Method (UMAM) was used for proposed wetland impacts to determine the approximate functional loss as a result of project construction. Wetlands and surface waters were considered impacted if they fall within the proposed ROW of the preferred alternative.

Formal wetland boundaries were not determined as part of this study and will be completed based on design segments during the design and permitting phases of this project.

### 4.3 Results

#### 4.3.1 Wetland and Surface Water Impacts

Potential direct impacts to wetlands and surface waters were assessed for the preferred alternative of the proposed US 301 widening. For the purposes of this report, the impact area of each wetland and surface water equals its total acreage within the proposed ROW and preferred pond sites. **Table 4-1** below provides a summary of the proposed wetland and surface water impacts resulting from the construction of the preferred alternative. Construction of the preferred alternative would result in a total of 31.11 acres of impacts to wetlands and 38.81 acres of impacts to surface waters. A map showing the locations of wetland and surface water impacts is provided in **Appendix J**.

**Table 4-1 Proposed Wetland and Surface Water Impacts by Habitat Type**

FLUCFCS Code <sup>1</sup>	FLUCFCS Description	USFWS Classification <sup>2</sup>	Acreage within the Project Study Area	Preferred Alternative Impact Acreage
<i>Surface Waters</i>				
510	Streams and Waterways	PEM1Cx, PEM1Ax, PFO1Cx, PFO1Ax, R2UB2G, R2UB2H	51.26	35.83
534	Reservoirs <10 acres	PEM1Cx, PUBHx	9.33	2.98
<b>Subtotal Surface Waters</b>			<b>60.59</b>	<b>38.81</b>
<i>Wetlands</i>				
615	Stream and Lake Swamps	PFO1/2C	114.31	25.24
617	Mixed Wetland Hardwoods	PFO1C	1.18	0.00
621	Cypress	PFO2C	31.75	2.45
630	Wetland Forested Mixed	PFO1/2C	9.43	0.66
631	Wetland Scrub	PSS1C	1.06	0.00
641	Freshwater Marshes	PEM1C	13.93	2.26
644	Emergent Aquatic Vegetation	PAB4H	3.67	0.50
<b>Subtotal Wetlands</b>			<b>175.33</b>	<b>31.11</b>
<b>Total</b>			<b>235.92</b>	<b>69.92</b>

<sup>1</sup> FDOT 1999

<sup>2</sup> Cowardin *et al.* 1979

PAB4H - Palustrine, Aquatic Bed, Floating Vascular, Permanently Flooded  
 PEM1C - Palustrine, Emergent, Persistent, Seasonally Flooded  
 PEM1Cx - Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated  
 PEM1Ax - Palustrine, Emergent, Persistent, Temporarily Flooded, Excavated  
 PFO1/2C - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded  
 PFO1C - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded  
 PFO1Cx - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded, Excavated  
 PFO1Ax - Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded, Excavated  
 PFO2C - Palustrine, Forested, Needle-Leaved Deciduous, Seasonally Flooded  
 PSS1C - Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded  
 R2UB2G - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Intermittently Exposed  
 R2UB2H - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded

### 4.3.2 Uniform Mitigation Assessment Method Results

Functional loss was calculated for each wetland habitat type, along with natural streams and waterways and reservoirs, affected by the preferred alternative using the Uniform Mitigation Assessment Method (UMAM) (Table 4-2). Upland-cut stormwater ditches do not require mitigation pursuant to SWFWMD and FDEP 404 Program rules, and therefore are excluded from the UMAM analysis. Furthermore, many upland-cut ditches in the project area will likely be replaced or relocated as a result of the final design, thereby maintaining their hydrologic functions. The completed UMAM data sheets for each habitat type are provided in Appendix K. Construction of the preferred alternative results in a loss of 24.78 (22.62 wetland and 2.16 surface water) functional units. Representative UMAM scores and functional loss for each wetland habitat type are presented in Table 4-3. These scores are subject to agency review and may change during the permitting process. Secondary impacts will be assessed using the UMAM during the permitting process.

**Table 4-2 Estimated UMAM Functional Loss by Habitat Type**

FLUCFCS Code <sup>1</sup>	FLUCFCS Description	USFWS Classification <sup>2</sup>	UMAM Delta	Impact Acreage	Functional Loss
510	Streams and Waterways (Rivers/Creeks)	R2UB2G, R2UB2H	0.73333	0.91	0.67
534	Reservoirs < 10 acres	PEM1Cx	0.50000	2.98	1.49
615	Stream and Lake Swamps	PFO1/2C	0.73333	25.24	18.51
621	Cypress	PFO2C	0.70000	2.45	1.72
630	Wetland Forested Mixed	PFO1/2C	0.70000	0.66	0.46
641	Freshwater Marshes	PEM1C	0.70000	2.26	1.58
644	Emergent Aquatic Vegetation	PAB4H	0.70000	0.50	0.35
<b>Total</b>				<b>35.00</b>	<b>24.78</b>

Note: UMAM scores, impact acreage, and functional loss are preliminary and are subject to change during the final design and permitting phase of the project

<sup>1</sup> FDOT 1999

<sup>2</sup> Cowardin *et al.* 1979

PAB4H - Palustrine, Aquatic Bed, Floating Vascular, Permanently Flooded

PEM1C - Palustrine, Emergent, Persistent, Seasonally Flooded

PEM1Cx - Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated

PFO1/2C - Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Deciduous, Seasonally Flooded

PFO1C - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded

PFO2C - Palustrine, Forested, Needle-Leaved Deciduous, Seasonally Flooded

PSS1C - Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded

R2UB2G - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Intermittently Exposed

R2UB2H - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded

**Table 4-3 Representative UAMAM Scores and Functional Loss by Habitat Type**

FLUCFCS Code <sup>1</sup>	FLUCFCS Description	USFWS Classification <sup>2</sup>	Location and Landscape Support		Water Environment		Community Structure		Score		Delta	Impact Acreage	Functional Loss
			Current	With	Current	With	Current	With	Current	With			
510	Streams and Waterways (Creeks/Rivers)	R2UB2G, R2UB2H	7	0	7	0	8	0	0.7333	0.00	0.7333	0.91	0.67
534	Reservoirs < 10 acres	PEM1Cx	5	0	5	0	5	0	0.5000	0.00	0.5000	2.98	1.49
615	Stream and Lake Swamps (Bottomland)	PFO1/2C	7	0	7	0	8	0	0.7333	0.00	0.7333	25.24	18.51
621	Cypress	PFO2C	7	0	7	0	7	0	0.7000	0.00	0.7000	2.45	1.72
630	Wetland Forested Mixed	PFO1/2C	7	0	7	0	7	0	0.7000	0.00	0.7000	0.66	0.46
641	Freshwater Marshes	PEM1C	7	0	7	0	7	0	0.7000	0.00	0.7000	2.26	1.58
644	Emergent Aquatic Vegetation	PAB4H	7	0	7	0	7	0	0.7000	0.00	0.7000	0.50	0.35
<b>Total</b>											<b>35.00</b>	<b>24.78</b>	

Note: UAMAM scores, impact acreage, and functional loss are preliminary and are subject to change during the final design and permitting phase of the project

<sup>1</sup> FDOT 1999

<sup>2</sup> Cowardin *et al.* 1979

PAB4H - Palustrine, Aquatic Bed, Floating Vascular, Permanently Flooded

PEM1C - Palustrine, Emergent, Persistent, Seasonally Flooded

PEM1Cx - Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated

PFO1/2C - Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Deciduous, Seasonally Flooded

PFO1C - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded

PFO2C - Palustrine, Forested, Needle-Leaved Deciduous, Seasonally Flooded

PSS1C - Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded

R2UB2G - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Intermittently Exposed

R2UB2H - Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded

## ***4.4 Indirect, Secondary, and Cumulative Impacts***

Indirect and secondary effects are those impacts that are reasonably certain to occur later in time as a result of the proposed project. They may occur outside of the area directly affected by the proposed project. Cumulative effects include the effects of future state, local, or private actions that are reasonably certain to occur in the project area. Indirect, secondary, and cumulative impacts will be further defined and addressed through agency coordination during the project's design phase. However, a brief summary of these impacts is provided below.

### ***4.4.1 Preferred Alternative***

Indirect impacts are anticipated to occur as a result of the preferred alternative. Secondary impacts of edge effects will likely occur. At locations where natural areas meet development, edge effects such as increased cover of nuisance/exotic vegetation and changes in microclimate generally take place. The wetlands and surface waters within the preferred alternative already experience edge effects due to previous construction of the existing US 301 facility. The severity of these edge effects should not increase; however, it is expected that these effects would migrate to the new transitional area between remaining wetlands and surface waters and new construction. In areas designated for stormwater treatment and floodplain compensation, secondary impacts of increased nuisance/exotic vegetation are anticipated. Species such as Brazilian pepper and cogongrass are particularly aggressive and successful colonizers of the project study area. Therefore, the disturbance of construction may allow these species to colonize and outcompete native vegetation. Nuisance/exotic vegetation has negative impacts to wetlands and surface waters as these species may take over native vegetation. Since wetland impacts resulting from the construction of this project will be mitigated within the same drainage basin, no cumulative impacts are anticipated to occur.

### ***4.4.2 No-Build Alternative***

There are no indirect, secondary, or cumulative impacts to wetlands associated with the No-Build Alternative.

## ***4.5 Mitigation***

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. §1344. In accordance with EO 11990 and Part 2, Chapter 9 - Wetlands and Other Surface Waters of the FDOT PD&E Manual (FDOT 2020), the FDOT has undertaken all actions to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. Nonetheless, the FDOT has determined that there is no practicable alternative to construction occurring in wetlands. Unavoidable wetland impacts are necessary to meet transportation safety standards for side slopes and additional lanes. The proposed project will have no significant short-term or long-term adverse impacts to wetlands because any unavoidable impacts to wetlands will be mitigated to achieve no net loss of wetland function.

Unavoidable surface water impacts will be minimized through the use of bridges over major streams and creeks, and further offset through the construction of stormwater management ponds, floodplain compensation ponds, and the regrading of roadside swales and ditches. Surface water impacts and functional loss will be offset on-site through the construction of a stormwater management system. There will be no net loss in surface water functions within the project study area.

Compensatory mitigation for this project will be completed using mitigation banks and other mitigation options to satisfy state and federal requirements. The proposed project is located within the service areas of the Hillsborough River Mitigation Bank (HRMB), Two Rivers Mitigation Bank (TRMB), and the North Tampa Mitigation Bank (NTMB). Currently, HRMB and TRMB have enough credits available to satisfy the needs of the project. The status of available mitigation banks and credits will also be assessed as this project moves forward into design and permitting. At the time of permitting, if a mitigation bank or in-lieu fee program is not available, a conceptual mitigation plan may be created to offset the unavoidable impacts to wetlands that would result from construction of the proposed project. A conceptual mitigation plan may include restoring, enhancing, or creating wetland/surface water habitats of similar type and quality (on-site or off-site) within the same drainage basin as the project study area.

All UMAM scores, UMAM calculations, wetland lines and determinations discussed are preliminary and are subject to review, revision, and approval by regulatory agencies during the permitting process. The exact type of mitigation used to offset wetland impacts from the proposed project will be coordinated with the FDEP State 404 Program and the SWFWMD during the permitting phase of this project.

# 5.0 Permitting and Conservation Lands

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## 5.1 Permits

Both the FDEP and SWFWMD regulate impacts to wetlands within the project study area. Other agencies, including the USFWS, National Marine Fisheries Service (NMFS), USEPA, and the FWC, review and comment on wetland permit applications. The FWC also issues permits for gopher tortoise relocation activities. In addition, the FDEP regulates stormwater discharges from construction sites. Within Hillsborough County, the Tampa Port Authority (TPA) issues Sovereign Submerged Lands Easements, while the FDEP issues Sovereign Submerged Lands Easements within Pasco County. The complexity of the permitting process will depend greatly on the degree of the impact to jurisdictional areas. It is anticipated that the following permits will be required for this project:

<b>Permit</b>	<b>Issuing Agency</b>
Section 404 Dredge and Fill Permit (State 404 Permit)	FDEP
State-Owned Sovereignty Submerged Lands Easement (as necessary)	TPA
Environmental Resource Permit (ERP)	SWFWMD
National Pollutant Discharge Elimination System (NPDES)	FDEP
Gopher Tortoise Relocation Permit (as necessary)	FWC
Listed Species Incidental Take Permit (as necessary)	USFWS/FWC

### 5.1.1 Federal Permits

#### **Incidental Take Permit (as necessary)**

The USFWS can issue Incidental Take Permits to cover a take that is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Based on field reviews of the project study area, the proposed project is located within the buffers of several previously documented bald eagle nests. Additionally, during field reviews, one nest was confirmed active for the 2021 nesting season. Due to the presence of bald eagle nests within and adjacent to the project study area, a non-purposeful, or incidental take, permit may be required from the USFWS for the bald eagle.

#### **Section 404 Dredge and Fill Permit**

The FDEP has been delegated authority to issue Section 404 authorization in state assumed waters, effective December 22, 2020. The USACE maintains Section 404 CWA responsibility for retained waters; however, if a segment of the project is released for design and impacts are not within 300 feet of retained waters, a 404 Permit will be required from the FDEP.

The proposed project impacts waters of the U.S. that lie within state assumed waters. It is anticipated that an individual 404 permit will be required from the FDEP for proposed wetland impacts. An individual permit will require compliance with the 404(b)(1) guidelines, including verification that all impacts have first been avoided to the greatest extent possible, that unavoidable impacts have been minimized to the greatest extent possible, and lastly that unavoidable impacts

have been mitigated in the form of wetlands creation, restoration, and/or enhancement. The 404(b) (1) guidelines state that only the least environmentally damaging practicable alternative can be authorized for construction.

### ***5.1.2 State Permits***

#### **Sovereignty Submerged Lands (as necessary)**

All potential Sovereignty Submerged Lands (SSL) within the project study area are within Hillsborough County. Land owned by the State of Florida within the boundaries of Hillsborough County was transferred to the Tampa Port Authority, pursuant to Chapter 95-488, Laws of Florida, 1995. A SSL title determination was requested from the Tampa Port Authority for Flint Creek, Flint Creek Relief, Hollomans Branch, Two Holes Branch, and the Hillsborough River. Of the five (5) submerged land crossings, the Tampa Port Authority has determined that Flint Creek, Hollomans Branch, and the Hillsborough River are on state-owned lands, therefore SSL easements will be required. The FDOT currently has a sovereign submerged lands easement to maintain US 301 at the Hillsborough River bridge crossing (Easement No. 26146 [3098-29]). Additionally, there is an existing FDOT easement to maintain US 301 that encompasses the Flint Creek bridge crossing (Easement No. 25173); however, this easement does not mention SSL. Additional agency coordination will be required to determine if this existing easement covers SSL at Flint Creek. Typically, easements are generated during the design phase of the project. Agency correspondence regarding SSL is provided in **Appendix E**.

#### **Environmental Resource Permit**

The SWFWMD requires an ERP when construction of any project results in the creation of a new or modification of an existing surface water management system or results in impacts to waters of the state. As with 404 permits, the complexity associated with the ERP permitting process will depend on the size of the project and/or the extent of wetland impacts. A pre-application meeting was held with the SWFWMD to determine permitting requirements for the proposed project (**Appendix E**). An individual ERP will be required for this project.

#### **National Pollutant Discharge Elimination System**

40 CFR Part 122 prohibits point source discharges of stormwater to waters of the U.S. without a NPDES permit. Under the State of Florida's delegated authority to administer the NPDES program, construction sites that will result in greater than one acre of disturbance must file for and obtain either coverage under an appropriate generic permit contained in Chapter 62-621, F.A.C., or an individual permit issued pursuant to Chapter 62-620, F.A.C. A major component of the NPDES permit is the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site and discusses good engineering practices (i.e., best management practices) that will be used to reduce the pollutants.

#### **Gopher Tortoise Relocation Permit (as necessary)**

Based on field reviews, suitable habitat exists within the project study area for the state-listed gopher tortoise. Should observations of the gopher tortoise occur during pre-construction surveys, in accordance with the requirements of Rules 68A-25.002 and 68A-27.004 (F.A.C.), a permit for



a gopher tortoise capture/relocation/release activity must be secured from the FWC before initiating any relocation work. A 10 or fewer Burrows Permit is available for development projects that contain 10 or fewer gopher tortoise burrows and a Conservation Permit is available for projects that require the relocation of more than 10 gopher burrows. Both of these permits allow for relocation either to an on-site preserve or off-site to an FWC-approved Recipient Site.

**Incidental Take Permit (as necessary)**

Based on field reviews, suitable foraging and nesting habitat exists within the project study area for the Florida burrowing owl, Florida sandhill crane, little blue heron, tricolored heron, and roseate spoonbill. The project study area also contains potentially suitable habitat for the Florida pine snake. If determined necessary after technical assistance from the FWC, in accordance with 68A-27.001, 68A-27.003, 68A-25.002, 68A-1.004, and 68A-27.005 F.A.C., a permit authorizing incidental take of affected species must be secured from the FWC. While avoidance and minimization is the preferred course of action, a Listed Species Incidental Take Permit is available to cover a take that is incidental to, and not the purpose of, carrying out an otherwise lawful activity.

**5.2 Conservation Lands**

**5.2.1 Conservation Lands Impacts and Coordination**

The preferred alternative will impact conservation lands in HRSP (TIITF and ELAPP) and LHWP (**Table 5-1**). Coordination with the FDEP occurred on August 21, 2015 and January 20, 2017 to identify design elements to reduce right-of-way needs within HRSP in order to reduce conservation land impacts. Documentation of this coordination is provided in **Appendix E**. Coordination with land management agencies is ongoing and will continue during design and permitting.

**Table 5-1 Conservation Land Management Agencies and Impact Acreages**

Land Management Agencies	Impact (Acre)
FDEP (ELAPP)	0.37
SWFWMD *	5.64
FDEP (TIITF) *	21.84
<b>Total</b>	<b>27.85</b>

\*State-owned conservation lands pursuant to Section 253, F.S.

**5.2.2 State-Owned Conservation Lands Mitigation**

This project was assessed for its proximity to state-owned conservation lands in accordance with the PD&E Manual, Part 2, Chapter 23. The preferred alternative will impact approximately 27.48 acres of state-owned conservation lands. State-owned conservation lands mitigation is being evaluated and coordinated with the land management agencies in accordance with Section 253, F.S.

# 6.0 Conclusions

## 6.1 Protected Species and Habitat

The project study area was evaluated for the presence of federal and state protected species and their habitat in accordance with the ESA and Part 2, Chapter 16 of the PD&E Manual. **Tables 6-1** and **6-2** summarize the effect determinations that have been made for each federal and state protected species based upon their potential for occurrence ranking and the implementation measures and/or commitments to offset any potential impacts to each species. No adverse impacts are anticipated for other protected species including the bald eagle and Florida black bear.

**Table 6-1 Federal Protected Species Effect Determinations**

Effect Determination	Species
"no effect"	Chaffseed ( <i>Schwalbea americana</i> )
	Blue-tailed Mole Skink ( <i>Plestiodon egregius lividus</i> )
	Sand Skink ( <i>Plestiodon reynoldsi</i> )
	Eastern Black Rail ( <i>Laterallus jamaicensis jamaicensis</i> )
	Florida Scrub-Jay ( <i>Aphelocoma coerulescens</i> )
"may affect, not likely to adversely affect"	Brooksville Bellflower ( <i>Campanula robinsiae</i> )
	Eastern Indigo Snake ( <i>Drymarchon couperi</i> )
	Wood Stork ( <i>Mycteria americana</i> )

**Table 6-2 State Protected Species Effect Determinations**

Effect Determination	Species
"no effect anticipated"	Pinewoods Bluestem ( <i>Andropogon arctatus</i> )
	Auricled Spleenwort ( <i>Asplenium erosum</i> )
	Tampa Vervain ( <i>Glandularia tampensis</i> )
	Pondspice ( <i>Litsea aestivalis</i> )
	Celestial Lily ( <i>Nemastylis floridana</i> )
	Plume Polypody ( <i>Pecluma plumula</i> )
	Giant Orchid ( <i>Pteroglossaspis ecristata</i> )
	Toothed Maiden Fern ( <i>Thelypteris serrata</i> )
	Broad-leaved Nodding-caps ( <i>Triphora amazonica</i> )
"no adverse effect anticipated"	Chapman's Sedge ( <i>Carex chapmanii</i> )
	Hand Fern ( <i>Ophioglossum palmatum</i> )
	Gopher Tortoise ( <i>Gopherus polyphemus</i> )
	Short-tailed Snake ( <i>Lampropeltis extenuata</i> )
	Florida Pine Snake ( <i>Pituophis melanoleucus mugitus</i> )
	Florida Sandhill Crane ( <i>Antigone canadensis pratensis</i> )
	Little Blue Heron ( <i>Egretta caerulea</i> )
	Tricolored Heron ( <i>Egretta tricolor</i> )
	Roseate Spoonbill ( <i>Platalea ajaja</i> )
	Florida Burrowing Owl ( <i>Athene cunicularia floridana</i> )
	Southeastern American Kestrel ( <i>Falco sparverius paulus</i> )

## **6.2 Wetland Evaluation**

The proposed project was evaluated for impacts to wetlands in accordance with EO 11990 and Part 2, Chapter 9 of the PD&E Manual (FDOT 2020). In accordance with EO 11990, the FDOT has undertaken all actions to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. Nonetheless, the FDOT has determined that there is no practicable alternative to construction impacts occurring in wetlands. Any unavoidable impacts to wetlands will be mitigated to achieve no net loss of wetland function. Based on the type and location of proposed impacts, the proposed project will have no significant short-term or long-term adverse impacts to wetlands.

A total of 69.92 acres of impacts (31.11 acres of wetland impacts and 38.81 acres of surface water impacts) are anticipated as result of construction of the preferred alternative. Final determination of impact acreages will occur during the design phase and project permitting. All impacts will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV Chapter 373, F.S. and 33 U.S.C. 1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and/or any other mitigation options that satisfy state and federal requirements.

## **6.3 Implementation Measures**

Based on the field and literature reviews outlined in this report, federal and state protected species have the potential to occur within the project study area. In order to assure that the proposed project will not adversely impact these species, the FDOT will adhere to the following:

- Water quality impacts from construction will be avoided and minimized through the use of BMPs including, but not limited to, construction phasing, sediment barriers, silt fences, and other techniques identified during design and permitting by the regulatory agencies and later during construction by the selected contractor.
- The FDOT will comply with the most current FWC Gopher Tortoise Permitting Guidelines prior to project construction. This will include a gopher tortoise survey and gopher tortoise relocation as necessary.
- The FDOT will implement its Special Provision for the gopher tortoise (SP0070104-3) and Florida black bear (SP0070104-1) (FDOT 2021) during project construction.
- Impacts to suitable foraging habitat for the federally protected wood stork will be mitigated through the purchase of credits from a U.S. Fish and Wildlife Service approved mitigation bank pursuant to Section 373.4137, F.S. or as otherwise agreed to by the FDOT and the appropriate regulatory agencies.
- The FDOT will reinitiate coordination with the Land Management Agencies for any impacts to state-owned conservation lands.

## 6.4 *Project Commitments*

To minimize project impacts on protected species to the greatest extent practicable, the following project commitments will be adhered to:

- The FDOT commits to conducting a protected plant survey within the project area prior to project construction. If protected plant species are observed within the project area during the design phase, coordination with the FDACS and/or USFWS will be initiated and efforts will be made prior to construction to allow for seed collection and/or relocation to suitable protected lands.
- The FDOT will adhere to the USFWS *Standard Protection Measures for the Eastern Indigo Snake* during all construction phases of the project.
- The FDOT commits to reinitiate technical assistance with USFWS for the Eastern indigo snake if there are more than 25 gopher tortoise burrows founds within the project during the design and permitting phase of the proposed project and before construction and initiate informal or formal consultation with the USFWS, as necessary, at that time.
- Surveys to update locations of active osprey and bald eagle nest sites will be conducted prior to construction, and permits will be acquired if there are unavoidable impacts during construction. Coordination with USFWS and FWC will take place, as necessary.
- The FDOT commits to conduct a sandhill crane nest survey, per FWC guidelines, within 400 feet of the project's construction limits (including the roadway footprint, construction staging areas, floodplain compensation, and stormwater management ponds) prior to the start of construction if construction occurs during the nesting season (January through July). The FDOT will coordinate with the FWC during the project construction phase, if necessary.
- Netting made of nylon, or any type of non-biodegradable material, will not be used under sod or for erosion control along roadsides or retention ponds to avoid the risk of entrapment and death for many species of snakes and amphibians.
- The FDOT will coordinate the design and location of wildlife crossings and/or features with the resource agencies during project design and permitting.

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- U.S. Fish and Wildlife Service (USFWS). 2021a. Critical Habitat Portal. U.S Department of the Interior. (<https://ecos.fws.gov/ecp/report/table/critical-habitat.html>)
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U.S. Fish and Wildlife Service (USFWS). 2021c. National Wetlands Inventory. Wetlands Online Mapper. (<https://www.fws.gov/wetlands/data/mapper.html>)

U.S. Fish and Wildlife Service (USFWS). 2021d. Wood Stork Database. (<https://www.fws.gov/northflorida/woodstorks/wood-storks.htm>)

U.S. Geological Survey (USGS). 2012a. 7.5 minute Topographical Quadrangle Map, Thonotosassa, Florida.

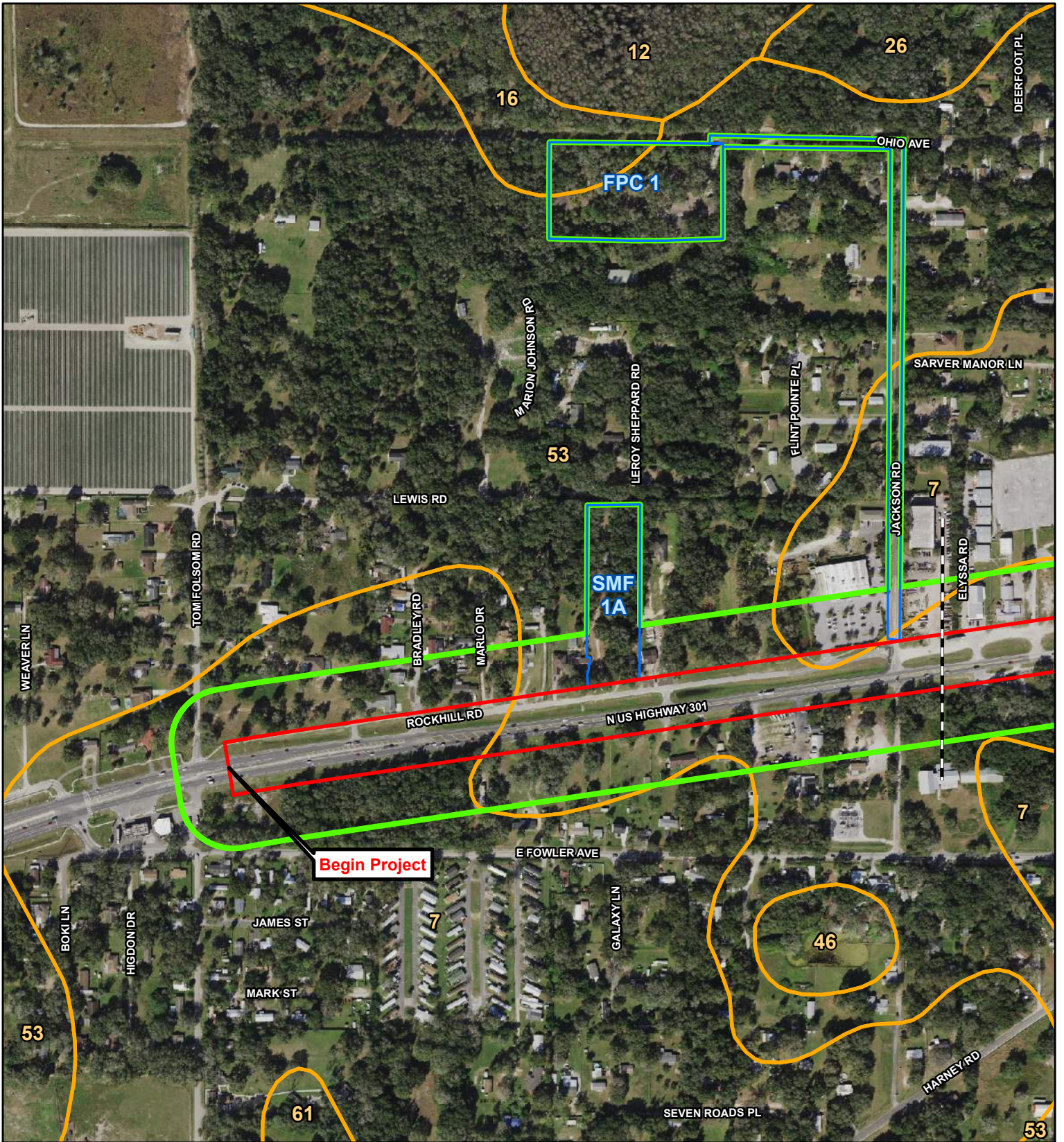
U.S. Geological Survey (USGS). 2012b. 7.5 minute Topographical Quadrangle Map, Plant City, Florida.

U.S. Geological Survey (USGS). 2015. 7.5 minute Topographical Quadrangle Map, Zephyrhills, Florida.

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***APPENDIX A***  
**Soils Map**

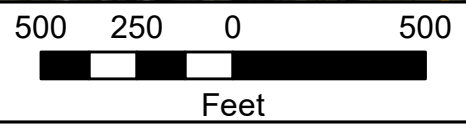




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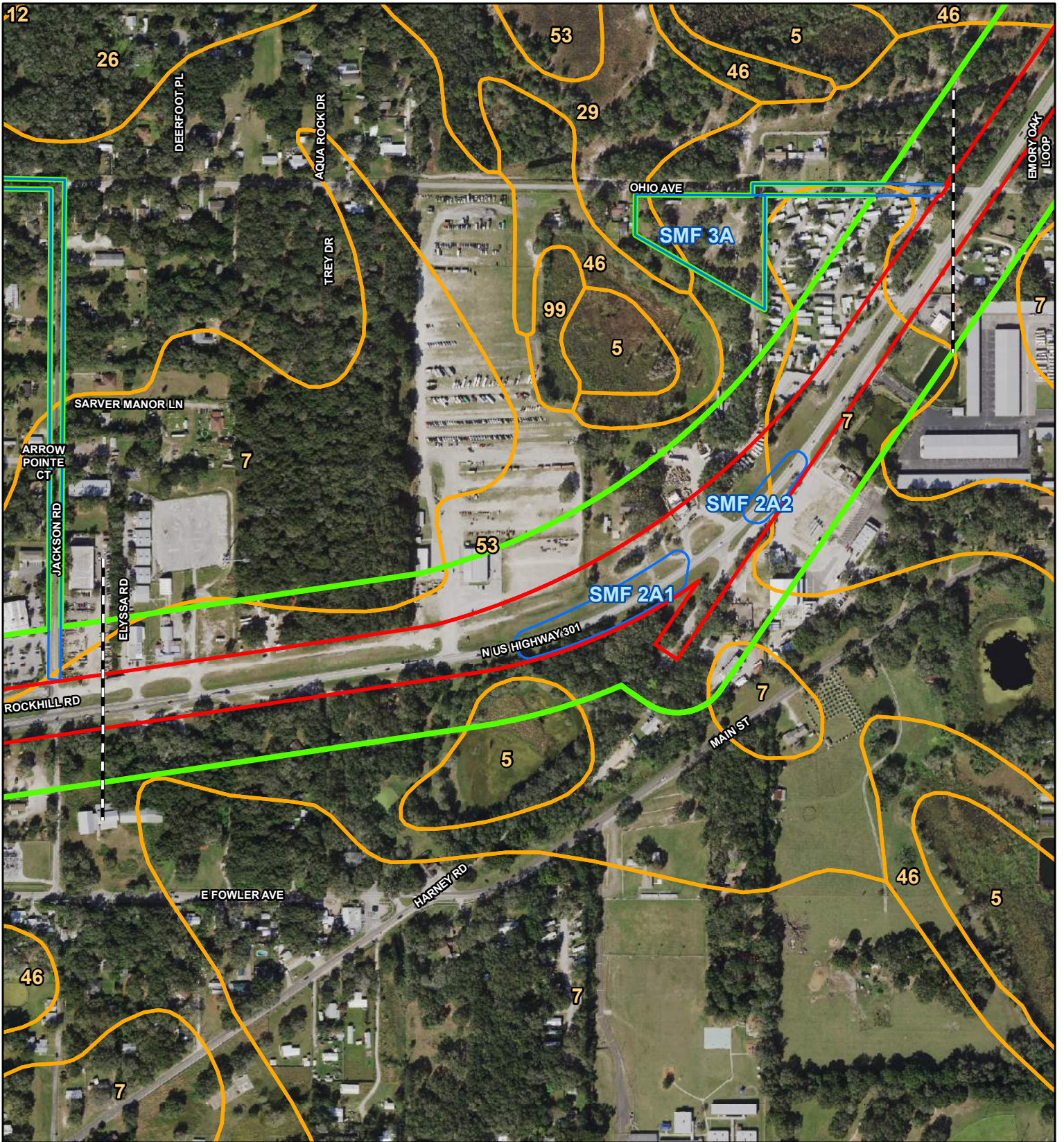
- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 16: FELDA FINE SAND, OCCASIONALLY FLOODED




- 26: LOCHLOOSA-MICANOPY FINE SANDS, 0 TO 5 PERCENT SLOPES
- 46: ST. JOHNS FINE SAND
- 53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
- 61: ZOLFO FINE SAND

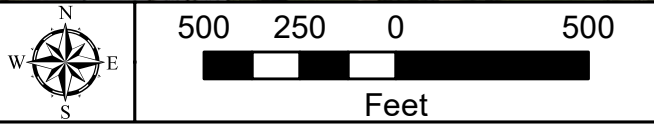


**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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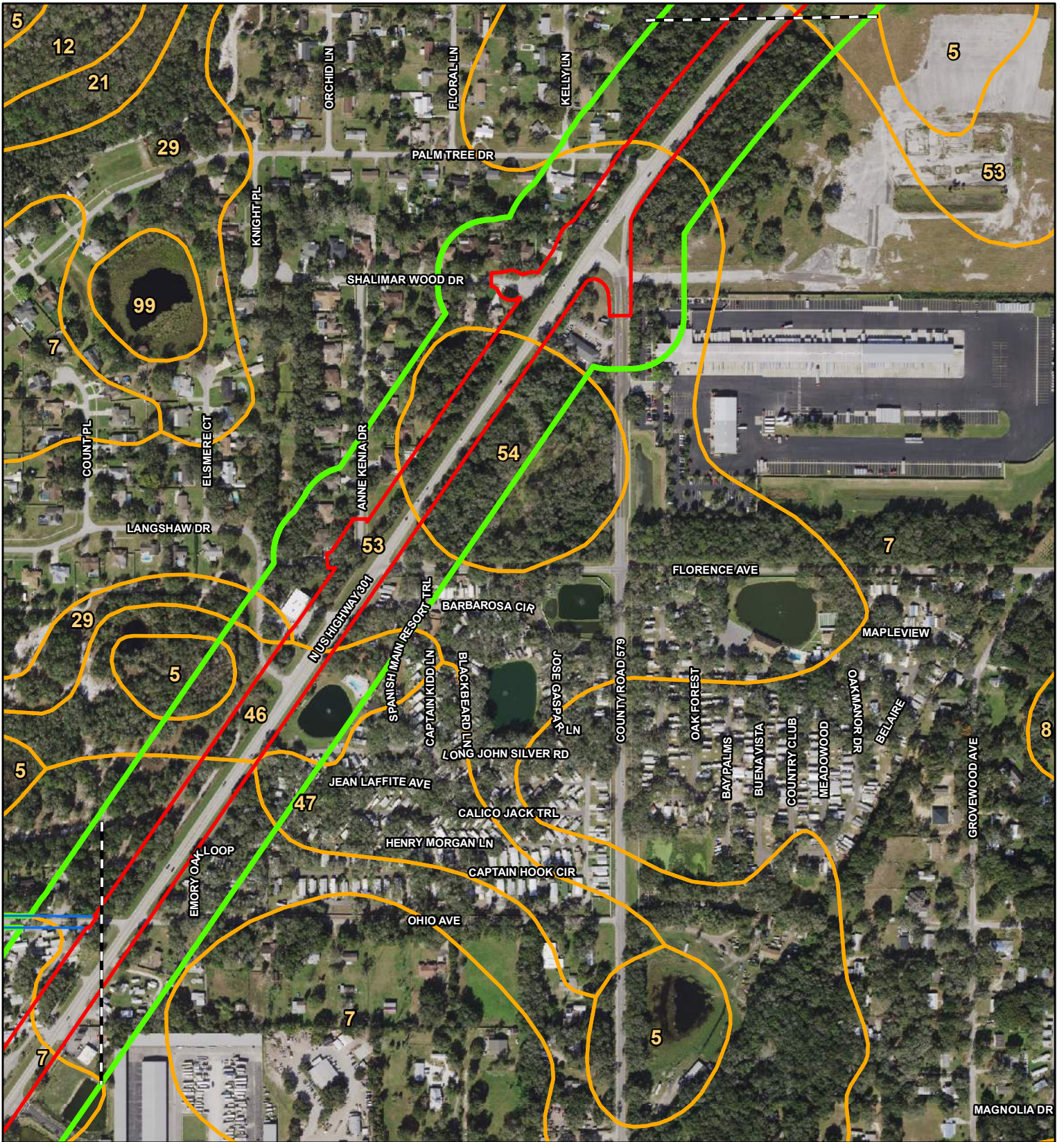


Legend		
	Project Study Area	12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
	Preferred Alternative ROW	26: LOCHLOOSA-MICANOPY FINE SANDS, 0 TO 5 PERCENT SLOPES
	Preferred Pond	53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
		99: WATER
		5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
		29: MYAKKA FINE SAND
		46: ST. JOHNS FINE SAND
		7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES

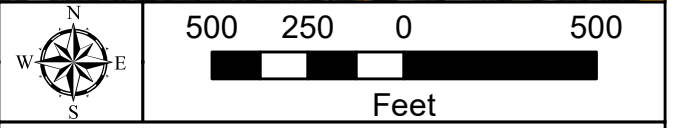


**Soils Map**  
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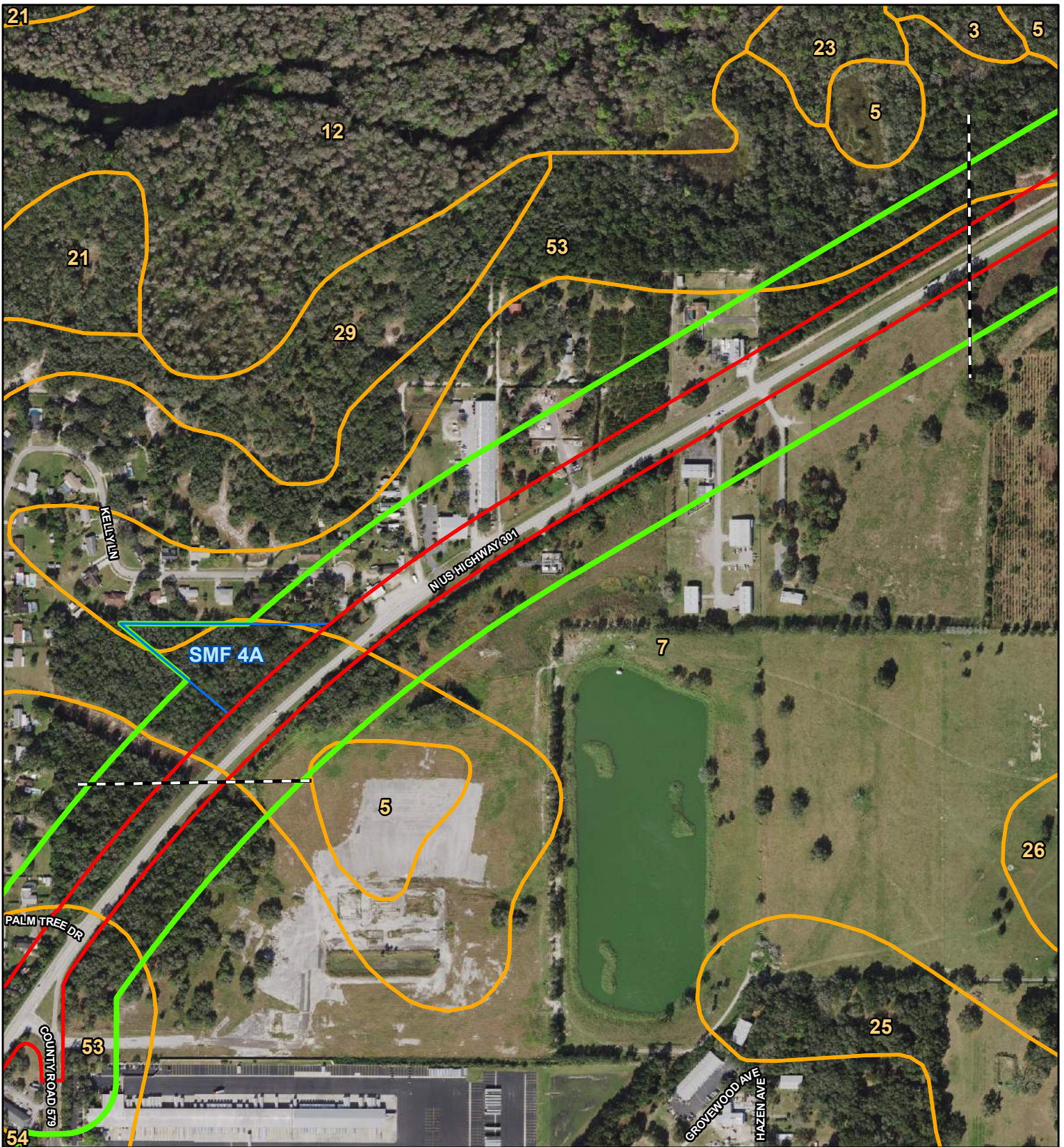


Legend		
	Project Study Area	
	Preferred Alternative ROW	
	Preferred Pond	
5:	BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL	12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
7:	CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES	21: IMMOKALEE FINE SAND
8:	CANDLER FINE SAND, 5 TO 12 PERCENT SLOPES	29: MYAKKA FINE SAND
		46: ST. JOHNS FINE SAND
		47: SEFFNER FINE SAND
		53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
		54: TAVARES-MILLHOPPER FINE SANDS, 5 TO 8 PERCENT SLOPES
		99: WATER



