STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TECHNICAL REPORT COVERSHEET

Natural Resource Evaluation Report

I-275 (State Road 93) from North of Dr. Martin Luther King, Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582) Project Development and Environment (PD&E) Study

Florida Department of Transportation

District Seven

Financial Project Identification No.: 431821-1

Hillsborough County, Florida

ETDM Number: 13854

March 4, 2019

FINAL

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

NATURAL RESOURCE EVALUATION FOR POND SITING

I-275 (State Road 93)

From North of Dr. Martin Luther King, Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)

FPID: 431821-1

Hillsborough County, Florida

Florida Department of Transportation
District Seven
Tampa, Florida

Prepared by:
ESA Scheda
Tampa, Florida

FINAL

Executive Summary

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate the need for capacity and operational improvements along 7.70 miles of State Road 93 (SR 93)/Interstate 275 (I-275) from north of Dr. Martin Luther King, Jr. Boulevard/SR 574 (MLK Boulevard) to north of Bearss Avenue/SR 678/County Road (CR) 582 in Hillsborough County, Florida.

The objective of the PD&E Study is to assist FDOT in reaching a decision on the type, location, and conceptual design of the I-275 improvements to safely and efficiently accommodate future travel demand. This PD&E Study documents the need for the improvements and the steps taken to develop and evaluate improvement alternatives along with proposed typical sections, and provision of general purpose lanes with transit accommodations. The anticipated social, physical, and natural environmental effects and costs of these improvements are identified, and the alternatives are compared on a variety of factors to identify the alternative that best balances the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs).

The PD&E Study satisfies applicable state and federal requirements, including the National Environmental Policy Act, to qualify this project for federal-aid funding of future phases (design, right-of-way (ROW), and construction). The project was evaluated through FDOT's Efficient Transportation Decision Making (ETDM) process. This project was designated as ETDM Project #13854. An ETDM Final Programming Screen Summary Report was republished on February 7, 2014, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. The lead agency determined the Class of Action to be a Type 2 Categorical Exclusion.

This Natural Resources Evaluation document applies specifically to four proposed pond sites. The following is a discussion of anticipated protected wildlife and wetland involvement within the proposed pond sites. All impacts associated with the proposed roadway improvements are documented within the Wetland Evaluation and Biological Assessment Report (WEBAR, August 2016) and the Natural Resource Evaluation (NRE) Addendum to the WEBAR (February 2019).

Protected Species and Habitats

The proposed pond sites were evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with 50 Code of Federal Regulations (CFR) Part 402 of the Endangered Species Act (ESA) of 1973, as amended, Chapters 5B- 40: *Preservation of Native Flora of Florida* and 68A-27 Florida Administrative Code (FAC) *Rules Relating to Endangered or Threatened Species*, and *Part 2, Chapter 27 - Wildlife and Habitat Impacts* of the FDOT *PD&E Manual*. Results of effect determinations are summarized in the following table.

Summary of Effect Determinations for Wildlife Species in Proposed Pond Sites

Species	Common Name	FWC	USFWS	Pond Site Build Alternative Effect Determination
REPTILES				
Drymarchon corais couperi	Eastern indigo snake	FT	T	May affect, not likely to adversely affect
Gopherus polyphemus	Gopher tortoise	T	C	No adverse effect anticipated
BIRDS				
Antigone canadensis pratensis	Florida sandhill crane	T	-	No adverse effect anticipated
Aphelocoma coerulescens	Florida scrub-jay	FT	T	No effect
Egretta caerulea	Little blue heron	T	-	No adverse effect anticipated
Egretta rufescens	Reddish egret	T	-	No adverse effect anticipated
Egretta tricolor	Tricolored heron	T	-	No adverse effect anticipated
Falco sparverius paulus	Southeastern American kestrel	T	-	No adverse effect anticipated
Haliaeetus leucocephalus	Bald eagle	-	*	No effect
Mycteria americana	Wood stork	FT	T	May affect, not likely to adversely affect
Platalea ajaja	Roseate spoonbill	T	-	No adverse effect anticipated
MAMMALS				
Trichechus manatus	West Indian manatee	FT	T	No effect
Ursus americanus floridanus	Florida black bear	**	-	No effect

Key:
** The Florida black bear is protected under "Florida Administrative Code 68A-4.009 Florida Black Bear Conservation"
E - endangered, T - threatened, C - candidate for listing, FE - federally endangered, FT - federally threatened

Wetlands and Surface Waters

For the Build Alternative, approximately 0.06 acres of U.S. Army Corps of Engineers (USACE) and Southwest Florida Water Management District (SWFWMD) jurisdictional surface waters will be permanently impacted. These impacts occur in a freshwater marsh.

The FDOT will address impacts to wetland and/or surface water impacts and provide appropriate wetland mitigation during permitting phase of this project.

Essential Fish Habitat

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act of 1996 (50 CFR Section 600.920), as amended through January 12, 2007 and as administered by the National Oceanic

and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS), federal agencies must consult with NMFS regarding any of their actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect Essential Fish Habitat (EFH). As stated in the PD&E Manual Part 2, Chapter 17, NMFS has designated FDOT to conduct EFH consultations in Florida pursuant to 50 CFR § 600.920(c) in a July 19, 2000 letter to Federal Highway Administration (FHWA) and FDOT. While the overall project limits cross the Hillsborough River which contains EFH, no proposed pond sites contain EFH. Therefore, EFH will not be impacted by the construction of the pond sites.

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Acronyms and Abbreviations

BGEPA – Bald and Golden Eagle Protection Act

BMP – Best Management Practice

CA – Consultation Area

CFA – Core Foraging Area

CFR – Code of Federal Regulations

CH – Critical Habitat

CR – County Road

EFH – Essential Fish Habitat

ESA – Environmental Science Associates

ESA – Endangered Species Act

ETAT – Environmental Technical Advisory Team

ETDM – Efficient Transportation Decision Making

FAC – Florida Administrative Code

FDACS – Florida Department of Agricultural and Consumer Services

FDEP – Florida Department of Environmental Protection

FDOT – Florida Department of Transportation

FHWA – Federal Highway Administration

FLUCFCS – Florida Land Use, Cover and Forms Classification System

FNAI – Florida Natural Areas Inventory

FPC – Floodplain Compensation

FS – Florida Statute

FWC – Florida Fish and Wildlife Conservation Commission

GIS – Geographic Information Systems

MBTA – Migratory Bird Treaty Act

MUID – Map Unit Identifier

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

NWI – National Wetlands Inventory

OFW – Outstanding Florida Water

PD&E – Project Development and Environment

ROW – Right-of-Way

SFH – Suitable Foraging Habitat

SIS – Strategic Intermodal System

SWFWMD – Southwest Florida Water Management District

SMF – Stormwater Management Facility

SPUI – Single Point Urban Interchange

TBX – Tampa Bay Express

TBNext – Tampa Bay Next

TIS – Tampa Interstate Study

T&E – Threatened and Endangered

UMAM – Uniform Mitigation Assessment Methodology

USACE – U.S. Army Corps of Engineers

USFWS – U.S. Fish and Wildlife Service

SECTION 1

Introduction

The Florida Department of Transportation (FDOT), District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate the need for capacity and operational improvements along 7.70 miles of State Road 93 (SR 93)/Interstate 275 (I-275) from north of Dr. Martin Luther King, Jr. Boulevard/SR 574 (MLK Boulevard) to north of Bearss Avenue/SR 678/County Road (CR) 582 in Hillsborough County, Florida.

The objective of the PD&E Study is to assist FDOT in reaching a decision on the type, location, and conceptual design of the I-275 improvements to safely and efficiently accommodate future travel demand. This PD&E Study documents the need for the improvements and the steps taken to develop and evaluate improvement alternatives along with proposed typical sections and interchange enhancement alternatives. The information in this section refers to the entire project area, however, for the purposes of evaluating potential impacts to protected wildlife and wetlands, only the four proposed pond sites are discussed. For the mainline, FDOT received U.S. Fish and Wildlife Service (USFWS) concurrence on October 5, 2015 for species involved in that 2015 evaluation.

1.1 Description of Proposed Action

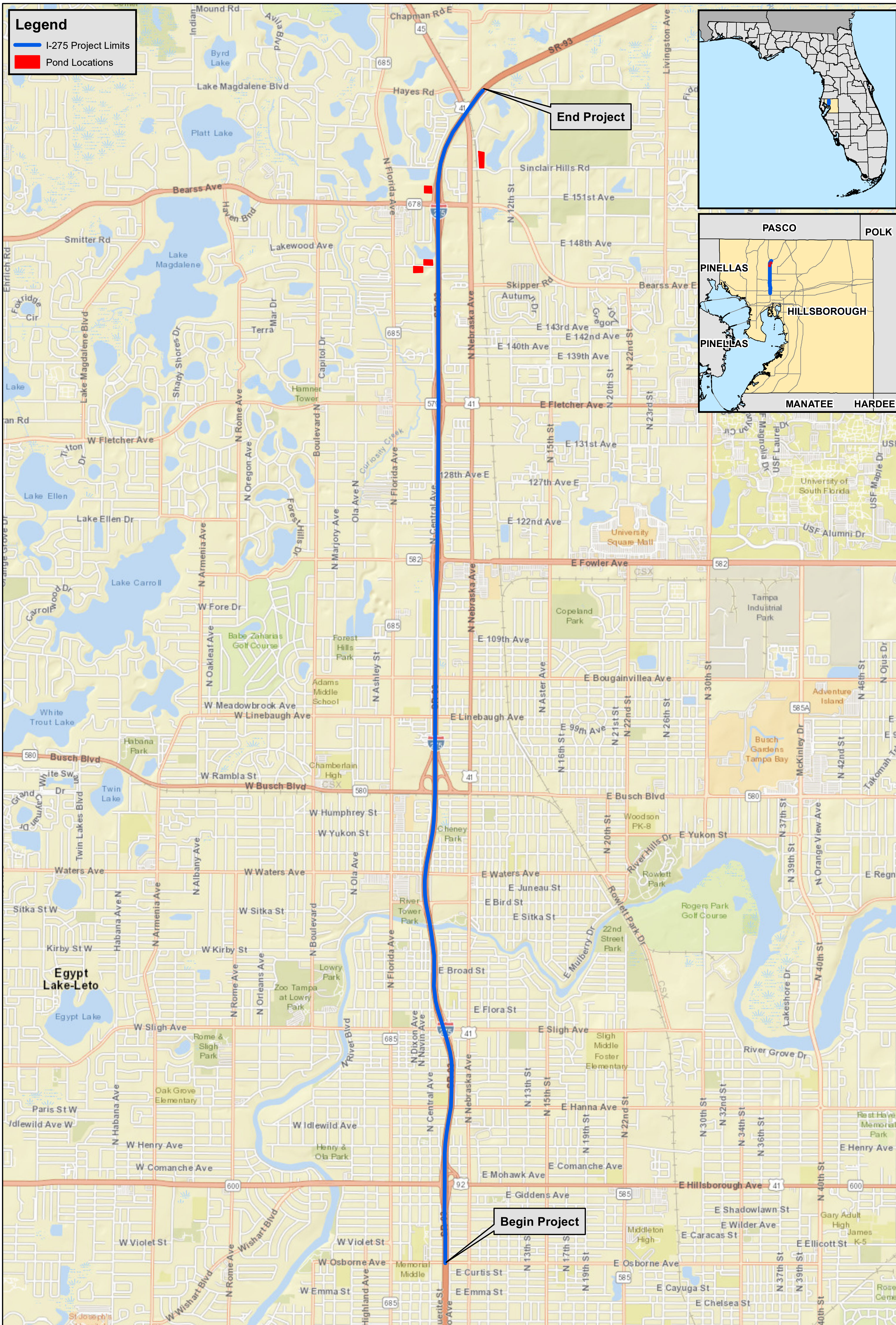
The proposed action evaluates the need to provide capacity and operational improvements along 7.70 miles of State Road 93 (SR 93)/Interstate 275 (I-275) from north of MLK Boulevard to north of Bearss Avenue in Hillsborough County, Florida (**Figure 1-1**). This evaluation considers the operational and highway safety benefits of implementing capacity improvements and compares them to the cost savings and minimization of adverse impacts associated with a No-Build Alternative. An evaluation matrix compares the No-Build and Build Alternative on a variety of factors. This process identifies the alternative that best balances the benefits (such as improved traffic operations and safety) with the impacts (such as environmental effects and construction costs).