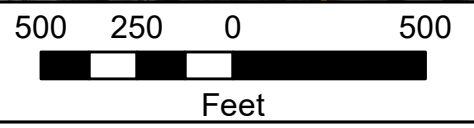
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**US 301 From Fowler Avenue to SR 56**  
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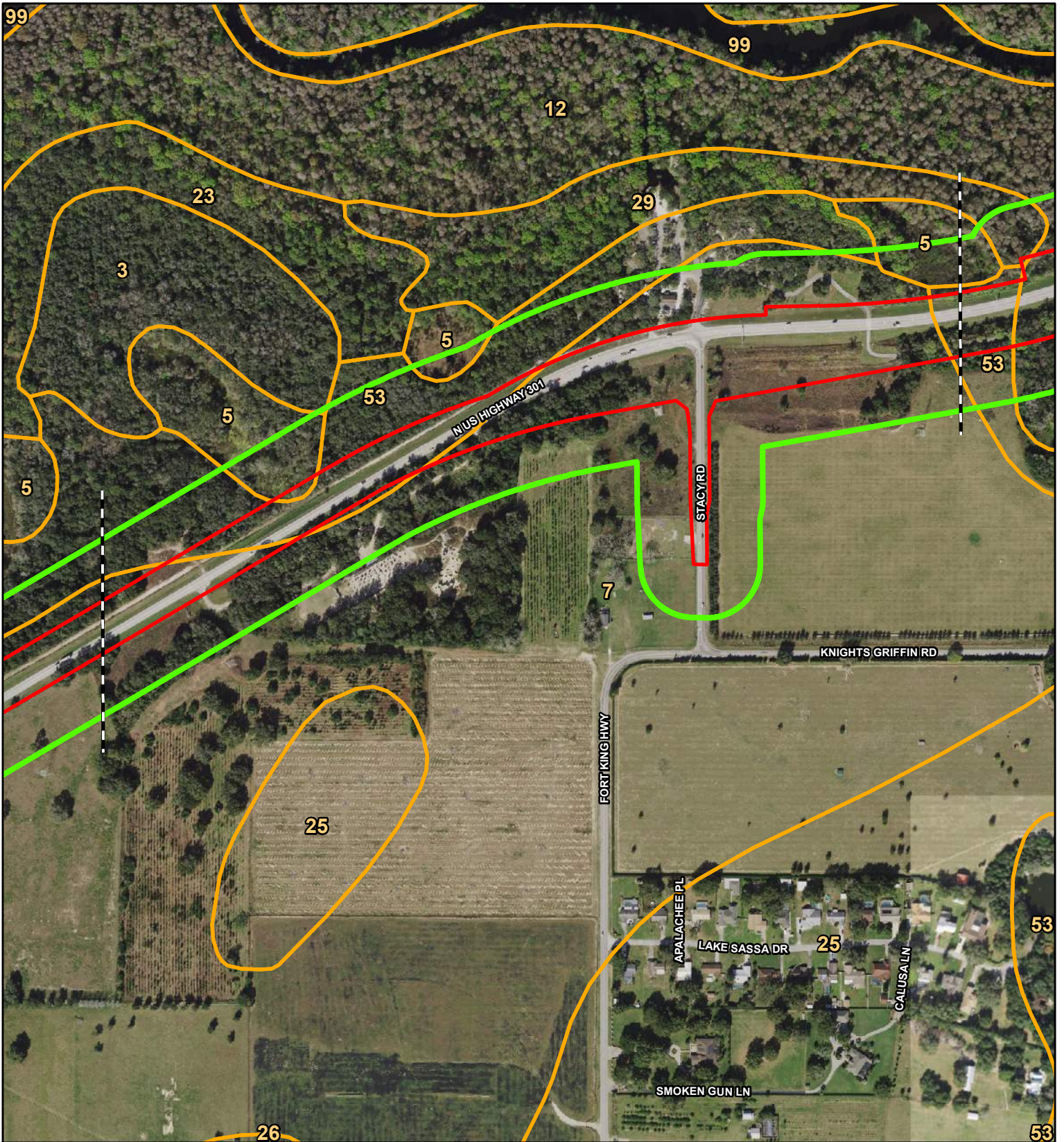
**Legend**




- ▭ Project Study Area
- ▭ Preferred Alternative ROW
- ▭ Preferred Pond
- 3: ARCHBOLD FINE SAND
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 21: IMMOKALEE FINE SAND
- 23: KENDRICK FINE SAND, 2 TO 5 PERCENT SLOPES
- 25: LAKE FINE SAND, 0 TO 5 PERCENT SLOPES
- 26: LOCHLOOSA-MICANOPY FINE SANDS, 0 TO 5 PERCENT SLOPES
- 29: MYAKKA FINE SAND
- 53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
- 54: TAVARES-MILLHOPPER FINE SANDS, 5 TO 8 PERCENT SLOPES

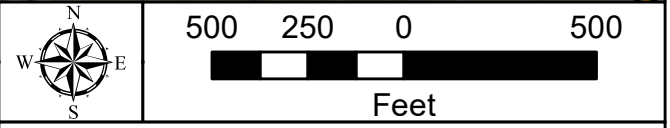


**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
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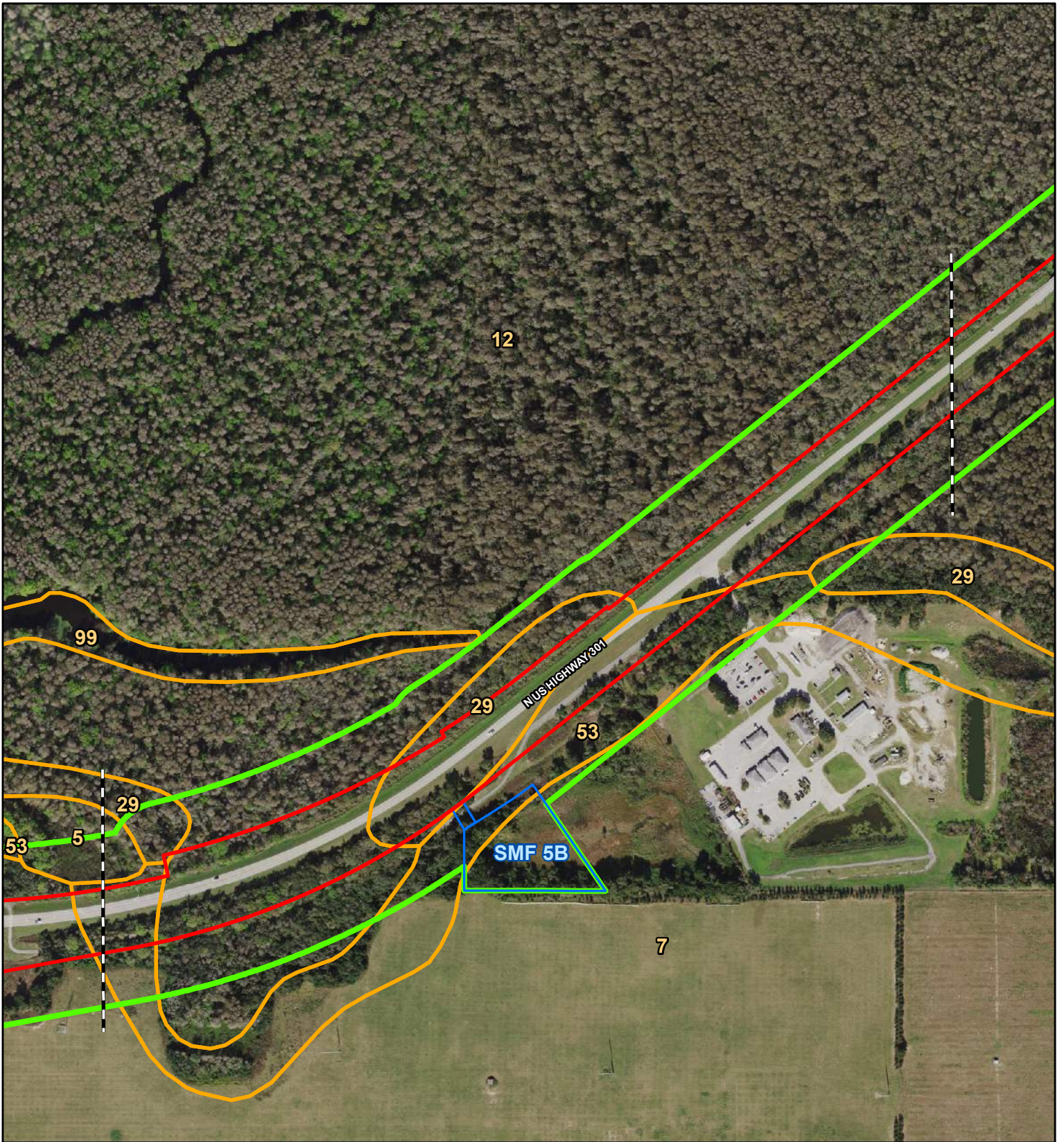
Legend		
	Project Study Area	12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
	Preferred Alternative ROW	23: KENDRICK FINE SAND, 2 TO 5 PERCENT SLOPES
	Preferred Pond	25: LAKE FINE SAND, 0 TO 5 PERCENT SLOPES
	3: ARCHBOLD FINE SAND	26: LOCHLOOSA-MICANOPY FINE SANDS, 0 TO 5 PERCENT SLOPES
	5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL	29: MYAKKA FINE SAND
	7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES	53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
		99: WATER



**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

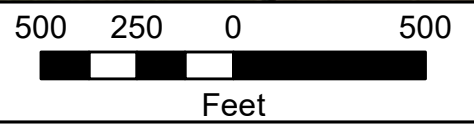
Appendix A

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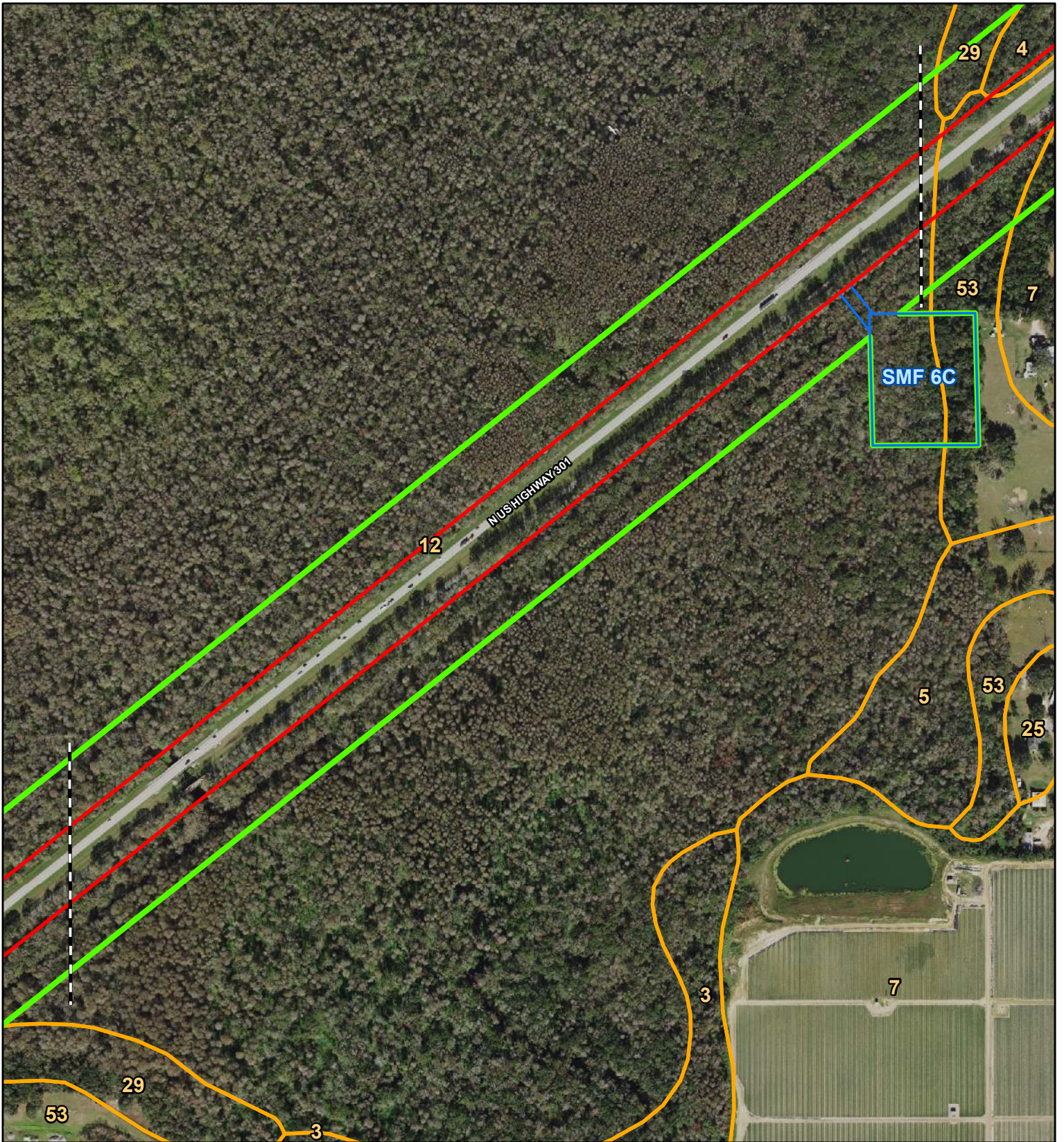
**Legend**

- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 29: MYAKKA FINE SAND
- 53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
- 99: WATER



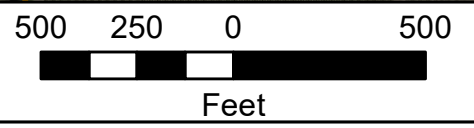
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**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
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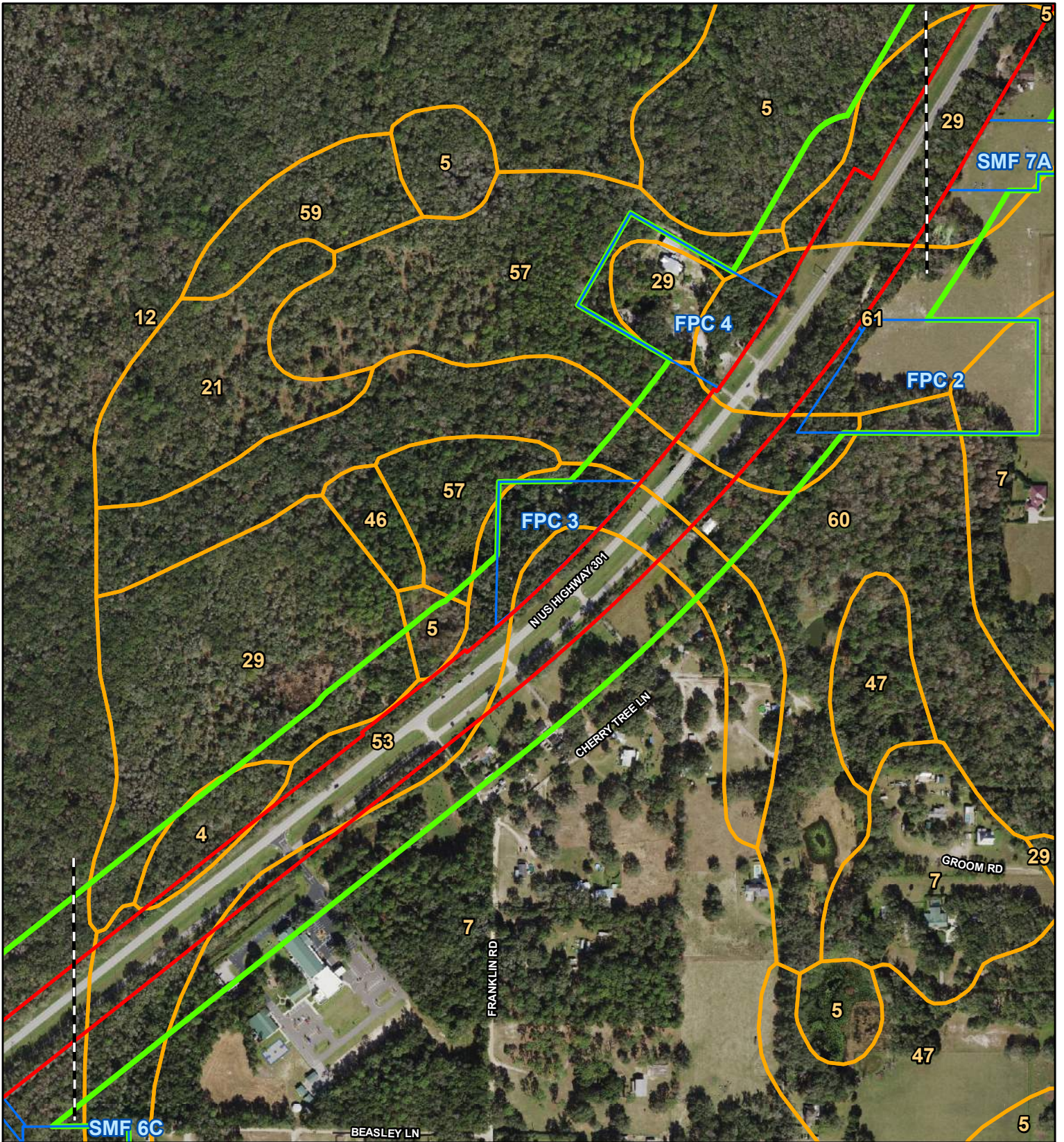
**Legend**

- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 3: ARCHBOLD FINE SAND
- 4: ARENTS, NEARLY LEVEL
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 25: LAKE FINE SAND, 0 TO 5 PERCENT SLOPES
- 29: MYAKKA FINE SAND
- 53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES



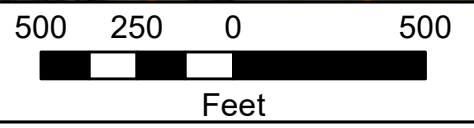
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**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
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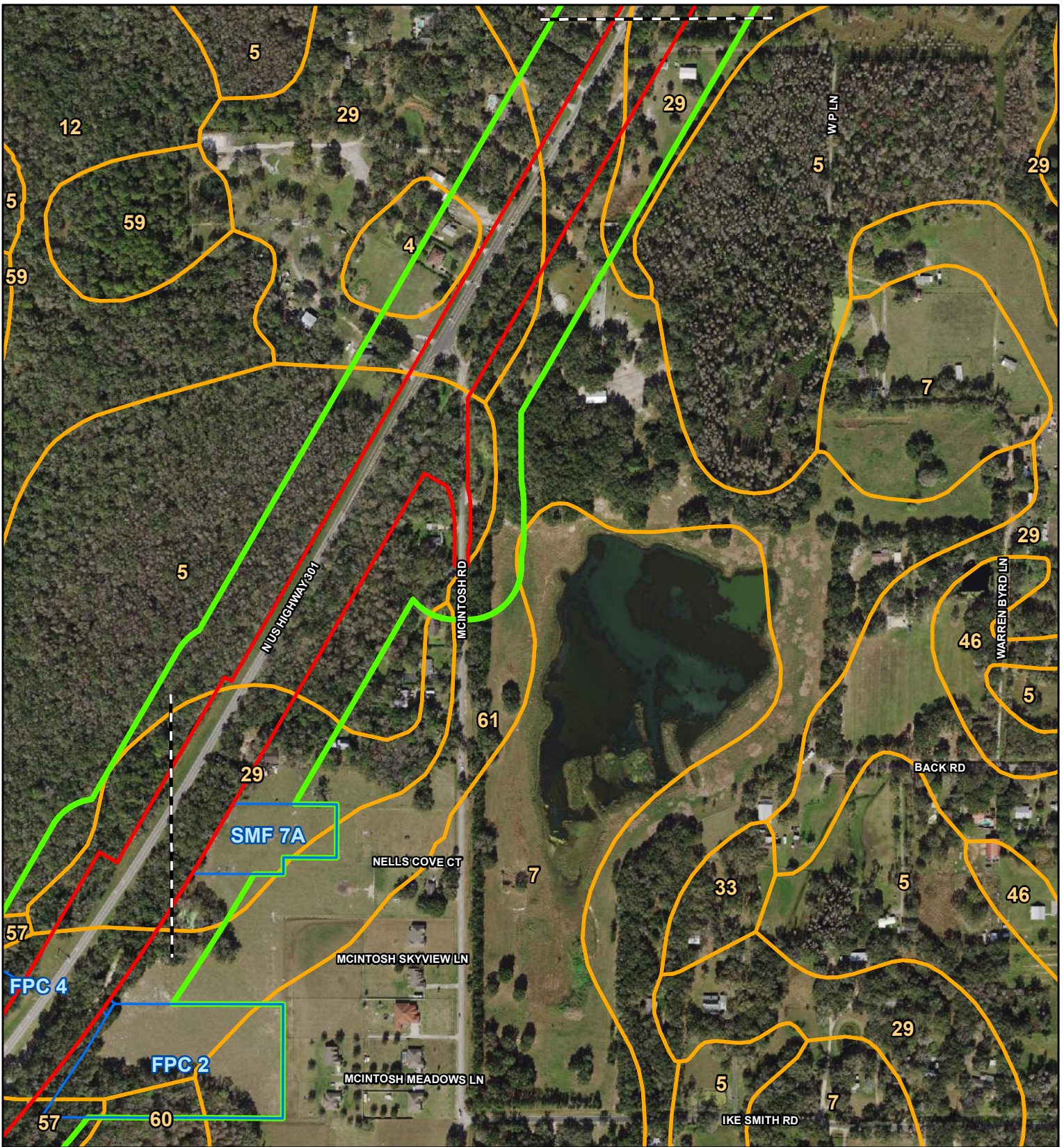
- ▭ Project Study Area
- ▭ Preferred Alternative ROW
- ▭ Preferred Pond
- 4: ARENTS, NEARLY LEVEL
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 21: IMMOKALEE FINE SAND
- 29: MYAKKA FINE SAND
- 46: ST. JOHNS FINE SAND
- 47: SEFFNER FINE SAND
- 53: TAVARES-MILLHOPPER FINE SANDS, 0 TO 5 PERCENT SLOPES
- 57: WABASSO FINE SAND
- 59: WINDER FINE SAND
- 60: WINDER FINE SAND, FREQUENTLY FLOODED
- 61: ZOLFO FINE SAND



**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
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**Legend**

 Project Study Area

 Preferred Alternative ROW

 Preferred Pond

4: ARENTS, NEARLY LEVEL

5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL

7: CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES

12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED

29: MYAKKA FINE SAND

33: ONA FINE SAND

46: ST. JOHNS FINE SAND

57: WABASSO FINE SAND

59: WINDER FINE SAND

60: WINDER FINE SAND, FREQUENTLY FLOODED

61: ZOLFO FINE SAND



500 250 0 500



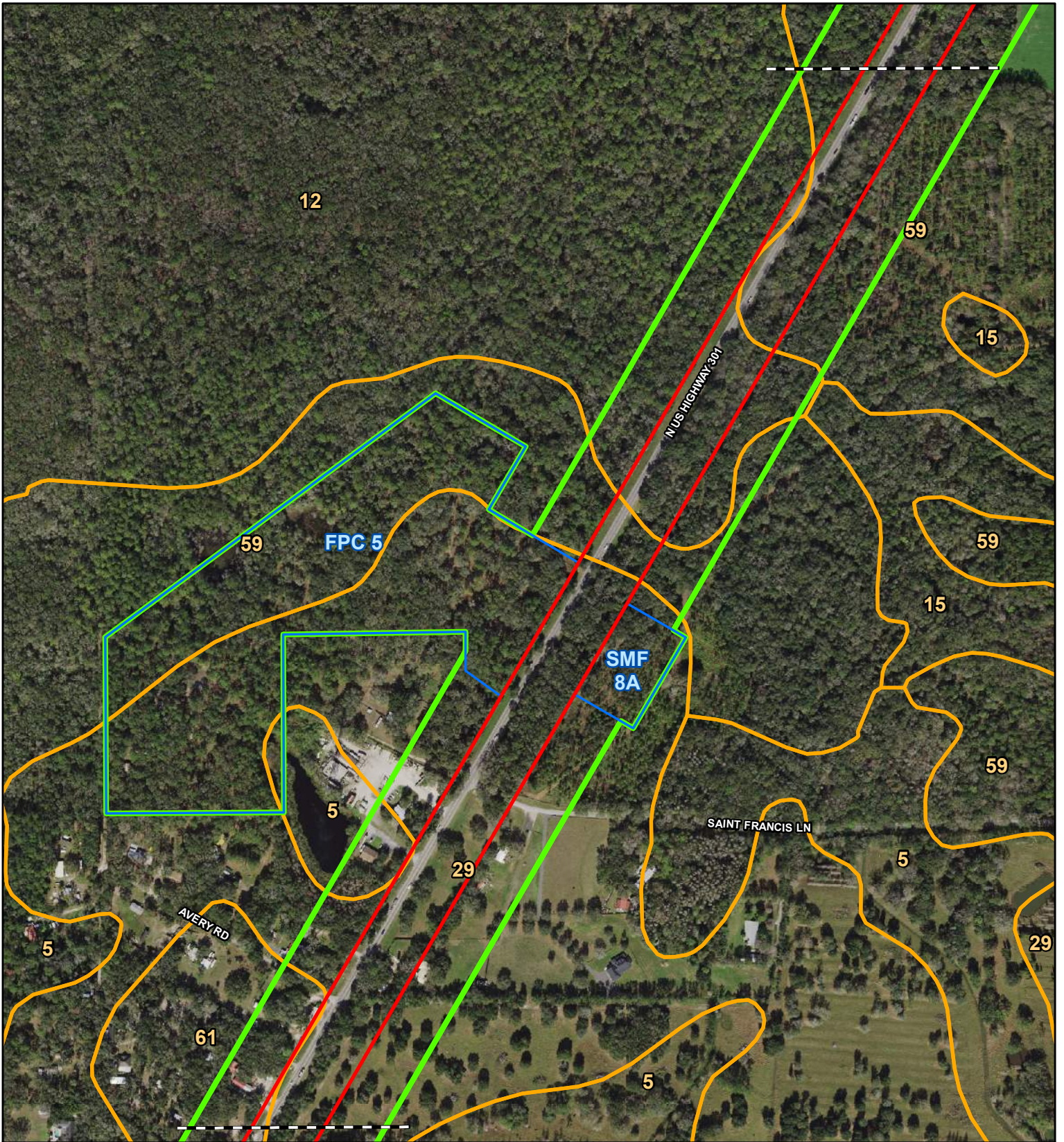
Feet

**Soils Map**  
**US 301 From Fowler Avenue to SR 56**

Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

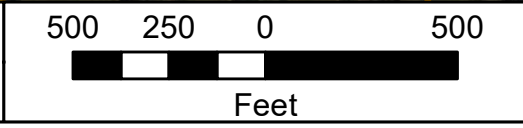
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**Legend**

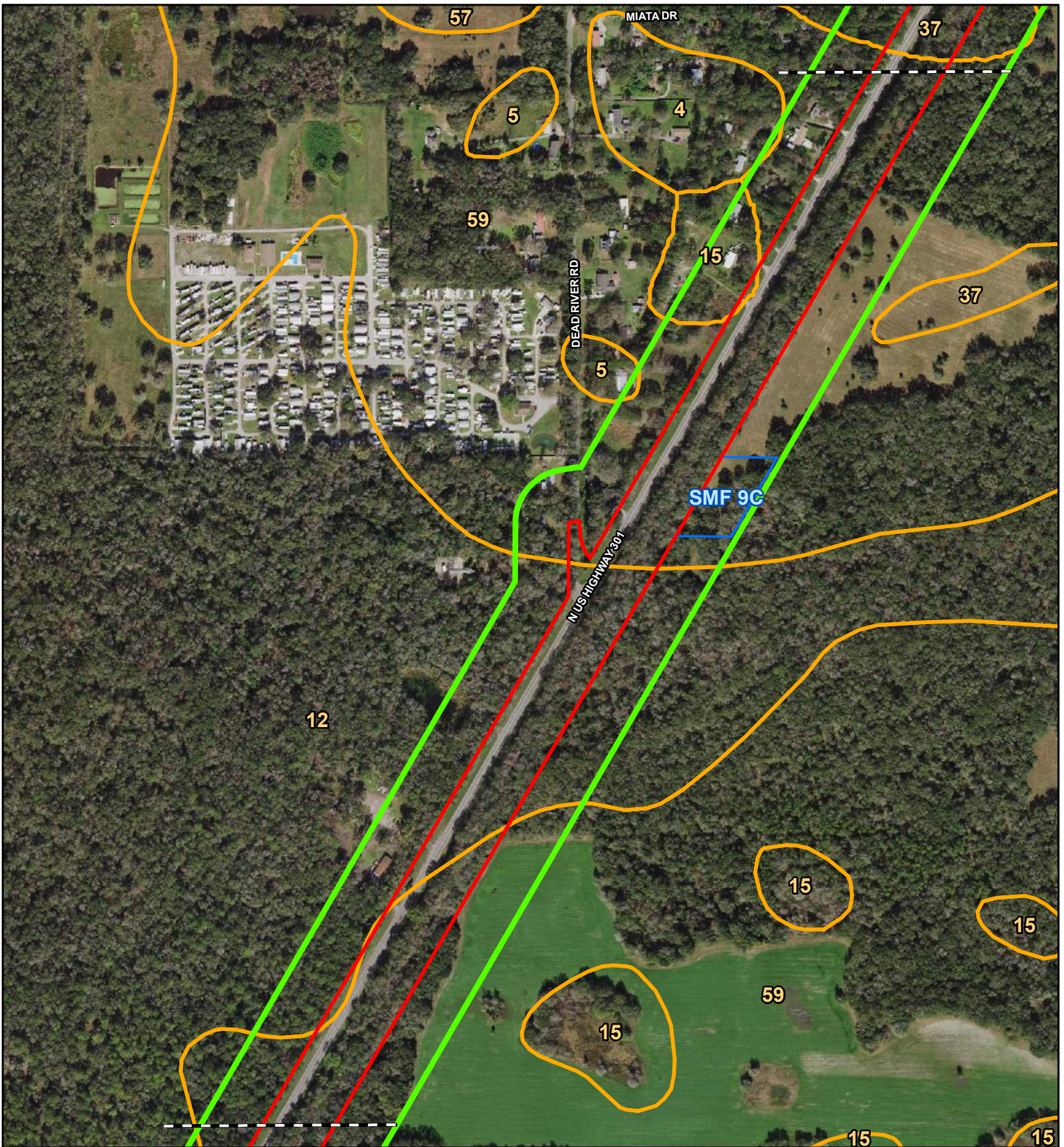
- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 15: FELDA FINE SAND
- 29: MYAKKA FINE SAND
- 59: WINDER FINE SAND
- 61: ZOLFO FINE SAND



**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
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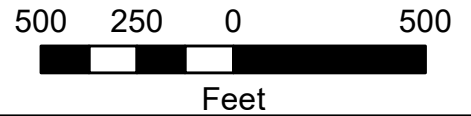
Appendix A

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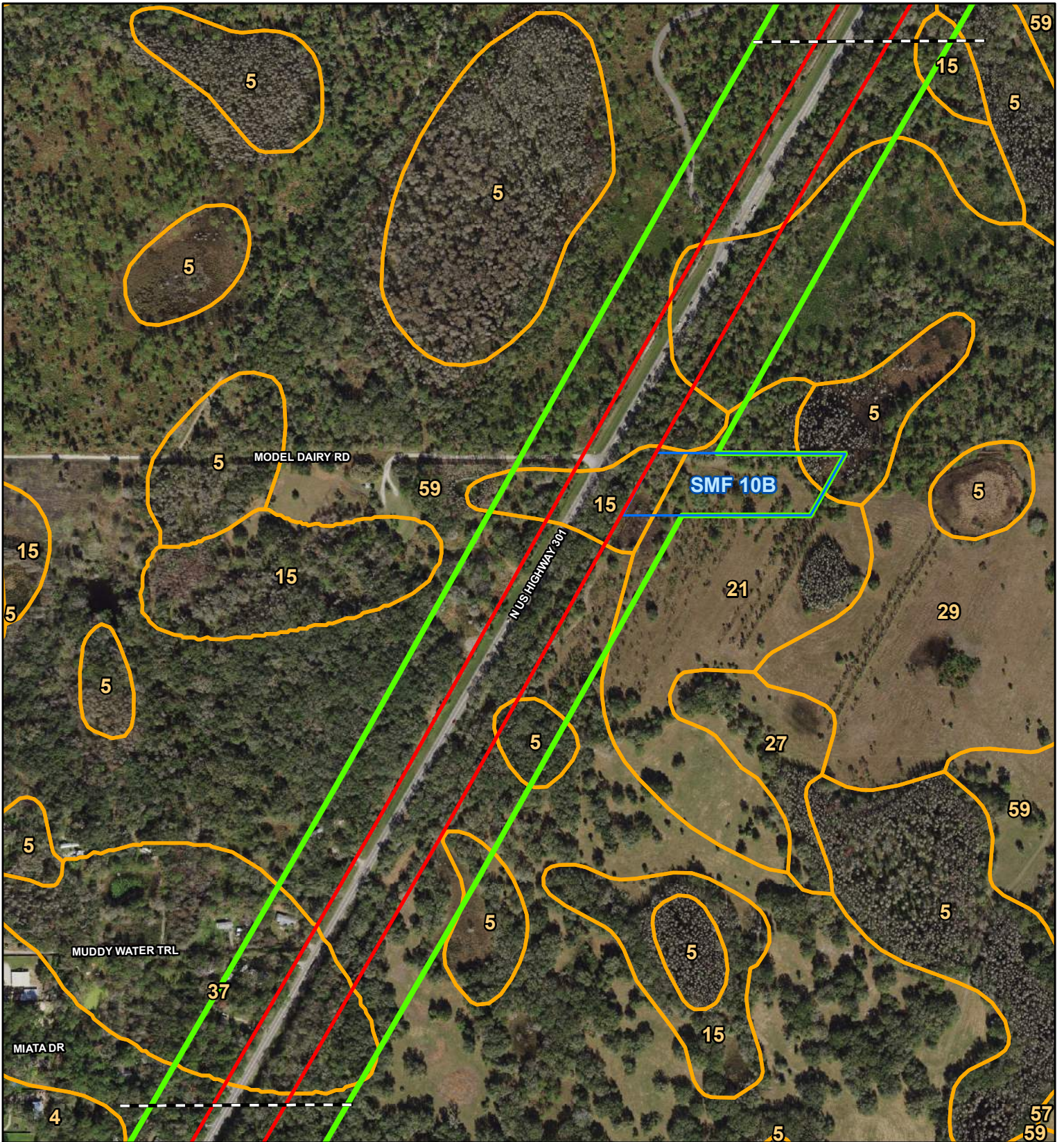





**Legend**



- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 4: ARENTS, NEARLY LEVEL
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 15: FELDA FINE SAND
- 37: PAISLEY FINE SAND, DEPRESSIONAL
- 57: WABASSO FINE SAND
- 59: WINDER FINE SAND



**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01



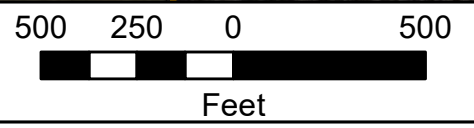
Legend	
	Project Study Area
	Preferred Alternative ROW
	Preferred Pond
4:	ARENDS, NEARLY LEVEL
5:	BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
15:	FELDA FINE SAND
21:	IMMOKALEE FINE SAND
27:	MALABAR FINE SAND
29:	MYAKKA FINE SAND
37:	PAISLEY FINE SAND, DEPRESSIONAL
57:	WABASSO FINE SAND
59:	WINDER FINE SAND

	 <p>500 250 0 500 Feet</p>
<h3>Soils Map</h3> <h2>US 301 From Fowler Avenue to SR 56</h2> <p>Hillsborough/Pasco County, Florida FPID Number: 255796-1-22-01</p>	
Appendix A	Page 12 of 17



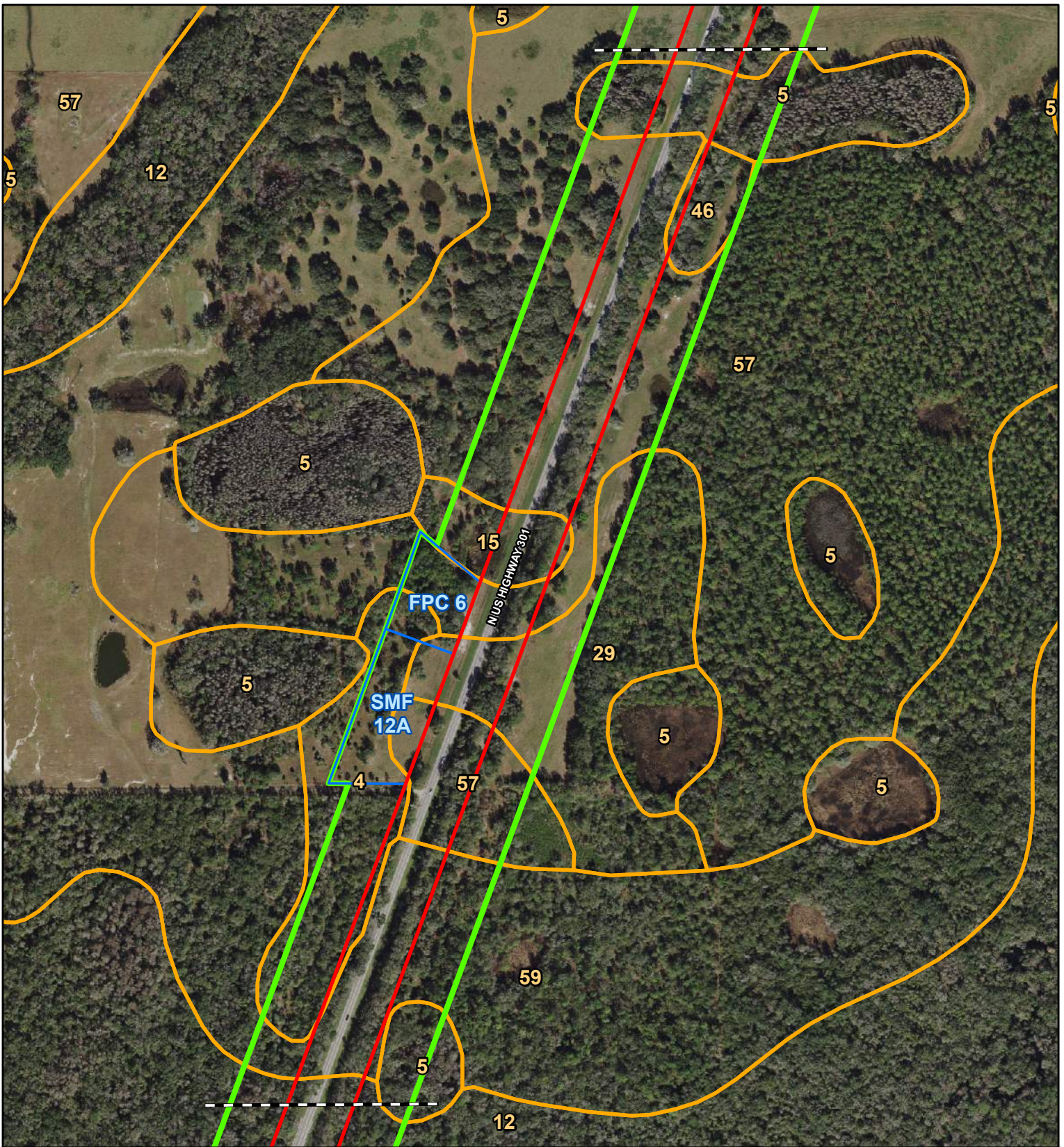
**Legend**

- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 4: ARENTS, NEARLY LEVEL
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 15: FELDA FINE SAND
- 29: MYAKKA FINE SAND
- 59: WINDER FINE SAND



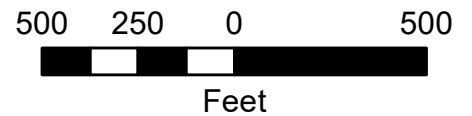
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**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
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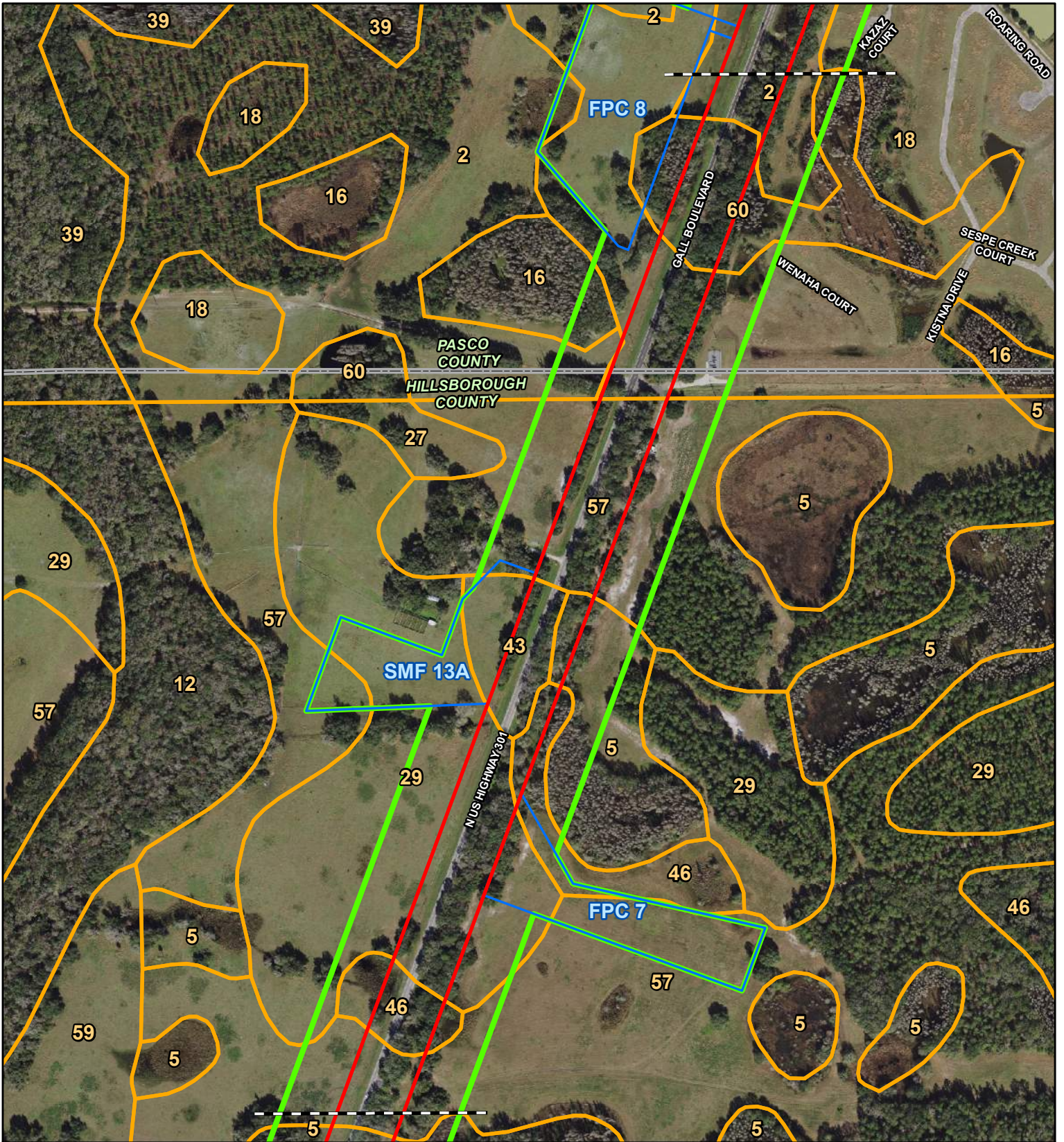





**Legend**

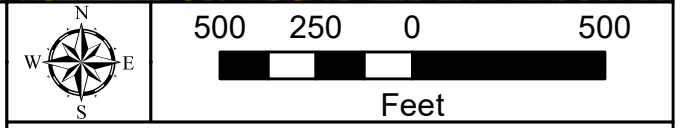
- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 4: ARENTS, NEARLY LEVEL
- 5: BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
- 12: CHOBEE SANDY LOAM, FREQUENTLY FLOODED
- 15: FELDA FINE SAND
- 29: MYAKKA FINE SAND
- 46: ST. JOHNS FINE SAND
- 57: WABASSO FINE SAND
- 59: WINDER FINE SAND



**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01



Legend	
	Project Study Area
	Preferred Alternative ROW
	Preferred Pond
2:	POMONA FINE SAND
5:	BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL
12:	CHOBEE SANDY LOAM, FREQUENTLY FLOODED
16:	ZEPHYR MUCK
18:	ELECTRA VARIANT FINE SAND, 0 TO 5 PERCENT SLOPES
27:	MALABAR FINE SAND
29:	MYAKKA FINE SAND
39:	CHOBEE SOILS, FREQUENTLY FLOODED
43:	QUARTZIPSAMENTS, NEARLY LEVEL
46:	ST. JOHNS FINE SAND
57:	WABASSO FINE SAND
59:	WINDER FINE SAND
60:	PALMETTO-ZEPHYR-SEL... COMPLEX