The Build Alternative includes one additional travel lane in each direction of I-275. The proposed typical section contains four 12-foot general purpose lanes in each direction and accommodates transit on the inside shoulders. The improvements would be constructed on the existing alignment with the same existing horizontal and vertical geometries. All the proposed improvements within the I-275 project corridor would be accomplished within the existing right-of-way (ROW). Minimal ROW may be required at the Bearss Avenue interchange for stormwater ponds.

Planning for the Tampa Bay area interstates began in the late 1980s with the Tampa Interstate Study (TIS) Master Plan being approved in late 1980s with improvements outlined to relieve congestion and improve mobility. The TIS Master Plan included additional travel lanes on the Tampa Bay area interstates and included a transit envelope for the east-west movement but not along this segment of I-275.

In 2013, building upon the original TIS Master Plan, the Tampa Bay Express (TBX) program was developed to provide guidance for improvements to the Tampa Bay interstate system and identified freeway segments (including this segment of I-275) for the addition of tolled express lanes. In 2017, FDOT District Seven reset TBX to Tampa Bay Next (TBNext) to demonstrate its commitment to comprehensive, integrated transportation planning and development. FDOT determined that the express lane alternative has been removed.

The improvements proposed for this segment of I-275, from north of MLK Boulevard to north of Bearss Avenue, will include one additional general purpose lane in each direction and improvements to the inside shoulder that will allow for the integration of infrastructure for transit.



Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_loc_tms_20181115.mxd Project Number: 002416.10 01 PDF Document: 2416_10_01_loc_tms_20181115.pdf Plot Size: 11 x 17

Figure 1-1: Pond Location Map

FPID #: 431821-1
I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 3,000 6,000 9,000 Feet

Data Source:
- ESA
- WSP USA

Imagery Source:
- ESRI Streets

Coordinate System:
NAD 1983 Florida
State Plane West

N

1.2 Existing Facility

I-275 is a limited access freeway that runs in a north-south direction within the project limits. I-275 is part of the Federal Highway System (National Highway System) Interstate System, Florida's State Highway System, and the Strategic Intermodal System (SIS). Within the project limits there are seven interchanges:

- Hillsborough Avenue
- Sligh Avenue
- Bird Street
- Busch Boulevard
- Fowler Avenue
- Fletcher Avenue
- Bearss Avenue

The existing I-275 is a six-lane divided typical section which varies slightly throughout the project limits (**Figure 1-2**). The posted speed varies from 55 mph to 65 mph. The existing ROW along I-275 ranges from approximately 220 feet between Linebaugh Avenue and Bougainvillea Avenue to approximately 1,400 feet at the Busch Boulevard interchange.

The I-275 corridor contains 18 bridges. Fourteen bridges span roadways, two bridges span both a roadway and railroad tracks, and two bridges span waterways. The 14 bridges over roadways do not meet the required minimum vertical clearance of 16.5 feet. The bridges over Busch Boulevard and US 41/Nebraska Avenue that span both a roadway and a railroad meet the minimum vertical clearance of 16.5 feet over roadways, but do not meet the required minimum vertical clearance of 23.5 feet over railroads.

1.3 Project Purpose and Need

The purpose of the proposed project's Project Development and Environment (PD&E) Study is to evaluate additional travel lanes along I-275 from north of MLK Boulevard to north of Bearss Avenue to increase capacity and relieve congestion along this regional link in the Tampa Bay region. I-275 is a major north-south interstate that is an important connection to the regional and statewide transportation network linking the Tampa Bay area to the remainder of the state and nation. I-275 provides access to numerous commercial and residential areas in Hillsborough County and is a designated evacuation route. These improvements are expected to enhance the overall safety and improve the operating conditions of the facility within the project limits.

Numerous transportation plans and studies by the Florida Department of Transportation (FDOT) and the Hillsborough Metropolitan Planning Organization (MPO) identify the need for interstate improvements. This segment of I-275 provides a vital connection to tourist and recreational destinations, major employment/activity centers, and the University of South Florida; and is a convenient route for commuters and other work-related travel both north and south of the area. The corridor is also critical to the transport of goods and services. The capacity improvements are needed to accommodate projected future traffic and enhance corridor mobility and safety.

The need for improvements on this segment of I-275 is based on several factors. These factors include plan consistency, regional connectivity, improving safety and capacity, enhancing emergency evacuation, accommodating projected population and employment growth, supporting multi-modal service, and providing access to intermodal and freight centers. The following sections summarize the need for the proposed improvements including areawide needs and project corridor needs.

Regional Connectivity: I-275 is a north-south interstate highway that also serves as a major trade, tourism, and freight corridor. I-275 is part of Florida's Strategic Intermodal System (SIS), which is comprised of facilities and services of statewide and inter-regional significance. The SIS is a statewide network of

highways, railways, waterways, and transportation hubs that handle the bulk of Florida's passenger and freight traffic. This section of I-275 connects to I-4 to the south and is close proximity to I-75 to the north. Enhancing the capacity and preserving the operational integrity and functionality of I-275 is critical to mobility. It is a vital link in the transportation network that connects the Tampa Bay region to the remainder of the state and the nation.

Safety Rates: Highway crashes are a primary cause of traffic incidents, making safety critical to FDOT's mission to move goods and services. A total of 1,639 crashes occurred between 2012 and 2016 along the I-275 corridor (777 northbound and 862 southbound). The annual average number of crashes for the study corridor is approximately 328 crashes per year. Rear end crashes represent about 58 percent of the total crashes. Hit fixed object crashes represent about 22 percent of the total crashes and sideswipe crashes represent about 11 percent of the total crashes. All other crash types each individually represent less than 10 percent of the total crashes. Eight crashes resulted in 14 fatalities; 669 crashes resulted in 1,037 injuries, and 962 resulted in property damage only.

Per the FDOT Crash Analysis Reporting System (CARS), the 2011 to 2015 five-year statewide average crash rate was 0.992 for the urban interstate category. Ten segments in both directions exceed this statewide average crash rate. The higher crash rates in these areas may be due in large part to the short segment lengths, closely spaced interchanges, and profile and grade issues.

The Highway Safety Manual (HSM) Predictive Crash Analysis was conducted to assess safety benefits between the Build and the No-Build Alternatives. The model predicted the Build condition to yield a lower number of crashes than the No-Build condition. Using the Enhanced Interchange Safety Analysis Tool (ISATe), 11 percent of the total crashes were reduced on average after implementing the proposed roadway geometry and traffic control improvements to the I-275 corridor between the 2025 opening year and 2045 design year. Of the total crashes, the Build Alternative will on average reduce 11 percent of freeway segment crashes, 15 percent of ramp segment crashes, and 10 percent of ramp terminal crashes between the 2025 opening year and 2045 design year. On average, the fatal and injury crashes on freeway segments, ramp segments, and ramp terminals will be reduced by four percent, 18 percent, and six percent, respectively, between the 2025 opening year and 2045 design year after implementing the proposed improvements.

Emergency Evacuation: I-275 is a critical evacuation route and is included on the Florida Division of Emergency Management's evacuation route network. The addition of one general purpose lane in each direction as well as the improved full depth shoulder will aid in emergency evacuation.

Future Population and Employment Growth: According to the Hillsborough MPO's Imagine 2040 Long Range Transportation Plan (LRTP), the population of Hillsborough County in 2010 was 1,229,226 and is anticipated to increase to 1,815,964 by 2040. This reflects a population growth of almost 48 percent over 30 years. Based on the LRTP, employment in 2010 was 711,400 and is projected to grow to 1,112,059 by 2040. This reflects 400,659 new employees, an increase of more than 56 percent. These socioeconomic projections are used in the Tampa Bay Regional Planning Model (TBRPM) to estimate future travel demand.

According to the Imagine 2040 LRTP, the anticipated growth is expected to be concentrated in existing job centers and potential transit station locations within the urban service area. Future residential areas near potential transit were identified based on comprehensive plan policies for transit-oriented development. Other job growth is anticipated to occur in existing and potential commercial centers. Increases in employment is expected to occur in Westshore, around the University of South Florida, central downtown Tampa, and in the Brandon area. Existing areas with the highest residential and employment densities are expected to remain high density areas. Future population is expected to remain primarily concentrated within the neighborhoods surrounding Tampa's downtown urban core, the University of South Florida area, and along the potential transit line between these two areas.

I-275 is an important link for travelers in the Tampa Bay area as it provides regional accessibility to area tourist and recreational destinations and major employment/activity centers, and is a popular and convenient route for commuters and other work-related travel both north and south of the area. Normal traffic growth associated with increasing population in the Tampa Bay region, as well as traffic growth from increased development activity in downtown Tampa, further reinforce the need for improvements in the I-275 corridor. I-275 serves many of the regionally-recognized employment centers.

Current and Future Traffic: According to the February 2019 Project Traffic Analysis Report (PTAR), portions of I-275 are already operating at the lowest level of mobility, with an unacceptable level of service (LOS) F. LOS is a qualitative measure of traffic flow on a roadway. LOS ranges from LOS A (free flow) to LOS F (congestion). Based on the 2013 daily traffic volumes from the FDOT Florida Traffic Online (2013) traffic information database, the segment of I-275 from north of MLK Boulevard to north of Bearss Avenue already exceeds the capacity of the existing interstate lanes. The highest volume portion is between Sligh Avenue and Bird Street with a volume of 150,500 vehicles per day (vpd). The capacity is 130,600 vpd. The volume to capacity (v/c) ratio for this segment of I-275 is 1.15. A v/c ratio compares demand to how many vehicles a roadway can handle; a greater than 1.0 ratio means severe congestion.

According to the Tampa Bay Regional Planning Model-Managed Lanes, I-275 within the project limits is projected to have daily traffic volumes ranging from 165,300 vpd to 224,600 vpd. The v/c ratio is expected to range from 1.27 to 1.72. The proposed improvements are expected to improve the v/c ratio.

Without the proposed improvements, the operating conditions will continue to deteriorate and will operate at LOS F for the entire project limits by 2040. The adopted LOS standard for I-275 in this area is D based on current SIS criteria for interstates in urban areas.

Multi-Modal Service: Hillsborough Area Regional Transit (HART) operates existing transit service in Hillsborough County within the project limits. HART currently operates two Commuter Express routes that travel on I-275 within the project limits for a portion of its service. Route 20X (Pasco/Lutz Express) travels between the Lutz Target and MacDill Air Force Base in South Tampa. Route 275LX travels between the Wiregrass Park-N-Ride and the Tampa International Airport. Adjacent to I-275 the HART MetroRapid service operates on Nebraska Avenue. HART also operates flex service and circulator service near the project area. Future transit service (express routes) within and adjacent to the project limits is listed in HART's Transit Development Plan (TDP) 2018-2027 Major Update.

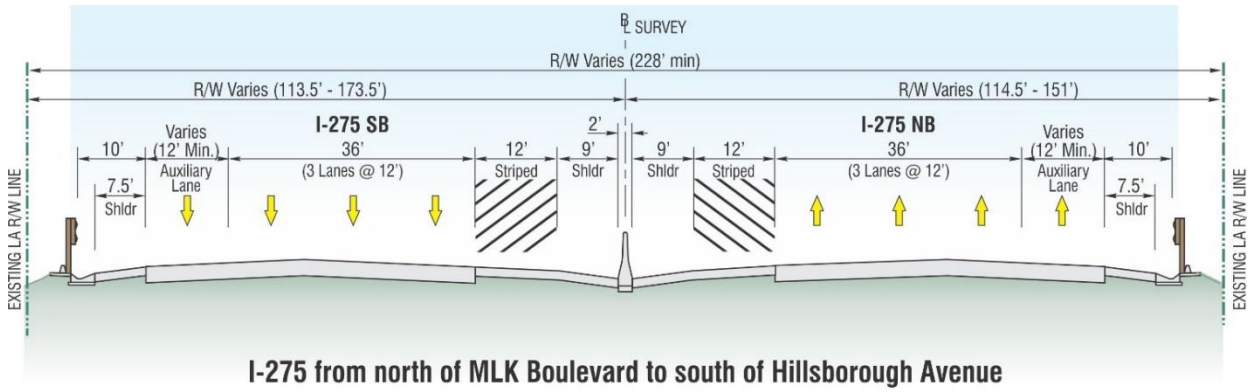
Within the project limits, the accommodation for premium transit on the inside shoulders of I-275 will provide the infrastructure to support proposed and future enhanced transit. HART is studying transit options within its service area as well as regionally. While FDOT will provide the infrastructure, the transit agency will be responsible for deciding the transit mode and implementing the transit service.