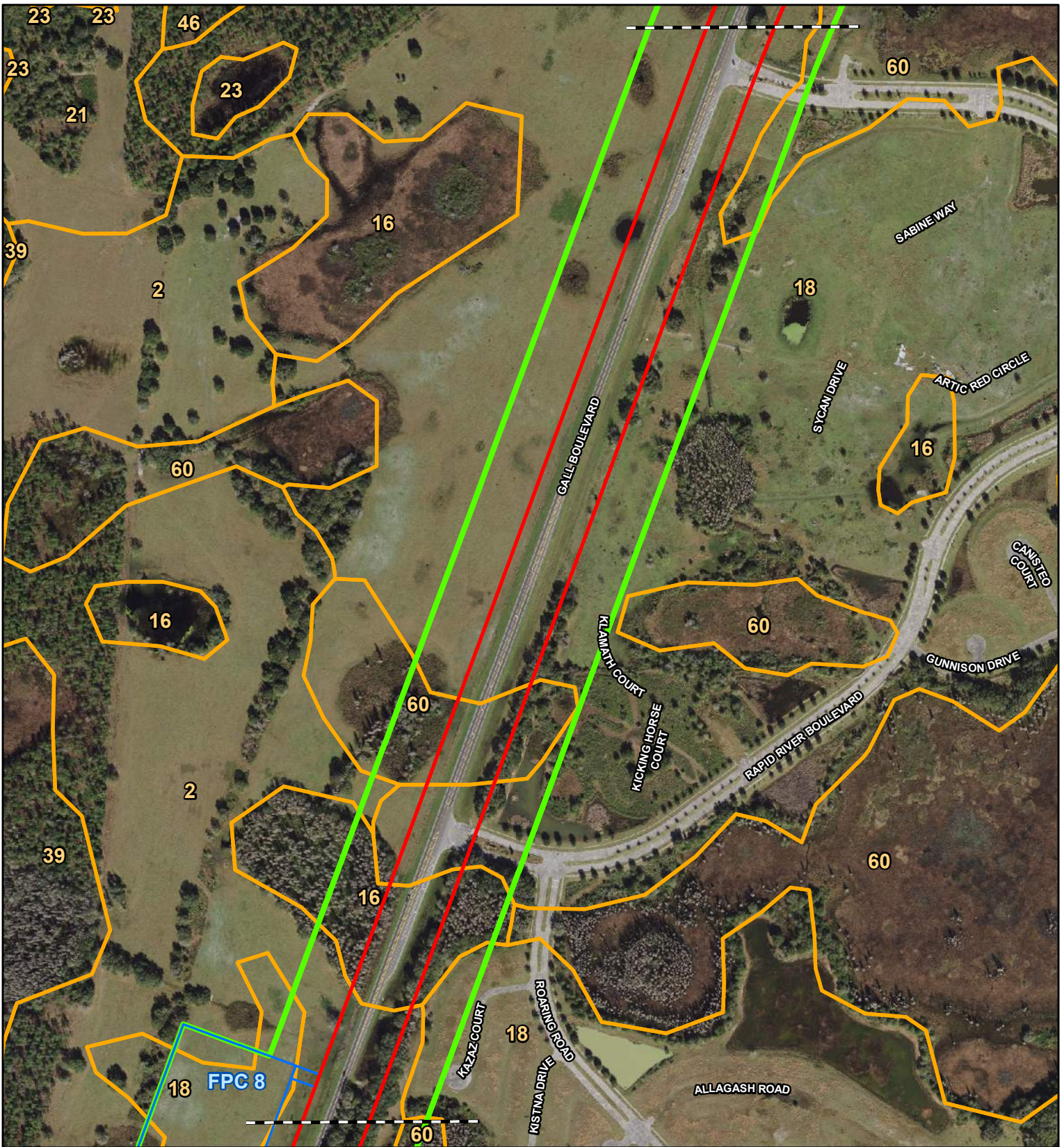


### Soils Map

## US 301 From Fowler Avenue to SR 56

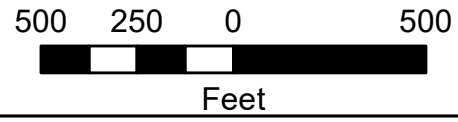
Hillsborough/Pasco County, Florida  
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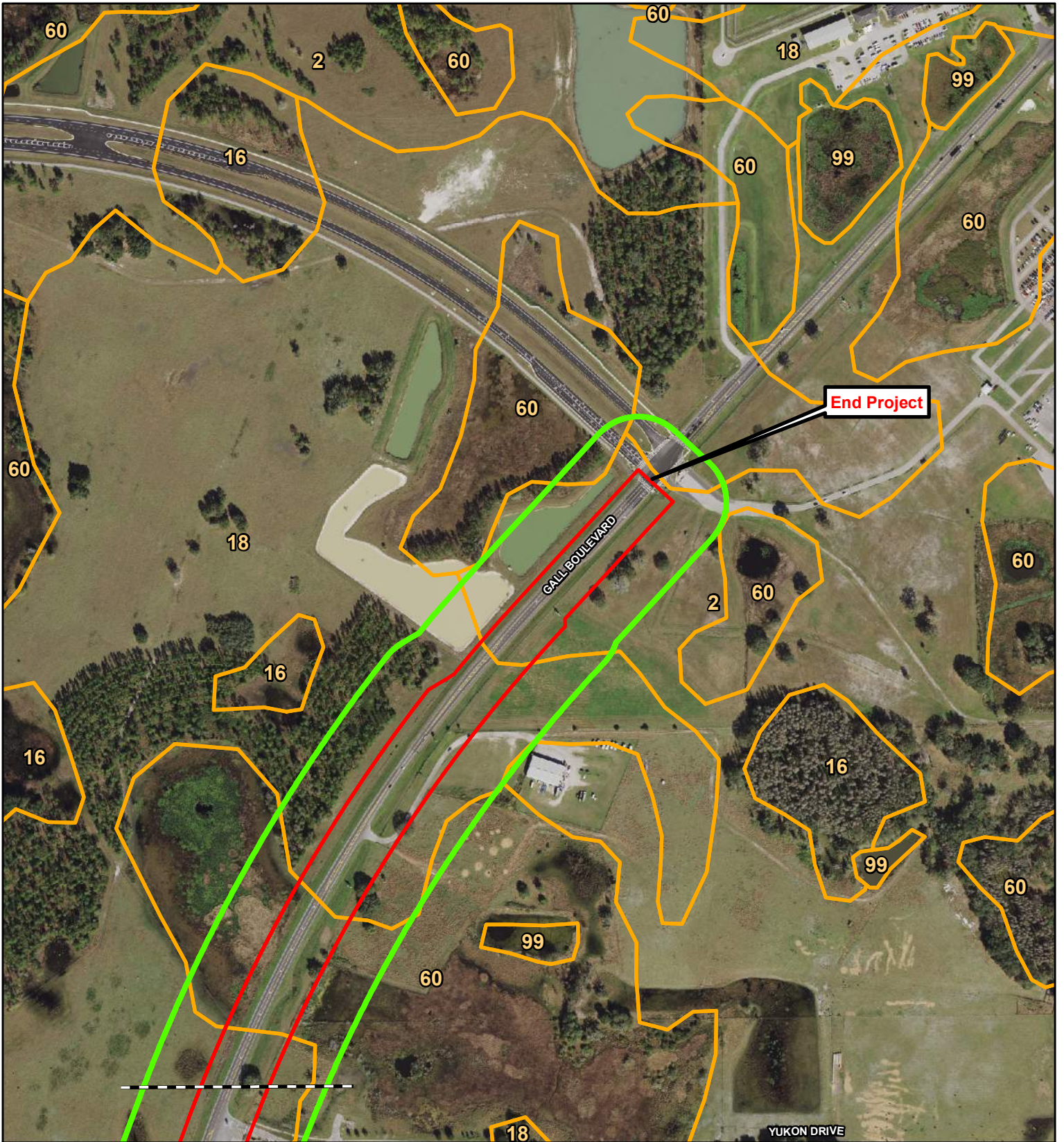
- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 2: POMONA FINE SAND
- 16: ZEPHYR MUCK
- 18: ELECTRA VARIANT FINE SAND, 0 TO 5 PERCENT SLOPES
- 21: SMYRNA FINE SAND
- 23: BASINGER FINE SAND, DEPRESSIONAL
- 39: CHOBEE SOILS, FREQUENTLY FLOODED
- 46: CASSIA FINE SAND, 0 TO 5 PERCENT SLOPES
- 60: PALMETTO-ZEPHYR-SEL... COMPLEX






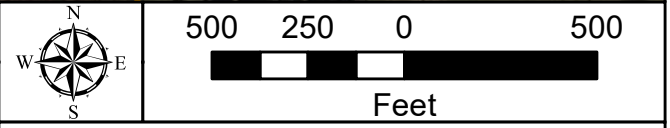
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Legend	
	Project Study Area
	Preferred Alternative ROW
	Preferred Pond
2: POMONA FINE SAND	18: ELECTRA VARIANT FINE SAND, 0 TO 5 PERCENT SLOPES
16: ZEPHYR MUCK	60: PALMETTO-ZEPHYR-SEL... COMPLEX
	99: WATER

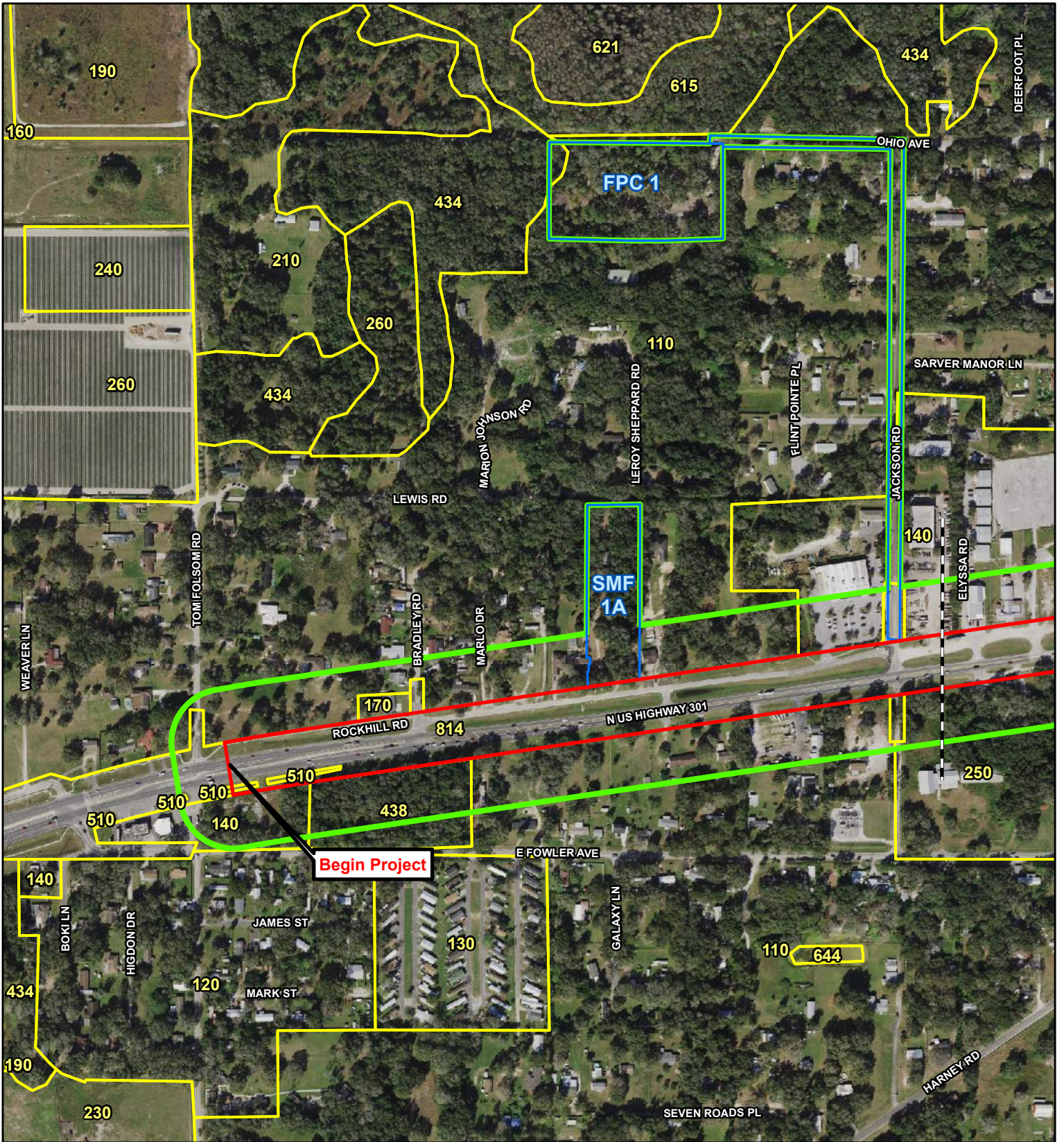


**Soils Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
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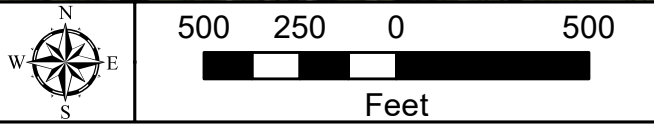
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***APPENDIX B***  
**Land Use Map**

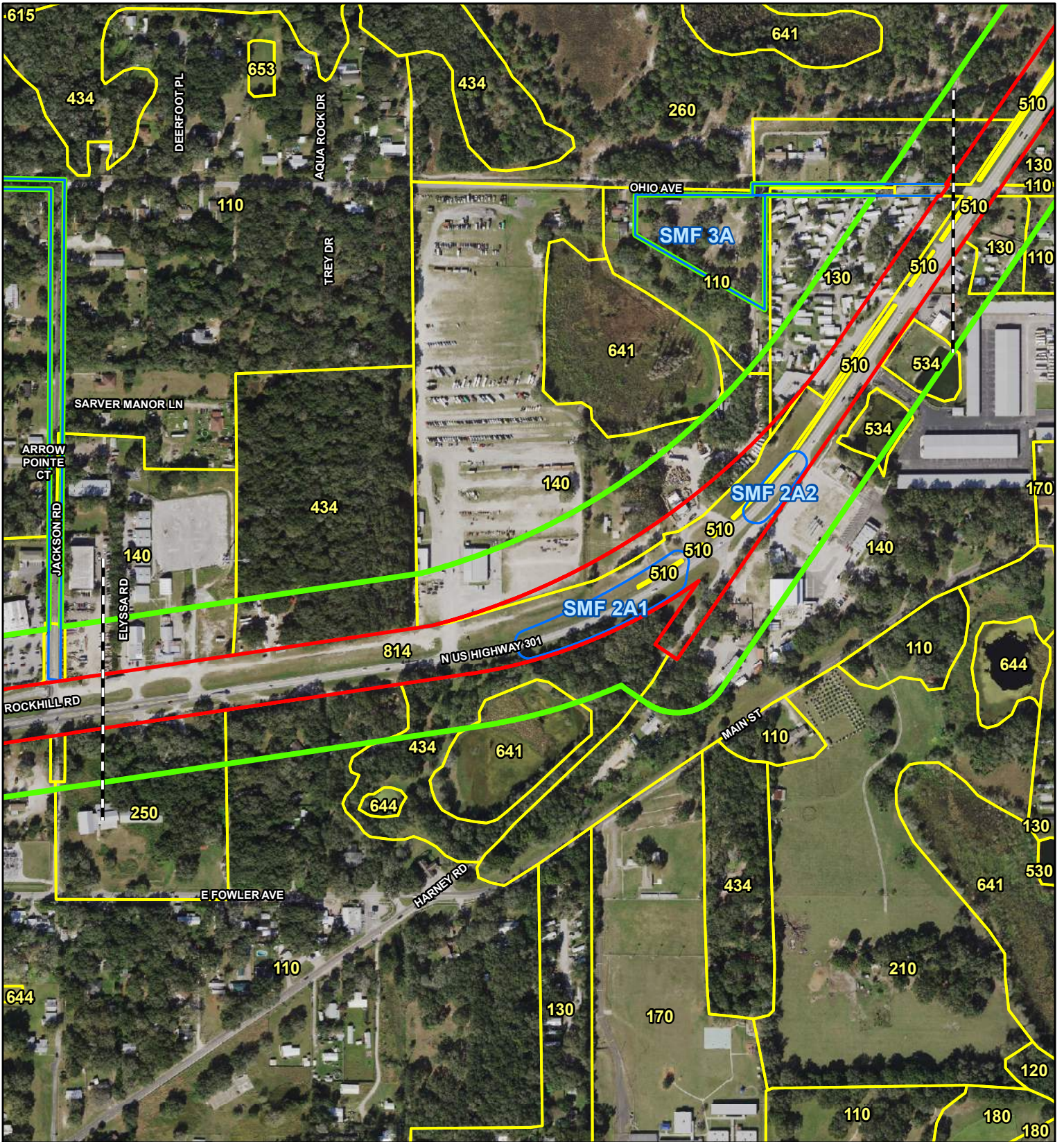


Legend			
	Project Study Area	140: COMMERCIAL AND SERVICES	250: SPECIALTY FARMS
	Preferred Alternative ROW	160: EXTRACTIVE	621: CYPRESS
	Preferred Pond	170: INSTITUTIONAL	260: OTHER OPEN LANDS <RURAL>
110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS		190: OPEN LAND	434: HARDWOOD CONIFER MIXED
120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT		210: CROPLAND AND PASTURELAND	438: MIXED HARDWOODS
130: RESIDENTIAL HIGH DENSITY		230: FEEDING OPERATIONS	510: STREAMS AND WATERWAYS
		240: NURSERIES AND VINEYARDS	615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
			814: ROADS & HIGHWAYS
			644: EMERGENT AQUATIC VEGETATION

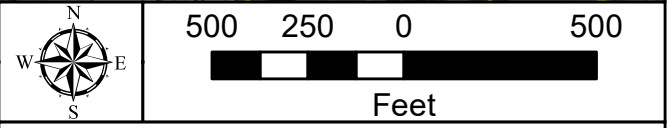


**Land Use Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

Path: C:\Users\abesnercha\GIS\Projects - W\25579612201.PD&E.US 301 Fowler\_SR56(AIM)\100 Environmental\GIS\Maps\Figures\Appendix B - Land Use Map.mxd 10/22/2021

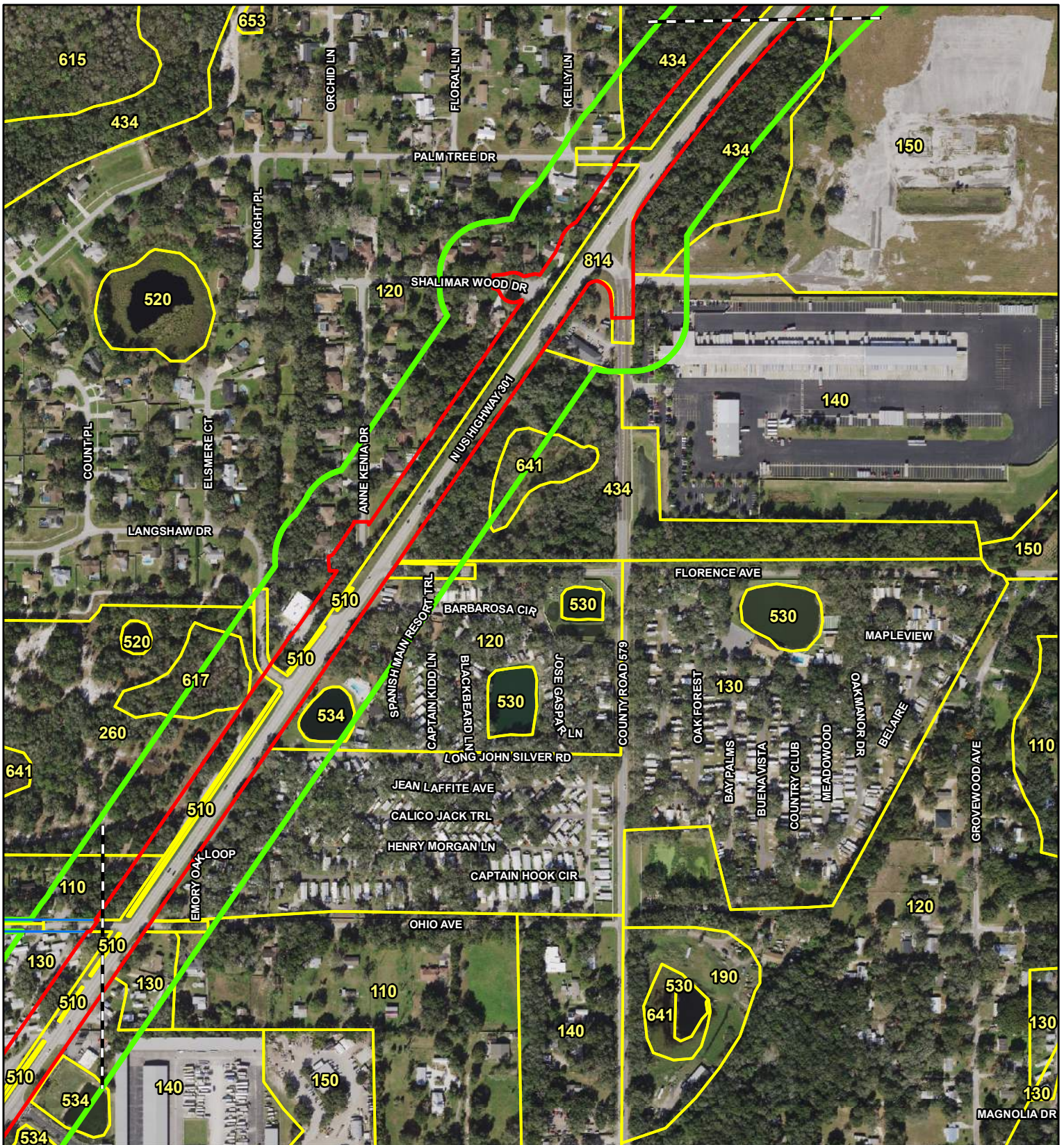


Legend			
	Project Study Area	140: COMMERCIAL AND SERVICES	434: HARDWOOD CONIFER MIXED
	Preferred Alternative ROW	170: INSTITUTIONAL	644: EMERGENT AQUATIC VEGETATION
	Preferred Pond	180: RECREATIONAL	653: INTERMITTENT PONDS
110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS		210: CROPLAND AND PASTURELAND	814: ROADS & HIGHWAYS
120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT		250: SPECIALTY FARMS	
130: RESIDENTIAL HIGH DENSITY		260: OTHER OPEN LANDS <RURAL>	
		310: RESERVOIRS	
		330: RESERVOIRS < 10 ACRES	
		350: STREAM AND LAKE SWAMPS (BOTTOMLAND)	
		370: FRESHWATER MARSHES	

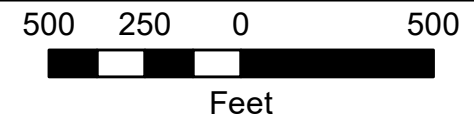


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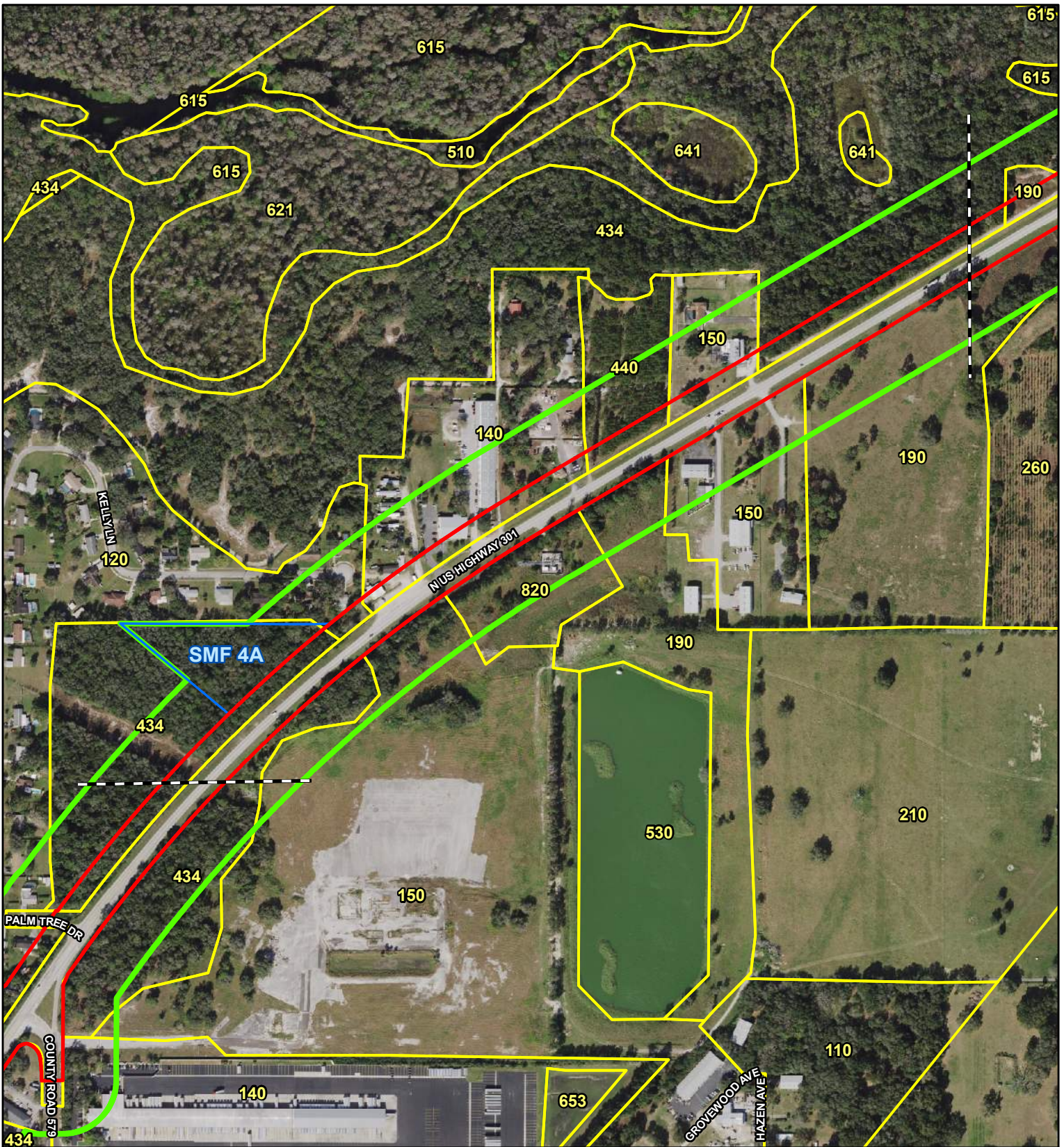


Legend			
	Project Study Area	130: RESIDENTIAL HIGH DENSITY	434: HARDWOOD CONIFER MIXED
	Preferred Alternative ROW	140: COMMERCIAL AND SERVICES	510: STREAMS AND WATERWAYS
	Preferred Pond	150: INDUSTRIAL	520: LAKES
110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS		190: OPEN LAND	530: RESERVOIRS
120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT		260: OTHER OPEN LANDS <RURAL>	534: RESERVOIRS < 10 ACRES
			615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
			617: MIXED WETLAND HARDWOODS
			641: FRESHWATER MARSHES
			653: INTERMITTENT PONDS
			814: ROADS & HIGHWAYS



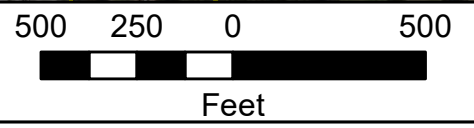
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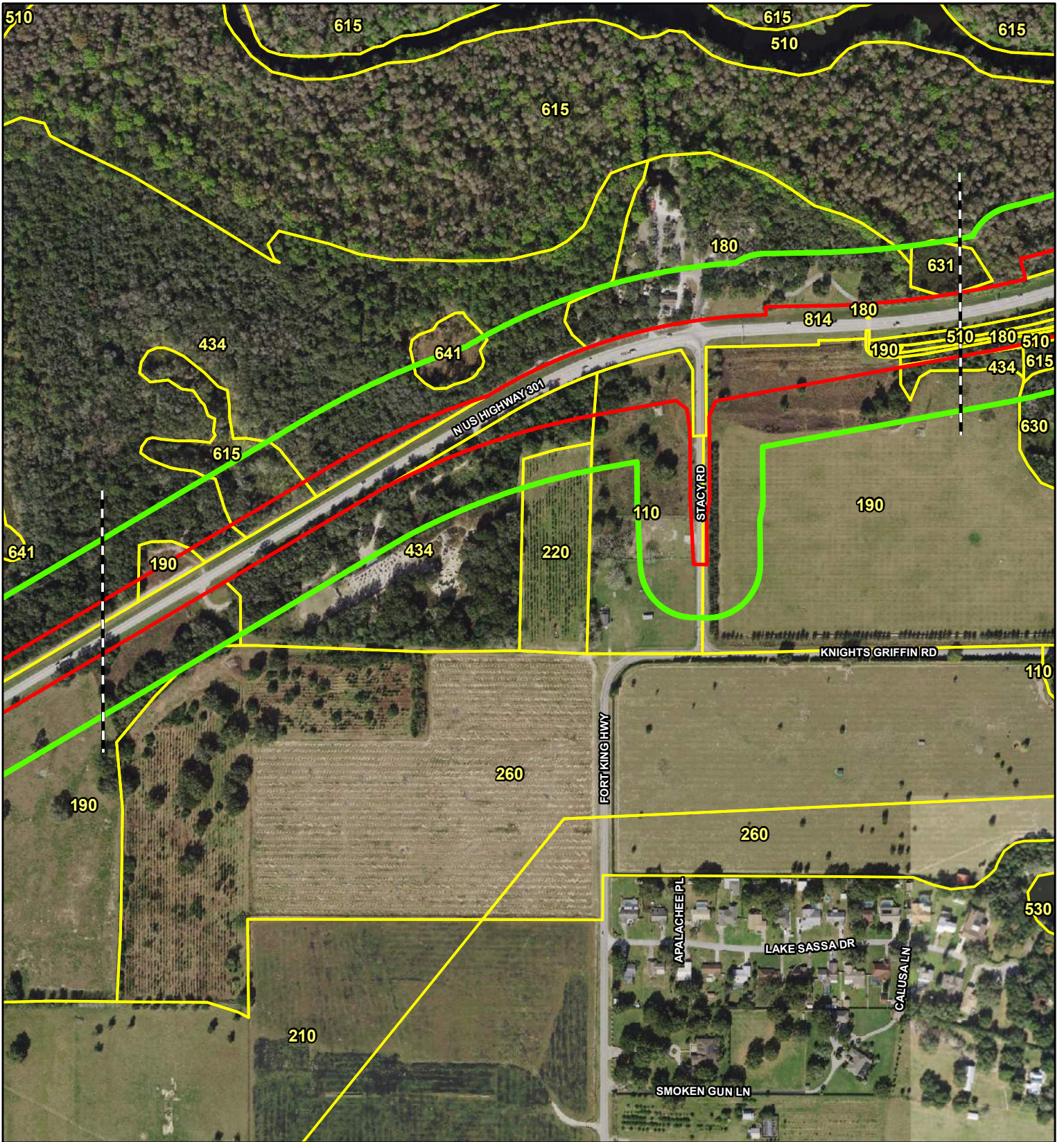
**Legend**




- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 120: RESIDENTIAL MED DENSITY 2->5 DWELLING UNIT
- 140: COMMERCIAL AND SERVICES
- 150: INDUSTRIAL
- 190: OPEN LAND
- 210: CROPLAND AND PASTURELAND
- 260: OTHER OPEN LANDS <RURAL>
- 434: HARDWOOD CONIFER MIXED
- 440: TREE PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 641: FRESHWATER MARSHES
- 653: INTERMITTENT PONDS
- 814: ROADS & HIGHWAYS
- 820: COMMUNICATIONS

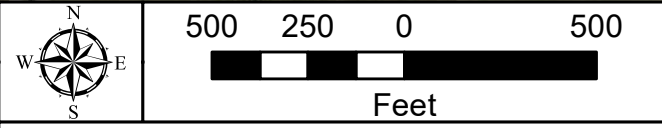


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Legend		
	Project Study Area	260: OTHER OPEN LANDS <RURAL>
	Preferred Alternative ROW	434: HARDWOOD CONIFER MIXED
	Preferred Pond	510: STREAMS AND WATERWAYS
	110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS	530: RESERVOIRS
	180: RECREATIONAL	615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
	190: OPEN LAND	630: WETLAND FORESTED MIXED
	210: CROPLAND AND PASTURELAND	631: WETLAND SCRUB
	220: TREE CROPS	
	641: FRESHWATER MARSHES	
	814: ROADS & HIGHWAYS	

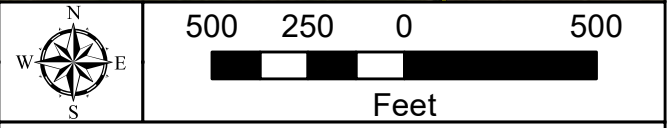


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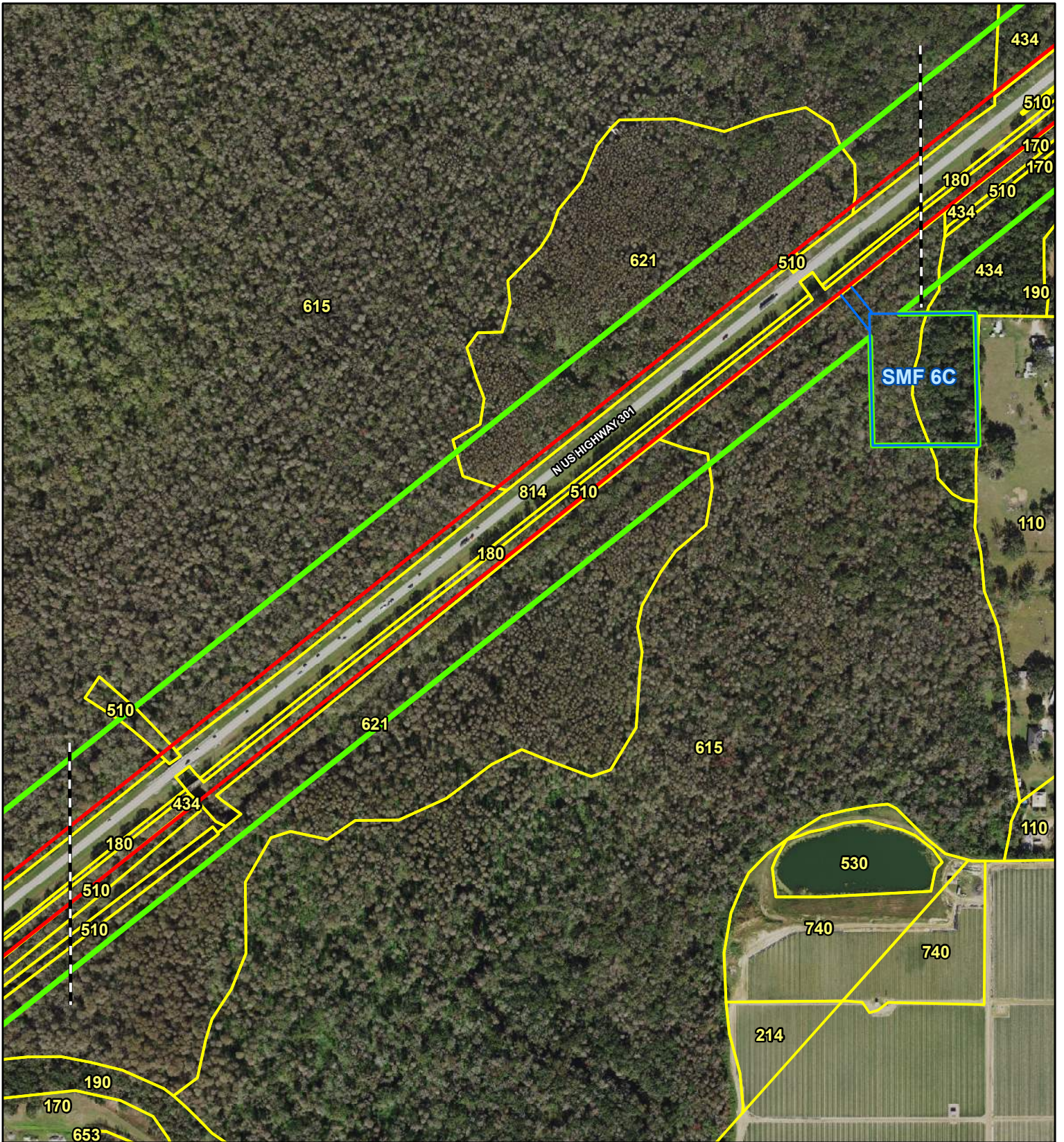
Legend	
	Project Study Area
	Preferred Alternative ROW
	Preferred Pond
170:	INSTITUTIONAL
180:	RECREATIONAL
190:	OPEN LAND
220:	TREE CROPS
434:	HARDWOOD CONIFER MIXED
510:	STREAMS AND WATERWAYS
530:	RESERVOIRS
615:	STREAM AND LAKE SWAMPS (BOTTOMLAND)
621:	CYPRESS
630:	WETLAND FORESTED MIXED
631:	WETLAND SCRUB
653:	INTERMITTENT PONDS
814:	ROADS & HIGHWAYS



**Land Use Map**  
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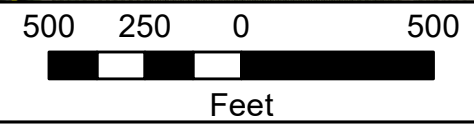
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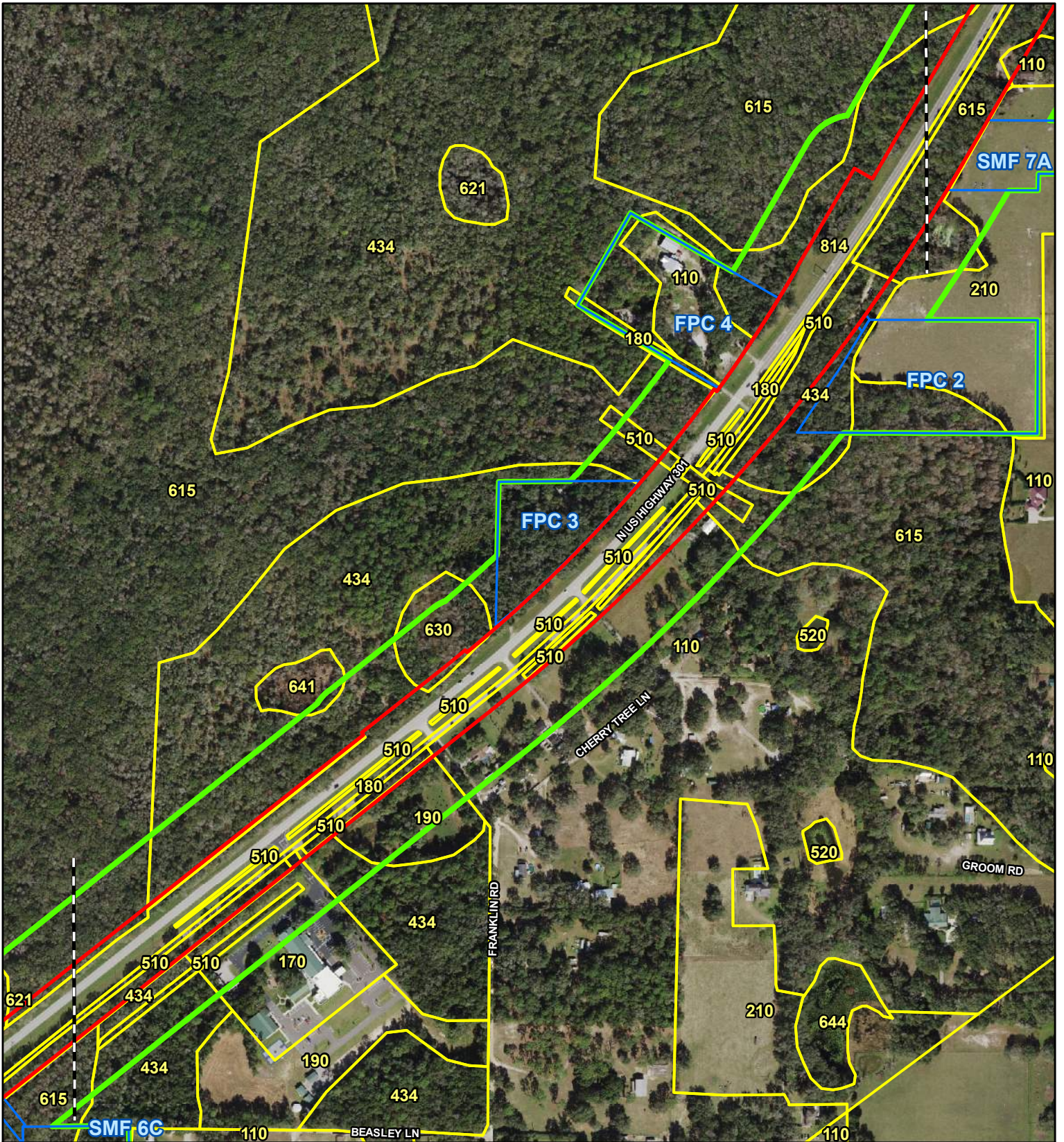
**Legend**




- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 170: INSTITUTIONAL
- 180: RECREATIONAL
- 190: OPEN LAND
- 214: ROW CROPS
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 653: INTERMITTENT PONDS
- 740: DISTURBED LAND
- 814: ROADS & HIGHWAYS



**Land Use Map**  
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Legend		
	Project Study Area	434: HARDWOOD CONIFER MIXED
	Preferred Alternative ROW	510: STREAMS AND WATERWAYS
	Preferred Pond	520: LAKES
	110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS	615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
	170: INSTITUTIONAL	621: CYPRESS
	180: RECREATIONAL	630: WETLAND FORESTED MIXED
	190: OPEN LAND	641: FRESHWATER MARSHES
	210: CROPLAND AND PASTURELAND	644: EMERGENT AQUATIC VEGETATION
		814: ROADS & HIGHWAYS

Feet

## Land Use Map

### US 301 From Fowler Avenue to SR 56

Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

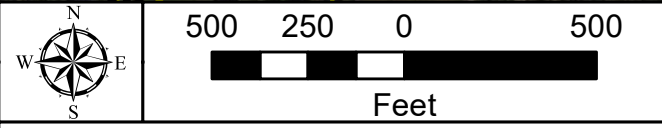
Appendix B

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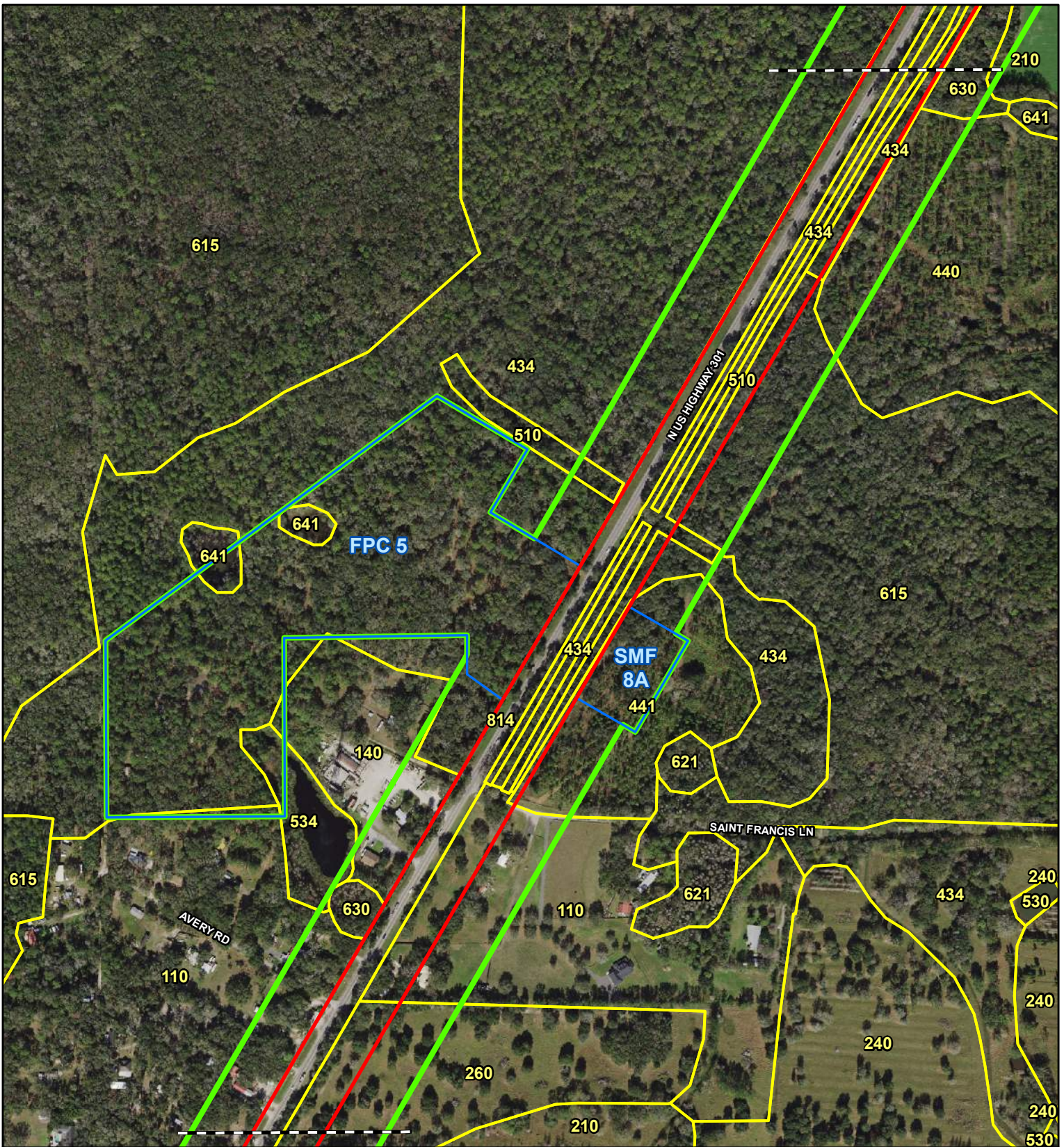
**Legend**

- ▬ Project Study Area
- ▬ Preferred Alternative ROW
- ▬ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 160: EXTRACTIVE
- 180: RECREATIONAL
- 210: CROPLAND AND PASTURELAND
- 240: NURSERIES AND VINEYARDS
- 260: OTHER OPEN LANDS <RURAL>
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 641: FRESHWATER MARSHES
- 644: EMERGENT AQUATIC VEGETATION
- 814: ROADS & HIGHWAYS



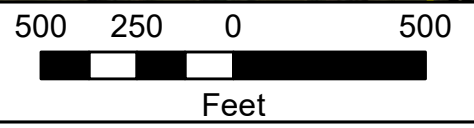
**Land Use Map**  
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 Hillsborough/Pasco County, Florida  
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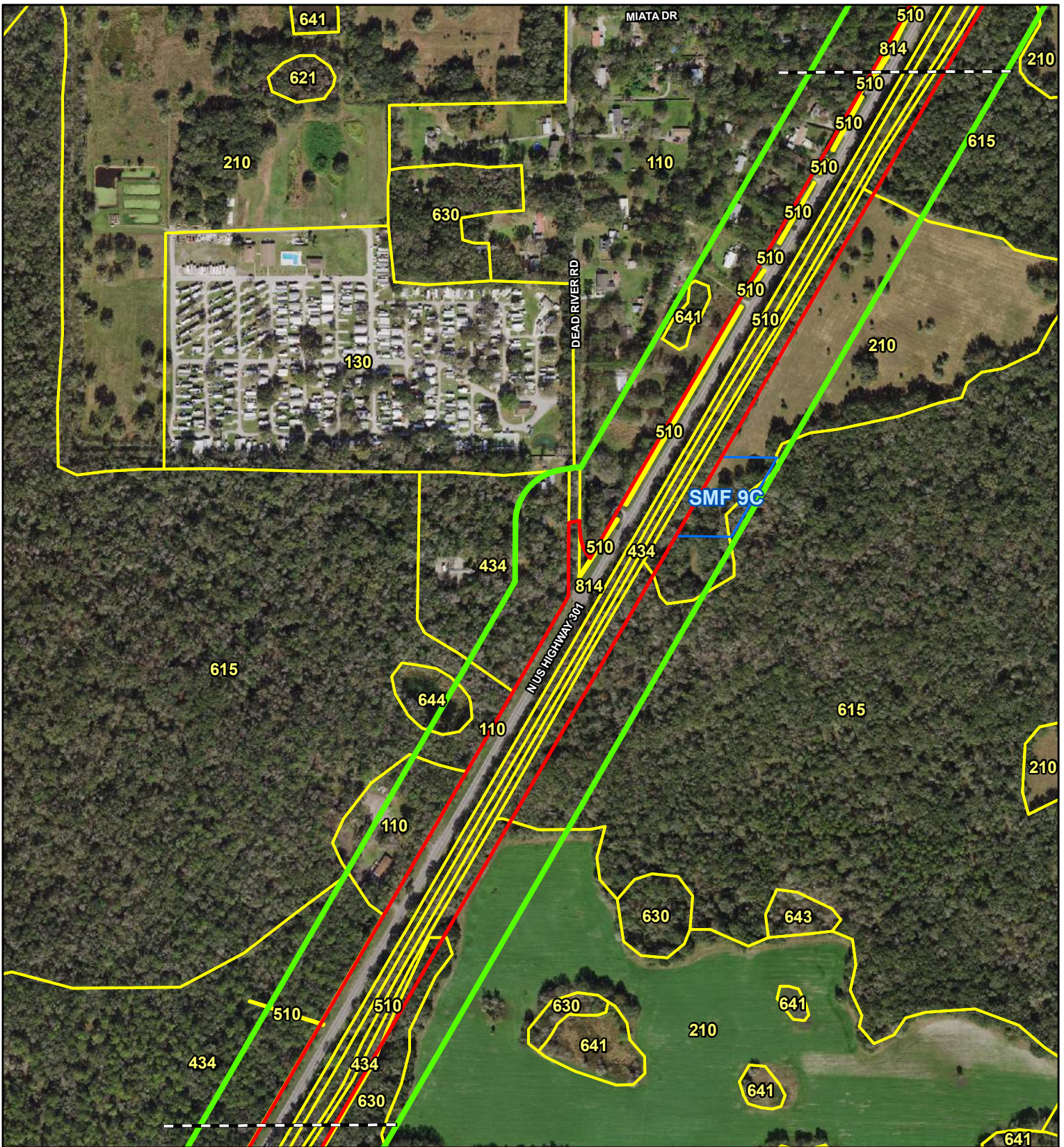
**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 140: COMMERCIAL AND SERVICES
- 210: CROPLAND AND PASTURELAND
- 240: NURSERIES AND VINEYARDS
- 260: OTHER OPEN LANDS <RURAL>
- 434: HARDWOOD CONIFER MIXED
- 440: TREE PLANTATIONS
- 441: CONIFEROUS PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 534: RESERVOIRS < 10 ACRES
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 814: ROADS & HIGHWAYS



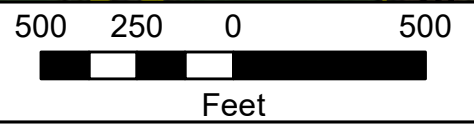
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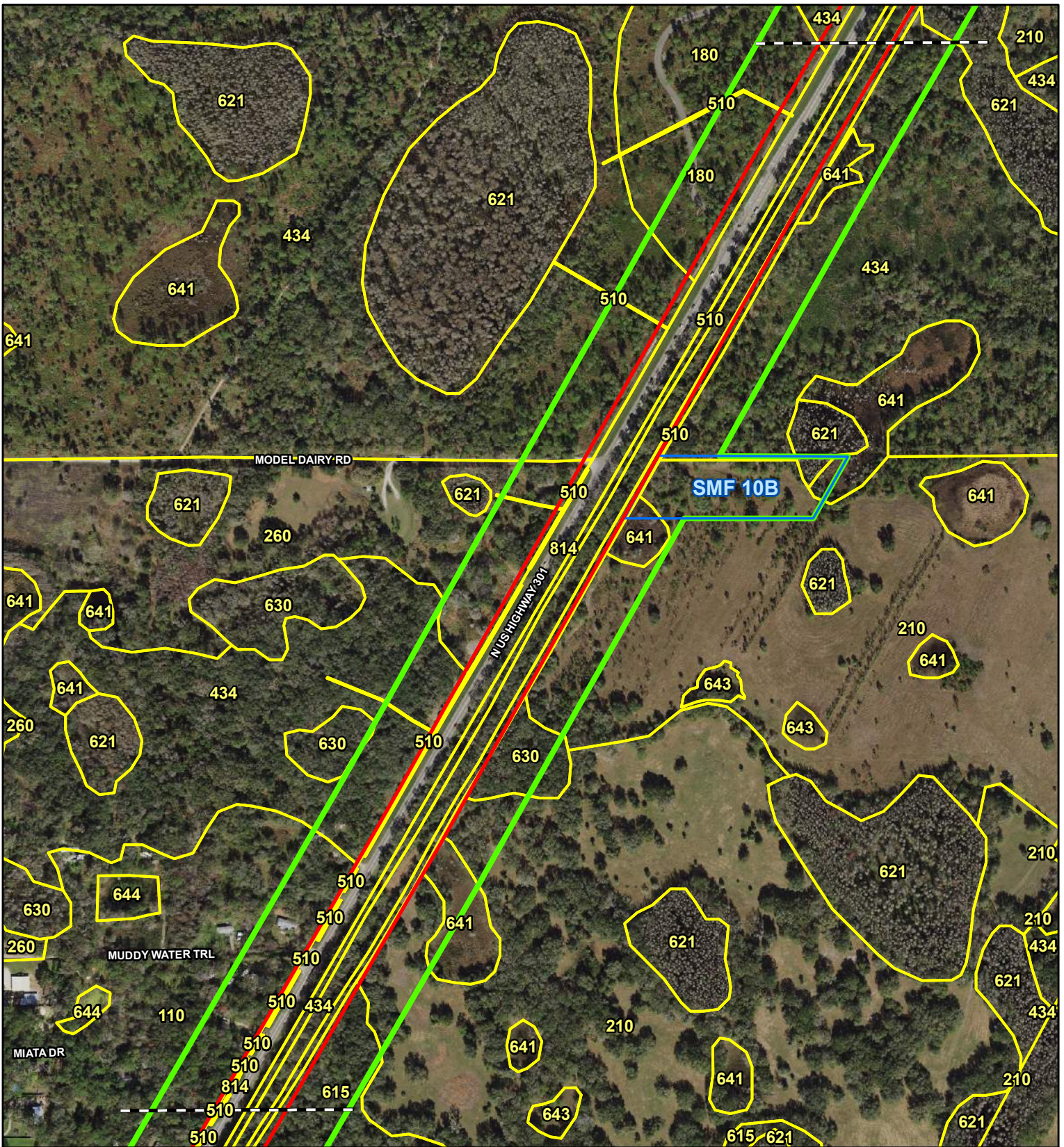
**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 130: RESIDENTIAL HIGH DENSITY
- 210: CROPLAND AND PASTURELAND
- 330: WETLAND FORESTED MIXED
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 643: WET PRAIRIES
- 814: ROADS & HIGHWAYS
- 644: EMERGENT AQUATIC VEGETATION



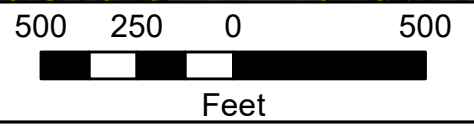
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 Hillsborough/Pasco County, Florida  
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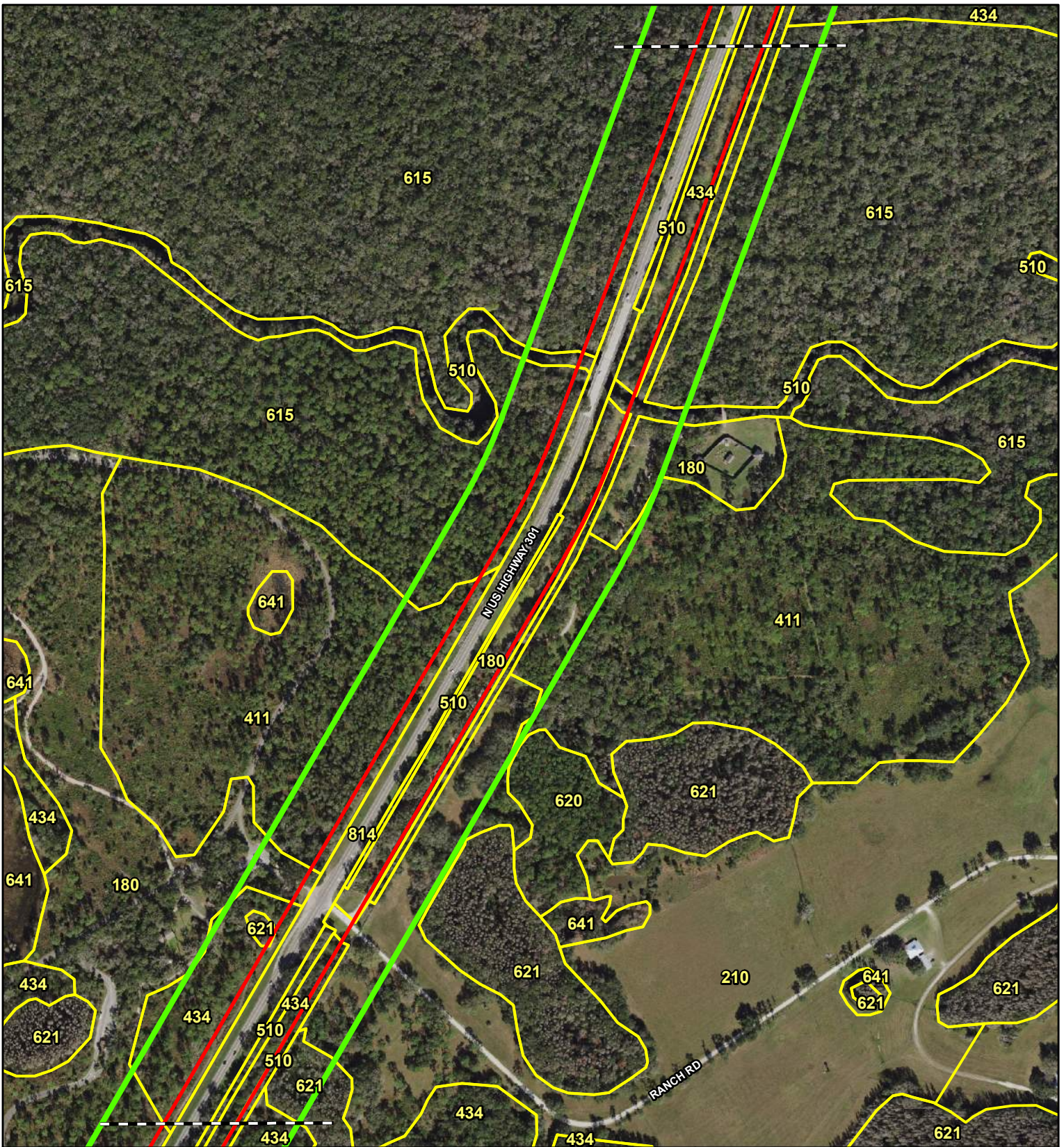
**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 180: RECREATIONAL
- 210: CROPLAND AND PASTURELAND
- 260: OTHER OPEN LANDS <RURAL>
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 643: WET PRAIRIES
- 644: EMERGENT AQUATIC VEGETATION
- 814: ROADS & HIGHWAYS



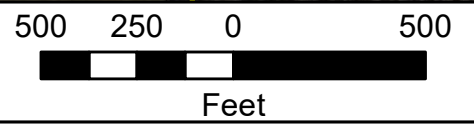
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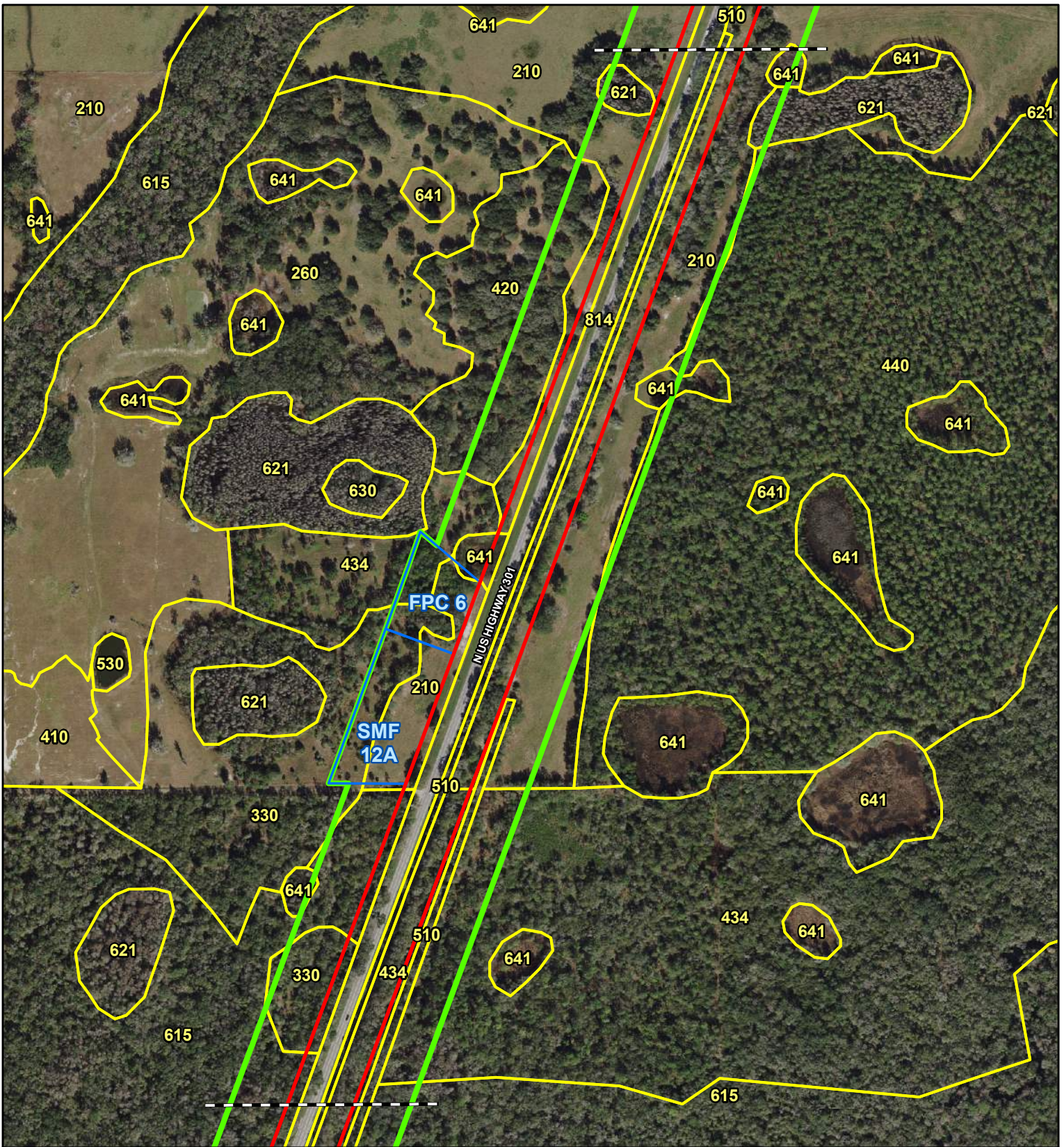
**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 180: RECREATIONAL
- 210: CROPLAND AND PASTURELAND
- 411: PINE FLATWOODS
- 434: HARDWOOD CONIFER MIXED
- 510: STREAMS AND WATERWAYS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 620: WETLAND CONIFEROUS FORESTS
- 621: CYPRESS
- 641: FRESHWATER MARSHES
- 814: ROADS & HIGHWAYS



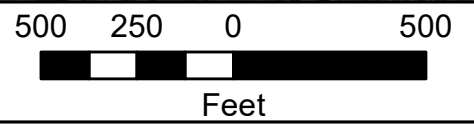
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**Legend**

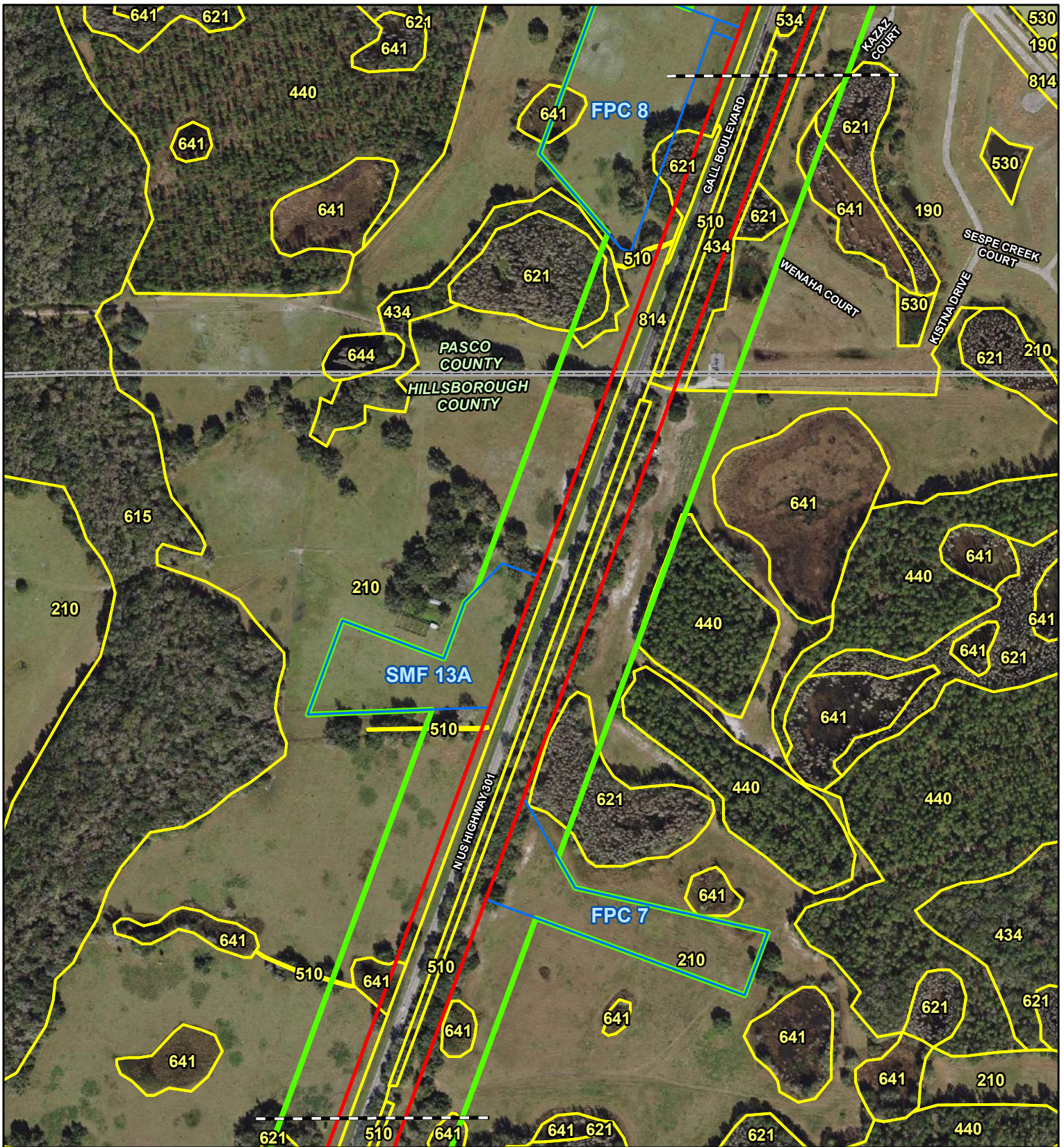
- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 210: CROPLAND AND PASTURELAND
- 260: OTHER OPEN LANDS <RURAL>
- 330: MIXED RANGELAND
- 410: UPLAND CONIFEROUS FOREST
- 420: UPLAND HARDWOOD FOREST
- 434: HARDWOOD CONIFER MIXED
- 440: TREE PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 814: ROADS & HIGHWAYS



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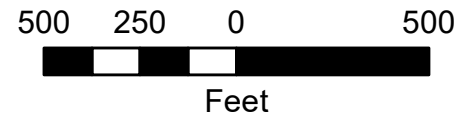
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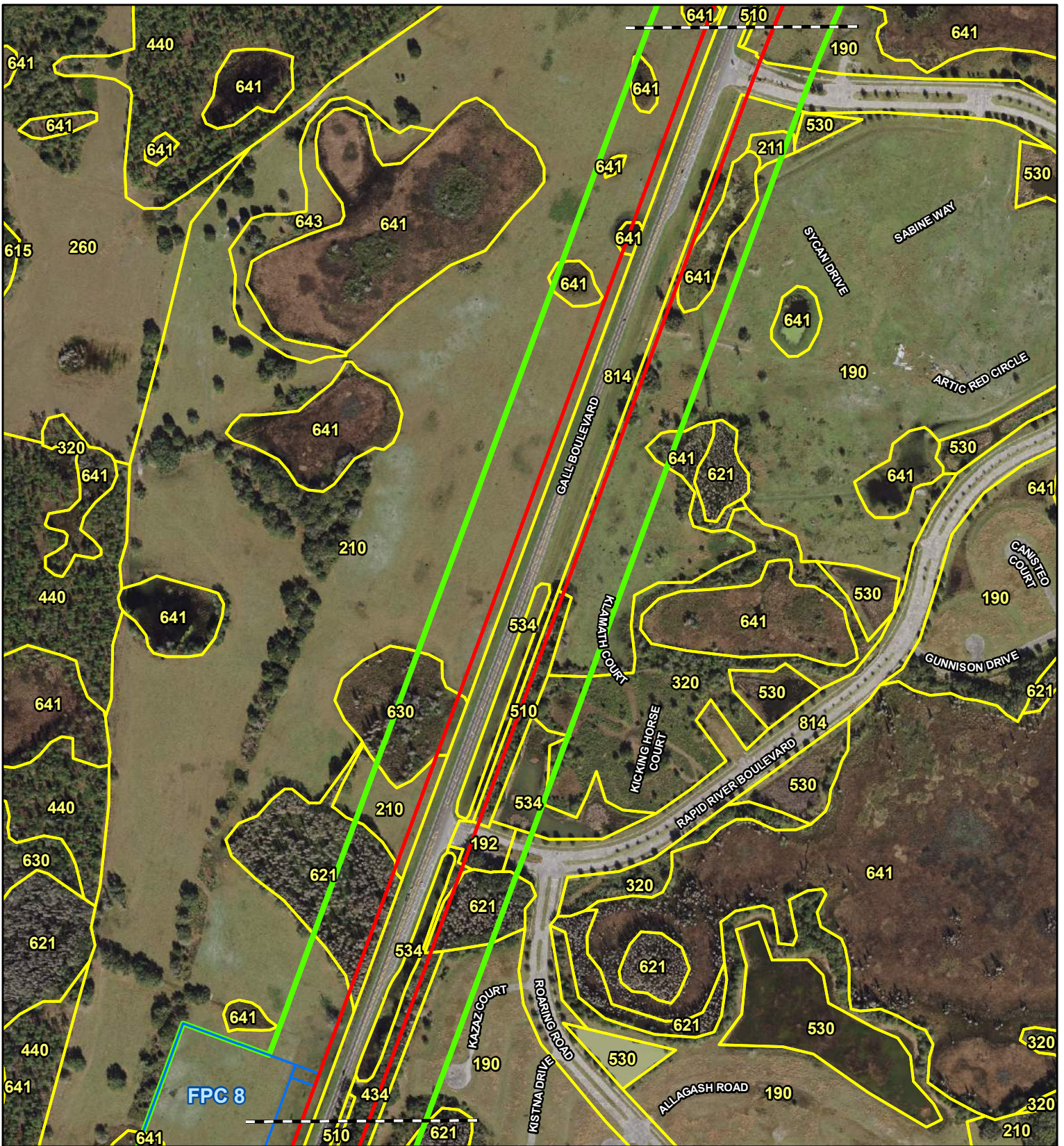


**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 190: OPEN LAND
- 210: CROPLAND AND PASTURELAND
- 260: OTHER OPEN LANDS <RURAL>
- 434: HARDWOOD CONIFER MIXED
- 440: TREE PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 534: RESERVOIRS < 10 ACRES
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 641: FRESHWATER MARSHES
- 644: EMERGENT AQUATIC VEGETATION
- 814: ROADS & HIGHWAYS

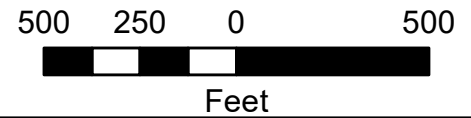


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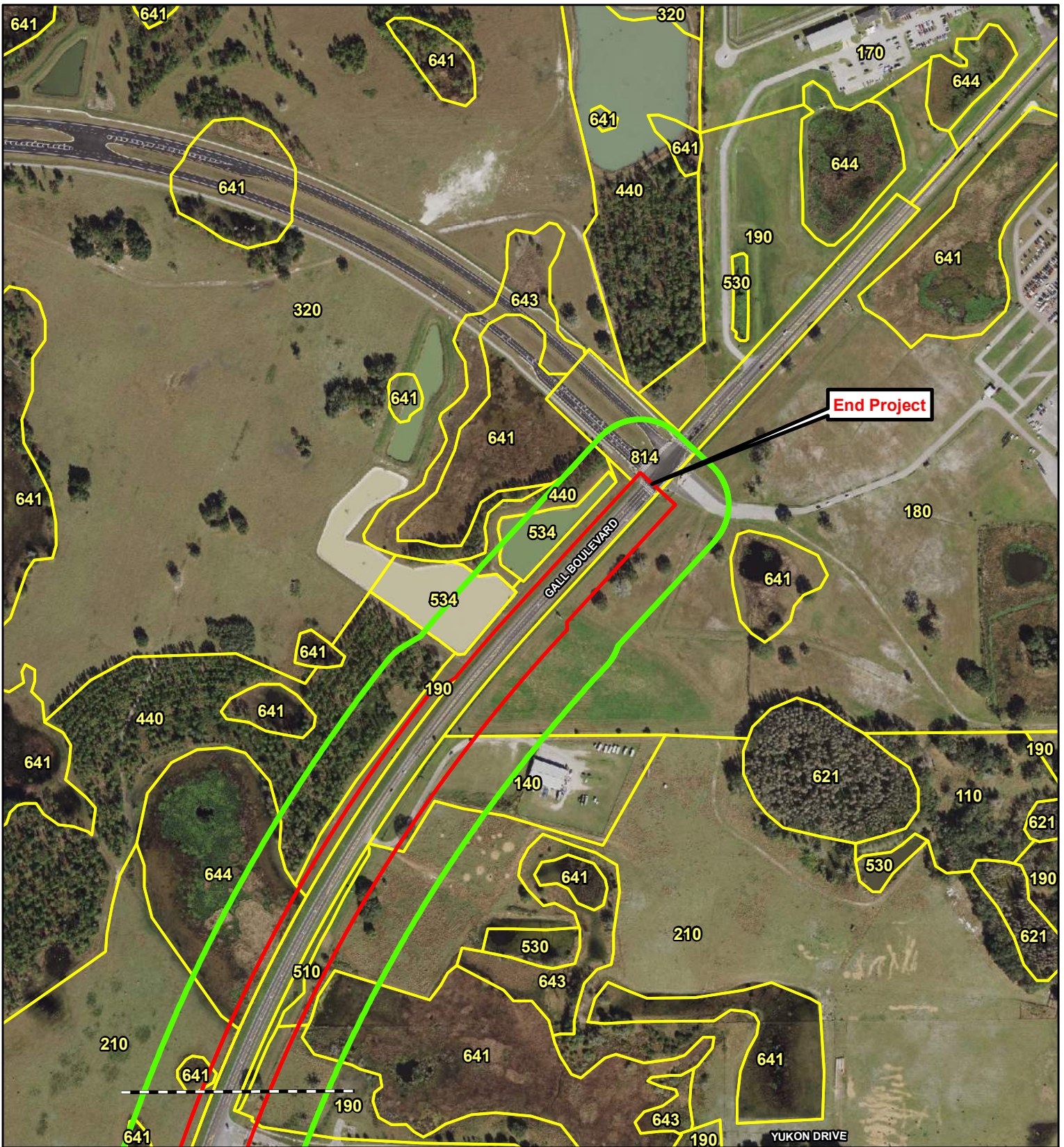


**Legend**

- Project Study Area
- Preferred Alternative ROW
- Preferred Pond
- 190: OPEN LAND
- 192: INACTIVE LAND WITH STREET PATTERNS BUT WITHOUT STRUCTURES
- 210: CROPLAND AND PASTURELAND
- 211: IMPROVED PASTURES
- 260: OTHER OPEN LANDS <RURAL>
- 320: SHRUB AND BRUSHLAND
- 434: HARDWOOD CONIFER MIXED
- 440: TREE PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 534: RESERVOIRS < 10 ACRES
- 615: STREAM AND LAKE SWAMPS (BOTTOMLAND)
- 621: CYPRESS
- 630: WETLAND FORESTED MIXED
- 641: FRESHWATER MARSHES
- 643: WET PRAIRIES
- 814: ROADS & HIGHWAYS



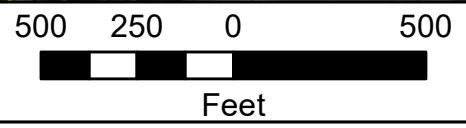
**Land Use Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01



End Project

**Legend**

- █ Project Study Area
- █ Preferred Alternative ROW
- █ Preferred Pond
- 110: RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
- 140: COMMERCIAL AND SERVICES
- 170: INSTITUTIONAL
- 180: RECREATIONAL
- 190: OPEN LAND
- 210: CROPLAND AND PASTURELAND
- 320: SHRUB AND BRUSHLAND
- 440: TREE PLANTATIONS
- 510: STREAMS AND WATERWAYS
- 530: RESERVOIRS
- 534: RESERVOIRS < 10 ACRES
- 621: CYPRESS
- 641: FRESHWATER MARSHES
- 643: WET PRAIRIES
- 644: EMERGENT AQUATIC VEGETATION
- 814: ROADS & HIGHWAYS



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Path: C:\Users\labesnerch\GIS Projects - W\25579612201.PD&E.US 301 Fowler\_SR56(AIM)\100 Environmental\GIS\Maps\Figures\Appendix B - Land Use Map.mxd 10/22/2021

***APPENDIX C***

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**Wetland and Surface Water Descriptions and Location Map**

## Surface Waters

<b>FLUCFCS:</b>	<b>510</b>	<b>(Streams and Waterways)</b>
<b>USFWS:</b>	<b>R2UB2G</b>	<b>(Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Intermittently Exposed)</b>
	<b>R2UB2H</b>	<b>(Riverine, Lower Perennial, Unconsolidated Bottom, Sand, Permanently Flooded)</b>
	<b>PEM1Cx</b>	<b>(Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated)</b>
	<b>PEM1Ax</b>	<b>(Palustrine, Emergent, Persistent, Temporarily Flooded, Excavated)</b>
	<b>PFO1Cx</b>	<b>(Palustrine, Forested, Persistent, Seasonally Flooded, Excavated)</b>
	<b>PFO1Ax</b>	<b>(Palustrine, Forested, Persistent, Temporarily Flooded, Excavated)</b>

Natural rivers and creeks, and man-made ditches, throughout the project study area are classified as streams and waterways. These systems are discussed separately due to their divergence in vegetation and hydrological characteristics.

Natural streams and waterways are riverine systems that hold water throughout the entire year. The canopy along the edges of these systems typically consists of red maple (*Acer rubrum*), water hickory (*Carya aquatica*), sweetgum (*Liquidambar styraciflua*), swamp tupelo (*Nyssa biflora*), water oak (*Quercus nigra*), and Carolina willow (*Salix caroliniana*), with scattered cypress (*Taxodium* spp.) and slash pine (*Pinus elliotii*). Additional vegetative coverage includes water hyacinth (*Eichhornia crassipes*), dahoon holly (*Ilex cassine*), big floatingheart (*Nymphoides aquatica*), cinnamon fern (*Osmundastrum cinnamomeum*), water spangles (*Salvinia minima*), elderberry (*Sambucus nigra canadensis*), and lizard's tail (*Saururus cernuus*). Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

Man-made linear drainage ditches that run both perpendicular and parallel to US 301 are classified as palustrine systems that only hold water seasonally or intermittently throughout the year. Dominant plant species within these systems typically include pennywort (*Hydrocotyle umbellata*), Peruvian primrose-willow (*Ludwigia peruviana*), creeping primrose-willow (*Ludwigia repens*), torpedo grass (*Panicum repens*), and mild-water pepper (*Persicaria hydropiperoides*). Subdominant species include wild taro (*Colocasia esculenta*), soft rush (*Juncus effusus*), and maidencane (*Panicum hemitomon*). Approximately 5 to 10 percent of vegetation coverage consists of invasive and/or exotic species.

<b>FLUCFCS:</b>	<b>534</b>	<b>(Reservoirs less than 10 acres)</b>
<b>USFWS:</b>	<b>PUBHx</b>	<b>(Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated)</b>
	<b>PEM1Cx</b>	<b>(Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated)</b>

Reservoirs with the banks comprised of sod grasses and weedy, ruderal herbaceous species are located within the project study area. Vegetative cover within these reservoirs consists of jointed spikerush (*Eleocharis equisetoides*), torpedo grass, mild water-pepper, pickerelweed (*Pontederia cordata*), lance-leaf arrowhead (*Sagittaria lancifolia*), and broadleaf cattail (*Typha latifolia*), with invasive and/or exotic species coverage ranging from 10 to 25 percent.

## Wetlands

**FLUCFCS: 615 (Stream and Lake Swamps (Bottomland))**  
**USFWS: PFO1/2C (Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Deciduous, Seasonally Flooded)**

Stream and lake swamps are located throughout the project study area. These communities are associated with the Hillsborough River and tributaries. The canopy within this community type consists predominantly of hardwood species, including red maple, water hickory, sweetgum, swamp tupelo, water oak, and Carolina willow, with scattered cypress and slash pine. Additional vegetative coverage includes bushy broomsedge (*Andropogon glomeratus*), dahoon holly, cinnamon fern, cabbage palm (*Sabal palmetto*), water spangles, elderberry, and lizard's tail. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

**FLUCFCS: 617 (Mixed Wetland Hardwoods)**  
**USFWS: PFO1C (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded)**

Mixed wetland hardwoods are located in the southern segment of the project study area. Dominant canopy species found in this wetland habitat type include red maple, dahoon holly, sweetgum, laurel oak (*Quercus laurifolia*), water oak, and American elm (*Ulmus americana*), with pennywort, wax myrtle (*Morella cerifera*), maidencane, mild water-pepper, and elderberry. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

**FLUCFCS: 621 (Cypress)**  
**USFWS: PFO2C (Palustrine, Forested, Needle-Leaved Deciduous, Seasonally Flooded)**

Cypress communities are located throughout the project study area. These communities are comprised of pond cypress (*Taxodium ascendens*) and/or bald cypress (*Taxodium distichum*), with pale duckweed (*Lemna valdiviana*), sweetgum, Peruvian primrose-willow, cinnamon fern, lance-leaf arrowhead, water spangles, elderberry, and lizard's tail also present. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

**FLUCFCS: 630 (Wetland Forested Mixed)**  
**USFWS: PFO1/2C (Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Deciduous, Seasonally Flooded)**

Dominant vegetation within wetland forested mixed communities within the project study area consists predominantly of red maple, slash pine, elderberry, and cypress, with a groundcover component of bushy broomsedge, lemon bacopa (*Bacopa caroliniana*), pennywort, soft rush, and Peruvian primrose-willow. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

**FLUCFCS: 631 (Wetland Scrub)**  
**USFWS: PSS1C (Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded)**

Wetland scrub is located in the central segment of the project study area. Dominant vegetation within this community type consists predominantly of Carolina willow with scattered red maple. Groundcover and open water components include mosquito fern (*Azolla filiculoides*), water spangles, and lizard's tail. Approximately 5 to 10 percent of vegetation coverage consists of invasive and/or exotic species.

**FLUCFCS: 641 (Freshwater Marshes)**  
**USFWS: PEM1C (Palustrine, Emergent, Persistent, Seasonally Flooded)**

Freshwater marshes are located throughout the project study area. Dominant vegetation within freshwater marshes includes mosquito fern, Carolina willow, torpedo grass, pale duckweed, mild water-pepper, water hyacinth, maidencane, and various sedges (*Cyperus* spp.). Subdominant species consist of soft rush, creeping primrose-willow, common dayflower (*Commelina diffusa*), and big floatinghearts. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.

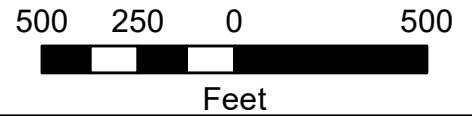
**FLUCFCS: 644 (Emergent Aquatic Vegetation)**  
**USFWS: PAB4H (Palustrine, Aquatic Bed, Floating Vascular, Permanently Flooded)**

Two areas consisting of this habitat type are located within the project study area. Dominant vegetation consists of soft rush, Mexican primrose-willow (*Ludwigia octovalvis*), spatterdock (*Nuphar advena advena*), floating hearts, bulrush (*Scirpus* spp.), and pickerelweed. Subdominant species consist of pennywort, maidencane, sand cordgrass (*Spartina bakeri*), and lance-leaf arrowhead. Less than 5 percent of vegetation coverage consists of invasive and/or exotic species.