Access to Intermodal Facilities and Freight Centers: I-275 is part of the highway network that provides access to regional intermodal facilities/freight activity centers such as the industrial parks/areas, South Central CSX Transportation (CSXT) Corridor, St. Petersburg Seaport, Gateway Triangle, Tampa International Airport, the Port Tampa Bay, and St. Petersburg-Clearwater International Airport. Improvements to I-275 will enhance access to activity centers in the area, and the movement of goods and freight in the greater Tampa Bay region. I-275 is also identified on the regional freight network in the Tampa Bay Area Regional Transit Authority (TBARTA) Regional Transportation Master Plan. It should be noted that TBARTA was previously the Tampa Bay Area Regional Transportation Authority.

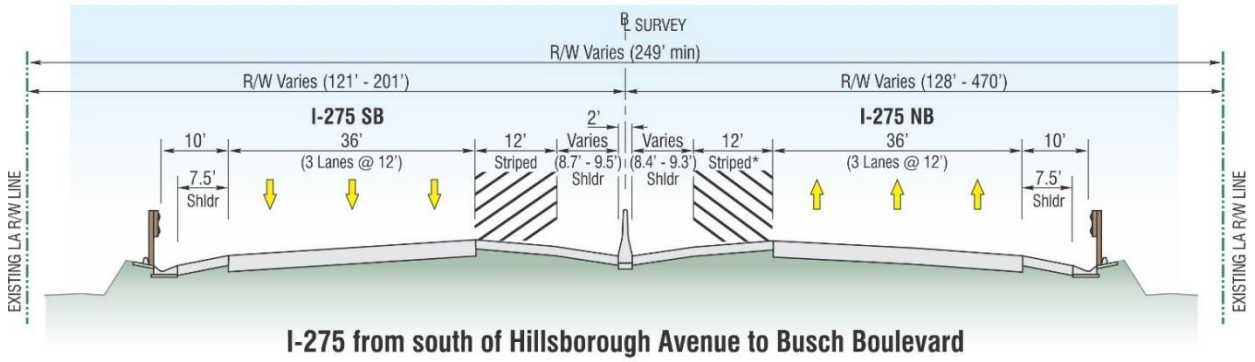
1.4 Project Update

This Natural Resource Evaluation is provided to update the Threatened and Endangered Species (T&E) and Wetlands Assessment for Pond Siting (January 2015) and summarize impacts to wildlife and wetlands associated with the proposed pond sites associated with the Build Alternative for State Road 93 (SR 93)/Interstate 275 (I-275) from north of Dr. Martin Luther King, Jr. Boulevard/SR 574 (MLK Boulevard) to north of Bearss Avenue/SR 678/County Road (CR) 582. In 2015 Environmental Science Associates (ESA) (formerly Scheda Ecological Associates, Inc.) completed a review of eighteen (18) stormwater management facility (SMF) sites and two floodplain compensation sites (FPC) for the above referenced project. This updated pond siting Build Alternative replaces all previous pond sites with SMF 14A, SMF 14B, SMF 15A, and SMF 15B. This report uses the same methodology as the 2015 effort but addresses the four new SMF sites that are part of the updated Build Alternative.

Figure 1-2: I-275 Existing Typical Sections

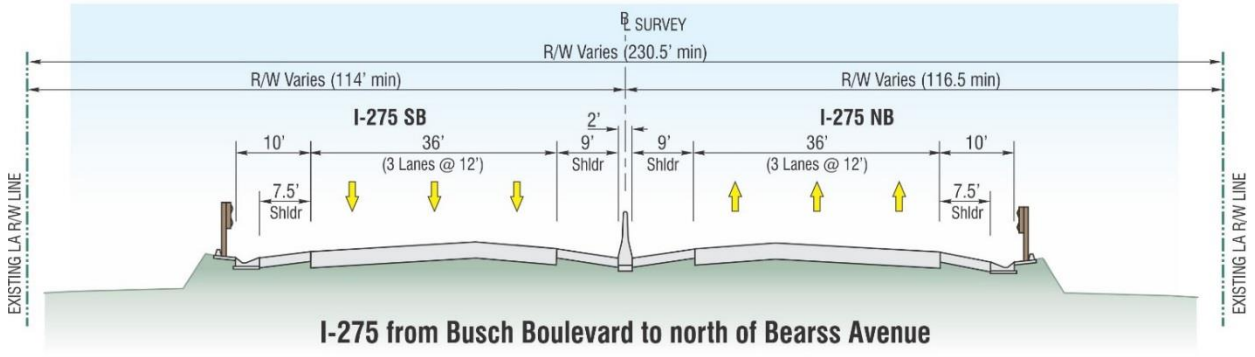


I-275 from north of MLK Boulevard to south of Hillsborough Avenue



I-275 from south of Hillsborough Avenue to Busch Boulevard

**Between Hillsborough Avenue and Sligh Avenue, the northbound median is used as a travel lane and is not striped out and the outside lane becomes an auxiliary lane.*



I-275 from Busch Boulevard to north of Bearss Avenue

SECTION 2

Alternatives Analysis

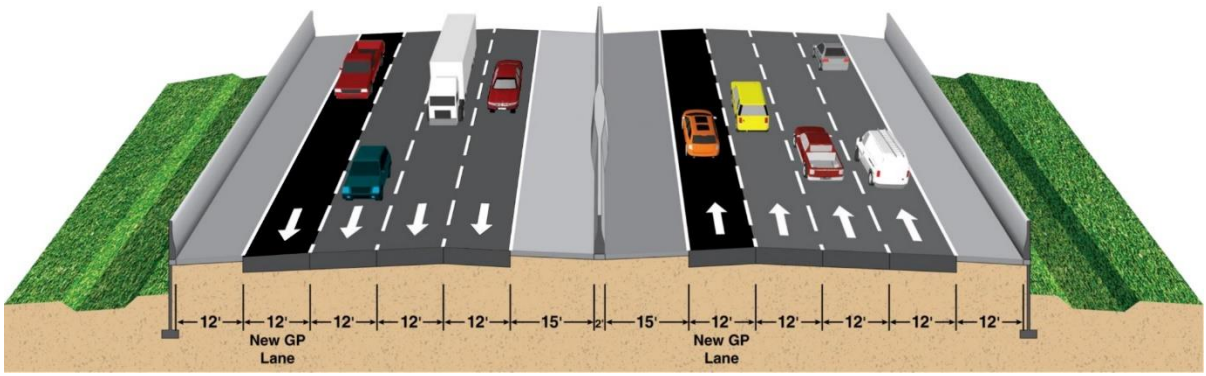
2.1 Build Alternative

2.1.1 Mainline I-275

The Build Alternative includes widening I-275 from an existing six-lane divided interstate to an eight-lane divided interstate, plus accommodating transit on the inside shoulder. Operational improvements will be implemented at Hillsborough Avenue. The Bearss Avenue bridge will be replaced along with ramp improvements; no other interchange configurations will change with the improvements. The remaining seventeen (17) existing bridges will be widened to accommodate the additional travel lanes.

The proposed typical section includes eight 12-foot wide general purpose lanes (four in each direction), two 15-foot wide inside shoulders which accommodate transit (one in each direction), 12-foot wide outside shoulders, and a 2-foot wide concrete barrier separating the two directions of travel. The proposed I-275 mainline typical section is shown below.

Figure 2-1: I-275 Proposed Typical Section



The existing horizontal and vertical alignment will be maintained in the Build Alternative to avoid ROW impacts. The proposed improvements for mainline I-275 will take place within the existing ROW. Minimal ROW may be required at the Bearss Avenue interchange for stormwater ponds.

2.1.2 Interchange Build Alternatives

All interchange ramp connections will be impacted to accommodate the mainline widening of I-275; however, the interchange configurations will not change except for the Hillsborough Avenue and Bearss Avenue interchanges. Operational improvements will be included at these two interchanges only.

On Hillsborough Avenue, east of I-275, a signal is proposed for the on-ramp for I-275 northbound. An eastbound to northbound dual left will be constructed at this intersection by widening Hillsborough Avenue to accommodate more vehicles entering I-275. Also, the I-275 northbound loop off-ramp will be reconstructed to direct traffic to this proposed signalized intersection.

The vertical and horizontal constraints at the existing bridges at the Bearss Avenue interchange cannot accommodate the proposed improvements; thus, the Bearss Avenue interchange will be reconstructed as a single point urban interchange (SPUI). The design includes reconstructing the I-275 bridge over Bearss Avenue and reconstructing the on- and off-ramps from the I-275 gores to approximately halfway to the

Bearss Avenue intersection. The bridge design will accommodate potential future widening of Bearss Avenue. The bridge reconstruction will create the configuration for a SPUI interchange to be implemented in the future.

The future configuration would have one traffic signal underneath the I-275 bridge to control through traffic on Bearss Avenue and left-turning traffic entering or exiting I-275 at the intersection.

In the SPUI alternative, the I-275 bridge over Bearss Avenue would be reconstructed. The intersections on Bearss Avenue between Florida Avenue and Nebraska Avenue would be reconstructed. The future configuration would have one traffic signal underneath the I-275 bridge to control through traffic on Bearss Avenue and left-turning traffic entering or exiting I-275 at the intersection. The turning movements of the I-275 ramps and all the traffic movements for the Bearss Avenue interchange would be executed in one central area. Since a SPUI has one signalized intersection, it allows for simpler signal phasing and operations. However, with a wide intersection, the SPUI would require longer yellow and red signal phases compared to a conventional intersection.

2.2 No-Build Alternative

Under the No-Build Alternative, there would be no changes to the transportation facilities within the study area besides already planned and programmed projects.

The advantages of the No-Build Alternative include the following:

- no associated design, construction, or right-of-way (ROW) costs;
- no impacts to socio-cultural resources; and
- no impacts to the environment.

The primary disadvantages of the No-Build Alternative are that there will be no improvements to traffic operations, no improvements to mobility, no improvements to access for emergency responders, and no improvements to safety.

SECTION 3

Existing Environmental Conditions

3.1 Land Use

Land use was reviewed within the proposed pond sites using the 2011 data layer from the Southwest Florida Water Management District (SWFWMD). Habitats were subsequently field verified on September 26 and 27, and October 18, 2018 and a project-specific Florida Land Use, Cover and Forms Classification System (FLUCFCS) map was prepared. **Figure 3-1** depicts the field-verified land use and land cover classifications within the proposed pond sites and **Table 3-1** provides a summary of the land use/land cover types within proposed pond sites. Descriptions of the pond site land uses are provided in **Appendix A**.

Table 3-1: Existing Land Use/Land Cover (FLUCFCS) within Proposed Pond Sites

FLUCFCS Code		FLUCFCS Description	Acres	Percent of Total Project Area
1000: URBAN AND BUILT UP	1110	Residential, Low Density	2.60	43.5
	1910	Undeveloped Land within Urban Areas	3.32	55.5
	Total		5.92	99.0
6000: WETLANDS	6410	Freshwater Marshes/Graminoid Prairie-Marsh	0.06	1.0
	Total		0.06	1.0
Total			**5.98**	**100**

The major land use/land cover classifications within the proposed ponds, in order of frequency, include Undeveloped Land within Urban Areas (FLUCFCS 1910, 55.5%), Residential, Low Density (FLUCFCS 1110, 43.5%), and Freshwater Marshes/Graminoid Prairie-Marsh (FLUCFCS 6410, 1.0%). These categories account for 100% of the land use/land cover within the four proposed pond sites.

Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_fv_lulc_tms_20181115.mxd Project Number: 002416.10.01 PDF Document: 2416_10_01_fv_lulc_tms_20181115.pdf Plot Size: 11 x 17

All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Figure 3-1: Field-Verified FLUCFCS Land Use Map / Land Cover

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I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

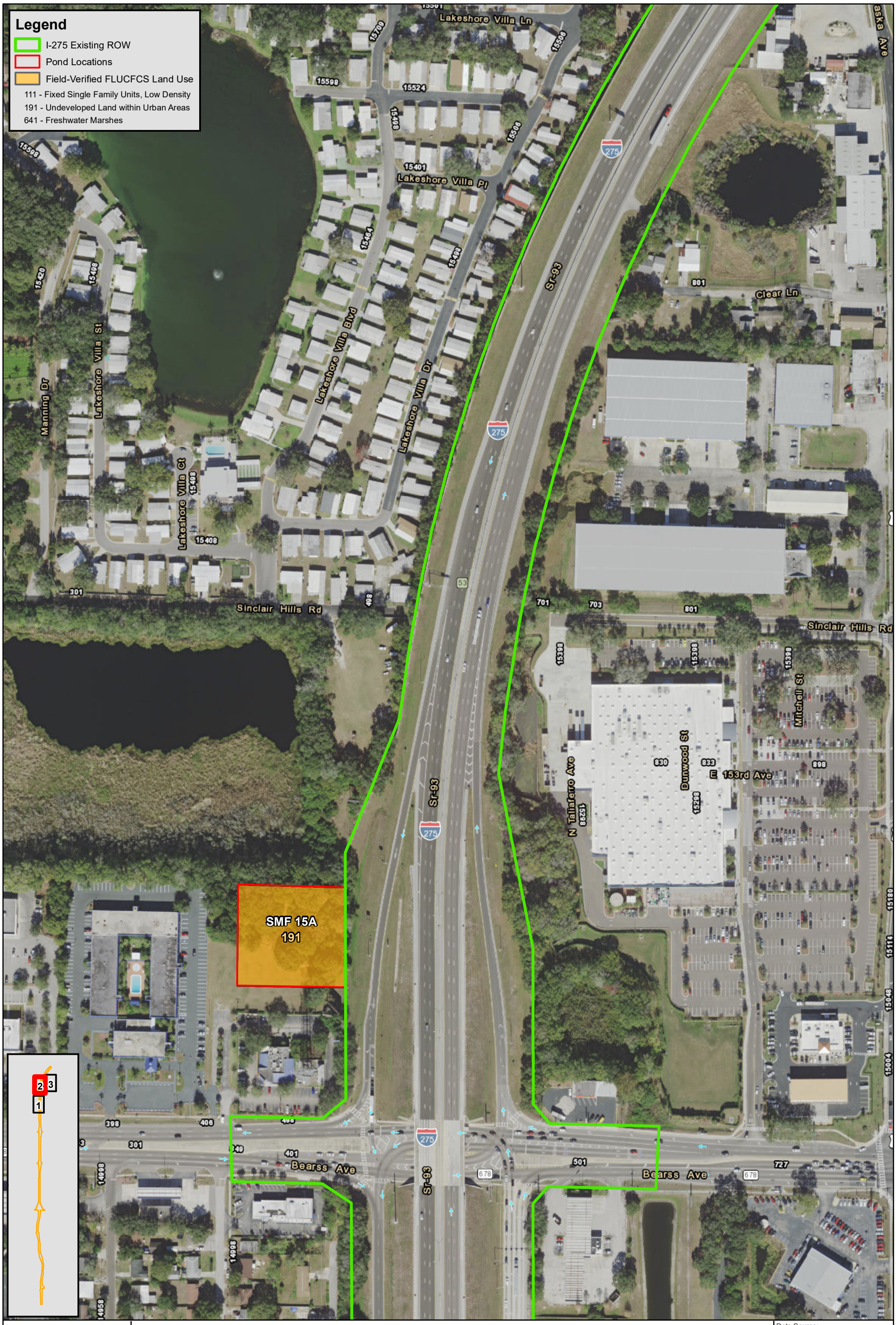

Figure 3-1: Field-Verified FLUCFCS Land Use Map / Land Cover

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I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_fv_luc_tms_20181115.mxd Project Number: 002416.10.01 PDF Document: 2416_10_01_fv_luc_tms_20181115.pdf Plot Size: 11 x 17

Legend

- I-275 Existing ROW
- Pond Locations
- Field-Verified FLUCFCS Land Use
  - 111 - Fixed Single Family Units, Low Density
  - 191 - Undeveloped Land within Urban Areas
  - 641 - Freshwater Marshes

SMF 15B
191

Central Lake Dr
Burrell Dr W
Burrell Dr E
Lake Burrell
Sinclair Hills Rd
N Nebraska Ave
N 12th St
Bearss Ave E
E 151st Av
Sinclair Hills
41
1001
1198
1007
1033
15910
15618
15004
15478
15398
15216
15180
15114
15043
15098
898

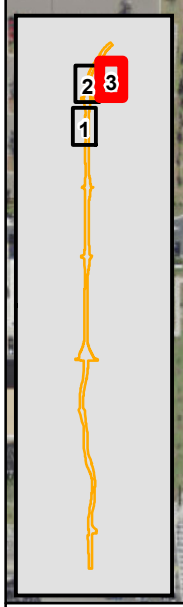

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Figure 3-1: Field-Verified FLUCFCS Land Use Map / Land Cover

Page 3 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_fv_lulc_tms_20181115.mxd Project Number: 002416.10.01 PDF Document: 2416_10_01_fv_lulc_tms_20181115.pdf Plot Size: 11 x 17

3.2 Soils

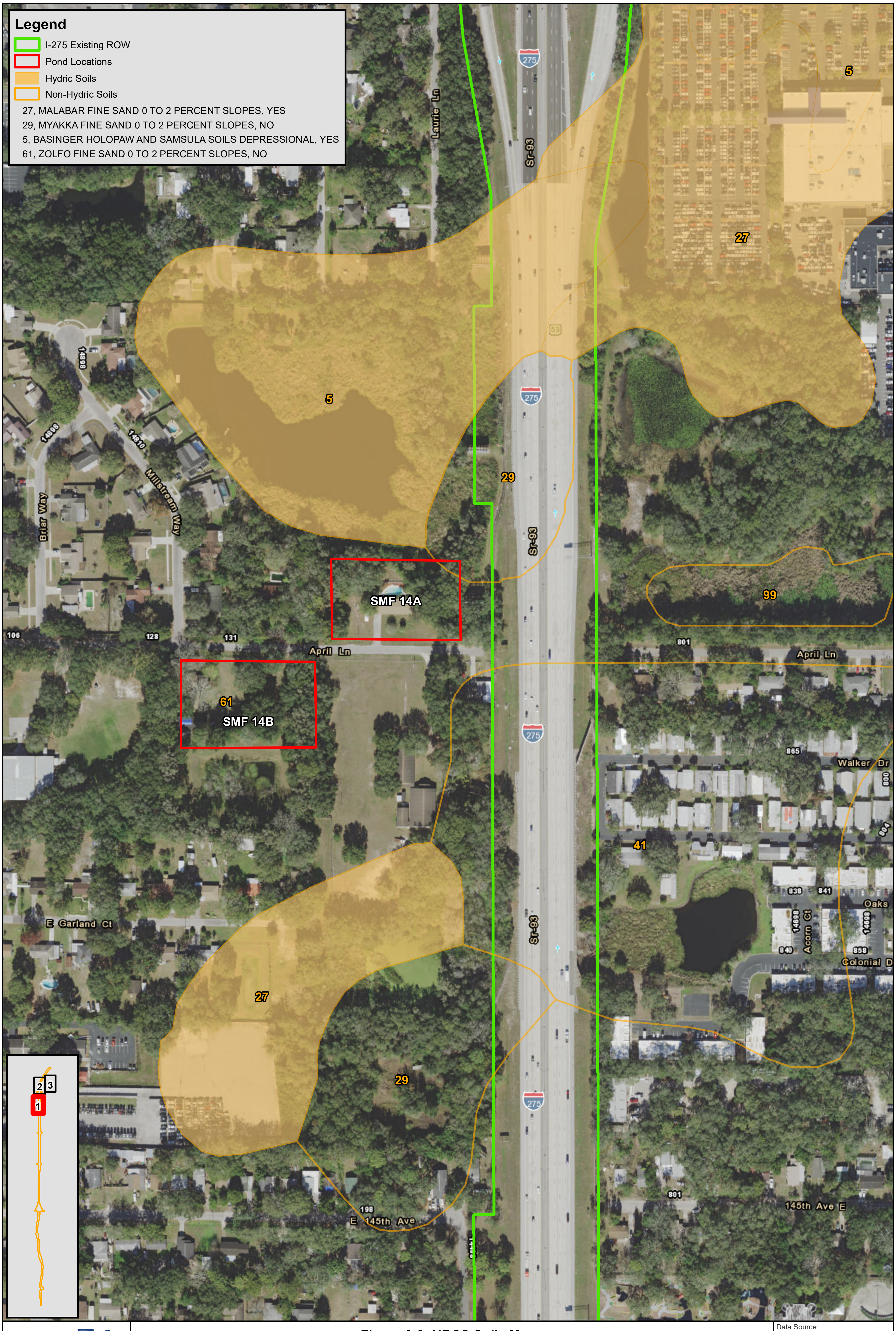
According to the Soil Survey of Hillsborough County (current) 14.2% of the soils in proposed pond sites are classified as state hydric. The most prevalent soils in the project area are Zolfo fine sand (MUID [Mapping Unit Identifier] 61), Basinger, Holopaw, and Samsula soils (MUID 5), Myakka fine sand (MUID 29), and Malabar fine sand (MUID 27). Of these soils, Basinger, Holopaw, and Samsula soils, and Malabar fine sand are the soils classified as state hydric. **Figure 3-2** shows the location of hydric soils within the ponds and **Table 3-2** shows the soils documented within the proposed pond sites. Descriptions of soil types within pond sites are described in more detail in **Appendix B**.

Table 3-2: Existing NRCS Soil Types within the Proposed Pond Sites

MUID	Soil Type	Hydric Status	Acres	Percent of Total Project Area
5	Basinger, Holopaw, and Samsula Soils, depressional	Hydric	0.83	13.9
27	Malabar fine sand, 0 to 2 percent slopes	Hydric	0.02	0.3
29	Myakka fine sand, 0 to 2 percent slopes	Non-hydric	0.03	0.5
61	Zolfo fine sand, 0 to 2 percent slopes	Non-hydric	5.10	85.3
Total			**5.98**	**100**

3.3 Designated Waters and Protection Areas

There are no significant waters within or adjacent to the proposed pond sites. Portions of the Hillsborough River are verified by the Florida Department of Environmental Protection (FDEP) as Outstanding Florida Waters (OFWs), however the segment of the Hillsborough River contained within the project area is not designated an OFW and the ponds are all greater than four miles from the crossing over the Hillsborough River. There are no rivers designated as Wild and Scenic Rivers as defined in Part 2, Chapter 12 of the PD&E Manual. Conservation lands within the vicinity of the proposed pond sites are the Violet Cury Nature Preserve, approximately 0.4 miles to the east of pond SMF 15B and the Cypress Creek Preserve, approximately 1.2 miles to the east of pond SMF 15B.