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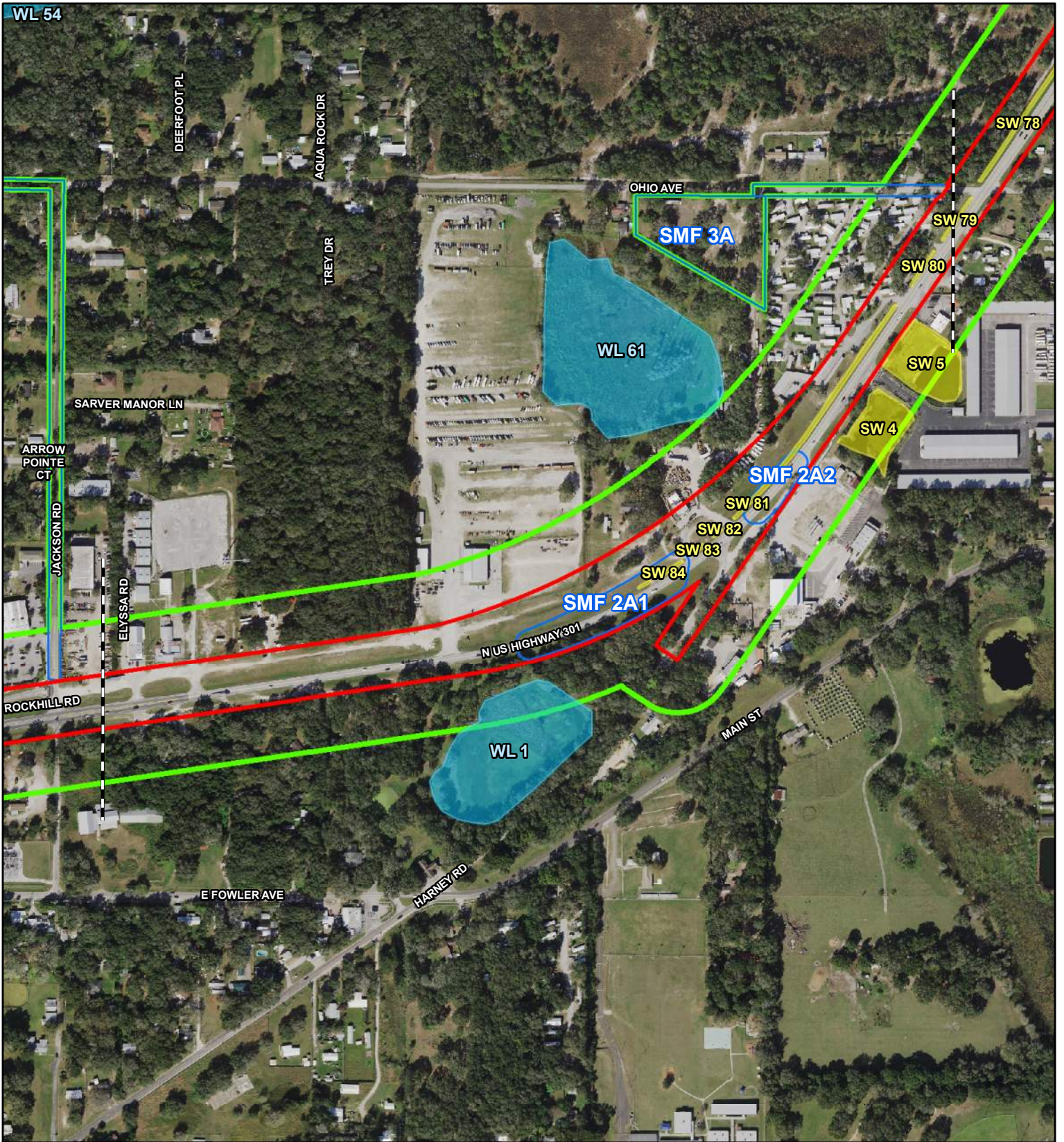
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- Preferred Pond
- Surface Water
- Wetland



**Wetland/Surface Water Location Map  
US 301 From Fowler Avenue to SR 56**

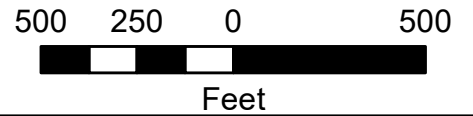
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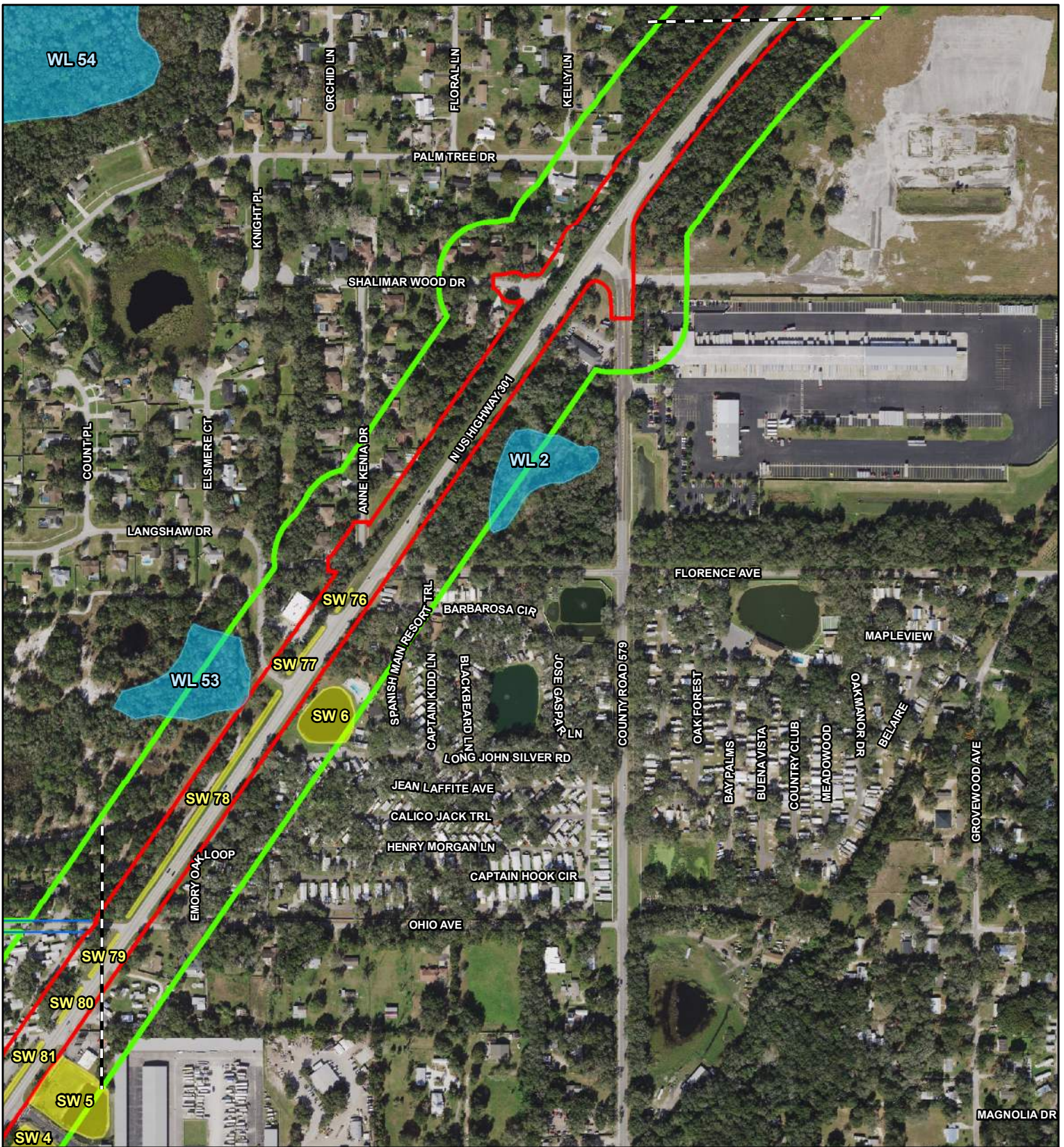
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- Wetland



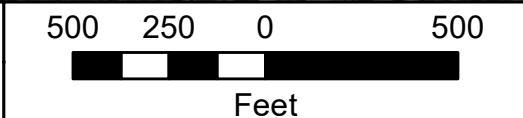
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Hillsborough/Pasco County, Florida  
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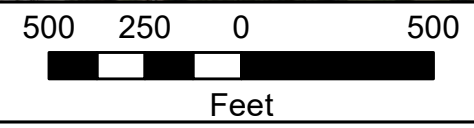
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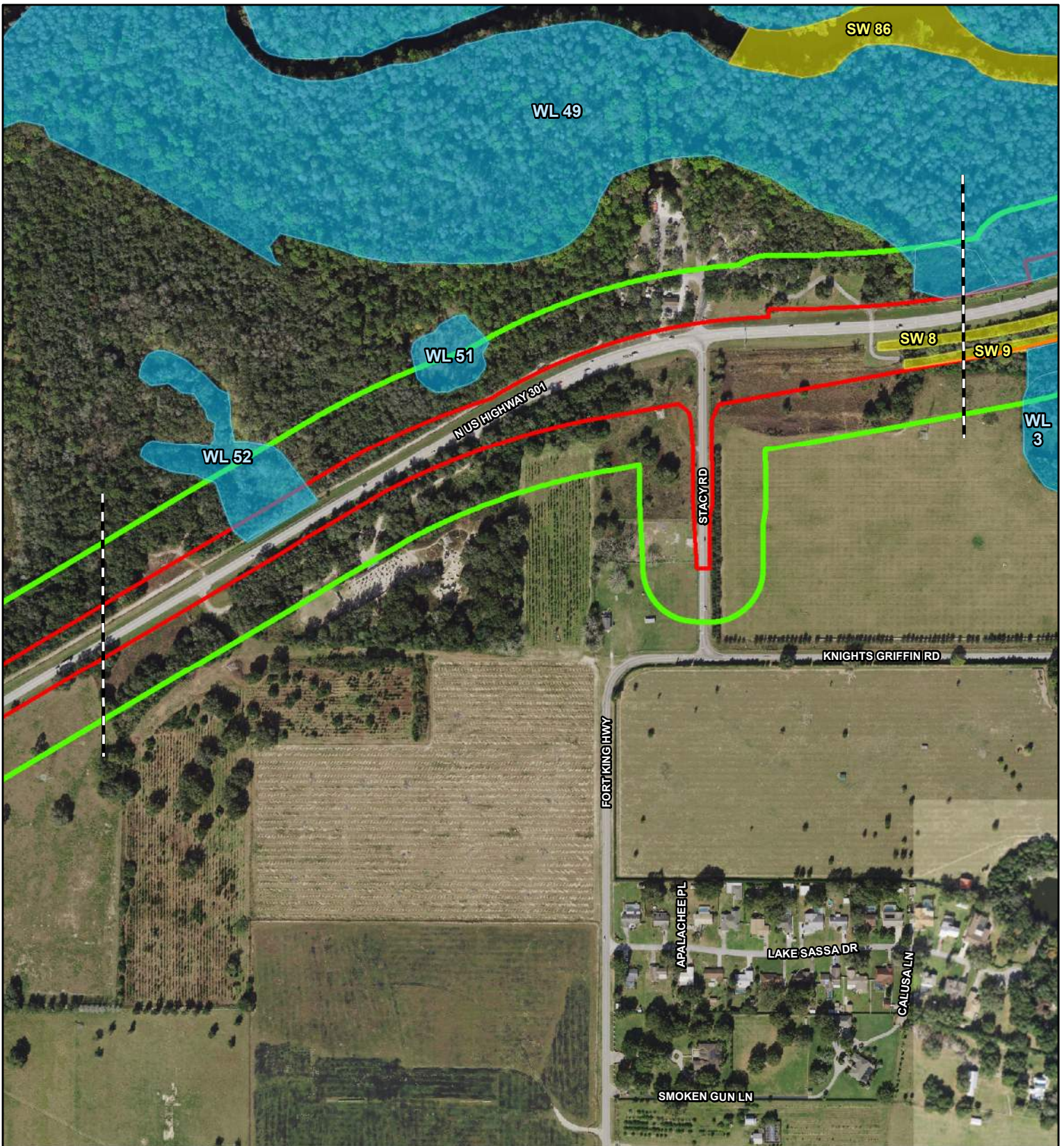
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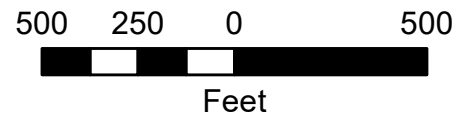
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 FPID Number: 255796-1-22-01

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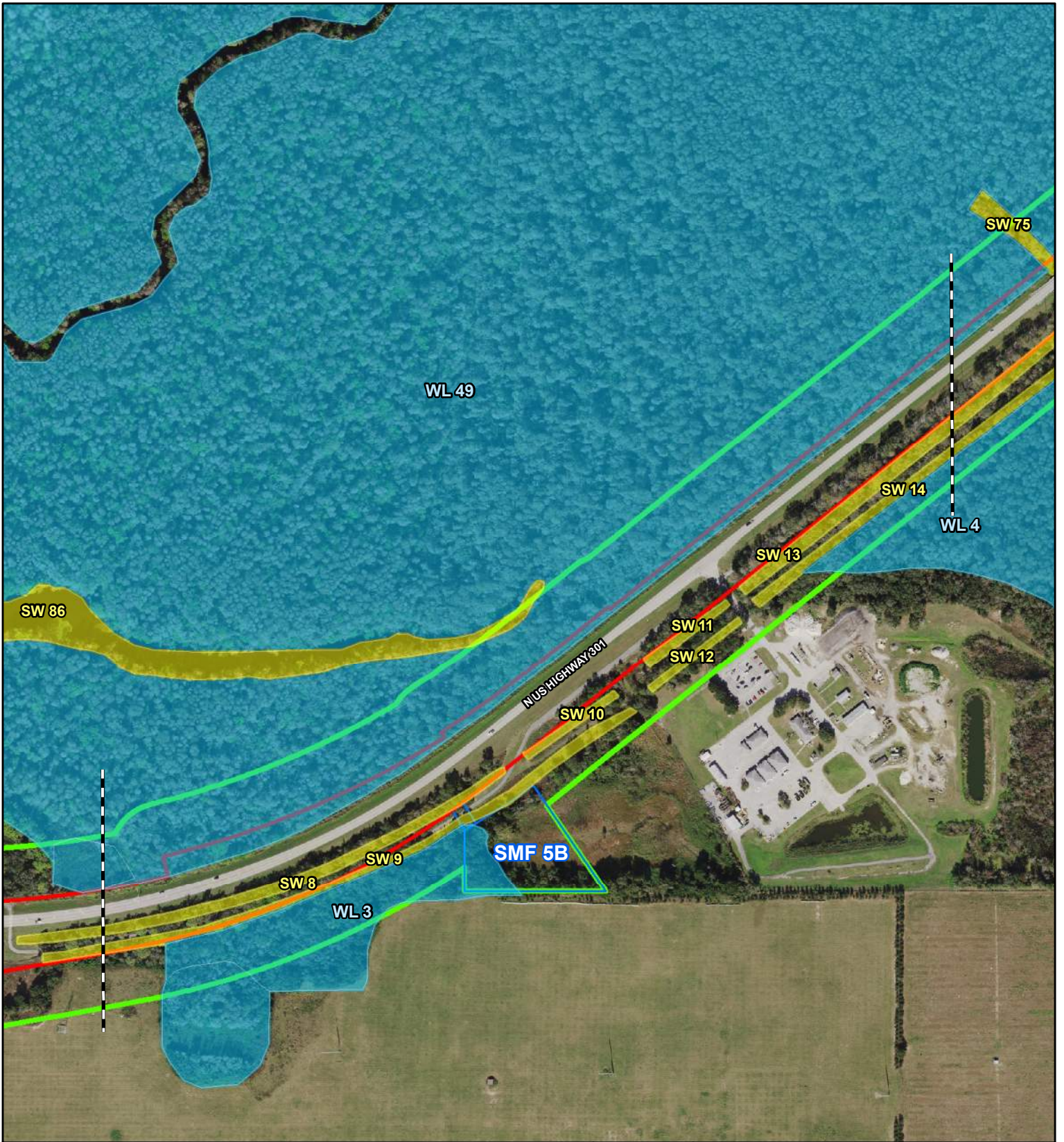
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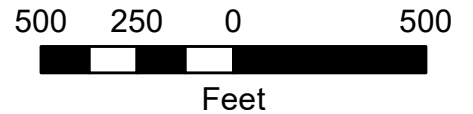
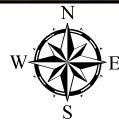
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Hillsborough/Pasco County, Florida  
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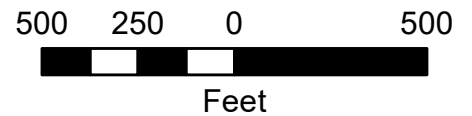
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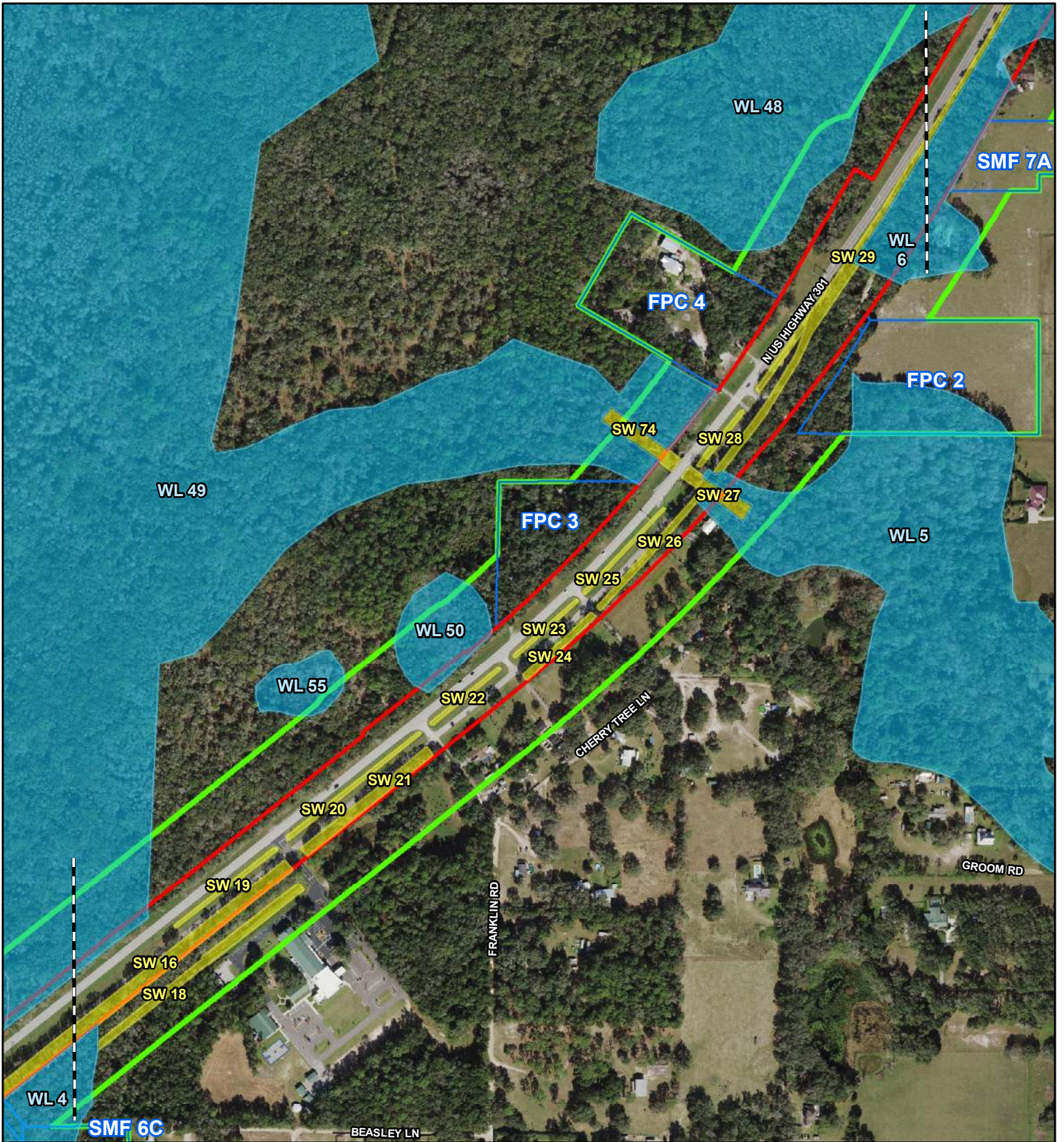
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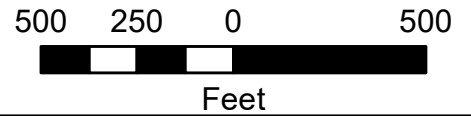
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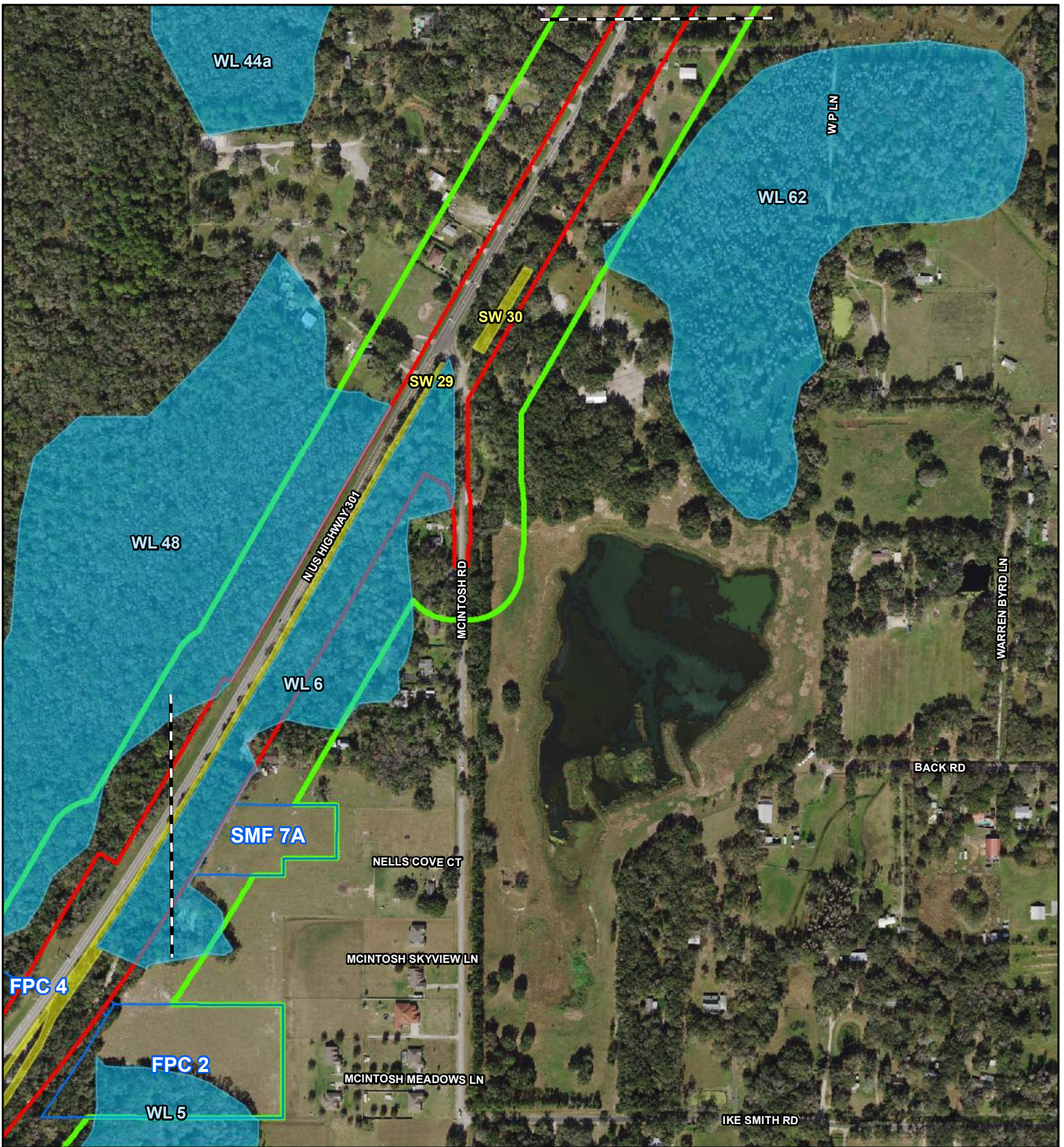
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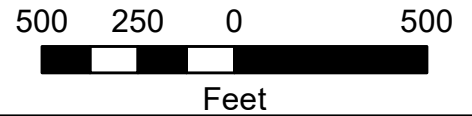
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Hillsborough/Pasco County, Florida  
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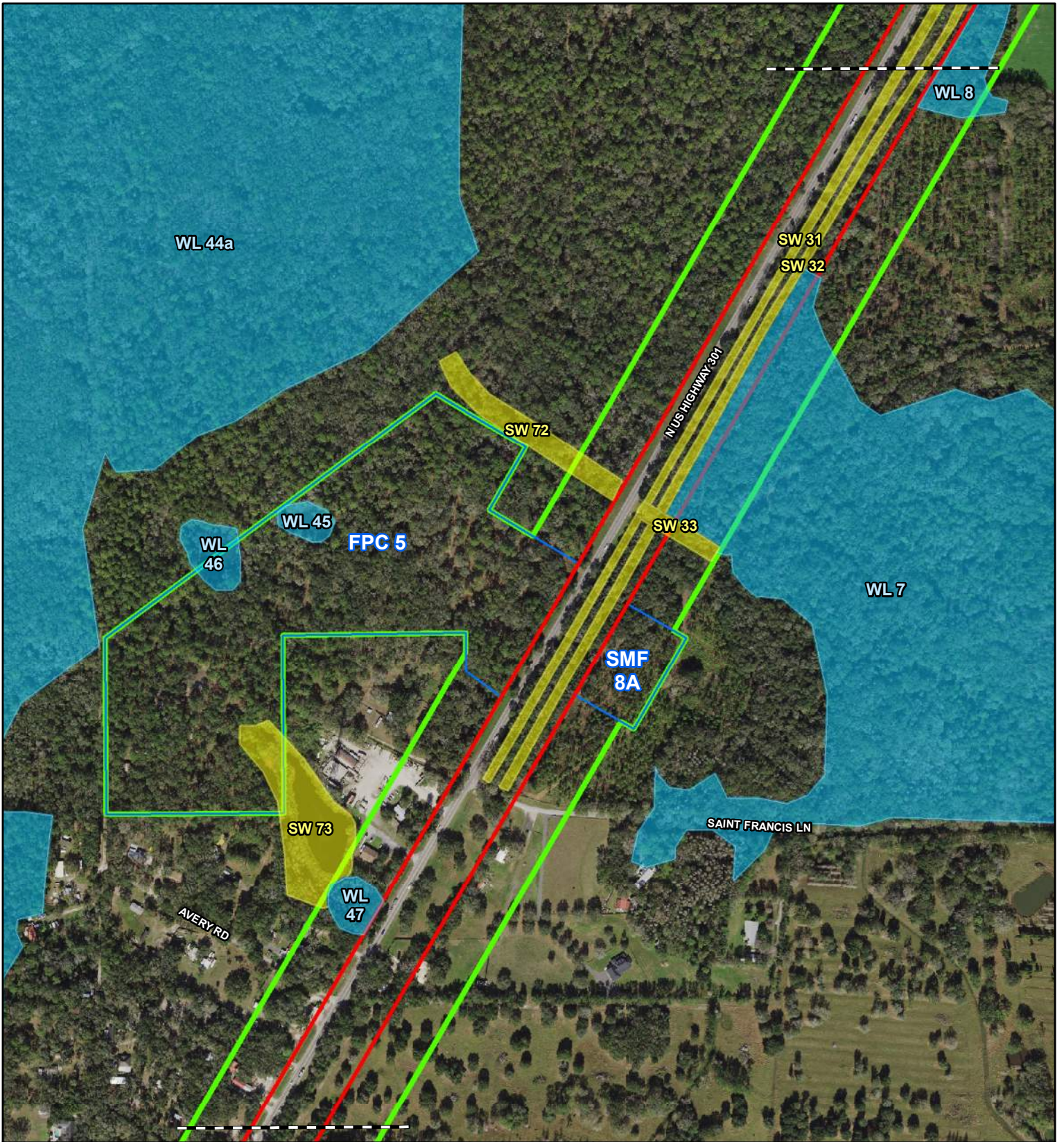
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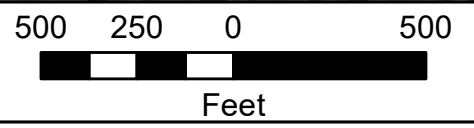
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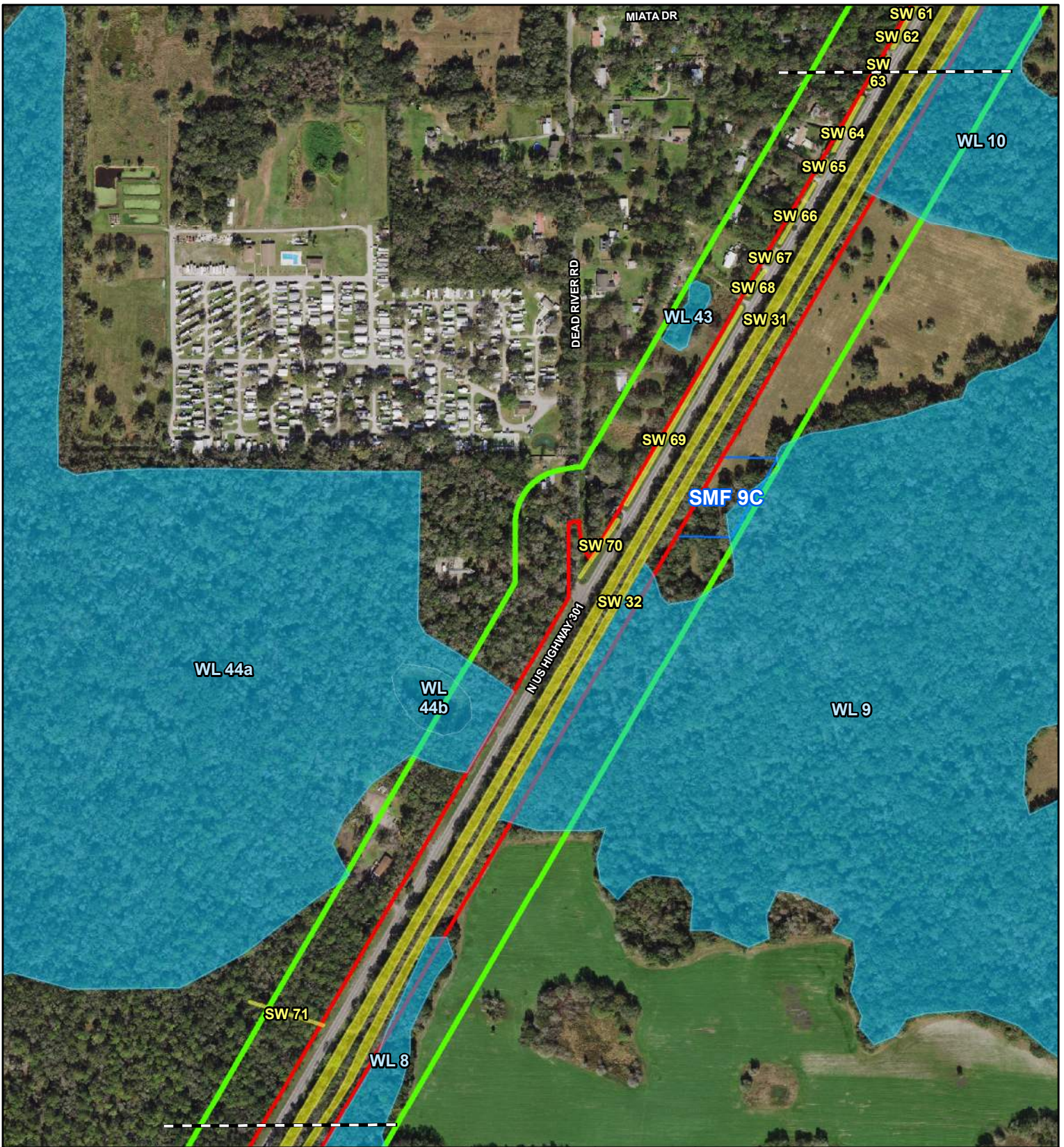
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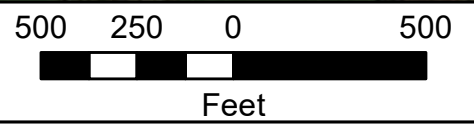
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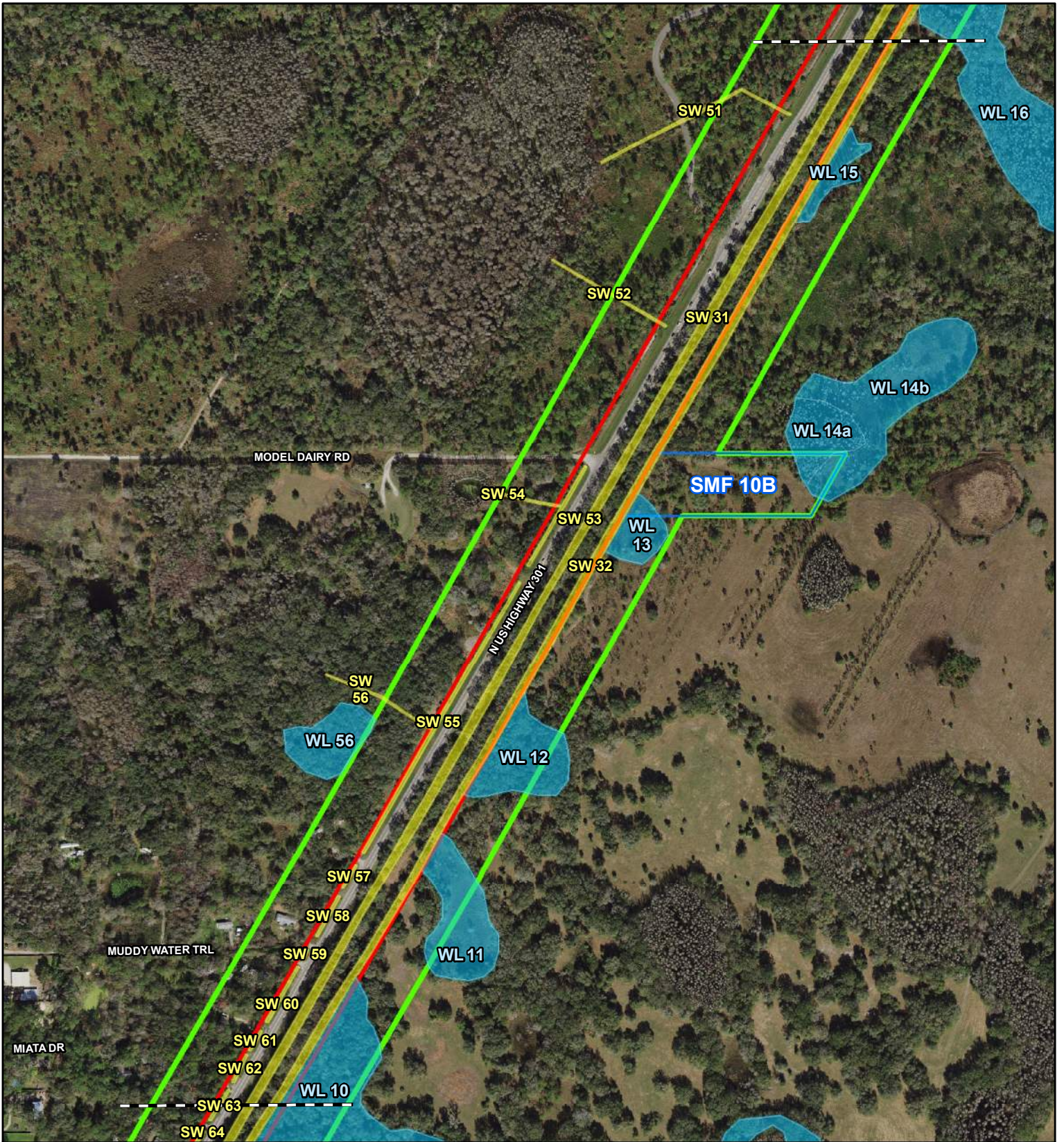
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**Wetland/Surface Water Location Map**  
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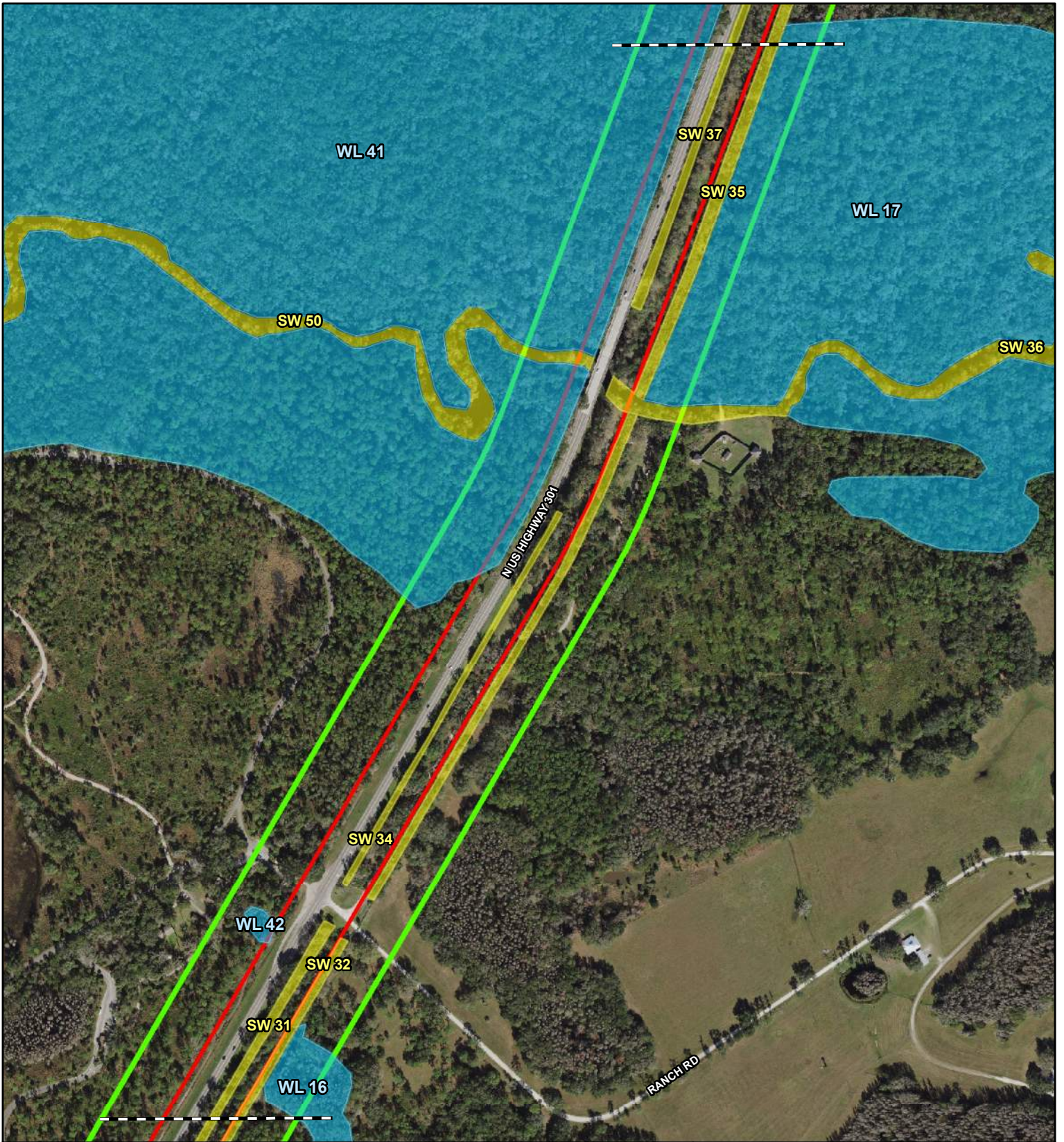


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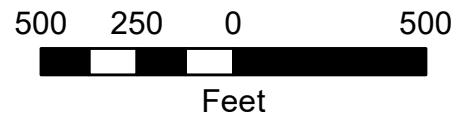
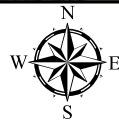
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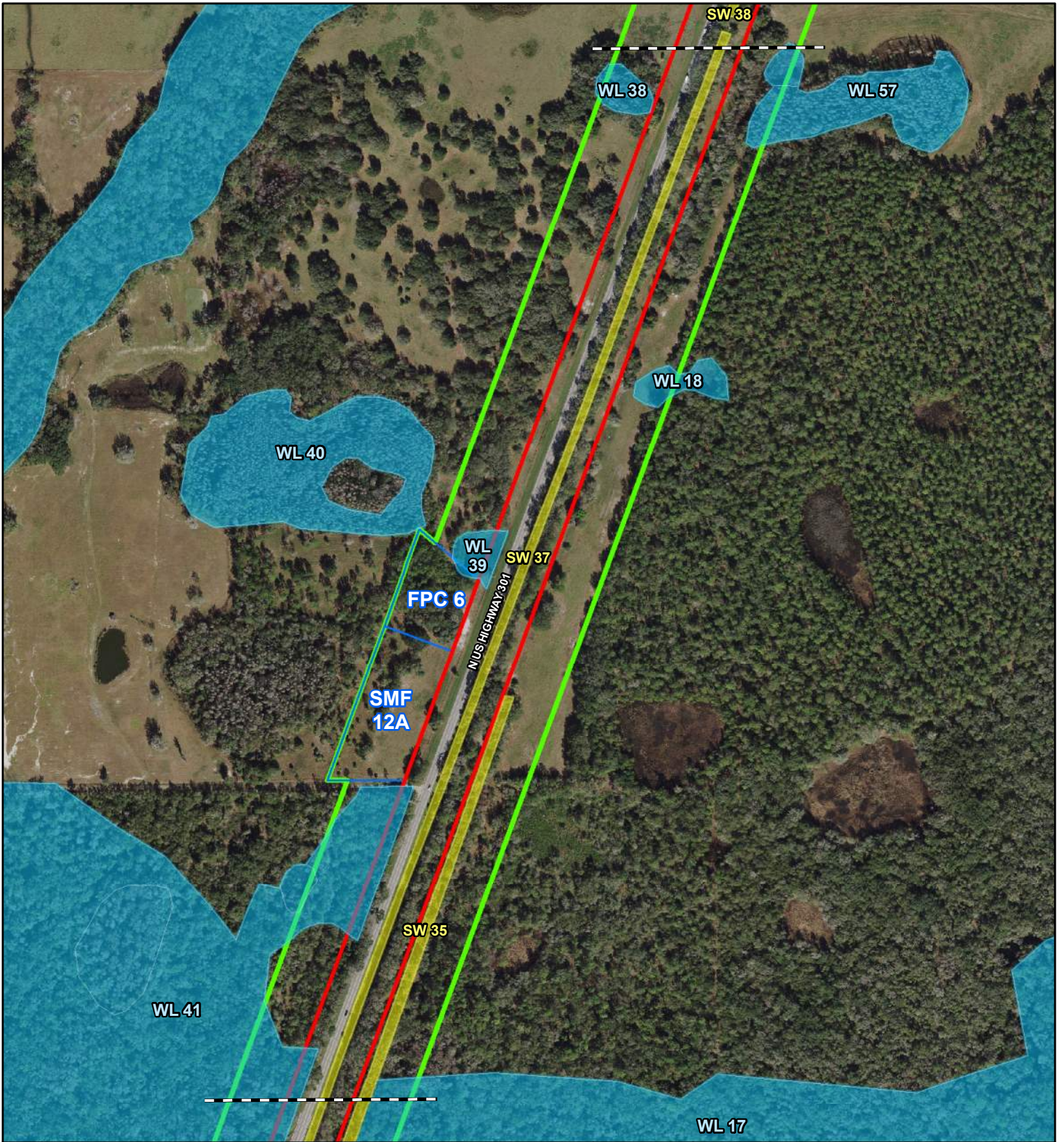
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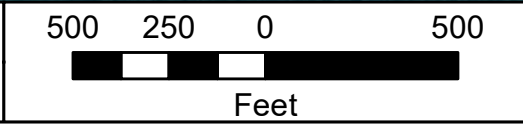
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Hillsborough/Pasco County, Florida  
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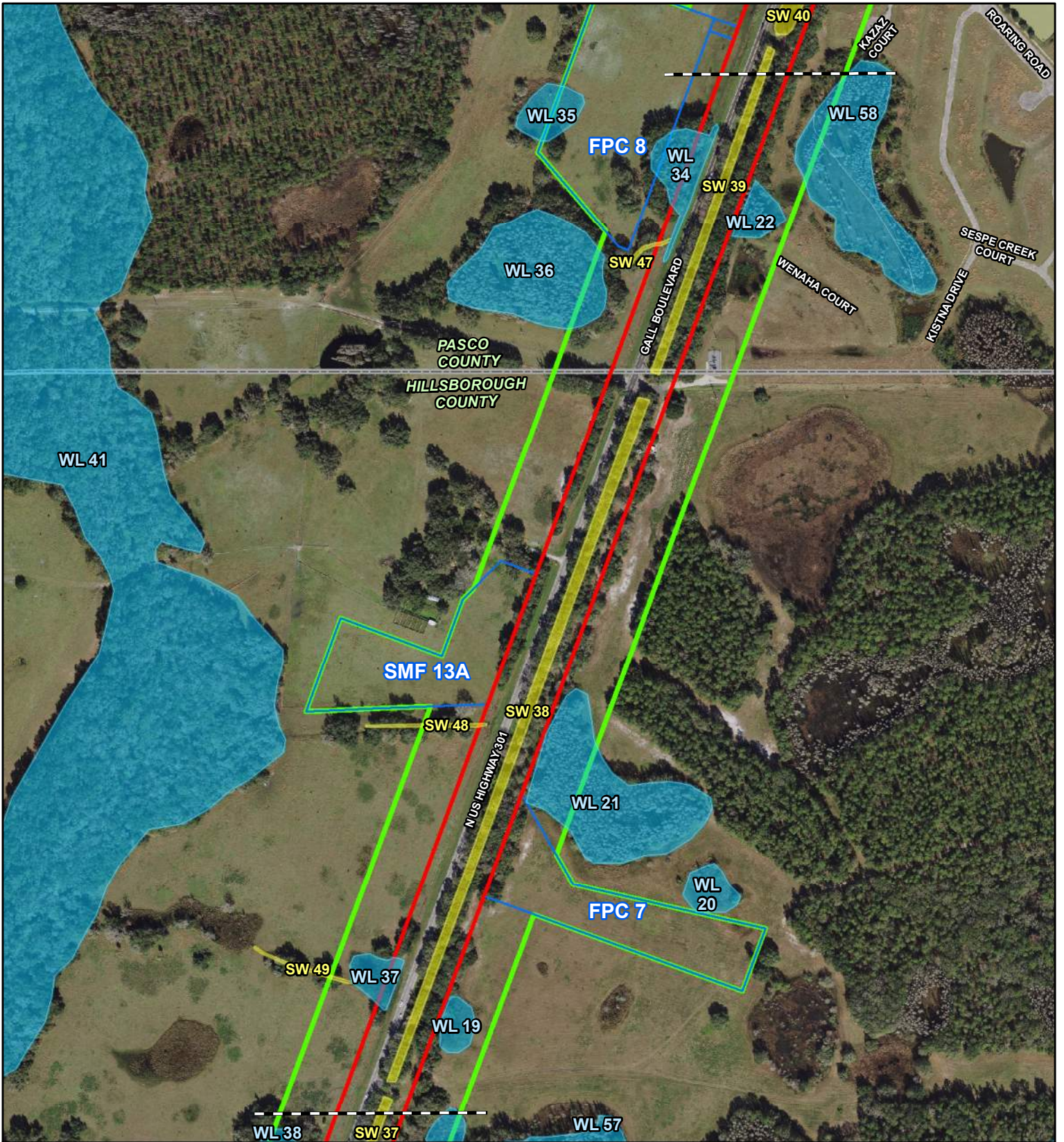
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**Wetland/Surface Water Location Map**  
**US 301 From Fowler Avenue to SR 56**  
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Appendix C