FDOT

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Figure 3-2: NRCS Soils Map

Page 1 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- NRCS

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

Legend

- I-275 Existing ROW
- Pond Locations
- Hydric Soils
- Non-Hydric Soils

27, MALABAR FINE SAND 0 TO 2 PERCENT SLOPES, YES
29, MYAKKA FINE SAND 0 TO 2 PERCENT SLOPES, NO
5, BASINGER HOLOPAW AND SAMSULA SOILS DEPRESSIONAL, YES
61, ZOLFO FINE SAND 0 TO 2 PERCENT SLOPES, NO

SMF 15A

Lakeshore Villa Ln
Lakeshore Villa Pl
Lakeshore Villa Blvd
Lakeshore Villa Dr
Lakeshore Villa St
Lakeshore Villa Ct
Manning Dr
Sinclair Hills Rd
Clear Ln
Mitchell St
Dunwood St
E 153rd Ave
N Tallaferro Ave
Bearss Ave
Sr-93
I-275

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Figure 3-2: NRCS Soils Map

Page 2 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- NRCS

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

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Figure 3-2: NRCS Soils Map

Page 3 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- NRCS

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

Date: 11/15/18 Rev Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_fv_tulc_tms_20181115.mxd Project Number: 002416.10.01 PDF Document 2416_10_01_fv_tulc_tms_20181115.pdf Plot Size: 11 x 17

SECTION 4

Protected Species and Habitat

The proposed pond sites were evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with 50 CFR Part 402 of the Endangered Species Act (ESA) of 1973, as amended, and Part 2, Chapter 16 of the FDOT PD&E Manual titled Protected Species and Habitat. No proposed pond sites fall within USFWS-designated Critical Habitat (CH) for any species. The northern two pond sites fall within the USFWS Consultation Area (CA) of the Florida scrub-jay (*Aphelocoma coerulescens*). All four proposed pond sites fall within the Core Foraging Areas (CFAs) of eleven wood stork (*Mycteria americana*) colonies: Cross Creek, Cypress Creek I-75, East Lake – Bellows Lake, Ferman Corporation, Lake Forest, North Lakes – Sagebrush, Sheldon Road – Citrus Park, Heron Point – Land O Lakes, Saddlebrook, Resort, Seven Springs, and Alligator Lake.

4.1 Methodology

Literature reviews, agency database searches, and field reviews of potential habitat areas were conducted to identify state and federally protected species occurring or potentially occurring within the proposed pond sites. The Hillsborough County Soil Survey, recent aerial imagery (2018), and SWFWMD land use/land cover mapping were reviewed to determine habitat types occurring within and adjacent to the pond sites. Land use/land cover mapping was updated to reflect the current field conditions.

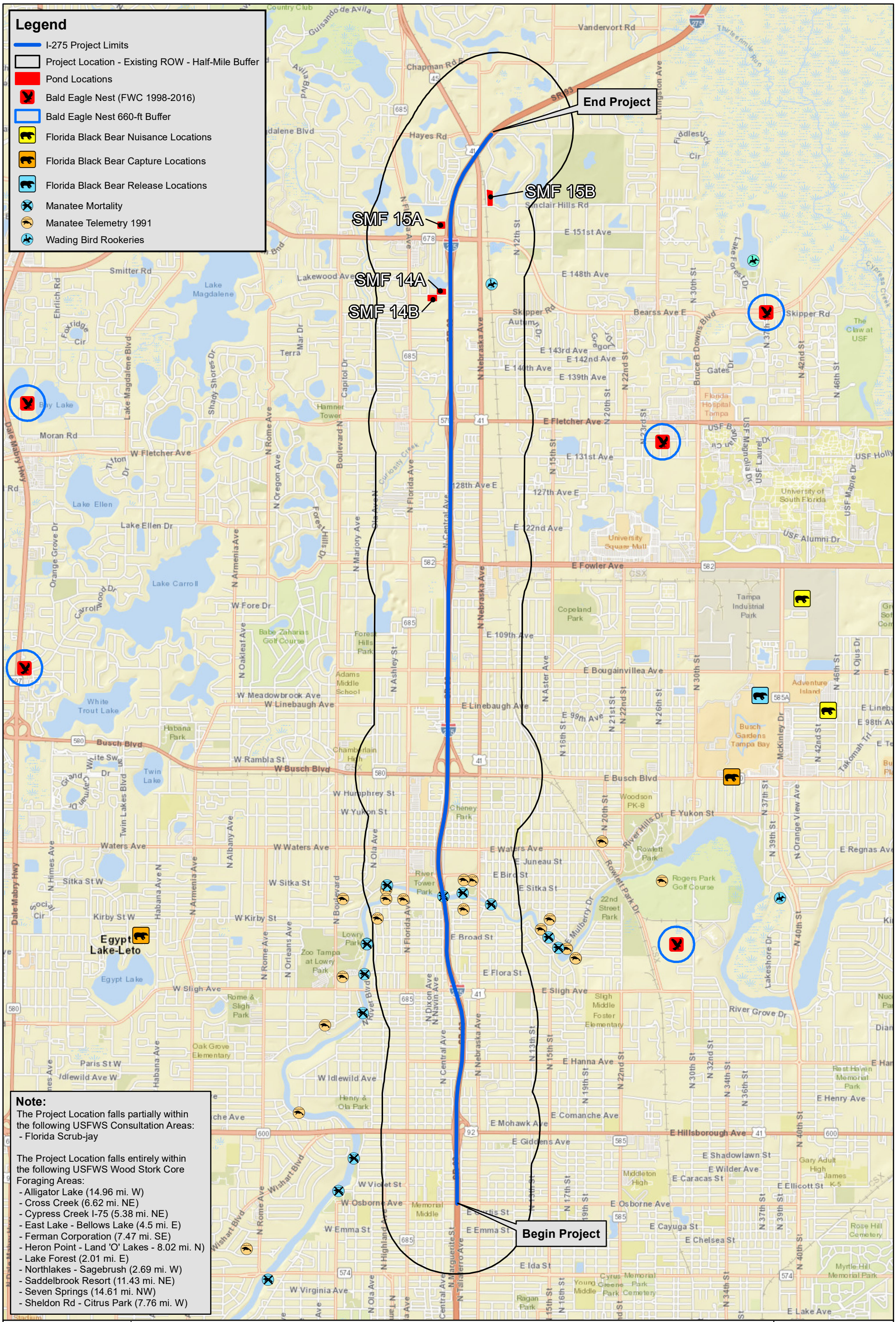
Information sources and databases reviewed for the project include the following:

- USFWS databases;
- Florida Natural Areas Inventory (FNAI) protected plant and animal species lists;
- Hillsborough County soil survey;
- Florida Fish and Wildlife Conservation Commission (FWC) – Bald Eagle (*Haliaeetus leucocephalus*) Nest Locator for Hillsborough County (2017-2018 nesting season data);
- FWC – Waterbird colony locator (1999);
- USFWS – CH for threatened and endangered species;
- USFWS – Central (15-mile radius) and south (18.6-mile radius) Florida wood stork CFA; and
- FDOT's Efficient Transportation Decision Making (ETDM) Summary Report republished February, 2014 (ETDM Project No. 13854).

Figure 4-1 depicts field observations as well as historic species occurrences from database searches. Based on the results of database searches, preliminary field reviews, and review of aerial photographs and soil surveys, field survey methods for specific habitat types and tables of potentially occurring protected fauna and flora were developed.

Field reviews consisted of vehicular surveys and pedestrian surveys through natural areas and altered habitats with the potential to support protected species. In the absence of physical evidence of a protected species, evaluation of the appropriate habitat was conducted to determine the likelihood of a species being present.

Project scientists conducted general surveys on September 26 and 27, and October 18, 2018. At each field event, the field team consisted of ecologists with bachelor's degrees in a biological science, and several years of field experience in Florida ecosystems.



All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Figure 4-1: Listed Species and Wildlife Observations Map

FPID #: 431821-1
I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)
Hillsborough County, Florida

0 3,250 6,500 9,750 Feet

Data Source:
- ESA
- WSP USA
- USFWS
- FWC

Imagery Source:
- ESRI Streets

Coordinate System:
NAD 1983 Florida State Plane West

N

Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_I&e_tms_20181115.mxd Project Number: 002416.10.01 PDF Document: 2416_10_01_I&e_tms_20181115.pdf Plot Size: 11 x 17

Using pedestrian survey methods during daylight hours, appropriate habitat within the proposed pond sites was visually scanned for evidence of listed species as well as general wildlife. All natural areas were considered as appropriate wildlife habitat, and protected floral species habitat. All occurrences of protected wildlife in the study area were recorded and observation locations were put on project aerials. These occurrence records could include observations of the actual species, or signs of their presence including tracks, burrows, dens, scat, nests, or calls.

Each potential occurring species was assigned a likelihood for occurrence of "none", "low", "moderate", or "high" within habitats found on the project corridor and an indicator of suitable habitat proximity to the project area of "distant", "near", or "contiguous". Definitions of probability of species presence/habitat proximity are provided below.

Likelihood of Species Presence

None – Species has been documented in Hillsborough County, but due to complete absence of suitable habitat, could not be naturally present within the project pond sites.

Low – Species with a low likelihood of occurrence within the project area are defined as those species that are known to occur in Hillsborough County or the bio-region, but preferred habitat is limited in the pond sites, or the species is rare.

Moderate - Species with a moderate likelihood for occurrence are those species known to occur in Hillsborough or nearby counties, and for which suitable habitat is well represented in the pond sites, but no observations or positive indications exist to verify presence.

High - Species with a high likelihood for occurrence are suspected within the pond sites based on known ranges and existence of sufficient preferred habitat in the area; are known to occur adjacent to the pond sites; or have been previously observed or documented in the vicinity.

Habitat Proximity

Distant - Appropriate habitat is distant from the project footprint when accounting for the species' home range size and level of mobility.

Near - Appropriate habitat is near the project footprint when accounting for the species' home range size and level of mobility.

Contiguous - Appropriate habitat occurs within or immediately adjacent to the project footprint.

4.2 Results

Table 4-1 lists the federally and state-protected wildlife species known to occur within Hillsborough County that could potentially occur near the pond sites based on availability of suitable habitat and known ranges.

Table 4-1: Potentially Occurring and Observed Listed Wildlife Species in the Proposed Pond Sites

Species	Common Name	FWC	USFWS	Habitat	Habitat Occurrence in Relation to Project Footprint	Probability of Species Presence or Occurrence
REPTILES						
Drymarchon corais couperi	Eastern indigo snake	FT	T	Hydric hammock, palustrine, sandhill scrub, upland pine forest, mangrove swamp	Near	Low
Gopherus polyphemus	Gopher tortoise	T	C	Old field, sandhill, scrub, xeric hammock, ruderal, dry prairie, pine flatwood	Contiguous	Low
BIRDS						
Antigone canadensis pratensis	Florida sandhill crane	T	-	Basin marsh, depression marsh, dry prairies, marl prairie, pastures, human-altered suburban landscapes	Contiguous	Moderate
Aphelocoma coerulescens	Florida scrub-jay	FT	T	Relict dune ecosystems or scrub on well drained to excessively well drained sandy soils	Distant	None
Egretta caerulea	Little blue heron	T	-	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Contiguous	Moderate
Egretta rufescens	Reddish egret	T	-	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Contiguous	Moderate
Egretta tricolor	Tricolored heron	T	-	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Contiguous	Moderate
Falco sparverius paulus	Southeastern American kestrel	T	-	Sandhill, mesic flatwoods, ruderal, dry prairie	Contiguous	None
Haliaeetus leucocephalus	Bald eagle	-	*	Forests, estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Contiguous	Moderate
Mycteria americana	Wood stork	FT	T	Estuarine tidal swamps/marshes, lacustrine, seepage stream, ditches, ruderal	Contiguous	Moderate
Platalea ajaja	Roseate spoonbill	T	-	Estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Contiguous	Moderate
MAMMALS						
Trichechus manatus	West Indian manatee	FT	T	Coastal waters, bays, rivers, estuaries, sometimes lakes and canals	Contiguous	None
Ursus americanus floridanus	Florida black bear	**	-	Forests and forested wetlands, bayheads	Near	Low

Sources:

(1) USFWS - U.S. Fish and Wildlife Service status, Official lists of Threatened and Endangered species, 50 CFR 17.11

(2) FWC - Florida Fish and Wildlife Conservation Commission, Florida's Imperiled Species Management Plan 2016-2026, Updated November 16, 2016.

(3) FWC - Florida's Endangered and Threatened Species, Updated December 2018.

(4) USFWS ECOS - Environmental Conservation Online System http://ecos.fws.gov/tess_public/reports/species-by-current-range-county?fips=12105 accessed January, 2019

(5) FNAI - Florida Natural Areas Inventory Tracking List http://www.fnai.org/bioticssearch.cfm accessed January, 2019

Notes:

In accordance with Florida Administrative Code (FAC) Title 68A-27.0012, Procedures for Listing and Removing Species from Florida's Endangered and Threatened Species List, federally endangered or threatened species under the Endangered Species Act will be listed by the FWC by their federal designation.

*The Bald Eagle is afforded federal protection through the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA).

**The Florida black bear is no longer listed as threatened, however is protected under the FAC 68A-4.009 Florida Black Bear Conservation

Key:

E - endangered, T - threatened, C - candidate for listing, FE - federally endangered, FT - federally threatened

4.2.1 Wildlife

4.2.1.1 Federally Protected Wildlife Species

A federally protected wildlife species which has been identified as having a moderate probability for occurrence in the vicinity of the proposed pond sites is the wood stork. The Florida scrub-jay and eastern indigo snake (*Drymarchon corais couperi*) were identified as having no or low probability for occurrence near the project area, and West Indian manatee (*Trichechus manatus latirostris*), though potentially inhabiting other portions of the project, has no possibility of occurrence within any of the pond sites. No federally-listed plant species were observed or are documented for the pond sites.

Wood Stork

The wood stork is listed as threatened by the USFWS. Wood storks are known to use freshwater marshes, swamps, lagoons, ponds, flooded fields, depressions in marshes and brackish wetlands, open pine-cypress wetlands, and man-made wetlands (i.e., ditches, canals, and stormwater retention ponds). Wood storks are typically colonial nesters and construct their nests in medium to tall trees located within wetlands or on island. Wood storks are known to forage a long distance, up to 40 miles, from the colony. No wood storks were observed during field surveys.

For central Florida, the USFWS has defined the CFA for a wood stork colony as the area within a 15-mile radius from the colony location, for south Florida, the CFA for a wood stork colony is an 18.6-mile radius from the colony. The pond sites are all located within the CFA of 11 wood stork colonies. For determining CFA size, ten of the colonies are considered to be within central Florida, and one colony (Alligator Lake) is considered to be within south Florida. As defined by the USFWS, suitable foraging habitat (SFH) includes wetlands and surface waters which have areas of water that are relatively calm, uncluttered by dense thickets of aquatic vegetation, and have permanent or seasonal water depth between 2 and 15 inches. SFH occurs within pond SMF 14A which contains a wetland; the remaining three ponds do not contain SFH.

The Uniform Mitigation Assessment Method (UMAM) will be used to calculate functional loss for unavoidable wetland impacts and impacts will be mitigated as appropriate, if needed. As per the May 2010 Wood Stork Key criteria: (a) the pond sites are more than 2,500 feet from a colony site; (b) one pond site impacts SFH; and (c) the pond site impacts are estimated to be less than 0.5 acre. As a result, the development of project pond sites may affect, but is not likely to adversely affect the wood stork.

Florida Scrub-Jay

The Florida scrub-jay is designated as threatened by the USFWS. The project as a whole is located at the edge of the species' CA. The two northern ponds (SMF 15A and SMF 15B) fall within the Florida scrub-jay CA; ponds SMF 14A and SMF 14B are outside of the CA. According to available Geographic Information Systems (GIS) data, the nearest Florida scrub-jay observation was documented approximately 14.6 miles northwest of the project limits in 2004.

Optimal scrub-jay habitat occurs on scrub ridges with well drained to excessively well drained soils that have scrubby oaks one to three meters in height interspersed with 10 to 50 percent unvegetated sandy opening, and a sand pine (*Pinus clausa*) canopy of less than 20 percent. The species has been documented in sub-optimal habitats such as those fragmented by residential developments. The proposed pond sites do not contain any suitable habitat for the Florida scrub-jay, and are furthermore part of a highly developed regional landscape which does not support the needs of the Florida scrub-jay. Given the distance and age of the nearest observation, that the project is

on the edge of the species' CA and that optimal habitat for the Florida scrub-jay is not available within the pond sites, the development of project pond sites is expected to have no effect on the Florida scrub-jay.

Eastern Indigo Snake

The eastern indigo snake is designated as threatened by the USFWS. Eastern indigo snakes are large, black, non-venomous snakes which are distributed throughout the southeastern United States. The eastern indigo snake occurs in a wide variety of habitats, including forested uplands and wetlands as well as wet and dry prairies. This species feeds on snakes, frogs, salamanders, toads, small mammals, birds and young turtles.

No individuals were observed during the field surveys, and there are minimal areas of suitable habitat for this species within the proposed pond sites. Additionally, given the urban nature of the proposed sites, the probability of occurrence for this species is low. Pursuant to Eastern Indigo Snake Programmatic Effect Determination Key, because the most recent Standard Protection Measures for the Eastern Indigo Snake (**Appendix C**) will be implemented to ensure protection of this species, the project contains less than 25 acres of eastern indigo snake habitat, and no known holes, cavities, or gopher tortoise burrows were observed ; it is therefore expected that the development of project pond sites may affect, but is not likely to adversely affect the eastern indigo snake.

West Indian Manatee

The West Indian manatee is a federally listed threatened species that is also federally protected under the Marine Mammal Protection Act. The bayfront portion of Hillsborough County falls within the species CA, however the project area and proposed ponds do not. Manatees may inhabit marine and freshwater habitats and seek warm-water sites during the winter season. The Hillsborough River where it is located within the overall project provides habitat for the West Indian manatee, however, the proposed pond sites are upland with the exception of one freshwater marsh which is isolated and cannot be accessed by manatees. Therefore, development of project pond sites is expected to have no effect on the West Indian manatee.

4.2.1.2 State-Protected Wildlife Species

State-listed wildlife species which have been identified as having a moderate probability for occurrence in the vicinity of the pond sites include several species of wetland-dependent birds. The gopher tortoise (*Gopherus polyphemus*) and southeastern American kestrel (*Falco sparverius paulus*) were identified as having a low or no probability of occurrence within the pond sites. The Florida sandhill crane (*Antigone canadensis pratensis*) was identified as having a moderate probability of occurrence based on the presence of sub-optimal foraging and nesting wetland habitat located within SMF 14A. No state-listed plant species were observed or recorded in the proposed pond sites.

Gopher Tortoise

The gopher tortoise is listed by the FWC as threatened, and is currently a candidate for listing by the USFWS. Gopher tortoises reach reproductive maturity at 16-21 years of age and nest in late April to mid-July. Preferred habitats include xeric areas with sandy soils and open canopy with low groundcover. The gopher tortoise feeds primarily on new shoots of grasses and broad-leaf herbs, but may also consume mushrooms, fleshy fruits and some animal matter.

No individuals or burrows were observed during preliminary field surveys of appropriate habitat. Comprehensive surveys for tortoises and their burrows will be conducted during the final design phase of the project. Per FWC requirements, gopher tortoise burrows located within 25 feet of proposed impact areas must be excavated and tortoises relocated to an approved recipient site.

Unless the future gopher tortoise surveys undertaken during the project's design phase determine otherwise, the development of project pond sites has no adverse effect anticipated on the gopher tortoise.

Southeastern American Kestrel

The southeastern American kestrel is listed by the FWC as threatened. The species inhabits sandhills, mesic flatwoods, and open pastures. The species is commonly observed perched on power lines in rural to suburban areas. The natural areas within the four proposed ponds may support foraging for the southeastern American kestrel, however, the pond sites do not contain optimal nesting habitat. The development of project pond sites has no adverse effect anticipated on the southeastern American kestrel.

Florida Sandhill Crane

The Florida sandhill crane is a large wading bird listed as threatened by the FWC. The range of this Florida subspecies extends from southeastern Georgia through peninsular Florida. The Florida sandhill crane subspecies is non-migratory and becomes a permanent resident wherever it nests. This bird inhabits freshwater marshes, prairies, low-lying improved pastures, and shallow flooded open areas. It typically nests from January to June in the shallow waters of lakes, ponds, and open marshes where maidencane (*Panicum hemitomon*), arrowhead (*Sagittaria lancifolia*), and pickerelweed (*Pontederia cordata*) are present.

Potential foraging habitat is present within the proposed pond sites limits and minimal nesting habitat is contained within SMF 14A which contains a portion of a freshwater marsh. Given that nesting habitat is limited to a small section of one proposed pond site and that there is an abundance of foraging habitat adjacent to the project, the development of project pond sites has no adverse effect anticipated on the Florida sandhill crane.

Wading Birds

Wading birds such as the little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Platalea ajaja*), are listed by the FWC as threatened and are afforded some levels of federal protection by the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712). Though no state-listed wading birds were observed in the study area during field surveys, these species may forage within the freshwater marsh documented within pond SMF 14A. Nesting habitat for these wading birds would consist of relatively isolated islands of shrubs and trees out of the reach of predators such as raccoons; no pond sites provide suitable nesting habitat.

Any permanent impacts to wetlands would be mitigated for as appropriate. These are highly mobile species which would not nest within the project footprint. For these reasons, the development of project pond sites has no adverse effect anticipated on state-protected wading birds.

4.2.1.3 Protected Non-Listed Wildlife Species

Bald Eagle

The bald eagle is no longer listed as a federally-threatened species but is protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 USC 668-668d), as amended, and the MBTA (16 USC 703-712). The USFWS regulates activities that occur within 660 feet of a bald eagle nest.

The bald eagle prefers riparian habitat associated with coastal areas, lakeshores, and rivers. It nests near water bodies which provide a dependable source of food. Data obtained from the 2017-2018 FWC Eagle Nest Locator Database indicate that the nearest bald eagle nest to the project corridor is nest HL046 (**Figure 4-1**). This nest was last surveyed in 2013, was not active at that time, and is well beyond 660 feet from the project limits. Bald eagle nests are considered to be active for five consecutive years of no documented nesting activity. After five years, they are considered to be abandoned and protection measures no longer apply. Given that the FDOT will adhere to the BGEPA and MBTA during construction should the species become involved with the project, the development of project pond sites is expected to have no effect on the on the bald eagle.

Florida Black Bear (*Ursus americanus floridanus*)

The Florida black bear is no longer listed as a threatened species by the FWC. While it was removed from the state list of protected species in August 2012, it is still protected through the Florida Administrative Code (FAC) 68A-4.009 Florida Black Bear Conservation. There have been six nuisance reports of Florida black bears within 5 miles of the proposed pond sites. These nuisance reports occurred between 2011 and 2016. None of these reports occurred at the existing I-275 roadway or within three miles of the proposed pond sites. Given the lack of observations in the immediate area of the ponds and, few observations overall, the development of the proposed pond sites is expected to have no effect on the Florida black bear.

4.2.2 Protected Plant Species

Table 4-2 lists the federally and state-protected plant species known to occur within Hillsborough County. A total of twenty (20) protected plant species are known to occur in Hillsborough County. Of these, four species, Florida bonamia (*Bonamia grandiflora*), Chinsegut bellflower (*Campanula robinsiae*), pygmy

fringe-tree (*Chionanthus pygmaeus*), and Florida golden-aster (*Chrysopsis floridana*), are federally listed as endangered. The remainder are listed by the Florida Department of Agriculture and Consumer Services (FDACS) and/or FNAI. The habitats of these plant species are described in **Table 4-2**.

Habitats within the proposed pond sites are highly disturbed. There is regular mowing of bahia grass (*Paspalum notatum*) at all locations and uses which conflict with supporting unique plant communities such as residential structures and dirt roadways. Remaining forested areas are primarily laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*) and some nuisance exotics such as lead tree (*Leucaena leucocephala*).

Given that this region has been developed for many years and natural habitats are severely fragmented and altered in such a way that would not support unique plant communities, the development of the proposed pond sites is expected to have no effect on any of the twenty (20) species, which require specialized habitats as indicated in **Table 4-2**.