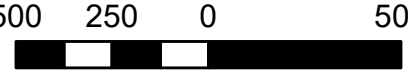
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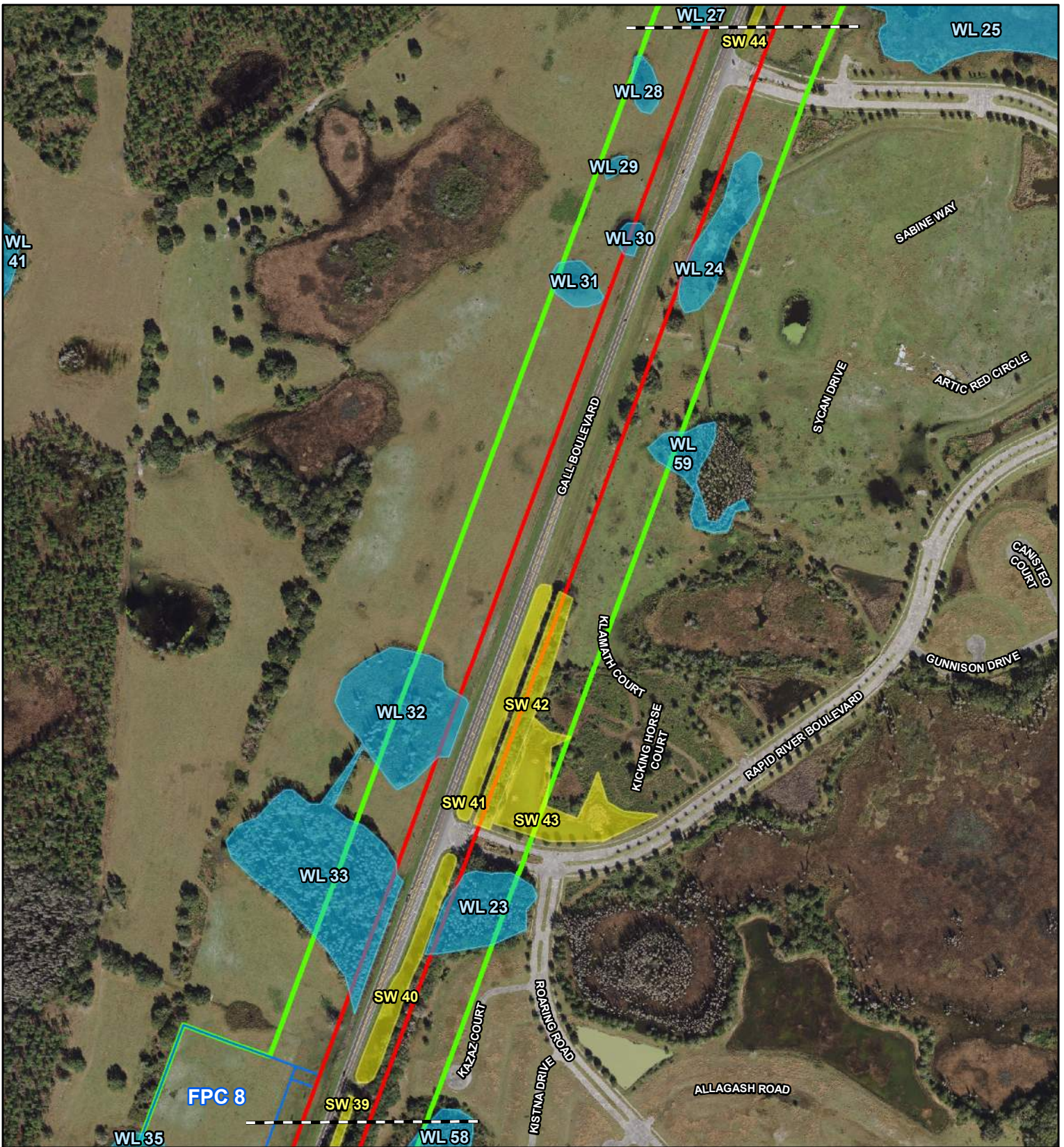


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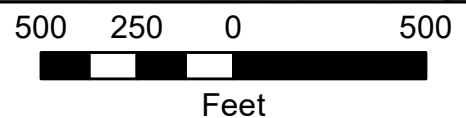
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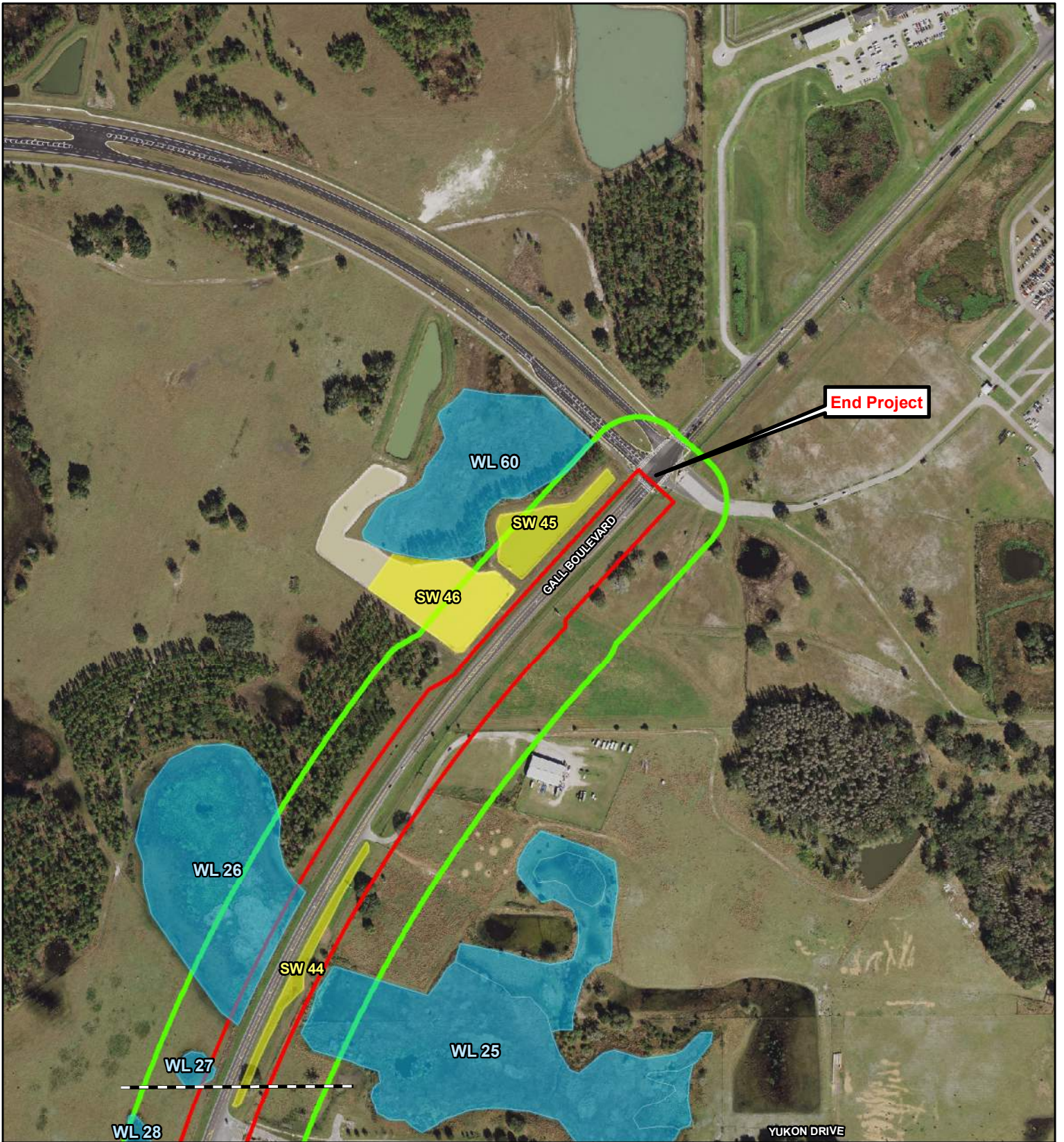
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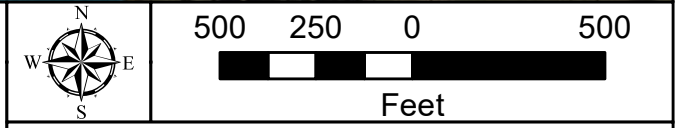


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 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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<b>Legend</b>	
	Project Study Area
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	Preferred Pond
	Surface Water
	Wetland



**Wetland/Surface Water Location Map**  
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***APPENDIX D***

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**Wetland and Surface Water Representative Photographs**



FLUCFCS 510: Streams and Waterways  
USFWS: R2UB2G



FLUCFCS 510: Streams and Waterways  
USFWS: R2UB2H



FLUCFCS 510: Streams and Waterways  
USFWS: PEM1Cx



FLUCFCS 510: Streams and Waterways  
USFWS: PEM1Ax



FLUCFCS 510: Streams and Waterways  
USFWS: PFO1Cx



FLUCFCS 510: Streams and Waterways  
USFWS: PFO1Ax



FLUCFCS 510: Streams and Waterways  
USFWS: PEM1Cx



FLUCFCS 534: Reservoirs < 10 acres  
USFWS: PEM1Cx



FLUCFCS 534: Reservoirs < 10 acres  
USFWS: PUBHx



FLUCFCS 615: Stream and Lake Swamps (Bottomland)  
USFWS: PFO1/2C



FLUCFCS 617: Mixed Wetland Hardwoods  
USFWS: PFO1C



FLUCFCS 621: Cypress  
USFWS: PFO2C



FLUCFCS 630: Wetland Forested Mixed  
USFWS: PFO1/2C



FLUCFCS 631: Wetland Scrub  
USFWS: PSS1C





FLUCFCS 641: Freshwater Marshes  
USFWS: PEM1C



FLUCFCS 644: Emergent Aquatic Vegetation  
USFWS: PAB4H

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***APPENDIX E***  
**Agency Coordination**

**Florida Department of  
Environmental Protection  
Agency Coordination**

## Megan Nicely

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**To:** Catie Neal  
**Subject:** RE: DOT ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

---

**From:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Sent:** Friday, May 22, 2020 1:49 PM  
**To:** Pinson, Brian <[Brian.Pinson@dep.state.fl.us](mailto:Brian.Pinson@dep.state.fl.us)>; Givens, Ezell <[Ezell.Givens@dep.state.fl.us](mailto:Ezell.Givens@dep.state.fl.us)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Zimmerman, Celena <[Celena.Zimmerman@FloridaDEP.gov](mailto:Celena.Zimmerman@FloridaDEP.gov)>; Bogen, Kirk <[Kirk.Bogen@dot.state.fl.us](mailto:Kirk.Bogen@dot.state.fl.us)>; Henzel, Ashley <[Ashley.Henzel@dot.state.fl.us](mailto:Ashley.Henzel@dot.state.fl.us)>; Catie Neal <[CNeal@kcaeng.com](mailto:CNeal@kcaeng.com)>; Bob Finck <[bfinck@aimengr.com](mailto:bfinck@aimengr.com)>; Jeffrey Jacquin <[jjacquin@aimengr.com](mailto:jjacquin@aimengr.com)>  
**Subject:** RE: DOT ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Good afternoon Brian,

We are currently completing the concept plans and beginning to evaluate pond sites throughout the corridor for the PD&E study. We are targeting a Public Hearing for late 2020/early 2021, and anticipate having the draft documents completed later this fall. A portion of the project that extends from the US 301 bridge over the Hillsborough River to SR 56 (FPID 255796-3) is currently funded for final design, however no portion of the project is currently funded for R/W or construction.

I also recently spoke with our project manager, natural resources team, and consultants retained for the project to go over the agency comments included in the ETDM Programming Summary Report. Comments from FDEP include a request to review the project for Section 4(f) impacts. However since this project is state funded, it will not be subject to the requirements of Section 4(f). We will be documenting the primary, secondary and cumulative impacts to natural resources in a Natural Resources Evaluation (NRE). The results of the NRE will be included in the environmental document or State Environmental Impact Report (SEIR). We also plan to take all measures to develop avoidance alternatives and/or measures to minimize harm to wetlands, surface waters, protected species, and habitat to the greatest extent practicable. We will also complete an evaluation of existing area stormwater treatment adequacy and details on the future stormwater treatment facilities. The project will be designed to meet state water quality and quantity requirements and the FDOT will implement proper BMPs during construction to ensure there are no violations to water quality standards.

If additional coordination is desired at this time given the status of the project, please let me know.

Thank you,



**Allison Conner**  
*Environmental Specialist III*  
Florida Department of Transportation  
District Seven – Planning & Environmental Management Office  
(813) 975-6455 / (800) 226-7220 x6455  
[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)

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**From:** Pinson, Brian <[Brian.Pinson@dep.state.fl.us](mailto:Brian.Pinson@dep.state.fl.us)>  
**Sent:** Thursday, May 14, 2020 6:09 PM  
**To:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>; Givens, Ezell <[Ezell.Givens@dep.state.fl.us](mailto:Ezell.Givens@dep.state.fl.us)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Zimmerman, Celena <[Celena.Zimmerman@FloridaDEP.gov](mailto:Celena.Zimmerman@FloridaDEP.gov)>  
**Subject:** RE: DOT ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Allison

Since it has been some time since we all met, could you provide us with any updates and status of when to expect some changes. Forgive me, I don't remember if you were at the meeting we had here but there were a few things we identified we would like to discuss and I hoped we could reconvene before the project got to o far along and we may miss an opportunity to share our concerns and ideas of how we will be affected.

Thanks in advance!  
Brian

---

**From:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Sent:** Wednesday, May 13, 2020 4:27 PM  
**To:** Pinson, Brian <[Brian.Pinson@dep.state.fl.us](mailto:Brian.Pinson@dep.state.fl.us)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Zimmerman, Celena <[Celena.Zimmerman@FloridaDEP.gov](mailto:Celena.Zimmerman@FloridaDEP.gov)>  
**Subject:** RE: DOT ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Wonderful! Thank you for your timely reply.



**Allison Conner**  
*Environmental Specialist III*  
Florida Department of Transportation  
District Seven – Planning & Environmental Management Office  
(813) 975-6455 / (800) 226-7220 x6455  
[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)

---

**From:** Pinson, Brian <[Brian.Pinson@dep.state.fl.us](mailto:Brian.Pinson@dep.state.fl.us)>  
**Sent:** Wednesday, May 13, 2020 3:18 PM  
**To:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Zimmerman, Celena <[Celena.Zimmerman@FloridaDEP.gov](mailto:Celena.Zimmerman@FloridaDEP.gov)>  
**Subject:** DOT ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

**EXTERNAL SENDER: Use caution with links and attachments.**

Allison

Thanks for reaching out to us. Here is the info you requested.

The *Campanula robinsiae* is located at the four following locations (central point for all plants found at that location);  
Orange; 28° 8.155' N, 82° 14.210' W  
Blue; 28° 8.250' N, 82° 13.812' W  
Yellow; 28° 8.518' N, 82° 14.292' W  
Gray; 28° 8.295' N, 82° 13.345' W

Thanks again and please let me know should you need anything else.

Brian

*Brian Pinson*

Park Manager  
Hillsborough River State Park  
Ybor City Museum State Park  
Fort Foster Historic Site  
15402 N US Highway 301,  
Thonotosassa, FL 33592  
813-987-6870

**From:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Sent:** Tuesday, May 12, 2020 3:51 PM  
**To:** Pinson, Brian <[Brian.Pinson@dep.state.fl.us](mailto:Brian.Pinson@dep.state.fl.us)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>  
**Subject:** ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Good afternoon Mr. Pinson,

District Seven is currently completing a Project Development and Environment (PD&E) Study for the widening of US 301 from the existing two-lane undivided arterial roadway to a four-lane divided arterial roadway to accommodate future travel demand in the study area. The study limits extend from the US 301/SR 41 intersection with Fowler Avenue (SR 582) in Hillsborough County to the SR 56/US 301 intersection in Pasco County. As you may know, this project intersects the Hillsborough River State Park. At a project coordination meeting held on August 2, 2015, FPS staff member Matthew Hodges indicated that the Park may have documented occurrence data for protected species within the Park, specifically the federally protected Brooksville bellflower (minutes attached).

Is there any way you can please confirm occurrence of this species or any other protected species in proximity to the project and provide any relevant data to support our PD&E Study? Any information you can share would be greatly appreciated.

Thank you,



**Allison Conner**  
*Environmental Specialist III*  
Florida Department of Transportation  
District Seven – Planning & Environmental Management Office  
(813) 975-6455 / (800) 226-7220 x6455  
[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)



CONFIDENTIALITY NOTE: This communication may be privileged and confidential. It should not be disseminated to others. If received in error, please immediately reply that you have received this communication in error and then delete it. Thank you.

# MEETING MINUTES



**AIM Engineering  
& Surveying, Inc.**

Tampa Office  
3802 Corporex Park Drive  
Suite 225  
Tampa, Florida 33619

813-627-4144  
888-627-4144  
Fax: 813-664-1899

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**Date:** August 21, 2015 at 11 am in the District Seven EMO Conference Room

**Subject:** FDEP Meeting regarding state lands adjacent to US 301  
WPI Segment No. 255796-1  
US 301 PD&E Study from Fowler Avenue to Future SR 56  
Hillsborough and Pasco Counties

**Attendee:** see attached sign-in sheet

**Prepared by:** Bob Finck, AIM

Stephanie Pierce began the meeting with introductions of the attendees both in person and on the bridge line. The list of attendees is provided on the sign-in sheet attached to these minutes (attendees with check marks are those that participated via telephone).

Sean Donahoo explained the general details of the project including the proposed improvements from 2 to 4 lanes with a planned schedule of 18 months. He further explained the reason for this meeting today was to discuss the challenges involved with acquiring additional right-of-way (ROW) through several areas of the project corridor where state-owned lands are located on both sides of the roadway. In order to assist with creating the typical section package and alignment alternative we wanted to discuss the options available with DEP and FDOT staff at this early stage of the project. More specific details of the conversation are included below:

- US 301 currently rests within 100 feet of ROW and approximately another 100 feet will be needed for the improvement.
- Sheets 17-20 on the base map plan sheets are of most interest for this discussion since this is the Hillsborough River State Park (HRSP) area.
- Lew Scruggs detailed the historical significance of HRSP and pointed out that the entire park is actually a cultural resource with several historical structures (built by the CCC in the 1930's) and Fort Foster located on the property. He asked about the applicability of a Section 4(f) evaluation as part of the project.
- Kirk Bogen explained that Section 4(f) requirements would not apply since there will be no federal funding expected and the environmental document will be a SEIR. However, the cultural resource assessment will follow the state process which includes coordination with SHPO.

The meeting minutes contained herein represent the author's understanding of the discussions which occurred during the referenced meeting. Any attendee who does not entirely agree with the summary or can offer additional information that should be noted within these minutes, please call **Sean Donahoo** at **(813) 627-4144** within two days.

- Mr. Scruggs asked if it would be possible to split the ROW between each side of US 301 instead of taking 100 feet from only one side, and if so will the stormwater management facilities fit within the proposed ROW.
- Mr. Donahoo answered that yes, it would be possible to split especially if it involved only one land owner (such as this state property). He further explained that the SW facilities may fit if a linear design but most likely will need to be offsite.
- Patti Cross mentioned that the HRSP property currently drains to the Hillsborough River and reminded everyone to keep in mind that the HR is currently classified an Outstanding Florida Waterway.
- Ms. Cross said that upon preliminary review of the plan sheets it looks as though widening to the east would result in fewer impacts to the HRSP property since the old railroad bed runs parallel to US 301 through this area. However, there are a lot of potential archaeological materials in this area. If widening to the west, then the new roadway would be very close to the historic CCC structures, so may need to split (as mentioned earlier) in the Ranch Road area
- Todd Bogner cited the very wet nature of the HRSP lands along the west side of US 301 as a concern if widening to the west.
- Ms. Cross added that there are two large events held at the park annually that use the RR bed as a parking area so this would have to be re-assessed if used for the improvement since there is not enough parking available inside the park currently.
- Ms. Cross also mentioned that the park uses a tram during these events to transfer visitors to Fort Foster from the park via the Ranch Road entrance. This tram would have to cross four lanes of high speed traffic with the improvement project.
  - *Regarding the Trams crossing 301, we give tours of Fort Foster on a weekly basis, as often as every Wednesday (in the winter), Saturday and Sunday (year round) depending on weather. The trams do not run during the special events generally speaking.*
- Ms. Cross mentioned an existing lack of access to HRSP parcel U-08-27-21-ZZZ-000003-27640.0, located along the east side of US 301 in the vicinity of station 825+00. She stated that this parcel is currently accessed via the adjacent Hickory Hills Land Company parcel U-08-27-21-ZZZ-000003-27610.0. She asked if access to the park will be maintained.
  - *There is actually a concern about access to our property on the East side of 301, both north of the river and south of Ranch Road (which is, I believe, the one you reference). Same issue on both is a lack of access, currently requiring us to coordinate entering private property first before accessing State Park lands. Our desire is that this project will allow us access directly off of 301 at two points, eliminating our need to pass through private lands.*
- Mr. Bogen replied that access to the HRSP will be maintained by this study's yet-to-be-determined recommended alternative.
- Matthew Hodges said that there are several listed plant species located on the east side near Model Dairy Road. One example is the endangered Brooksville Bellflower. He added that DEP has GIS layers of these locations that he would provide to the

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consultant team for use on this project. He also said that they have the master site file for the historic properties in the park and would provide this as well.

- *I believe it was mentioned by DOT staff present that our copies of the master site files were unnecessary as they either already had them or had direct access to them through the Department of State, Division of Historic Resources. So it was my understanding that DEP would not be providing the site files.*
- Ms. Cross mentioned that the paved portion of the Old Fort King Trail is located on the east side of US 301 from a crossing at John B. Sargent Park to another crossing further north (2.2 miles), where it connects with 6.7 miles of unpaved trail through SWFWMD and HRSP land on the west side. She believes the paved portion may have been created through a Rails to Trails partnership with the county originally.
- Ms. Cross further added that SWFWMD maintains the trail on their section and the HRSP portion is managed by DEP. Most of the unpaved trail on the west side of US 301 is very wet most of the year.

Scheduled project events discussed:

- Public Workshop to be held in December 2015.
- Public Hearing to be held in the summer of 2016.

-- End of Minutes --

- *Italicized comments represent amendments to bullets # 11, 12 and 14 received by Patti Cross via e-mail on 9/16/15 for clarification and subsequent incorporation into these minutes.*

The meeting minutes contained herein represent the author's understanding of the discussions which occurred during the referenced meeting. Any attendee who does not entirely agree with the summary or can offer additional information that should be noted within these minutes, please call **Sean Donahoo** at **(813) 627-4144** within two days.

# MEETING MINUTES



**AIM Engineering  
& Surveying, Inc.**

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Fax: 813-664-1899

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**Date:** January 20, 2017 at 2:00 PM at the Hillsborough River State Park Recreation Hall  
15402 US 301 N., Thonotosassa, Florida.

**Subject:** Small group meeting: FPID# 255796-1: US 301 PD&E Study from Fowler Avenue to  
Proposed SR 56 PD&E study presentation  
WPI Segment No. 255796-1  
Hillsborough and Pasco Counties

**Attendees:** Lilliam Escalera – FDOT  
Diane Martin – Florida Department of Environmental Protection (DEP) Office of Park  
Planning, Division of Recreation and Parks (DRP)  
Sine Murray - DEP Office of Park Planning, DRP  
Ezell Givens - DEP Office of Park Planning, DRP  
Brian Pinson - DEP Park Manager  
Patricia Cross - DEP Assistant Park Manager  
Bob Finck and Jeffrey Jacquin – AIM  
(Sign in sheet attached)

**Prepared by:** Bob Finck, AIM (utilizing meeting notes prepared by Diane Martin, DEP)

*The purpose of this meeting was to present the current project status and data associated with the evaluation of the engineering and environmental effects of the proposed widening of US 301 from an existing two-lane undivided roadway to a four-lane divided roadway. As part of the Department's public involvement plan the solicitation of stakeholder input during this phase of the PD&E study is essential to assist the decision-making process as related to the proposed improvements. This meeting focused on the proposed project's potential effects on the Hillsborough River State Park.*

Bob Finck, the consultant project manager, began the meeting by providing a brief overview of the project's history, beginning in June of 2015 and continuing to the present, as it relates to the current proposed typical sections and the concept development process. Mr. Finck then referred to a roll plot of the proposed concept showing the engineering details associated with the widening of US 301 including the proposed ROW, business and residential relocations, shared use path locations and utility concerns to assist with the discussion. A PowerPoint presentation was then shown to highlight details related to the proposed project's description (including access management and proposed typical sections) and need, the PD&E Study process, current project status, funding schedule, website location and FDOT contact information. Additional details included information related to Florida Gas Transmission (FGT) lines, the Old Fort King Trail and Hillsborough

The meeting minutes contained herein represent the author's understanding of the discussions which occurred during the referenced meeting. Any attendee who does not entirely agree with the summary or can offer additional information that should be noted within these minutes, please call **Bob Finck** at **(813) 574-0221** within seven days.

River State Park. More specific details of the conversation that occurred during the presentation are included below:

BACKGROUND INFORMATION:

- The proposed project begins in Hillsborough County at the intersection of US 301 and SR 582/Fowler Avenue.
- The proposed project ends in Pasco County at the intersection of US 301 and the proposed extension of SR 56, just south of Zephyrhills Correctional.
- The project proposes widening of US301 to a four-lane, divided highway.
- The proposed project will include pedestrian and bicycle facilities from Fowler Avenue to the proposed extension of SR56.
- FDOT District 7 will need an additional 135 feet of right-of-way (current r/w is 100') based on the proposed rural typical section from Stacy Road to proposed SR56.
- The proposed project will impact state park lands (on both sides of US 301 in some areas).
- FDOT is currently conducting a PD&E Study with a targeted completion scheduled for the fall of 2017.
- The design phase is currently funded for fiscal year 2019.
- The construction and right-of-way phases are currently not funded.
- There are not any Section 4(f) requirements associated with this project since it is not federally funded.
- The environmental document will be a State Environmental Impact Report (SEIR).
- Supporting environmental documentation will include a Cultural Resource Assessment Survey (CRAS) that includes cultural resource assessment coordination with the State Historic Preservation Officer (SHPO), a Contamination Screening Evaluation Report (CSER) and a Natural Resources Evaluation (NRE).
- US301 is currently designated an Emergency Evacuation Route.

DISCUSSION ITEMS:

- DRP and FDOT discussed whether to move the shared use path to the park side of US301 (the roadway would have 7' wide paved shoulders). The shared use path is currently proposed to be 10'- 12' wide.
- FDOT stated they will be relocating the three wooden bridges associated with the Old Fort King Trail from their current location on the east side of US 301 to the park side of US301 (west side).
- DRP recommends fencing along the sidewalk near the Fort, from the gate to the bridge, to protect park property from trespassers.

The meeting minutes contained herein represent the author's understanding of the discussions which occurred during the referenced meeting. Any attendee who does not entirely agree with the summary or can offer additional information that should be noted within these minutes, please call **Bob Finck** at **(813) 574-0221** within seven days.

- DRP recommends installing an emergency access system, such as a traffic device/light and crosswalk, at the passenger tram crossover, which would effectively stop traffic during tram operations going back and forth across US301.
- DRP recommends several safety items be considered by FDOT, including installing a flashing sign before the bridge warning motorists of the upcoming tram crossover (current speed limit is 60 mph); possible reduction of vehicular speed in this area; possible connector access under the bridge (which was a safety solution at SR40); and construction of an overpass over US301, which would provide optimum safety for both tram passengers and motorists
- The DRP Park Manager will provide details on tram crossings (how many per day/busy season, etc.) and will coordinate with DRP's Office of Park Planning and FDOT.
- FDOT agrees to carefully analyze the design for a tram crossover and to coordinate the design with DRP.
- DRP recommends that FDOT obtain a traffic study to justify what type of improvements would be recommended at the tram crossover.
- DRP recommends that FDOT install a directional median cut at the park entrance to facilitate the entry and exit of park visitors in the safest possible manner.
- DRP suggests consideration of appropriate signage along the roadway to warn approaching motorists of active control burns and smoke.
- DRP and FDOT should work closely on the design of stormwater management facilities needed as part of the project. DRP recommends solutions that do not require the use of retention ponds within the park boundary and points out that any design would need to divert or minimize any additional flow into the park.
- FDOT informs DRP that roadside ditches would be constructed and a full drainage analysis would be completed during the PD&E Study. FDOT agrees to coordinate drainage plans with DRP.
- FDOT explains that the southern end of project (near Fowler Ave.) is problematic since FGT has existing gas lines along the east side of US301 (Fowler Ave. to south of Stacy Road – approximately 3 miles). The proposed design will either have to avoid this area or relocate the gas lines.
- DRP recommends that FDOT evaluate the need for wildlife crossing(s) and fencing during the PD&E Study, and that FDOT coordinate with FFWCC to obtain current data.
- DRP informs FDOT that the Division's Historic Preservationist would be reviewing the details of the proposed project as part of DRP's overall review.
- DRP explains that the approval process for FDOT to obtain the upland easement will be dependent upon compliance with the Board of Trustees' Linear Facilities Policy (attached). This includes FDOT satisfying the Policy's additional compensation requirement to provide replacement lands or goods and/or services to DRP based on 1.5 times the appraised value of the easement area.
- DRP confirms the lease between DRP and the County expires in April of 2022.

-- End of Minutes --

The meeting minutes contained herein represent the author's understanding of the discussions which occurred during the referenced meeting. Any attendee who does not entirely agree with the summary or can offer additional information that should be noted within these minutes, please call **Bob Finck** at **(813) 574-0221** within seven days.

**Sovereign Submerged Lands  
Agency Coordination**



## Florida Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Rick Scott  
Governor

Carlos Lopez-Cantera  
Lt. Governor

Jonathan P. Steverson  
Secretary

Ms. Ashley Abdel-Hadi  
Kisinger Campo and Associates Corp.  
201 N. Franklin Street, Suite 400  
Tampa, Florida 33602

RE: US 301, Hillsborough County

Dear Ms. Abdel-Hadi:

This letter is in response to your request for a determination of ownership for Flint Creek, Flint Creek Relief, Holloman's Branch, Two Holes Branch and the Hillsborough River, along US 301, from Fowler Avenue to the proposed SR 56.

Our records indicate title to submerged lands previously owned by the State of Florida within the boundaries of Hillsborough County was transferred to the Tampa Port Authority, pursuant to Chapter 95-488, Laws of Florida, 1995. Please contact the Tampa Port Authority for information concerning ownership of submerged lands located along the proposed project site area.

The conclusions stated herein are based on a review of records currently available within the Department of Environmental Protection, as supplemented in some cases by information furnished by the requesting party, and do not constitute a legal opinion of title. A permit from the Department of Environmental Protection or other state, federal, or local government agencies may be required prior to conducting activities at these sites.

Should you have any questions regarding this determination, please contact Jennie Kasdorf, GOC I, at the above address, Mail Station 108, or 850/245-2799.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rod A. Maddox".

Rod A. Maddox, PSM, Program Manager  
Bureau of Survey and Mapping  
Division of State Lands

RAM/jk  
Attachments: Chapter 95-488, Laws of Florida, 1995

May 17, 2016

Tampa Port Authority  
1101 Channelside Drive  
Tampa, FL 33602

Re: **Sovereignty Submerged Lands Determination Request**  
**US 301 from Fowler Avenue to Proposed SR 56**  
**Hillsborough and Pasco Counties**  
**Sections 2, 3, 4, 8, 9, 10, and 17 Township 28S, and Range 20E; Sections 25, 35, and 36, Township**  
**27S, and Range 20E; Sections 4, 8, 9, 17, 19, 20, and 30, Township 27S, and Range 21E; and Sections**  
**27, 28, and 33, Township 26S, and Range 21E**  
**FPID Number: 255796-1-22-01**

To Whom It May Concern,

Kisinger Campo & Associates is conducting an environmental analysis on the behalf of the Florida Department of Transportation, District 7 (FDOT D7) for proposed improvements to a 13.1 mile segment of US 301 extending from Fowler Avenue to the proposed SR 56 extension, in Hillsborough and Pasco Counties, Florida. The project crosses four freshwater creeks: Flint Creek, Flint Creek Relief, Hollomans Branch, Two Holes Branch, and the Hillsborough River. Their locations can be seen on the attached Project Location Map and Quadrangle Map, and include:

- **Flint Creek** is a freshwater creek that flows southward to the Hillsborough River. The creek runs under US 301 beneath a bridge crossing. Field reviews show that the flow of this creek has been altered due to a direct connection with a large channelized ditch running parallel the east side of US 301. It is located at Latitude: 28.086287° Longitude: -82.271006°.
- **Flint Creek Relief** is an intermittent freshwater creek that flows southward to the Hillsborough River. The creek runs under US 301 beneath a bridge crossing. Field reviews show that the flow of this creek has been altered due to a direct connection with a large channelized ditch running parallel the east side of US 301. It is located at Latitude: 28.091401° Longitude: -82.263767°.
- **Hollomans Branch** is a freshwater creek that flows southward to the Hillsborough River. The creek runs under US 301 beneath a bridge crossing. It is located at Latitude: 28.097832° Longitude: -82.255324°.
- **Two Holes Branch** is an intermittent freshwater creek that flows southward to the Hillsborough River. The creek runs under US 301 through a box culvert. Field reviews show that the flow of this creek has been altered due to a direct connection with a large channelized ditch running parallel the east side of US 301. It is located at Latitude: 28.124735° Longitude: -82.237295°.
- **Hillsborough River** is a freshwater river that flows southward to its confluence with Hillsborough Bay. The river runs under US 301 beneath a bridge crossing. It is located at Latitude: 28.149909° Longitude: -82.221194°.

As part of our environmental analysis, we are requesting a Sovereignty Submerged Lands determination for the above listed channels. Please refer to the attached figures to facilitate your determination.

We appreciate your prompt response to this request for a Sovereignty Submerged Lands determination for the referenced channels. If you have any questions or require additional information, please contact me at [ashley.abdelhadi@kisingercampo.com](mailto:ashley.abdelhadi@kisingercampo.com) or 813.871.5331.

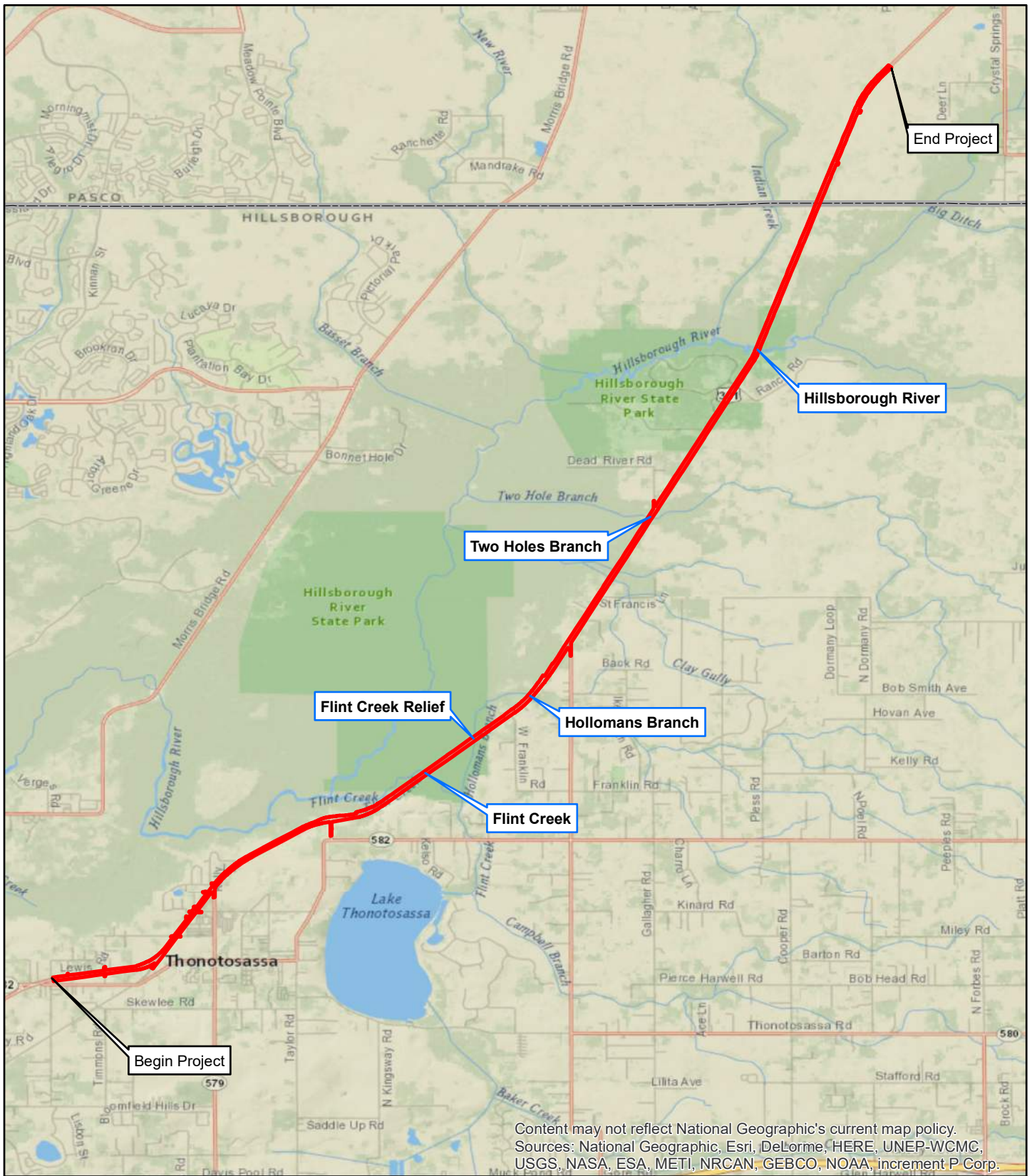
Sincerely,



Ashley Abdel-Hadi  
Environmental Scientist

Attachments: Project Location Map  
Project Quadrangle Map

cc. Files





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 Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.



**Legend**

Project

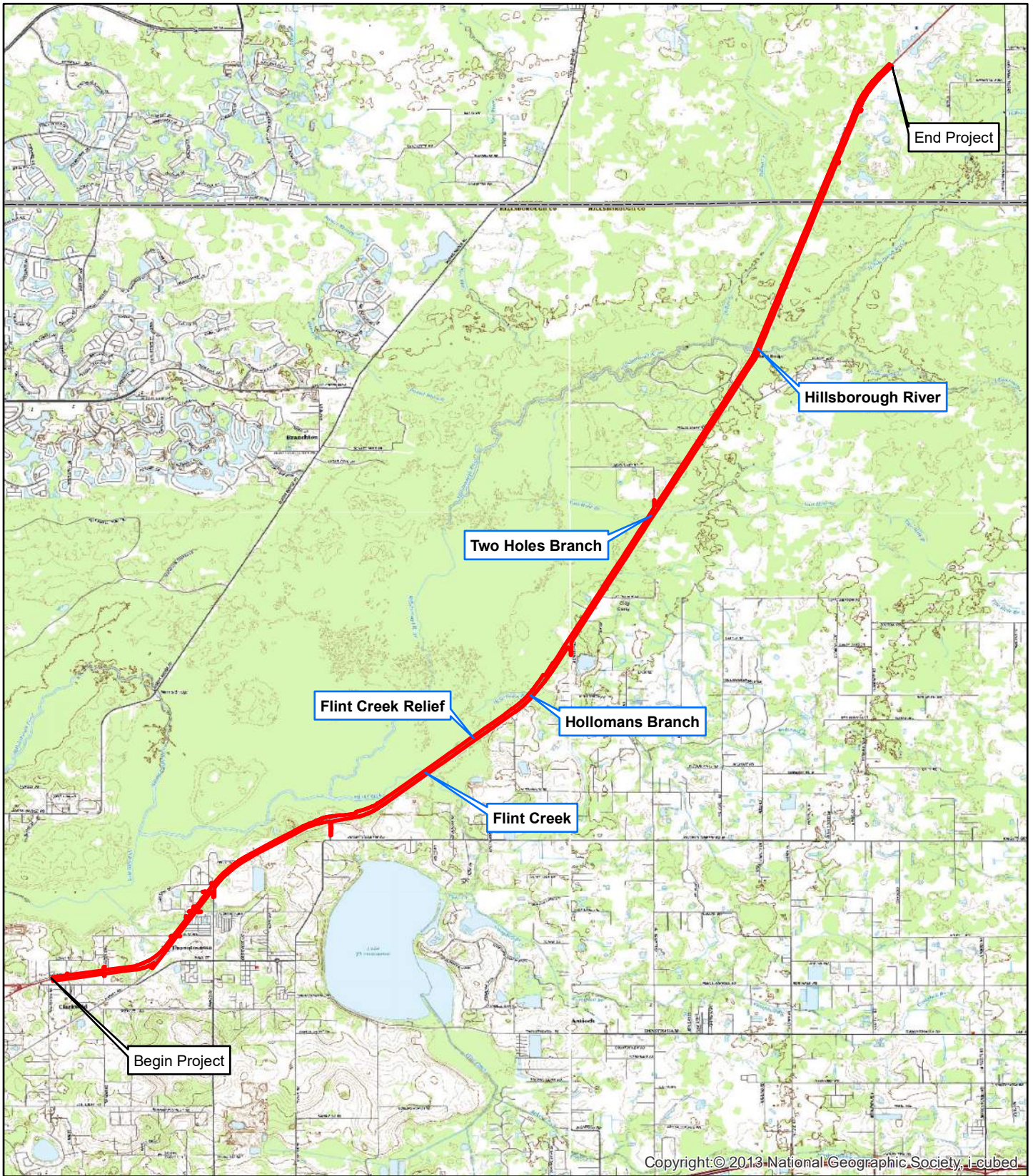

1.5   0.75   0   1.5  
  
 Miles

**Project Location Map**  
**US 301 From Fowler Avenue**  
**to Proposed SR 56**  
**Hillsborough/Pasco County, Florida**  
**FPID Number: 255796-1-22-01**

Kisinger Campo & Associates, Corp.  
 201 N. Franklin Street, Suite 400  
 Tampa, FL 33602  
 Phone: 813/871-5331  
 Fax: 813/871-5135

Figure 1

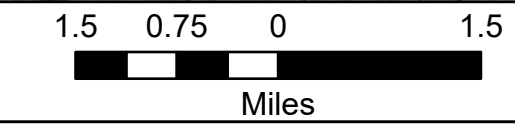




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**Legend**  
 Project Area



**Project Location Map**  
**US 301 From Fowler Avenue**  
**to Proposed SR 56**  
**Hillsborough/Pasco County, Florida**  
**FPID Number: 255796-1-22-01**

Kisinger Campo & Associates, Corp.  
 201 N. Franklin Street, Suite 400  
 Tampa, FL 33602  
 Phone: 813/871-5331  
 Fax: 813/871-5135

**Figure 1**

August 11, 2016

Ms. Ashley Abdel-Hadi  
Kisinger Campo & Associates  
201 N. Franklin St., Suite 400  
Tampa, FL 33602

**Subject: REQUEST FOR SOVEREIGNTY SUBMERGED LANDS  
DETERMINATION FOR FDOT US 301 PROJECT FROM FOWLER  
AVENUE TO PROPOSED SR 56**

Dear Ms. Abdel-Hadi:

The letter is in response to your request for a Sovereignty Submerged Lands (SSL) determination for the subject project. Based upon field reviews, a review of historical information, and discussions with staff of the Florida Department of Environmental Protection (FDEP), the Tampa Port Authority offers the following:

- Flint Creek, Hollomans Branch, and the Hillsborough River appear to be Sovereignty Submerged Lands in the vicinity of the project area.
- Flint Creek Relief and Two Holes Branch do **not** appear to be Sovereignty Submerged Lands in the vicinity of the project area.
- See attached map

Therefore, permitting of the proposed project would require (1) a TPA Marine Construction Permit and (2) a separate Sovereignty Submerged Lands Authorization issued by the Tampa Port Authority. The SSL authorization would be in the form of an Easement.

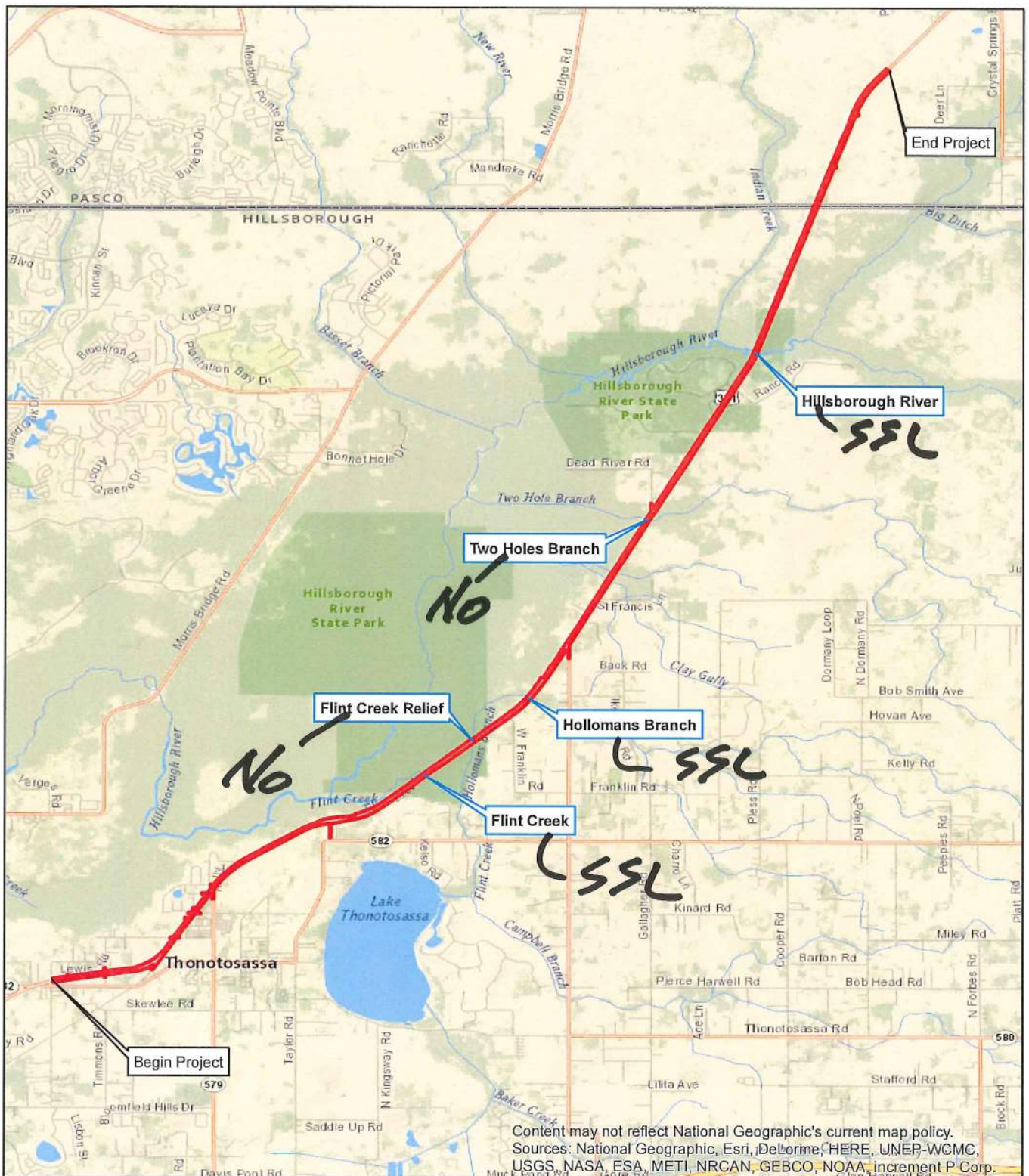
This determination was based on a review of information currently available to the TPA and does not constitute a legal opinion of title.

Should you have any questions regarding this matter, please call me at (813) 905-5030.

Sincerely,



Christopher J. Cooley  
Director of Environmental Affairs  
Tampa Port Authority

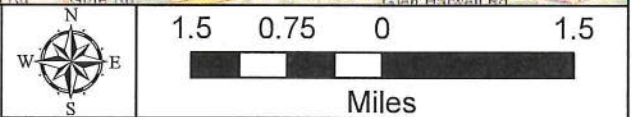


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 Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.



**Legend**

Project



**Project Location Map**  
**US 301 From Fowler Avenue**  
**to Proposed SR 56**  
**Hillsborough/Pasco County, Florida**  
**FPID Number: 255796-1-22-01**

Kisinger Campo & Associates, Corp.  
 201 N. Franklin Street, Suite 400  
 Tampa, FL 33602  
 Phone: 813/871-5331  
 Fax: 813/871-5135

Figure 1

**U.S. Fish and Wildlife Service  
Agency Coordination**

## Megan Nicely

---

**To:** Catie Neal  
**Subject:** RE: [EXTERNAL] ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

---

**From:** Williams, Zakia <[zakia\\_williams@fws.gov](mailto:zakia_williams@fws.gov)>  
**Sent:** Wednesday, May 13, 2020 3:48 PM  
**To:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Subject:** Re: [EXTERNAL] ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

**EXTERNAL SENDER: Use caution with links and attachments.**

Allison,

One of the comments requests coordination for wetland impacts as they relate to wood stork suitable habitat. However, the effect determination key for the wood stork indicates that the project would qualify as a MANLAA and no additional consultation is required. We would like to confirm that this is still the case and no further coordination is needed.

**This is still the case, if the effect determination key led to a MANLAA then no further consultation is needed.**

Another comment states that coordination with the Office of Migratory Birds (OMB) is required for bald eagle nests within 200 feet of the project. We recently confirmed there may be active nests within 200 feet of the project action area. However, the project is not currently funded for construction and has only been funded for Phase I Design. What level of coordination do you recommend for the PD&E phase? Would a project commitment to initiate coordination with the OMB during the design phase meet USFWS expectations regarding the project's involvement with bald eagles?

**The eagle permit would go to the OMB office and I am not sure at what phase FDOT submit applications for permit. I would contact the OMB office.**

Hope this clears things up for you. Please let me know if you have additional questions.

Thanks,

Zakia

*Zakia Williams*

Fish and Wildlife Biologist  
US Fish and Wildlife Service  
7915 Baymeadows Way, Ste. 200  
Jacksonville, Florida 32256  
(o) 904-731-3119  
(f) 904-731-3045  
(c) 904-200-2678

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^ ^

*Note: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.*

---

**From:** Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
**Sent:** Tuesday, May 12, 2020 3:31 PM  
**To:** Williams, Zakia <[zakia\\_williams@fws.gov](mailto:zakia_williams@fws.gov)>  
**Cc:** Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>  
**Subject:** [EXTERNAL] ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Good afternoon Zakia,

Hope you are well. District Seven is currently conducting a PD&E Study for the above referenced project. We recently reviewed the ETDM Summary Report (attached) and would like to get your feedback regarding a couple of the USFWS comments.

One of the comments requests coordination for wetland impacts as they relate to wood stork suitable habitat. However, the effect determination key for the wood stork indicates that the project would qualify as a MANLAA and no additional consultation is required. We would like to confirm that this is still the case and no further coordination is needed.

Another comment states that coordination with the Office of Migratory Birds (OMB) is required for bald eagle nests within 200 feet of the project. We recently confirmed may be active nests within 200 feet of the project action area. However, the project is not currently funded for construction and has only been funded for Phase I Design. What level of coordination do you recommend for the PD&E phase? Would a project commitment to initiate coordination with the OMB during the design phase meet USFWS expectations regarding the project’s involvement with bald eagles?

Please let me know your thoughts regarding these comments at your earliest convenience. If additional USFWS coordination is needed during PD&E, we would like to include this in the scope and staff hours currently under negotiation.

Thank you,



**Allison Conner**

*Environmental Specialist III*

Florida Department of Transportation

District Seven – Planning & Environmental Management Office

(813) 975-6455 / (800) 226-7220 x6455

[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)

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**U.S. Army Corps of Engineers  
Agency Coordination**



## Megan Nicely

---

**To:** Catie Neal  
**Subject:** RE: ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

-----Original Message-----

From: Turner, Randy L CIV USARMY CESAJ (USA) <[Randy.L.Turner@usace.army.mil](mailto:Randy.L.Turner@usace.army.mil)>  
Sent: Wednesday, May 13, 2020 10:57 AM  
To: Conner, Allison <[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us)>  
Cc: Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Bogen, Kirk <[Kirk.Bogen@dot.state.fl.us](mailto:Kirk.Bogen@dot.state.fl.us)>; Henzel, Ashley <[Ashley.Henzel@dot.state.fl.us](mailto:Ashley.Henzel@dot.state.fl.us)>  
Subject: RE: ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

EXTERNAL SENDER: Use caution with links and attachments.

Good morning Allison,

I do not see any need for the Corps to participate in the PD&E Study. Emphasis should continue to avoidance and minimization for impacts to waters of the U.S. (WOUS) (wetlands and surface waters) and then a compensatory mitigation plan that is in accordance with the compensatory mitigation rule for unavoidable impacts to WOUS.

Thank you,

Randy

LTC (Ret) Randy L. Turner  
"Soldier for Life"  
Project Manager  
U.S. Army Corps of Engineers  
904-232-1670

\*NOTICE: As of October 01, 2017, the Corps will no longer accept joint permit applications from the Florida Department of Environmental Protection or Water Management Districts. All permit applications must be made via the ENG 4345 form and submitted directly to the Jacksonville District Corps Regulatory Division. All FDOT projects should be sent to [CorpsJaxReg-FDOT@usace.army.mil](mailto:CorpsJaxReg-FDOT@usace.army.mil). For files greater than 15MB in size, please contact me directly to coordinate file transfers.

Please download the ENG 4345 application form

here: Blocked[https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.usace.army.mil%2FPortals%2F2%2Fdocs%2Fcivilworks%2Fregulatory%2Fengform\\_4345\\_2017sept.pdf%3Fver%3D2017-09-15-114727-167&data=02%7C01%7CAllison.Conner%40dot.state.fl.us%7C3dd0ff3453274d1f2a2708d7f74e0d25%7Cdb21de5dbc9c420c8f3f8f08f85b5ada%7C0%7C1%7C637249786921552807&sdata=ZyqBDDku8lOBdRF3DiybxJ9tJbEcb%2F9brmdqeMq1IHc%3D&reserved=0](https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.usace.army.mil%2FPortals%2F2%2Fdocs%2Fcivilworks%2Fregulatory%2Fengform_4345_2017sept.pdf%3Fver%3D2017-09-15-114727-167&data=02%7C01%7CAllison.Conner%40dot.state.fl.us%7C3dd0ff3453274d1f2a2708d7f74e0d25%7Cdb21de5dbc9c420c8f3f8f08f85b5ada%7C0%7C1%7C637249786921552807&sdata=ZyqBDDku8lOBdRF3DiybxJ9tJbEcb%2F9brmdqeMq1IHc%3D&reserved=0)

Please download the application checklist

here: Blocked[https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.saj.usace.army.mil%2FPortals%2F44%2Fdocs%2Fregulatory%2Fsourcebook%2Fpermitting%2Fforms%2Fchecklists%2Fchecklist\\_ENG4345fillable.pdf&data=02%7C01%7CAllison.Conner%40dot.state.fl.us%7C3dd0ff3453274d1f2a2708d7f74e0d25%7Cdb21de5dbc9c420c8f3f8f08f85b5ada%7C0%7C1%7C637249786921562769&sdata=XGQl0Q9J4oTydPvunyH1yl1dU5yM7m7m9s6sGSGpC84%3D&reserved=0](https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.saj.usace.army.mil%2FPortals%2F44%2Fdocs%2Fregulatory%2Fsourcebook%2Fpermitting%2Fforms%2Fchecklists%2Fchecklist_ENG4345fillable.pdf&data=02%7C01%7CAllison.Conner%40dot.state.fl.us%7C3dd0ff3453274d1f2a2708d7f74e0d25%7Cdb21de5dbc9c420c8f3f8f08f85b5ada%7C0%7C1%7C637249786921562769&sdata=XGQl0Q9J4oTydPvunyH1yl1dU5yM7m7m9s6sGSGpC84%3D&reserved=0)

Please send all COMPLIANCE-RELATED documents to [SAJ-RD-Enforcement@usace.army.mil](mailto:SAJ-RD-Enforcement@usace.army.mil)

-----Original Message-----

From: Conner, Allison [<mailto:Allison.Conner@dot.state.fl.us>]

Sent: Wednesday, May 13, 2020 8:03 AM

To: Turner, Randy L CIV USARMY CESAJ (USA) <[Randy.L.Turner@usace.army.mil](mailto:Randy.L.Turner@usace.army.mil)>

Cc: Rhinesmith, Robin <[Robin.Rhinesmith@dot.state.fl.us](mailto:Robin.Rhinesmith@dot.state.fl.us)>; Bogen, Kirk <[Kirk.Bogen@dot.state.fl.us](mailto:Kirk.Bogen@dot.state.fl.us)>; Henzel, Ashley <[Ashley.Henzel@dot.state.fl.us](mailto:Ashley.Henzel@dot.state.fl.us)>

Subject: [Non-DoD Source] ETDM Project #14194 - US 301 from Fowler Ave. to proposed SR 56

Good morning Randy,

As you may know, District Seven is completing a PD&E Study for the above referenced project which consists of widening US 301 from the existing two-lane undivided arterial roadway to a four-lane divided arterial roadway to accommodate future travel demand in the study area. The study limits extend from the US 301/SR 41 intersection with Fowler Avenue (SR 582) in Hillsborough County to the SR 56/US 301 intersection in Pasco County.

Although Participating Agencies and Cooperating Agencies are not applicable to this project, the ETDM Summary Report (attached) indicates the USACE may require additional PD&E coordination. Please let us know at your earliest convenience whether any additional USACE coordination is needed during the PD&E portion of this project. If additional USACE coordination is needed, we would like to include this in the scope and staff hours currently under negotiation.

Thank you,

<Blocked<https://www.fdot.gov/>>

Allison Conner

Environmental Specialist III

Florida Department of Transportation

District Seven - Planning & Environmental Management Office

(813) 975-6455 / (800) 226-7220 x6455

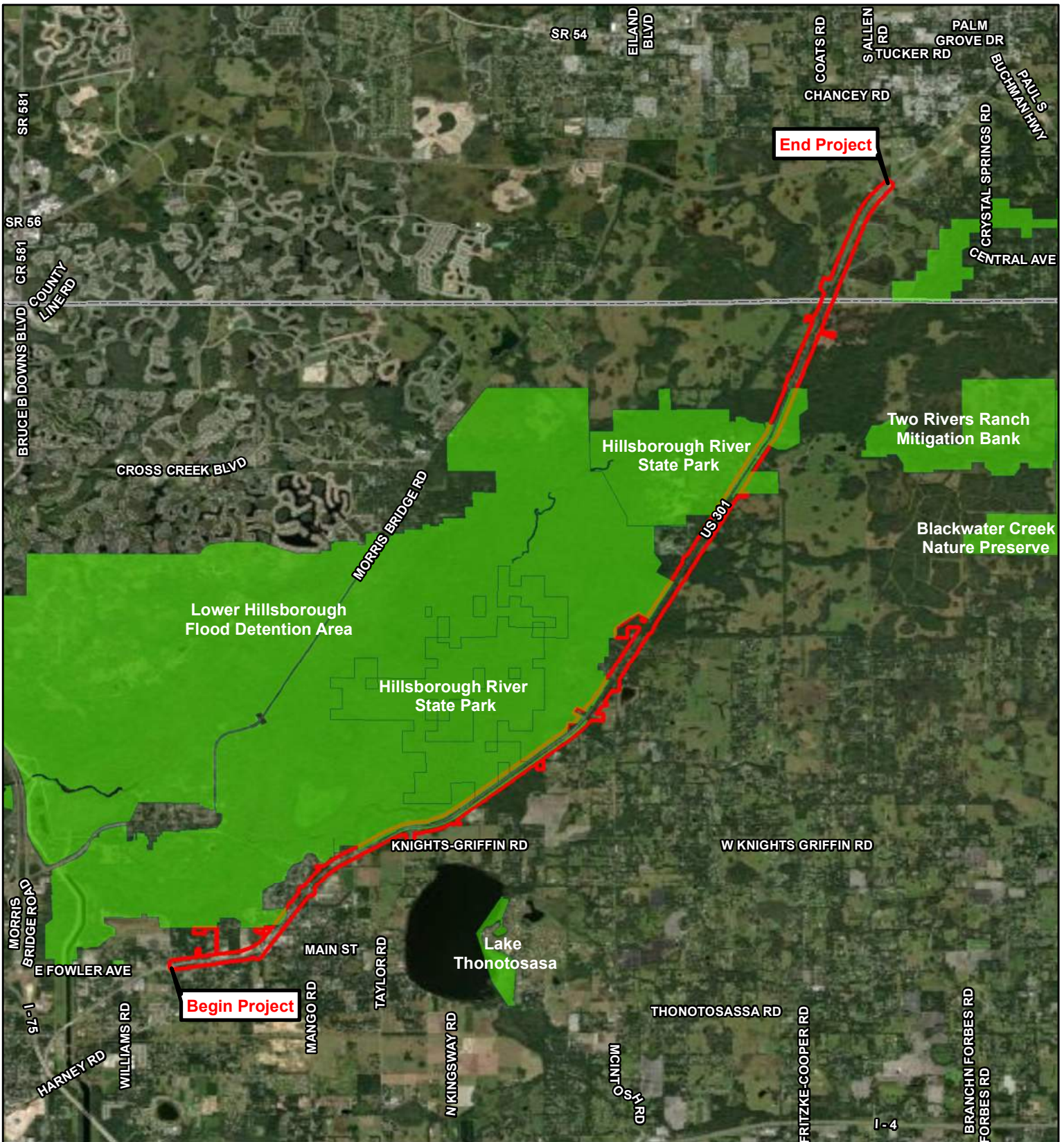
[Allison.Conner@dot.state.fl.us](mailto:Allison.Conner@dot.state.fl.us) <<mailto:Allison.Conner@dot.state.fl.us>>

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***APPENDIX F***

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**Conservation Lands Map**



**Begin Project**

**End Project**



**Legend**

- Project Study Area
- Conservation Lands

Miles

**Conservation Lands Map**  
**US 301 from Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

Kisinger Campo & Associates, Corp.  
 201 N. Franklin Street, Suite 400  
 Tampa, FL 33602  
 Phone: 813/871-5331  
[www.kisingercampo.com](http://www.kisingercampo.com)

Appendix F

***APPENDIX G***

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**Florida Natural Areas Inventory Standard Data Report**



1018 Thomasville Road  
Suite 200-C  
Tallahassee, FL 32303  
850-224-8207  
fax 850-681-9364  
www.fnai.org

March 10, 2016

Ashley Abdel-Hadi  
Kisinger Campo & Associates  
201 North Franklin Street, Suite 400  
Tampa, FL 33602

Dear Ms. Abdel-Hadi,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

**Project:** US 301 from Fowler Ave to Proposed SR 56  
**Date Received:** 3/7/2016  
**Location:** Hillsborough and Pasco Counties

**Based on the information available, this site appears to be located in a significant region of natural areas and habitat for several rare species. Special consideration should be taken to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources.**

#### **Element Occurrences**

A search of our maps and database indicates that we currently have several element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

#### Federally Listed Species

Our data indicate federally listed species, particularly *Campanula robinsiae* (Brooksville Bellflower), are present on or very near this site (see enclosed map and tables for details). Also there are historical records for *Drymarchon couperi* (Eastern Indigo Snake) on or very near this site. This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.

*The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.*

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational*



Florida Resources  
and Environmental  
Analysis Center

Institute of Science  
and Public Affairs

The Florida State University

*Tracking Florida's Biodiversity*

*data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*

### **Likely and Potential Rare Species**

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

*FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.*

*FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.*

*The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.*

### **Managed Areas**

Portions of the site appear to be adjacent to the Lower Hillsborough Flood Detention Area, managed by the Southwest Florida Water Management District, and the Hillsborough River State Park, managed by Florida Dept. of Environmental Protection, Div. of Recreation and Parks.

*The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.*

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit [www.fnai.org/trackinglist.cfm](http://www.fnai.org/trackinglist.cfm) for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. An invoice will be mailed separately. If I can be of further assistance, please contact me at (850) 224-8207 or at [npasco@fnai.fsu.edu](mailto:npasco@fnai.fsu.edu).

Sincerely,

*Nathan Pasco*

Nathan Pasco  
GIS / Data Services  
Encl



1018 Thomasville Road  
Suite 200C  
Tallahassee, FL 32303  
(850) 224-8207  
(850) 881-9364 Fax  
www.fnai.org

- Element Occurrences**
- Animals
  - Plants
  - Communities
  - Other
  - Data Sensitive
- Point Indicates General Vicinity of Element

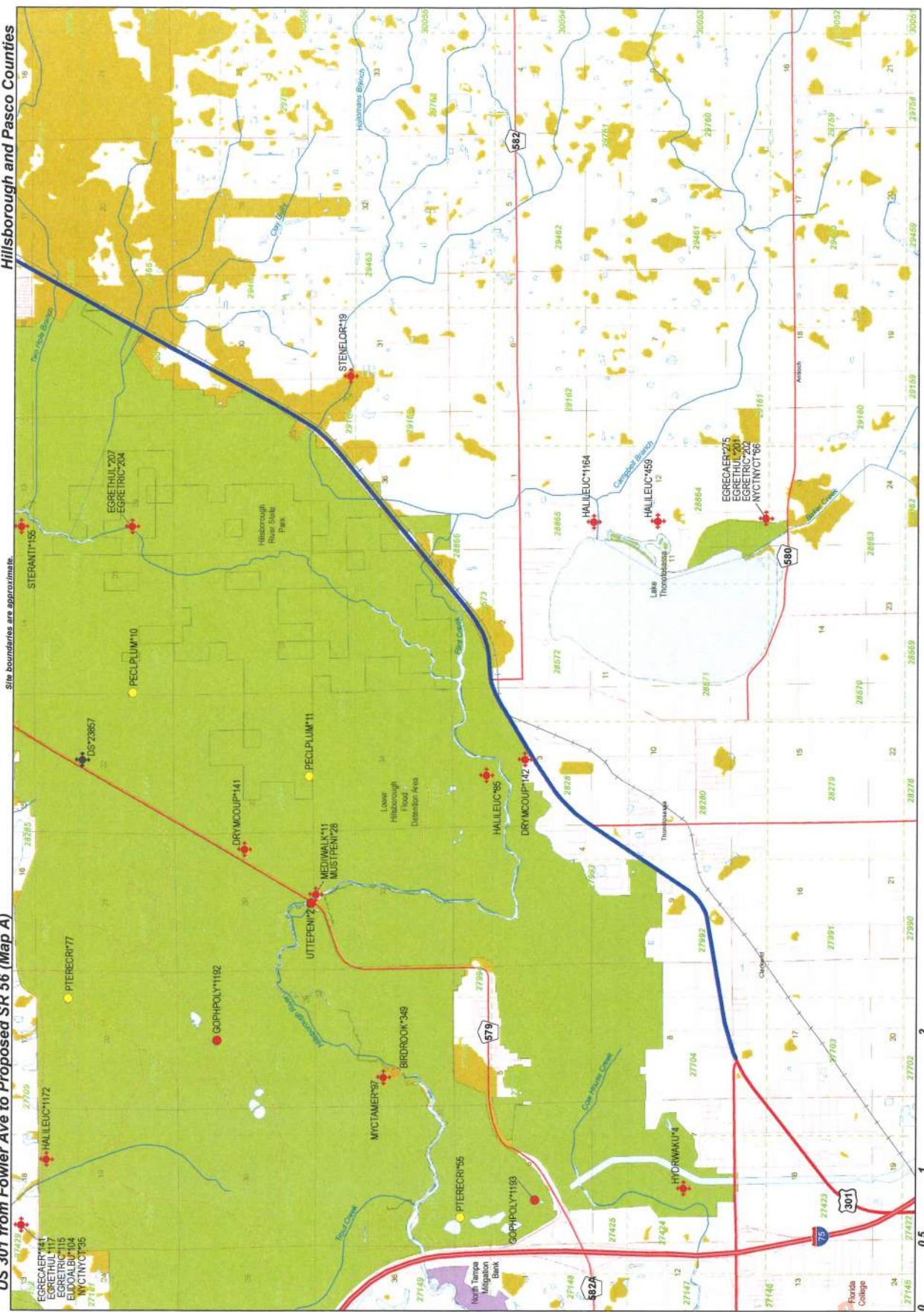
U.S. Fish & Wildlife Service  
Scrub Jay Survey 1992-96

- Conservation Lands**
- Federal
  - State
  - Local
  - Private
  - State Aquatic Preserves

- Land Acquisition Projects**
- Florida Forever
  - Board of Trustees Projects

- FNAI Rare Species**
- Habitat
  - FNAI Biodiversity Matrix
  - Square Mile Units

- County Boundary**
- Interstate
  - Turnpike
  - Major Highway
  - Local Road
  - Railroad (Inactive railroads shown in Gray)
  - Water



Site boundaries are approximate.



**NOTE**  
Map should not be interpreted without accompanying documents.





Hillsborough and Pasco Counties

US 301 from Fowler Ave to Proposed SR 56 (Map B)

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 Suite 200-C  
 Tallahassee, FL 32303  
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 (850) 881-8264 Fax  
 www.fhri.org



- Element Occurrences**
- Animals
  - Plants
  - Communities
  - Other
  - Data Sensitive

- Point Indicates General  
 Vicinity of Element

- U.S. Fish & Wildlife Service  
 Scrub Jay Survey 1992-96

**Conservation Lands**

- Federal
- Slate
- Local
- Private
- Slate Aquatic Preserves
- Land Acquisition Projects
- Florida Forever
- Board of Trustees Projects

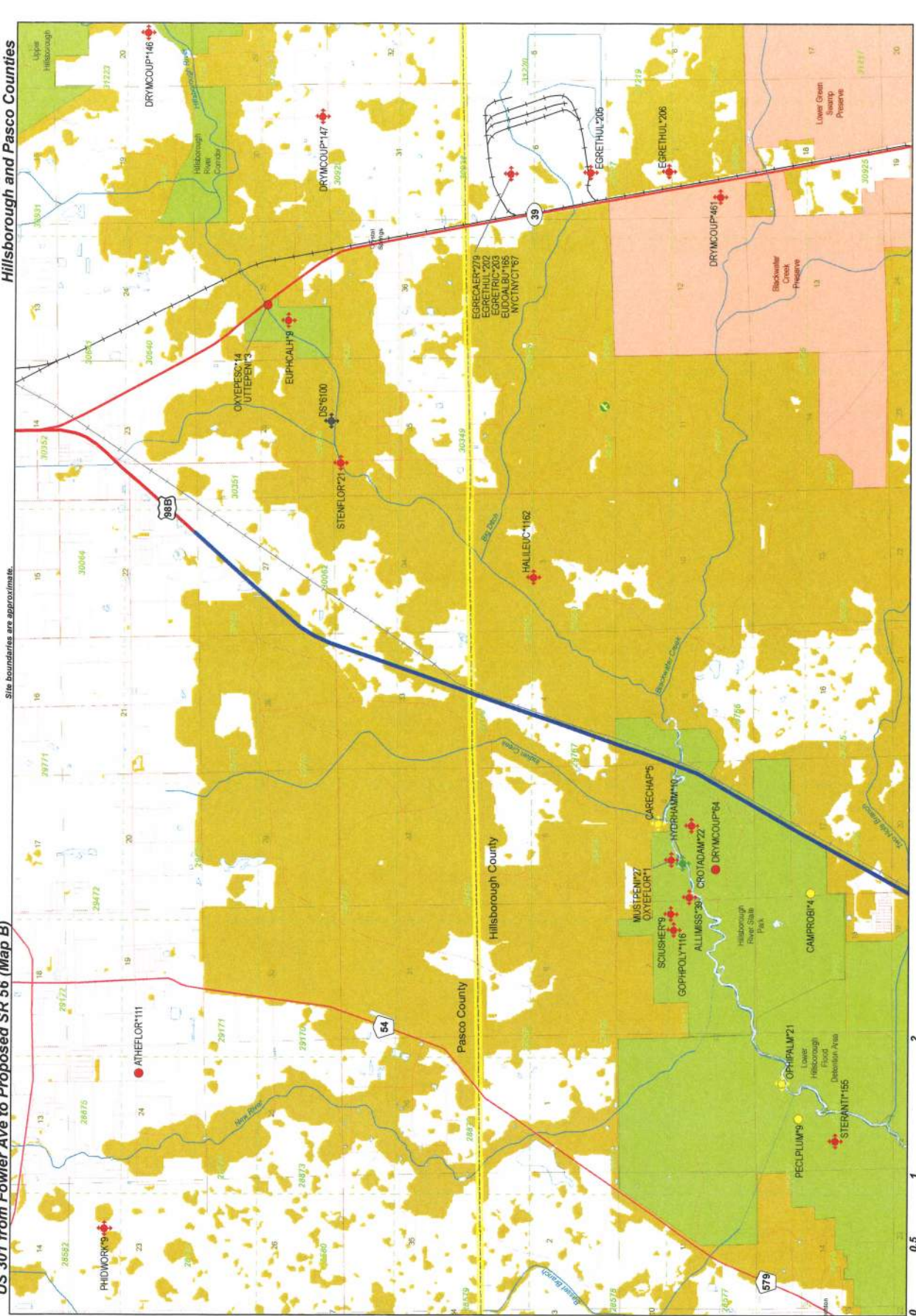
- FNAI Rare Species**
- Habitat
  - FNAI Biodiversity Matrix
  - Square Mile Units

- County Boundary**
- Interstate
  - Turnpike
  - Major Highway
  - Local Road
  - Railroad (Inactive railroads shown in Gray)
  - Water



**NOTE**  
 Map should not be interpreted without  
 accompanying documents.

Site boundaries are approximate.





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## FNAI ELEMENT OCCURRENCE REPORT on or near US 301 from Fowler Ave to Proposed SR 56

### Global State Federal State Observation

Map Label	Scientific Name	Common Name	Rank	Status	Listing	Date	Description	EO Comments
ALLMISS*39	<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	1984	ALONG RIVER	ONLY SMALL INDIVIDUALS, BUT FAIRLY COMMON
CAMPROBI*4	<i>Campanula robinsiae</i>	Brooksville Bellflower	G1	S1	LE	2007-03-16	2007-03-16: At edge of created wetland system planted with <i>Juncus effusus</i> and ringed with <i>Taxodium ascendens</i> . Wetland is in ruderal improved pasture mosaic with other created wetlands. Other associated include <i>Hypericum mutilum</i> , <i>Galium tinctorum</i> , <i>Commeli</i>	2007-03-16: Plants a/ound at 2 locations totalling ~360 flowering plants see source observation tab for detail at each source feature (U07JEN01FLUS). 2006-03-22: About 50 plants, flowering and fruiting with cleistogamous flowers also present (U07JEN01F
CARECHAP*5	<i>Carex chapmanii</i>	Chapman's Sedge	G3	S3	N	1992-04-11	Mesic Hammock.	Associates with Sabal palmetto, <i>Carpinus carolinianus</i> ; rare; specimen fruiting.
CROTADAM*22	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	N	1989-10-28	No general description given	Roadkill observed during 1989 Wildlife Roadkill survey.
DRYMCOUP*142	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	1970	No general description given	1970: observed by Marty Martin (U82MOL01FLUS: Moler interview of Godley and Martin, 1982-03-27).
DRYMCOUP*64	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	1984-05	No general description given	1984-05 AND PROBABLY EARLIER: DODRILL HAS OBSERVED SNAKES AT VARIOUS SITES IN PARK, INCLUDING TWO INDIVIDUALS BY MAIN WELL (PND0001FLUS). 1970-POST: INDIGO OBSERVED BY KEN ALVAREZ (FL DNR) (U82MOL01FLUS, A85MOL02).
DS*6100	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	1936-02-02	Data Sensitive	Data Sensitive
EGRETHUL*207	<i>Egretta thula</i>	Snowy Egret	G5	S3	N	1987-06-01	Floodplain swamp	1987/06/01: G. Parsons, NAS, WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
EGRETRIC*204	<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	1987-06-01	Floodplain swamp	1987/06/01: G. Parsons, NAS, observed 3 individuals. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
GOPHPOLY*116	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	1984	IN FLATWOODS, OTHER DRY AREAS	SEEN FREQUENTLY, BUT PROBABLY LOW POP. (NOT MUCH HIGH GROUND IN AREA)
HALILEUC*1162	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2000, 1999; Not active, 2001;(U03FWC01FLUS)



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## FNAI ELEMENT OCCURRENCE REPORT on or near US 301 from Fowler Ave to Proposed SR 56

		Global State Federal State Observation						
Map Label	Scientific Name	Common Name	Rank	Status	Listing	Date	Description	EO Comments
HALILEUC*1164	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.
HALILEUC*85	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003	No general description given
HYDRHAMM*10	Hydric hammock		G4	S4	N	N	2004	LOWLANDS, BOTH SIDES OF RIVER
HYDRWAKU*4	<i>Hydroptila wakulla</i>	Wakulla Springs Vari-colored Microcaddisfly	G2	S2	N	N	1962-PRE	1962-Pre: No description given (U06RAS01FLUS).
MUSTPENI*27	<i>Mustela frenata peninsulae</i>	Florida Long-tailed Weasel	G5T3	S3	N	N	1997-PRE	No general description given
MUSTPENI*28	<i>Mustela frenata peninsulae</i>	Florida Long-tailed Weasel	G5T3	S3	N	N	1970 -- 1979	Floodplain Forest
OPHIPALM*21	<i>Ophioglossum palmatum</i>	Hand Fern	G4	S2	N	E	1979-04-17	SEASONALLY WET MIXED WOODS WITH CABBAGE PALMS AND OAKS DOMINANT.
OXYEFLO*1	<i>Oxyethira florida</i>	Florida Cream and Brown Microcaddisfly	G1G2	S1S2	N	N	2005-05-13	2005-05-13: No description given (U06RAS01FLUS).
OXYEFLO*4	<i>Oxyethira florida</i>	Florida Cream and Brown Microcaddisfly	G1G2	S1S2	N	N	1962-PRE	1962-Pre: No description given (U06RAS01FLUS).



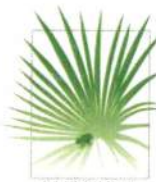
1018 Thomasville Road  
Suite 200-C  
Tallahassee, FL 32303  
(850) 224-8207  
(850) 681-9364 Fax  
www.fnai.org



## FNAI ELEMENT OCCURRENCE REPORT on or near US 301 from Fowler Ave to Proposed SR 56

### Global State Federal State Observation

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	Listing	Observation Date	Description	EO Comments
SCIUSER*9	<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC	1984-04	IN FLATWOODS (COMMUNITY EO NOT MAPPED BECAUSE REL. SMALL, POOR QUALITY)	PROBABLY 6 OR FEWER INDIVIDUALS.
STENFLOR*19	<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N	2005-08-05	2005-08-05: No description given (U09DEP01FLUS).	2005-08-05: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
STENFLOR*21	<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N	1998-09-16	1998-09-16: No description given (U09DEP01FLUS).	1998-09-16: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
STERANTI*155	<i>Sternula antillarum</i>	Least Tern	G4	S3	N	ST	1987-05-13	Dredge spoil	1987/05/13: G. Parsons, NAS, observed 50 nests (U97GFC02FLUS).



1018 Thomasville Road  
Suite 200-C  
Tallahassee, FL 32303  
(850) 224-8207  
(850) 681-9364 Fax

FLORIDA  
Natural Areas  
INVENTORY

# Florida Natural Areas Inventory

## Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<b>Documented</b>					
<i>Campanula robinsiae</i>	Brooksville Bellflower	G1	S1	LE	E
<b>Documented-Historic</b>					
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	FT
<b>Likely</b>					
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
Hydric hammock		G4	S4	N	N
<i>Hydroptila bernerii</i>	Berner's Microcaddisfly	G4G5	S3	N	N
Mesic flatwoods		G4	S4	N	N
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3	S3	N	N
<i>Mycteria americana</i>	Wood Stork	G4	S2	LT	FT
<i>Oxyethira florida</i>	Florida Cream and Brown Microcaddis	G1G2	S1S2	N	N
<i>Oxyethira janella</i>	Little-entrance Oxyethiran Microcaddis	G5	S4S5	N	N
Sandhill		G3	S2	N	N
Scrub		G2	S2	N	N
<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N
<b>Potential</b>					
<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	FT(S/A)
<i>Andropogon arctatus</i>	Pine-woods Bluestem	G3	S3	N	T
<i>Asplenium erosum</i>	Auricled Spleenwort	G5	S2	N	E
<i>Asplenium heteroresiliens</i>	Wagner's Spleenwort	GNA	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	SSC
<i>Calamintha ashei</i>	Ashe's Savory	G3	S3	N	T
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	G2G3	S2S3	N	T
<i>Carex chapmanii</i>	Chapman's Sedge	G3	S3	N	T
<i>Centrosema arenicola</i>	Sand Butterfly Pea	G2Q	S2	N	E
<i>Chrysopsis floridana</i>	Florida Goldenaster	G1	S1	LE	E
<i>Conradina brevifolia</i>	Short-leaved Rosemary	G2Q	S2	LE	E
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	N	N
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	N	N
<i>Egretta thula</i>	Snowy Egret	G5	S3	N	SSC
<i>Egretta tricolor</i>	Tricolored Heron		S4	N	SSC
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	Scrub Buckwheat	G4T3	S3	LT	E
<i>Forestiera godfreyi</i>	Godfrey's Swampprivet	G2	S2	N	E
<i>Glandularia tampensis</i>	Tampa Vervain		S2	N	E
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Grus canadensis pratensis</i>	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
<i>Gymnopogon chapmanianus</i>	Chapman's Skeletongrass	G3	S3	N	N
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2	N	N
<i>Hydroptila wakulla</i>	Wakulla Springs Vari-colored Microca		S2	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lechea cernua</i>	Nodding Pinweed		S3	N	T
<i>Lithobates capito</i>	Gopher Frog		S3	N	SSC
<i>Litsea aestivalis</i>	Pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida Spiny-pod	G2	S2	N	E
<i>Monotropis reynoldsiae</i>	Pygmy Pipes	G1Q	S1	N	E
<i>Nemastylis floridana</i>	Celestial Lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G3	S3	N	N

**Definitions:** Documented - Rare species and natural communities documented on or near this site.  
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.  
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.  
 Potential - This site lies within the known or predicted range of the species listed.



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FLORIDA  
*Natural Areas*  
INVENTORY

# Florida Natural Areas Inventory

## Biodiversity Matrix Report



<b>Scientific Name</b>	<b>Common Name</b>	<b>Global Rank</b>	<b>State Rank</b>	<b>Federal Status</b>	<b>State Listing</b>
<i>Nolina atopocarpa</i>	Florida Beargrass	G3	S3	N	T
<i>Nolina brittoniana</i>	Britton's Beargrass		S3	LE	E
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	C	N
<i>Panicum abscissum</i>	Cutthroat Grass	G3	S3	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow		S3	N	N
<i>Picoides borealis</i>	Red-cockaded Woodpecker		S2	LE	FE
<i>Podomys floridanus</i>	Florida Mouse		S3	N	SSC
<i>Pteroglossaspis ecristata</i>	Giant Orchid	G2G3	S2	N	T
<i>Rostrhamus sociabilis</i>	Snail Kite	G4G5	S2	LE	N
<i>Salix floridana</i>	Florida Willow	G2	S2	N	E
<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	N	N
<i>Warea carteri</i>	Carter's Warea	G3	S3	LE	E

**Definitions:** Documented - Rare species and natural communities documented on or near this site.  
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.  
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.  
 Potential - This site lies within the known or predicted range of the species listed.

## Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

## Element Ranking and Legal Status

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

### **FNAI GLOBAL ELEMENT RANK**

- G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** = Apparently secure globally (may be rare in parts of range).
- G5** = Demonstrably secure globally.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

### **FNAI STATE ELEMENT RANK**

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4** = Apparently secure in Florida (may be rare in parts of range).
- S5** = Demonstrably secure in Florida.
- SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

## **FEDERAL LEGAL STATUS**

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

- C** = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- E** = Endangered: species in danger of extinction throughout all or a significant portion of its range.
- E, T** = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
- E, PDL** = Species currently listed endangered but has been proposed for delisting.
- E, PT** = Species currently listed endangered but has been proposed for listing as threatened.
- E, XN** = Species currently listed endangered but tracked population is a non-essential experimental population.
- T** = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
- PE** = Species proposed for listing as endangered
- PS** = Partial status: some but not all of the species' infraspecific taxa have federal
- PT** = Species proposed for listing as threatened
- SAT** = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
- SC** = Not currently listed, but considered a "species of concern" to USFWS.

## **STATE LEGAL STATUS**

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

**Animals:** Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

- C** = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service
- FE** = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
- FT** = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
- FXN** = Federal listed as an experimental population in Florida
- FT(S/A)** = Federal Threatened due to similarity of appearance
- ST** = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
- SSC** = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC\* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)
- N** = Not currently listed, nor currently being considered for listing.

**Plants:** Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

- E** = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
- T** = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
- N** = Not currently listed, nor currently being considered for listing.



## Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

- A** = Excellent estimated viability
- A?** = Possibly excellent estimated viability
- AB** = Excellent or good estimated viability
- AC** = Excellent, good, or fair estimated viability
- B** = Good estimated viability
- B?** = Possibly good estimated viability
- BC** = Good or fair estimated viability
- BD** = Good, fair, or poor estimated viability
- C** = Fair estimated viability
- C?** = Possibly fair estimated viability
- CD** = Fair or poor estimated viability
- D** = Poor estimated viability
- D?** = Possibly poor estimated viability
- E** = Verified extant (viability not assessed)
- F** = Failed to find
- H** = Historical
- NR** = Not ranked, a placeholder when an EO is not (yet) ranked.
- U** = Unrankable
- X** = Extirpated

\*For additional detail on the above ranks see: <http://www.natureserve.org/explorer/eorankguide.htm>

FNAI also uses the following EO ranks:

- H?** = Possibly historical
- F?** = Possibly failed to find
- X?** = Possibly extirpated

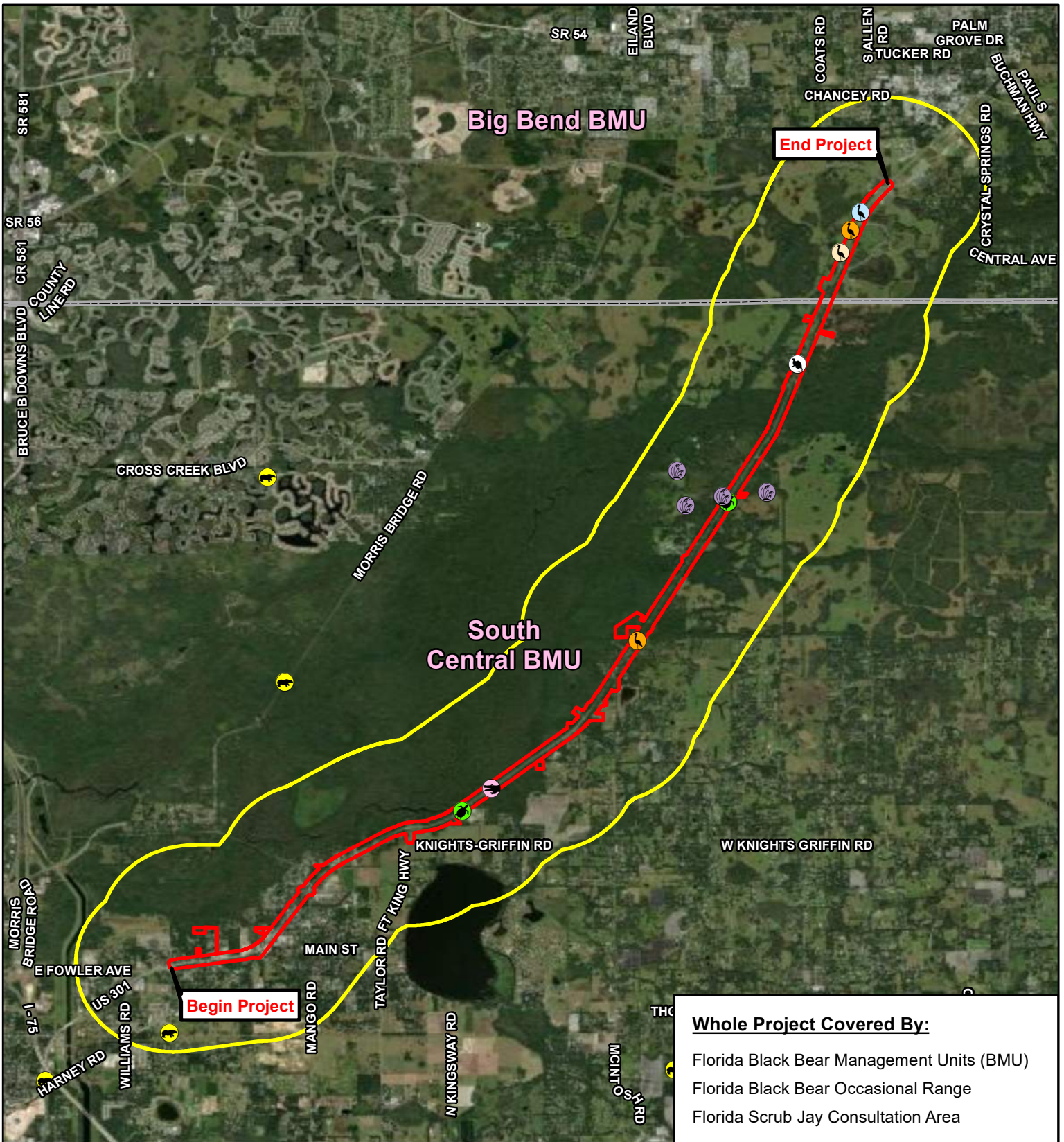
The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).