Table 4-2: Potentially Occurring and Observed Listed Plant Species in the Proposed Pond Sites

Species	Common Name	USFWS	FDACS - DPI*	Habitat	Probability of Presence
Adiantum tenerum	brittle maidenhair fern	--	E	grottos and limestone ledges	None
Agave neglecta	wild century plant	--	E	shell middens, coastal thickets	None
Asplenium auritum	auricled spleenwort	--	E	on trunks of large trees in mesic hammocks and strand swamps	None
Bonamia grandiflora	Florida bonamia	E	E	sandy soil, scrub	None
Campanula robinsiae	Chinsegut bellflower	E	E	edge of ponds, wet hammocks	None
Chionanthus pygmaeus	Pygmy fringe-tree	E	E	scrub	None
Chrysopsis floridana	Florida golden-aster	E	E	sand pine scrub	None
Lechea divaricata	spreading pinweed	--	E	scrubby flatwoods	None
Liparis nervosa	tall twayblade	--	E	cypress swamps, hammocks	None
Listera australis	southern twayblade	--	T	low moist woods, stream banks	None
Matelea pubiflora	sandhill spiny-pod	--	E	sandhills, scrub	None
Maytenus phyllanthoides	Florida mayten	--	T	hammocks, dunes	None
Ophioglossum palmatum	hand fern	--	E	on cabbage palms in hydric hammocks, strand swamps	None
Polypodium dispersum	widespread polypody	--	E	hammocks	None
Polypodium plumula	plume polypody	--	E	hammocks	None
Polypodium ptilodon	swamp plume polypody	--	E	hammocks, swamps	None
Rhynchospora megaplumosa	hairy-spikelet beakrush	--	E	scrubby flatwoods	None
Tephrosia angustissima	hoary pea	--	E	coastal strand, beach dunes, pine rockland	None
Triphora latifolia	wide-leaved triphora	--	E	hardwood hammocks	None
Verbena tampensis	Tampa vervain	--	E	flatwoods, hammocks	None

*T = Threatened, E = Endangered,

Sources:

1. FNAI - Florida Natural Areas Inventory; HillsboroughCounty Florida, accesed February, 2019
2. FDACS. Notes on Florida's Endangered and Threatened Plants. 2010. Patti J Anderson and Richard E Weaver.
3. Atlas of Florida Plants - Institute for Systematic Botany, University of South Florida http://florida.plantatlas.usf.edu/Results.aspx
4. FDACS. Florida's Federally Listed Plant Species Search https://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-

4.3 Evaluation of Alternatives

4.3.1 Direct Impacts

Table 4-3 shows the expected direct impacts for each proposed pond site by FLUCFCS code. This indicates project impacts to potential wildlife habitat. The impacts for the proposed pond sites were calculated by summing the FLUCFCS categories that could potentially be used by a state or federally listed or otherwise protected species.

Table 4-3: Proposed Land Use/Land Cover (FLUCFCS) Impacts by Alternative

FLUCFCS Code		FLUCFCS Description	Build Alternative		No-Build Alternative
			Impact Acres	Percent of Total Project Area	Impact Acres
1000: URBAN AND BUILT UP	1110	Residential, Low Density	2.60	43.48%	0.00
	1910	Undeveloped Land within Urban Areas	3.32	55.52%	0.00
	Total		5.92	99.00%	0.00
6000: WETLANDS	6410	Freshwater Marshes/Graminoid Prairie-Marsh	0.06	1.00%	0.00
	Total		0.06	1.00%	0.00
Total			**5.98**	**1.00**	**0.00**

4.3.1.1 Build Alternative

The impacts for proposed pond sites associated with the Build Alternative were calculated by summing the FLUCCFS categories for that alternative. The total impact area proposed for the pond sites associated with this alternative is 5.98 acres. Of this amount, the majority of the impact will be to FLUCFCS 1910 Undeveloped Land within Urban Areas; this FLUCFCS category comprises 55.5% of the current project area. The only natural habitat within the Build Alternative pond sites is FLUCFCS 6410 Freshwater Marshes/Graminoid Prairie-Marsh; this category totals 0.06 acres and comprises 1.0% of the project area.

4.3.1.2 No-Build Alternative

There are no direct impacts to wildlife and/or habitats associated with the proposed pond sites in the No-Build Alternative.

4.3.2 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. Potential secondary effects include increased noise, traffic, and development, which could impact wildlife or result in a change in wildlife migration patterns. Cumulative effects include the effects of future state, local, or private actions that are reasonably certain to occur in the project area. 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.

4.3.2.1 Build Alternative

For the proposed pond sites, secondary impacts of increased nuisance/exotic vegetation are anticipated. Species such as Brazilian pepper (*Schinus terebinthifolia*), and cogon grass (*Imperata cylindrica*) are particularly aggressive and successful colonizers in disturbed areas; therefore, it is likely the disturbance of construction may allow them to colonize and crowd out native vegetation. Nuisance/exotic vegetation has negative impacts to native wildlife as they take over the natural habitats upon which the species rely.

4.3.2.2 No-Build Alternative

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

SECTION 5

Wetland Evaluation

5.1 Methodology

Wetlands were identified through the review of available literature, GIS data, and field verification. The following sources were reviewed prior to conducting the field review:

- USFWS National Wetlands Inventory (NWI) Maps;
- Land use and land cover maps (SWFWMD 2011);
- NRCS Soil Survey of Hillsborough County, Florida (current);
- ETDM Summary Report (republished February, 2014); and
- Aerial imagery (2018).

Following the review of all available materials, field assessments were conducted on September 26 and 27, and October 18, 2018 to identify the presence of wetland vegetation, evidence of hydrology, and hydric soil indicators. An initial estimation of wetland limits was hand drawn on an aerial image of the pond locations. This project will require a formal jurisdictional limit per the criteria stated in the U.S. Army Corps of Engineers (USACE) Final Regional Supplement to the Corps of Engineers Wetland Delineations Manual: Atlantic and Gulf Coastal Plain Region (October 2010), and Florida statewide unified wetland delineation methodology as adopted by the FDEP and the Water Management Districts per Chapter 62-340 of the FAC, and described in *The Florida Wetlands Delineation Manual*. A UMAM datasheet was prepared to evaluate wetland Functional Loss (FL) impacts that may result from direct wetland impacts associated with pond SMF 14A (**Appendix D**). The results presented in this report are a compilation of information collected from field assessment performed by project biologists and from the data sources described above.

5.2 Results

Figure 5-1 shows the field-verified wetlands and surface waters within the proposed pond sites. At this time, it is presumed that wetland mitigation will be provided in accordance with Section 373.4137, F.S. Based on field-verified land use, SMF 14A contains approximately 0.06 acres of herbaceous wetland (FLUCFCS 6410).

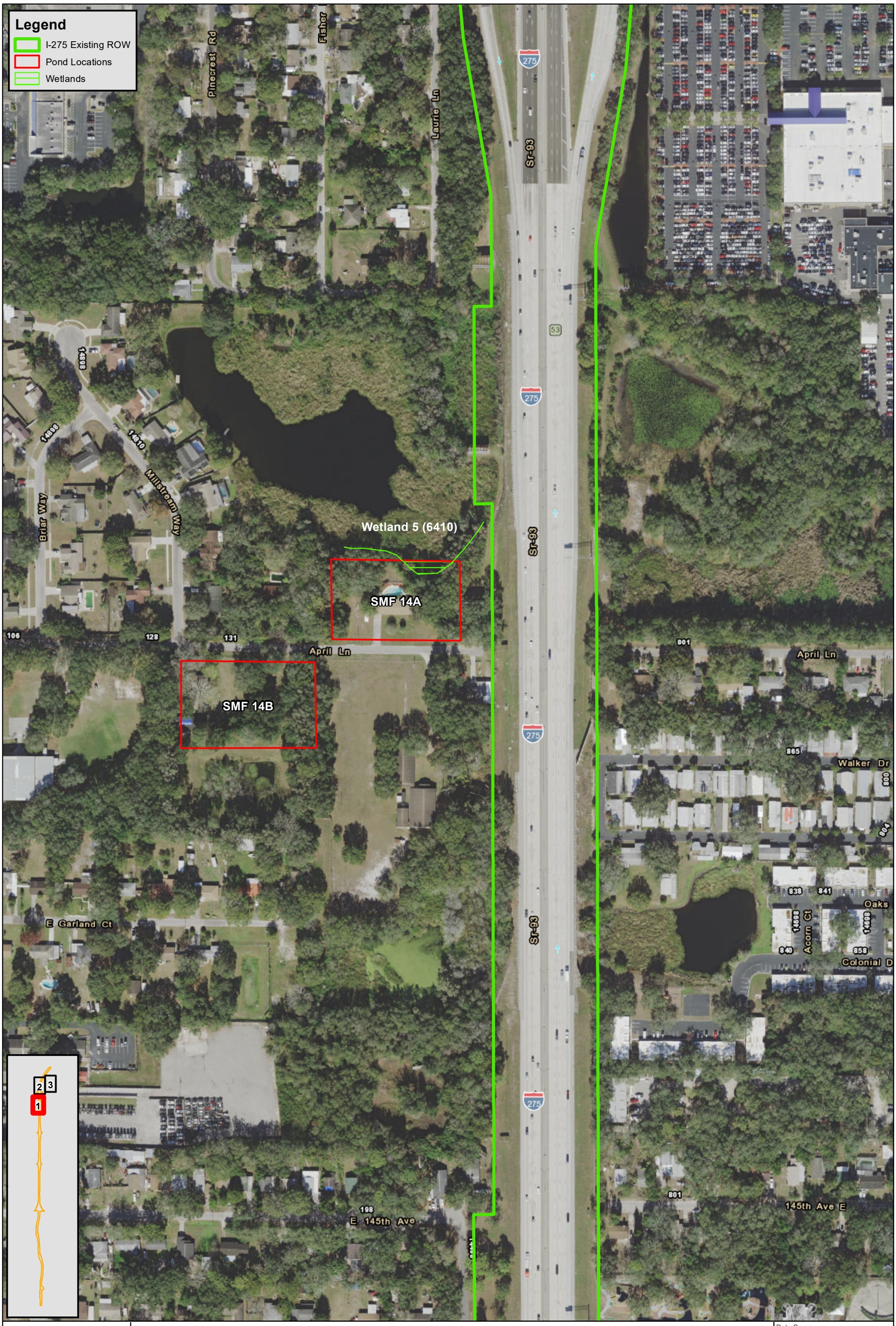


Figure 5-1: Wetland Location Map

Page 1 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)