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***APPENDIX H***  
**Protected Species Map**

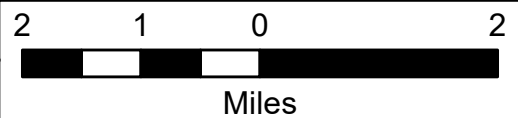


**Whole Project Covered By:**

- Florida Black Bear Management Units (BMU)
- Florida Black Bear Occasional Range
- Florida Scrub Jay Consultation Area

**Legend**

- |   |  |
|---|--|
|  Project Study Area       | <b>KCA Observed</b>  |
|  1 Mile Buffer            |  Florida Sandhill Crane |
|  Brooksville Bellflower   |  Gopher Tortoise Burrow |
|  Florida Black Bear Calls |  American Alligator     |
|   |  Little Blue Heron      |
|   |  Sandhill Crane         |
|   |  Southern Fox Squirrel  |



**Protected Species Map**  
**US 301 from Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-0

Kisinger Campo & Associates, Corp.  
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Appendix H

***APPENDIX I***

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**Species Effect Determination Keys**

# Wood Stork Effect Determination Key

## WOOD STORK KEY

Although designed primarily for use by Corps Project Managers in the Regulatory and Planning Divisions, and State Regulatory agencies or their designees, project permit applicants and co-sponsors of civil works projects may find this key and its supporting documents useful in identifying potential project impacts to wood storks, and planning how best to avoid, minimize, or compensate for any identified adverse effects.

A. Project within 2,500 feet of an active colony site<sup>1</sup>.....*May affect*

Project more than 2,500 feet from a colony site.....go to B

B. Project does not affect suitable foraging habitat<sup>2</sup> (SFH).....*no effect*

Project impacts SFH<sup>2</sup>.....go to C

C. Project impacts to SFH are less than or equal to 0.5 acre<sup>3</sup>.....*NLAA*<sup>4</sup>

Project impacts to SFH are greater than or equal to 0.5 acre.....go to D

D. Project impacts to SFH not within a Core Foraging Area<sup>5</sup> (see attached map) of a colony site, and no wood storks have been documented foraging on site.....*NLAA*<sup>4</sup>

Project impacts to SFH are within the CFA of a colony site, or wood storks have been documented foraging on a project site outside the CFA .....go to E

E. Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA, or consists of SFH compensation within the CFA consisting of enhancement, restoration or creation in a project phased approach that provides an amount of habitat and foraging function equivalent to that of impacted SFH (see *Wood Stork Foraging Habitat Assessment Procedure*<sup>6</sup> for guidance), is not contrary to the Service's *Habitat Management Guidelines For The Wood Stork In The Southeast Region* and in accordance with the CWA section 404(b)(1) guidelines.....*NLAA*<sup>4</sup>

Project does not satisfy these elements.....*May affect*

<sup>1</sup> An active nesting site is defined as a site currently supporting breeding pairs of wood storks, or has supported breeding wood storks at least once during the preceding 10-year period.

<sup>2</sup> Suitable foraging habitat (SFH) is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches (5 to 38 cm). SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to, freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. See above *Summary of General Wood Stork Nesting and Foraging Habitat Information*.

<sup>3</sup> On an individual basis, projects that impact less than 0.5 acre of SFH generally will not have a measurable effect on wood storks, although we request the Corps to require mitigation for these losses when appropriate. Wood Storks are a wide ranging species, and individually, habitat change from impacts to less than 0.5 acre of SFH is not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

<sup>4</sup> Upon Corps receipt of a general concurrence issued by the JAFL through the Programmatic Concurrence on this key, "NLAA" determinations for projects made pursuant to this key require no further consultation with the JAFL.

<sup>5</sup> The U.S. Fish and Wildlife Service (Service) has identified core foraging area (CFA) around all known wood stork nesting colonies that is important for reproductive success. In Central Florida, CFAs include suitable foraging habitat (SFH) within a 15-mile radius of the nest colony; CFAs in North Florida include SFH within a 13-mile radius of a colony. The referenced map provides locations of known colonies and their CFAs throughout Florida documented as active within the last 10 years. The Service believes loss of suitable foraging wetlands within these CFAs may reduce foraging opportunities for the wood stork.

<sup>6</sup>This draft document, *Wood Stork Foraging Habitat Assessment Procedure*, by Passarella and Associates, Incorporated, may serve as further guidance in ascertaining wetland foraging value to wood storks and compensating for impacts to wood stork foraging habitat.

## **Monitoring and Reporting Effects**

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued that were determined "may affect, not likely to adversely affect." It is requested that information on date, Corps identification number, project acreage, project wetland acreage, and latitude and longitude in decimal degrees be sent to the Service quarterly.

## **Literature Cited**

Kahl, M.P., Jr. 1964. Food ecology of the wood stork (*Mycteria americana*) in Florida. *Ecological Monographs* 34:97-117.

Ogden, J.C. 1991. Nesting by wood storks in natural, altered, and artificial wetlands in central and northern Florida. *Colonial Waterbirds* 14:39-45.

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Rodgers, J.A., Jr., S.T. Schwikert, and A. Shapiro-Wenner. 1996. Nesting habitat of wood storks in north and central Florida, USA. *Colonial Waterbirds* 19:1-21.

U.S. Fish and Wildlife Service. 1999. South Florida multi-species recovery plan. Fish and Wildlife Service; Atlanta, Georgia. Available from:  
<http://verobeach.fws.gov/Programs/Recovery/vbms5.html>.



***APPENDIX J***


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**Wetland and Surface Water Impact Map**




**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



500 250 0 500

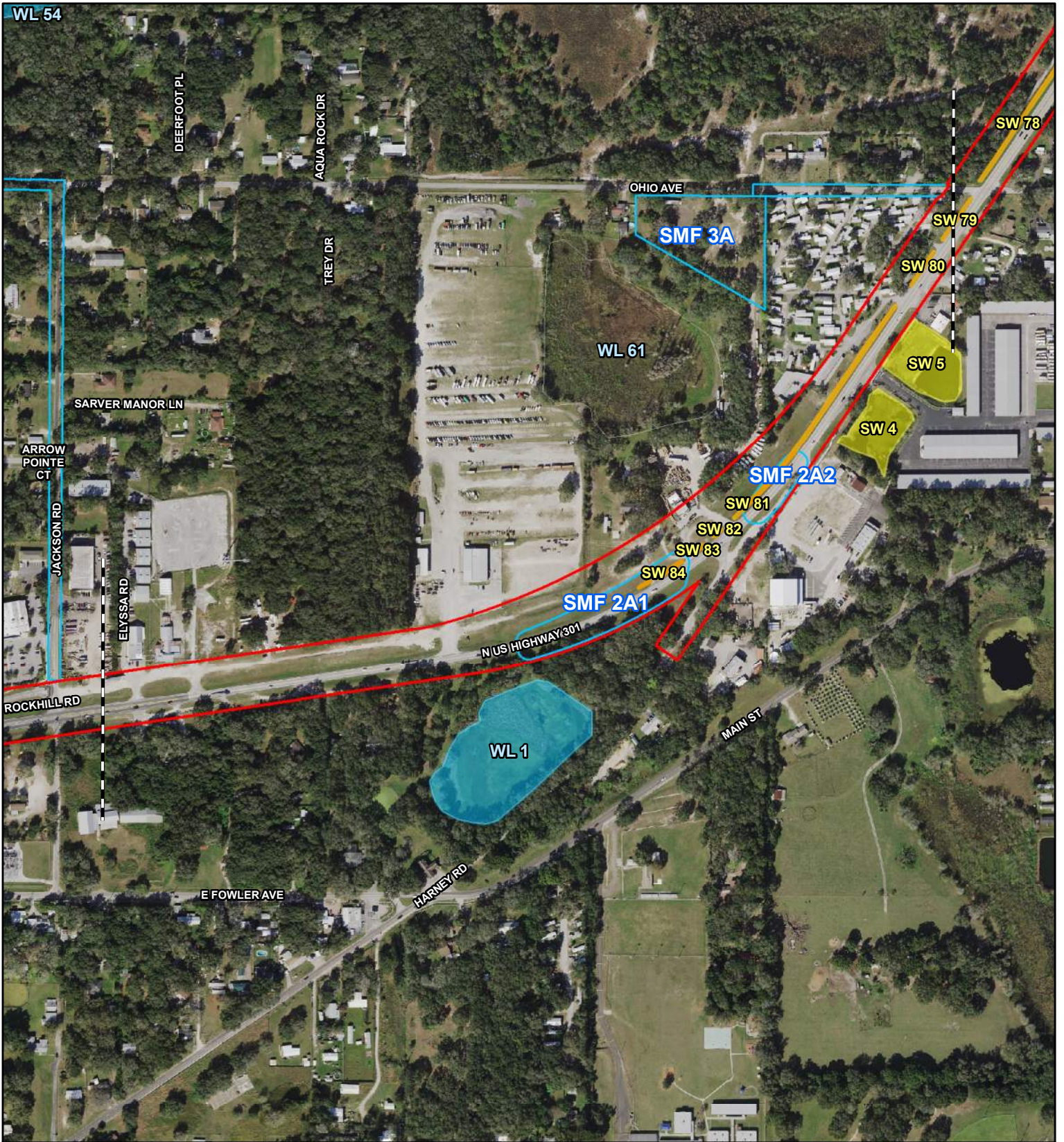


Feet






**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**

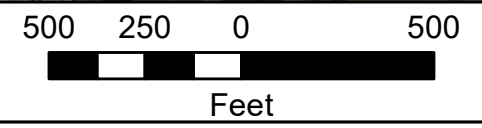
Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

Appendix J	Page 1 of 17
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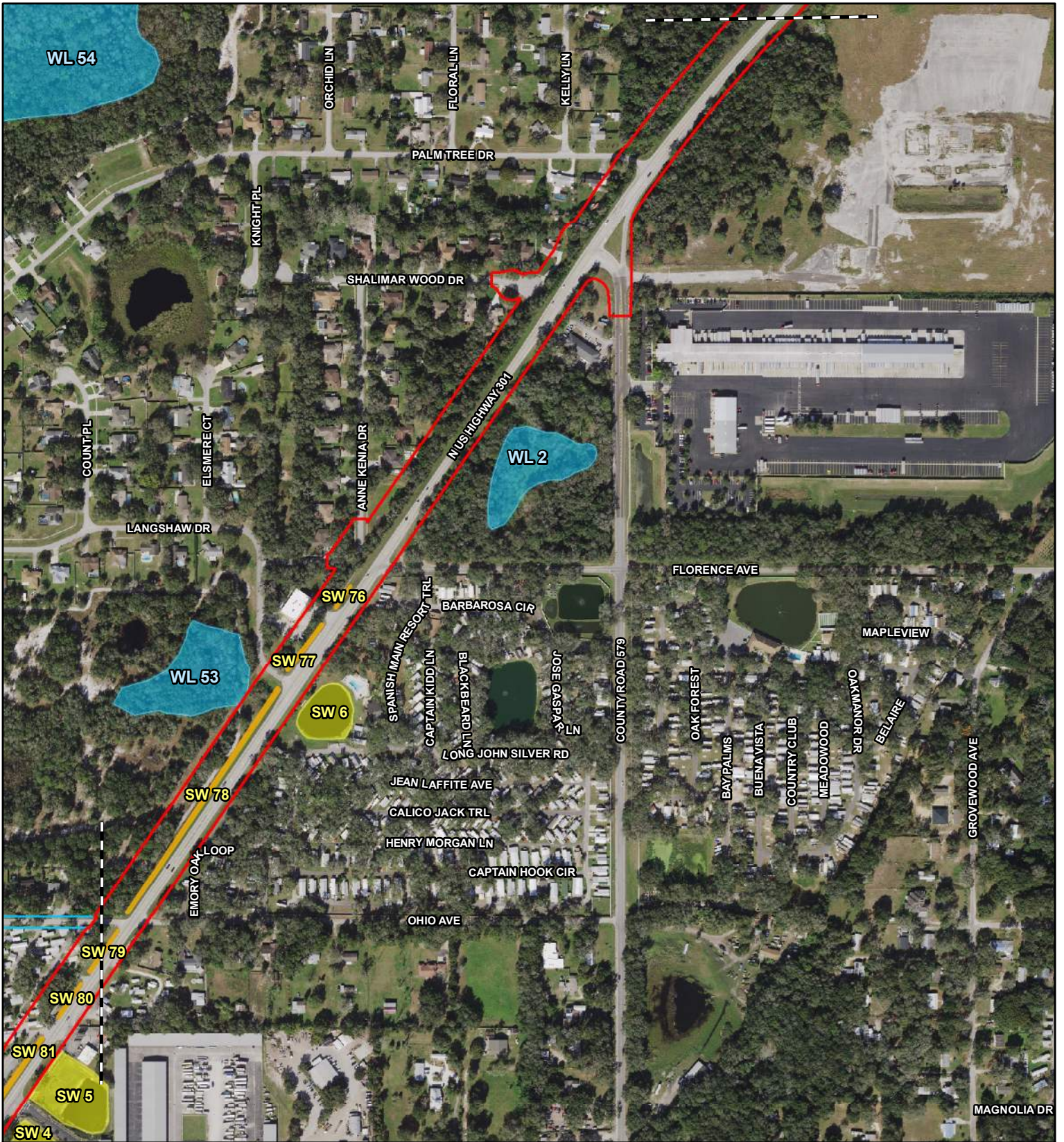
**Legend**

-  Preferred Alternative ROW
-  Preferred Pond
-  Surface Water
-  Wetland
-  Direct Impact



**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact

500 250 0 500






Feet

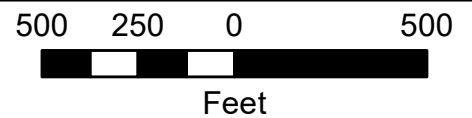
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**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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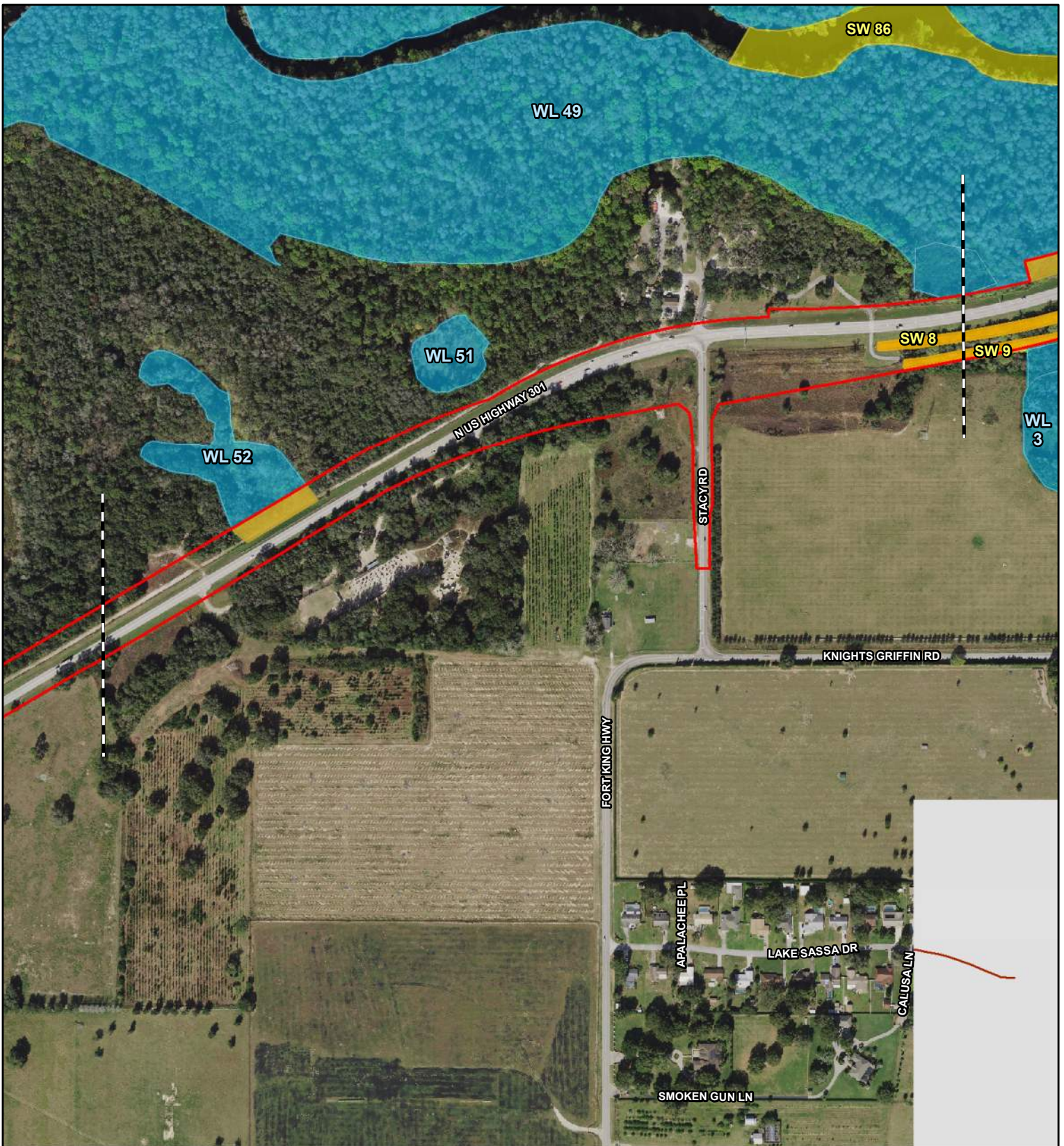
**Legend**

-  Preferred Alternative ROW
-  Preferred Pond
-  Surface Water
-  Wetland
-  Direct Impact



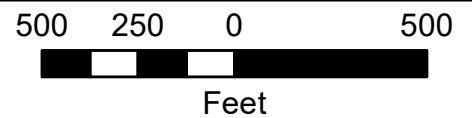
**Wetland / Surface Water Impact Map  
US 301 From Fowler Avenue to SR 56**

Hillsborough/Pasco County, Florida  
FPID Number: 255796-1-22-01



**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



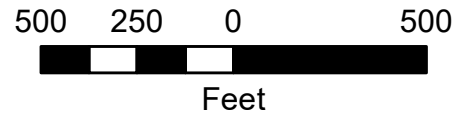
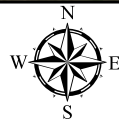
**Wetland / Surface Water Impact Map  
US 301 From Fowler Avenue to SR 56**

Hillsborough/Pasco County, Florida  
FPID Number: 255796-1-22-01

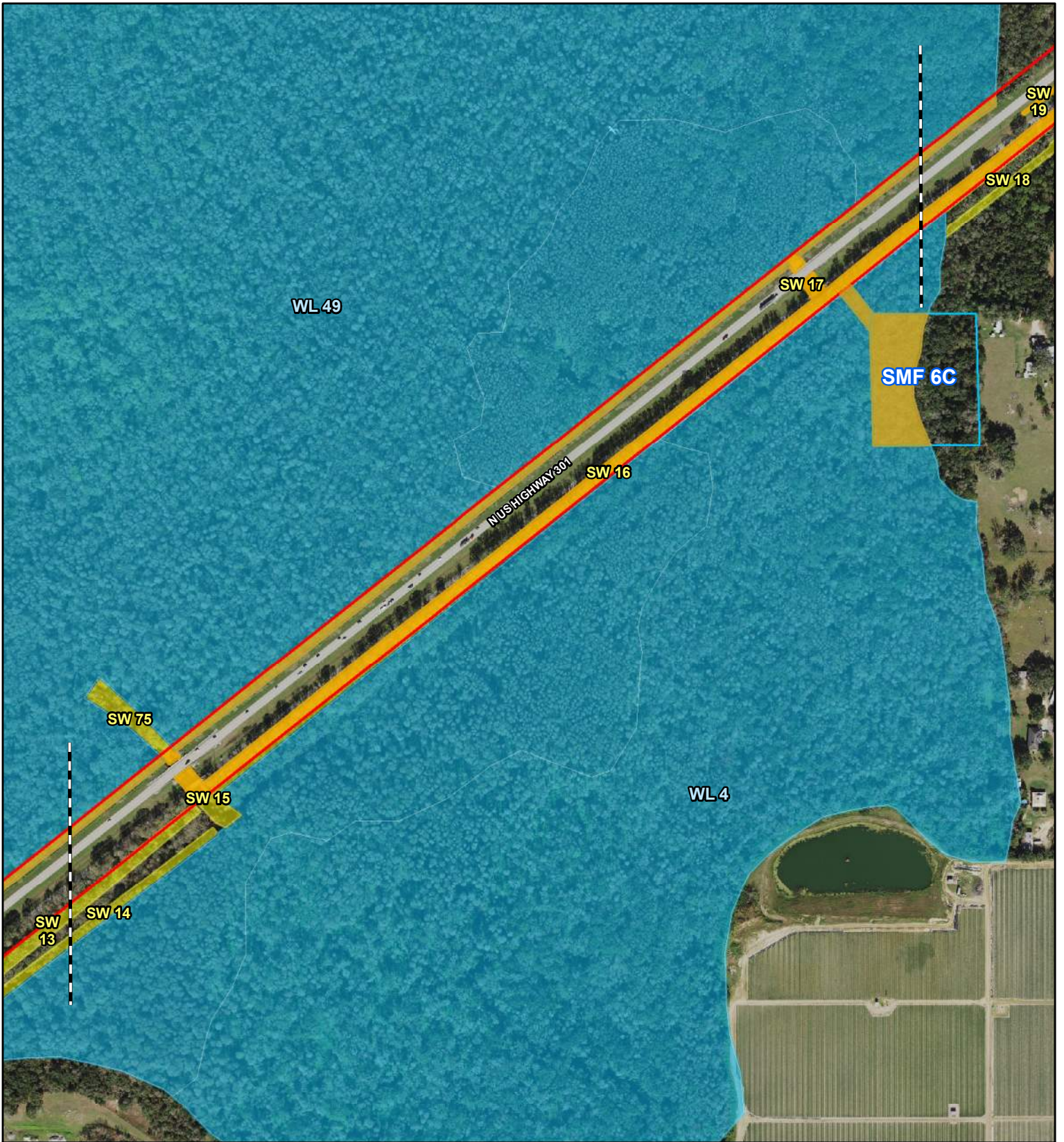


**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact

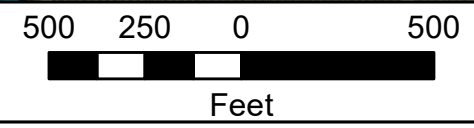


**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01



**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01


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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



500 250 0 500



Feet






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**US 301 From Fowler Avenue to SR 56**

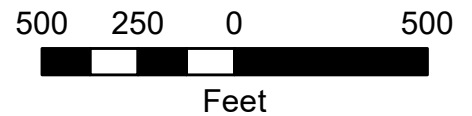
Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

-  Preferred Alternative ROW
-  Preferred Pond
-  Surface Water
-  Wetland
-  Direct Impact



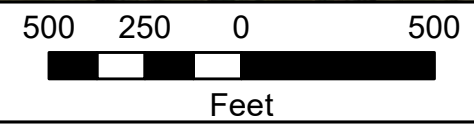
**Wetland / Surface Water Impact Map  
US 301 From Fowler Avenue to SR 56**

Hillsborough/Pasco County, Florida  
FPID Number: 255796-1-22-01



**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



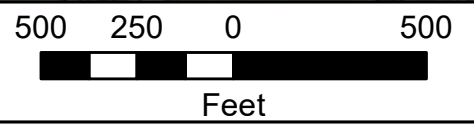
**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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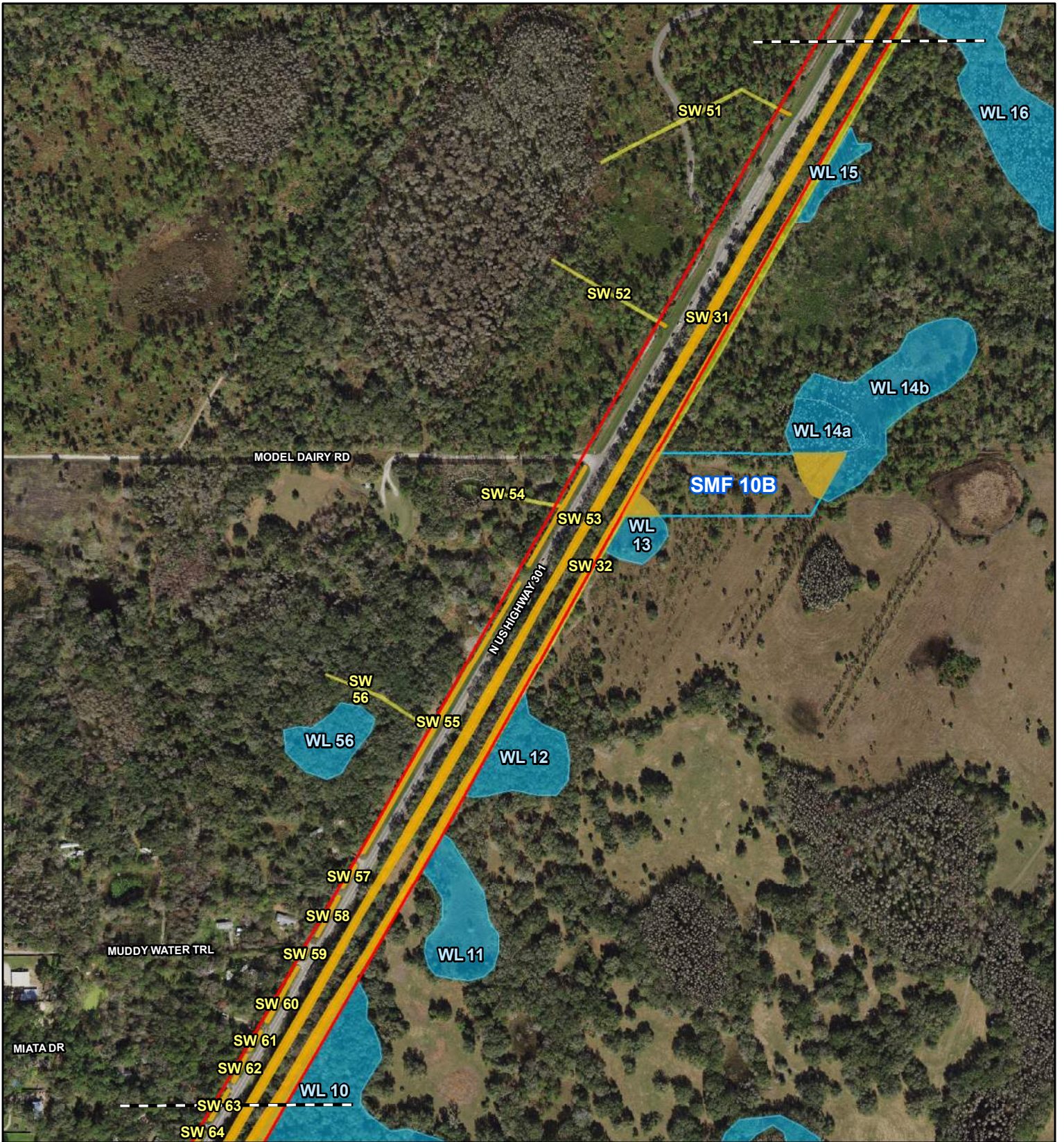
**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact




**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



500 250 0 500



Feet

**Wetland / Surface Water Impact Map  
US 301 From Fowler Avenue to SR 56**

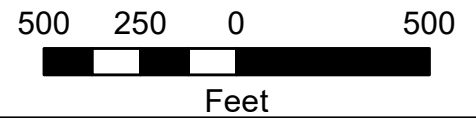
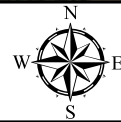
Hillsborough/Pasco County, Florida  
FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



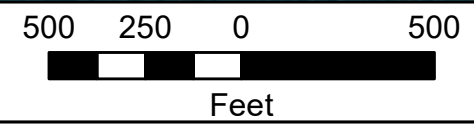
**Wetland / Surface Water Impact Map  
US 301 From Fowler Avenue to SR 56**

Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01



**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact




**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



W E  
N S

500 250 0 500



Feet

**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact

500 250 0 500

Feet

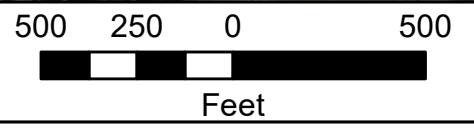
**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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**Legend**

- Preferred Alternative ROW
- Preferred Pond
- Surface Water
- Wetland
- Direct Impact



**Wetland / Surface Water Impact Map**  
**US 301 From Fowler Avenue to SR 56**  
 Hillsborough/Pasco County, Florida  
 FPID Number: 255796-1-22-01

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***APPENDIX K***

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**Uniform Mitigation Assessment Method Forms**

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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number		Assessment Area Name or Number FLUCFCS 510 (Natural Surface Water)	
FLUCCs code 510 - Streams and Waterways		Further classification (optional) R2UB2G/R2UB2H (USFWS)		Impact or Mitigation Site? Impact	Assessment Area Size 0.91
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III		Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) Hillsborough River (OFW)		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Natural surface water features throughout the AA are hydrologically connected through culverts and bridge crossings along US 301. Portions of AA are abutting forested and herbaceous wetland systems and other surface waters (man-made ditches).					
Assessment area description AA consists of natural creek and river systems and includes the Hillsborough River, Flint Creek, Flint Creek Relief, and Holloman's Branch along the project study area.					
Significant nearby features US 301, Lower Hillsborough Wilderness Preserve, Hillsborough River State Park, John. B Sargeant Park, Fort Foster, Hillsborough River (OFW).			Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.		
Functions Water conveyance, attenuation, water treatment, wading bird foraging.			Mitigation for previous permit/other historic use No.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals, white-tailed deer.			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Wildlife observations within AA include the American alligator and white ibis.					
Additional relevant factors: None.					
Assessment conducted by: M. Nicely			Assessment date(s): May 2021		

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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 510 (Natural Surface Water)
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

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

<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from US 301. Water levels in the Hillsborough River and associated tributaries appear appropriate considering natural variation.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>The canopy consists predominantly of hardwood species, including red maple, water hickory, sweetgum , swamp tupelo, water oak, Carolina willow, with scattered cypress and slash pine. Canopy trees are moderate size. Typical age / structure of plant community in all strata. Invasive exotic species (taro, torpedo grass, water spangles, Peruvian primrose-willow) present at a low density, concentrated along the roadside (US 301) and within ditches connected to AA's.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>8</td> <td>0</td> </tr> </table>	8	0
8	0	

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.73      0.00

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

For impact assessment areas
FL = delta x acres = 0.67

Delta = [with-current]
-0.73

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number		Assessment Area Name or Number FLUCFCS 534	
FLUCCs code 534 - Reservoirs < 10 acres		Further classification (optional) PEM1Cx (USFWS)		Impact or Mitigation Site? Impact	
Assessment Area Size 2.98		Basin/Watershed Name/Number Hillsborough River		Affected Waterbody (Class) Class III	
				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 AA is hydrologically connected to a man-made ditch through a culvert.					
Assessment area description AA consists of reservoirs within the ROW of US 301.					
Significant nearby features US 301			Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.		
Functions Water conveyance, attenuation, water treatment, wading bird foraging.			Mitigation for previous permit/other historic use No.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians.			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Wildlife observations within AA include a great egret.					
Additional relevant factors: None.					
Assessment conducted by: M. Nicely			Assessment date(s): May 2021		

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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 534
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

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

<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development and located within the US 301 ROW. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.).</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>5</td> <td>0</td> </tr> </table>	5	0
5	0	
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. AA is intermittently flooded and within the ROW of US 301. AA provides limited function for animal species with hydrologic requirements. Vegetation present tolerates disturbed conditions.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>5</td> <td>0</td> </tr> </table>	5	0
5	0	
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>Plant species within the AA include torpedo grass, coinwort, mild-water pepper, common cattail, pickerelweed, and knotted spikerush. Typical age / structure of plant community in herbaceous strata. Invasive exotic species (common cattail, torpedo grass) present at a low to moderate density. AA is excavated with control structures/ditches.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>5</td> <td>0</td> </tr> </table>	5	0
5	0	

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.50      0.00

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

For impact assessment areas
FL = delta x acres = 1.49

Delta = [with-current]
-0.50

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number	Assessment Area Name or Number FLUCFCS 615
FLUCCs code 615 - Stream and Lake Swamps (Bottomland)	Further classification (optional) PFO1/2C (USFWS)	Impact or Mitigation Site? Impact	Assessment Area Size 25.24
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III	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 Portions of the AA are hydrologically connected through a network of man-made ditches and natural surface waters. AA is abutting other wetland systems, including cypress, wetland scrub, freshwater marshes, and emergent aquatic systems.			
Assessment area description AA consists of bottomland areas within the project study area associated with the Hillsborough River and adjacent tributaries.			
Significant nearby features US 301, Lower Hillsborough Wilderness Preserve, Hillsborough River State Park, John. B Sargeant Park, Fort Foster, Hillsborough River (OFW).		Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.	
Functions Water attenuation, water treatment, wildlife utilization (cover, refuge, breeding, nesting, denning, nursery areas).		Mitigation for previous permit/other historic use No.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals, white-tailed deer.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Wildlife observations within AA include the Northern cardinal, red-tailed hawk, and opossum.			
Additional relevant factors: None.			
Assessment conducted by: M. Nicely		Assessment date(s): May 2021	



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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 615
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

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

<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0	<p>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p>
7	0		
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0	<p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. Some AA hydrology is altered due to adjacent land uses, including a large ditch running parallel to US 301 (on the eastern side) and reducing the amplitude and duration of water storage within these areas. Water levels in the remaining portions of this community type appear appropriate considering natural variation.</p>
7	0		
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>8</td> <td>0</td> </tr> </table>	8	0	<p>The canopy consists predominantly of hardwood species, including red maple, water hickory, sweetgum, swamp tupelo, water oak, Carolina willow, with scattered cypress and slash pine. Canopy trees are moderate size. Typical age / structure of plant community in all strata. Invasive exotic species (Japanese climbing fern, wild taro, castorbean, water spangles, air potato) present at a low density, concentrated along the roadside (US 301) and within ditches connected to AA's.</p>
8	0		

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.73      0.00

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

For impact assessment areas
FL = delta x acres = 18.51

Delta = [with-current]
-0.733333

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number		Assessment Area Name or Number FLUCFCS 621	
FLUCCs code 621 - Cypress		Further classification (optional) PFO2C (USFWS)		Impact or Mitigation Site? Impact	Assessment Area Size 2.45
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III		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 Portions of the AA are hydrologically connected to a network of man-made ditches and natural surface waters. Portion of AA is abutting other wetland systems, including stream and lake swamps.					
Assessment area description AA consists of cypress dominated wetland habitats along the project study area.					
Significant nearby features US 301, Lower Hillsborough Wilderness Preserve, John. B Sargeant Park, Hillsborough River State Park, Hillsborough River (OFW).			Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.		
Functions Water attenuation, water treatment, wildlife utilization (cover, refuge, breeding, nesting, denning, nursery areas).			Mitigation for previous permit/other historic use No.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals, white-tailed deer.			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): None.					
Additional relevant factors: None.					
Assessment conducted by: M. Nicely			Assessment date(s): May 2021		

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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 621
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

<b>Scoring Guidance</b> The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed
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<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p>	<table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">7</td> <td align="center">0</td> </tr> </table>	w/o pres or current	with	7	0
w/o pres or current	with				
7	0				
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. AA hydrology is altered due to adjacent land uses, including a large ditch running parallel to US 301 (on the eastern side) and through numerous AA's. This reduces the amplitude and duration of water storage within these AA's.</p>	<table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">7</td> <td align="center">0</td> </tr> </table>	w/o pres or current	with	7	0
w/o pres or current	with				
7	0				
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>Along the project study area, vegetation in this community type consists predominantly of cypress, with pale duckweed, sweetgum, Peruvian primrose-willow, cinnamon fern, lance-leaf arrowhead, water spangles, elderberry, and lizard's tail. Typical age / structure of plant community in all strata. Invasive exotic species (Peruvian primrose willow, water spangles, Japanese climbing fern) present at a low density, concentrated along the roadside (US 301) and within ditches connected to AA's.</p>	<table border="1"> <tr> <td>w/o pres or current</td> <td>with</td> </tr> <tr> <td align="center">7</td> <td align="center">0</td> </tr> </table>	w/o pres or current	with	7	0
w/o pres or current	with				
7	0				

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.70	0.00

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

For impact assessment areas
FL = delta x acres = 1.72

Delta = [with-current]
-0.70

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number	Assessment Area Name or Number FLUCFCS 630
FLUCCs code 630 - Wetland Forested Mixed	Further classification (optional) PFO1/2C (USFWS)	Impact or Mitigation Site? Impact	Assessment Area Size 0.66
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III	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 Portion of AA is abutting a small lake.			
Assessment area description AA consists of wetland forested (hardwood and conifer) mixed habitats along the project study area.			
Significant nearby features US 301, Lower Hillsborough Wilderness Preserve.		Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.	
Functions Water attenuation, water treatment, wildlife utilization (cover, refuge, breeding, nesting, denning, nursery areas).		Mitigation for previous permit/other historic use No.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals, white-tailed deer.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Wildlife observations within AA include the Northern cardinal and great egret.			
Additional relevant factors: None.			
Assessment conducted by: M. Nicely		Assessment date(s): May 2021	

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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 630
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

<b>Scoring Guidance</b> The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed
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<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. Water levels appear appropriate considering seasonal variation.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>Vegetation consists of red maple, slash pine, elderberry, and cypress, with a groundcover component of bushy broomsedge, water hyssops, pennywort, soft rush, and Peruvian primrose-willow. Typical age / structure of plant community in all strata. Invasive exotic species (Peruvian primrose-willow) present at a low density, concentrated along the roadside (US 301).</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.70      0.00

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

For impact assessment areas
FL = delta x acres = 0.46

Delta = [with-current]
-0.70

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number	Assessment Area Name or Number FLUCFCS 641
FLUCCs code 641 - Freshwater Marsh	Further classification (optional) PEM1C (USFWS)	Impact or Mitigation Site? Impact	Assessment Area Size 2.26
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III	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 AA consists predominantly of isolated freshwater marsh habitats within pastureland, some with apparent hydrologic connects to other wetland systems outside of AA through man-made ditches.			
Assessment area description AA consists freshwater marsh habitats along the project study area.			
Significant nearby features US 301		Uniqueness (considering the relative rarity in relation to the regional landscape.) The AA is not unique to the regional landscape.	
Functions Water attenuation, water treatment, wildlife utilization (foraging, refuge, nesting, denning).		Mitigation for previous permit/other historic use No.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals, white-tailed deer.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) little blue heron (T, foraging), tricolored heron (T, foraging), Florida sandhill crane (T, foraging/nesting), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Wildlife observations within AA include the black-bellied whistling duck, blue-gray gnatcatcher, cattle egret, great egret, hooded merganser, mallard, palm warbler, pied-billed grebe, snowy egret, tufted titmouse, white ibis, white-tailed deer.			
Additional relevant factors: None.			
Assessment conducted by: M. Nicely		Assessment date(s): May 2021	

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

Site/Project Name US 301 from Fowler Avenue to SR 56. PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 641
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

<b>Scoring Guidance</b> The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed
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<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. Water levels seem appropriate considering natural variation.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>Vegetation includes mosquito fern, Carolina willow, soft rush, pale duckweed, creeping ludwigia, mild water-pepper, maidencane, and floating hearts. Typical age / structure of plant community in all strata. Invasive exotic species (water hyacinth, torpedo grass) present at a low density, concentrated along the roadside (US 301).</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.70      0.00

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

For impact assessment areas
FL = delta x acres = 1.58

Delta = [with-current]
-0.70

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 US 301 from Fowler Avenue to SR 56 PD&E Study.		Application Number	Assessment Area Name or Number FLUCFCS 644
FLUCCs code 644 - Emergent Aquatic Vegetation	Further classification (optional) PAB4H (USFWS)	Impact or Mitigation Site? Impact	Assessment Area Size 0.50
Basin/Watershed Name/Number Hillsborough River	Affected Waterbody (Class) Class III	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  AA appears isolated, with surrounding land uses consisting of pastureland and tree plantations.			
Assessment area description  AA consists of emergent aquatic habitats along the project study area.			
Significant nearby features  US 301	Uniqueness (considering the relative rarity in relation to the regional landscape.)  The AA is not unique to the regional landscape.		
Functions  Water attenuation, water treatment, wildlife utilization (foraging, refuge, nesting, denning).	Mitigation for previous permit/other historic use  No.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found )  Urban wildlife, wading bird foraging, amphibians, fish, snakes, lizards, song birds, small mammals.	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)  little blue heron (T, foraging), tricolored heron (T, foraging), Florida sandhill crane (T, foraging/nesting), wood stork (T, foraging), roseate spoonbill (T, foraging), eastern indigo snake (T, feeding/refuge).		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):  Wildlife observations within AA include the great blue heron, little blue heron, and tree swallow.			
Additional relevant factors:  None.			
Assessment conducted by: M. Nicely		Assessment date(s): May 2021	



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

Site/Project Name US 301 from Fowler Avenue to SR 56 PD&E Study.	Application Number	Assessment Area Name or Number FLUCFCS 644
Impact or Mitigation Impact	Assessment conducted by: M. Nicely	Assessment date: May 2021

<b>Scoring Guidance</b> The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed
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<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
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>AA is bounded by urban development/US 301 and various undeveloped wetland and upland habitat types. Wildlife access throughout some portions is limited due to barriers (US 301) and adjacent land uses (industrial, residential, commercial, agricultural, etc.). Invasive exotic species are concentrated on the interface of US 301/AA's.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(b)Water Environment (n/a for uplands)</p> <p>Water quality is adversely affected by runoff received from pastures, US 301, and adjacent roadways. Water levels seem appropriate considering natural variation.</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	
<p>.500(6)(c)Community structure</p> <p>1. Vegetation and/or 2. Benthic Community</p> <p>Dominant vegetation consists of pennywort, soft rush, Mexican primrose-willow, spatterdock, floating hearts , maidencane, bulrush, sand cordgrass, lance-leaf arrowhead, and pickerelweed. Typical age / structure of plant community in all strata. Invasive exotic species (water hyacinth, torpedo grass, water spangles) present at a low density, concentrated along the roadside (US 301).</p> <p>w/o pres or current      with</p> <table border="1"> <tr> <td>7</td> <td>0</td> </tr> </table>	7	0
7	0	

Score = sum of above scores/30 (if uplands, divide by 20)
current or w/o pres      with
0.70      0.00

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

For impact assessment areas
FL = delta x acres = 0.35

Delta = [with-current]
-0.70

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

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