Hillsborough County, Florida

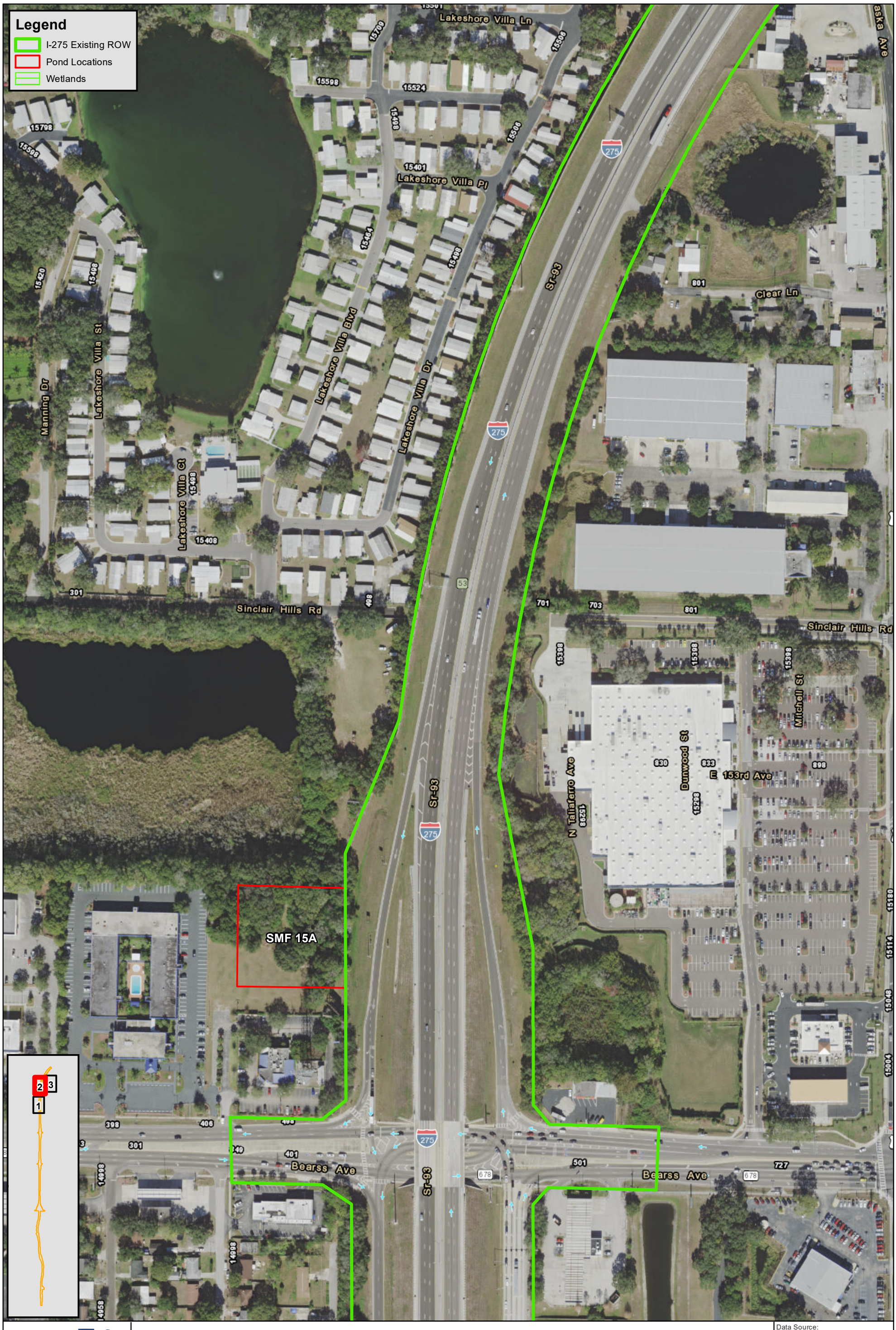
0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida State Plane West

N



Date: 11/15/18 Rev. Date: xx/xx/xx PM: BG GIS Analyst: TMS Map Document: 2416_10_01_fv_lulc_tms_20181115.mxd Project Number: 002416.10 01 PDF Document: 2416_10_01_fv_lulc_tms_20181115.pdf Plot Size: 11 x 17

All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Figure 5-1: Wetland Location Map

Page 2 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)

Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

FDOT

Figure 5-1: Wetland Location Map

Page 3 of 3

FPID #: 431821-1

I-275 (SR 93) from North of Martin Luher King Jr. Boulevard (SR 574) to North of Bearss Avenue (SR 678/CR 582)

Hillsborough County, Florida

0 200 400 600 Feet

Data Source:
- ESA
- WSP USA
- SWFWMD

Imagery Source:
- ESRI Aerial Imagery

Coordinate System:
NAD 1983 Florida
State Plane West

N

5.3 Evaluation of Alternatives

5.3.1 Direct Impacts

5.3.1.1 Build Alternative

For the proposed ponds Build Alternative, approximately 0.06 acres of permanent fill impacts to USACE and SWFWMD-jurisdictional surface waters will occur. These impacts are associated with pond site SMF 14A; the remaining three sites propose no impacts to jurisdictional wetlands or surface waters.

5.3.1.2 No Build Alternative

The No Build Alternative will not result in any direct impacts to wetlands or surface waters associated with the proposed pond sites.

5.3.2 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.

5.3.2.1 Build Alternative

No indirect impacts are anticipated to occur as a result of the Build Alternative. Due to the minor direct wetland impacts, minor secondary impacts to the remaining wetland such as encroachment of nuisance/exotic species are anticipated. Due to the developed nature of the surrounding area and the project's minor surface water impacts, no cumulative impacts are anticipated to occur.

5.3.2.2 No-Build Alternative

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

5.4 Wetland Impact Mitigation

The project is located within the Hillsborough River basin. The proposed pond site containing a wetland, SMF 14A, falls within the service area of the Hillsborough River Mitigation Bank and the North Tampa Mitigation Bank. The proposed impacts are to a herbaceous wetland and it is anticipated that mitigation will required. Mitigation credits would be purchased from one of the aforementioned permitted wetland mitigation banks. All UMAM scores, UMAM calculations, preliminary surface water boundaries and determinations discussed are subject to revisions and approval by regulatory agencies during the permitting process. The exact type of mitigation to offset impacts will be coordinated with the USACE and the SWFWMD, as needed, during the permitting phase of this project. Mitigation will be addressed pursuant to Chapter 373.4137, Florida Statutes (FS) in order to satisfy all mitigation requirements of Part IV, Chapter 373, FS and 33 U.S.C. 1344.

This project is in conformance with Executive Order 11990, Protection of Wetlands; consideration was given to avoiding and/or minimizing wetland impacts. The proposed project will have no significant short-term or long-term adverse impacts to wetlands, there is no practicable alternative to construction in wetlands, and measures have been taken to minimize harm to wetlands.

SECTION 6

Conclusions and Commitments

6.1 Protected Species and Habitats

The project may affect but is not likely to adversely affect federally and state-protected species.

Federally listed species which may be affected, but are not likely to be adversely affected by the project include:

- Eastern indigo snake; and
- Wood stork.

The project is anticipated to have no effect on the following federally listed species:

- Florida scrub-jay; and
- West Indian manatee.

There is no adverse effect anticipated on the following state-protected species:

- Gopher tortoise;
- Southeastern American kestrel;
- Florida sandhill crane;
- Wading birds including the little blue heron, reddish egret, tricolored heron, and roseate spoonbill; and
- Listed plant species.

There is no effect anticipated on the following otherwise legally protected species:

- Bald eagle; and
- Florida black bear.

Multiple avenues of protection will be employed to negate and minimize any potential affects to these species. Some of the measures employed may include detailed surveys and agency coordination during the project design phase, including providing appropriate mitigation to offset impacts. During construction, best management practices (BMPs), adherence to FDOT's *Standard Specification for Road and Bridge Construction* and use of preconstruction surveys are strategies that will be considered, as needed, for protection of listed species.

Based upon findings of the preliminary data collection, general surveys, and ongoing coordination with the USFWS and FWC, the FDOT is considering the following project commitments:

- The most recent version of USFWS' Standard Protection Measures for the Eastern Indigo Snake (**Appendix D**) will be adhered to during construction of the proposed ponds.

6.2 Wetlands

The Build Alternative proposes 0.06 acres of impacts to an herbaceous wetland/freshwater marsh which was determined to be SWFWMD and USACE-jurisdictional. The wetland system scores a 0.40 using the UMAM assessment, and the overall resulting Functional Loss (FL) is very minimal at 0.02 FL. The FDOT will address impacts to wetland and/or surface waters and provide appropriate wetland mitigation, as needed, in future phases of this project.

6.3 Anticipated Permits

Because the project is adding travel lanes, it is currently anticipated that the project will qualify for a SWFWMD Individual Permit under F.A.C. Chapter 62-330.054. Due to the permanent impact, it is anticipated that the project will qualify for a USACE Nationwide Permit #14 Linear Transportation Projects. This permit allows for the construction of transportation facilities; however, impacts cannot exceed 0.5 acre for non-tidal systems.

6.4 Implementation Measures

Implementation measures are actions that the FDOT is required to take per procedure, standard specifications, or other agency requirements. These are standard measures which will be implemented at a later project phase. For this project, implementation measures that address protected species and wetlands-related items include the following:

- Practicable measures to avoid or minimize impacts will be further addressed during final design for the project;
- BMPs will be incorporated during construction to minimize impacts to any wetlands and surface waters that are affected by the proposed project; and
- Unavoidable impacts to wetlands and surface waters will be mitigated pursuant to S. 373.4137 F.S. to satisfy all mitigation requirements of Part IV, Chapter 373 F.S. and 33 U.S.C.s 1344 should state and/or federal regulations require it.
- A comprehensive, 100 percent gopher tortoise burrow survey of the pond sites will be conducted prior to construction.

SECTION 7

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U.S. Fish and Wildlife Service. 2004. The Species Conservation Guidelines for the Florida Scrub-jay (*Aphelocoma coerulescens). South Florida Ecological Services Office, Vero Beach, Florida. http://www.fws.gov/verobeach*/BirdsPDFs/FSJConservation GuidelinesALLINCLUSIVE1.pdf

Appendix A

Proposed Pond Site Land Use Descriptions

Appendix A: Project Area Land Use Descriptions

Low Density Residential (FLUCCS 1100)
Low density residential describes residential developments with less than two permanent structure dwelling units per acre.

Undeveloped Land within Urban Areas (FLUCCS 1910)
This category includes undeveloped land within urban areas and inactive land with street patterns but without structures. These areas are generally disturbed by adjacent development. Within the project area vegetation found includes mowed bahia grass (Paspalum notatum) with live oak (*Quercus virginiana*), lead tree (*Leucaena leucocephala*), Brazilian pepper (*Schinus terebinthifolia*), and mulberry (*Broussonetia papyrifera*).

Freshwater Marshes (FLUCCS 6410)
Within the study area this area (Wetland 5) has become established by nuisance/exotic vegetation. The assessment area is comprised on cattail (*Typha* sp.) and primrose willow (*Ludwidgia peruviana*). Standing water was observed in the center of the system which appears to primarily serve as stormwater storage and treatment.

Appendix B

Proposed Pond Site NRCS Soil Type Descriptions

Appendix B: Project Area NRCS Soils Descriptions

Basinger, Holopaw, and Samsula Soils, depressional (MUID 5, hydric)
This soil type comprises approximately 13.9 percent of the soils located in the study area. This soil type is described as nearly level, very poorly drained with 0 to 2 percent slopes. Under natural conditions, the seasonal high water table is ponded for 6 months during most years. Natural vegetation consists of cypress (*Taxodium* spp.). The understory includes sawgrass (*Cladium jamaicense*), maidencane (*Panicum hemitomon*), and cutgrass (*Leersia hexandra*).

Malabar fine sand, 0 to 2 percent slopes (MUID 27, hydric)
This soil type comprises approximately 0.3 percent of the soils located within the study area. This soil type is described as nearly level, poorly drained with 0 to 2 percent slopes. Under natural conditions, the seasonal high water table is within a depth of 10 inches for 2 to 6 months during most years. Natural vegetation is comprised of cabbage palm (*Sabal palmetto*), longleaf pine (*Pinus palustris*), and slash pine (*Pinus elliottii*). The understory is comprised of saw palmetto (*Serenoa repens*), wax myrtle (*Morella cerifera*), broomsedge (*Andropogon virginicus*), bushy bluestem (*Andropogon glomeratus*), and inkberry (*Scaevola plumieri*).

Myakka fine sand, 0 to 2 percent slopes (MUID 29, non-hydric)
This soil type comprises approximately 0.5 percent of the soils located along the study area. This soil type is described as nearly level, poorly drained with 0 to 2 percent slopes. Under natural conditions, the seasonal high water table is within a depth of 10 inches for 1 to 4 months during most years. Natural vegetation consists of longleaf pine and slash pine. The understory includes gallberry (*Ilex glabra*), running oak (*Quercus pumila*), saw palmetto, pineland threeawn (*Aristida stricta*), and wax myrtle.

Zolfo fine sand, 0 to 2 percent slopes (MUID 61, non-hydric)
This soil type comprises approximately 85.3 percent of the soils located in the study area. This soil type is described as nearly level, somewhat poorly drained with 0 to 2 percent slopes. Under natural conditions, the seasonal high water table is within a depth of 24 to 40 inches for 2 to 6 months during most years. Natural vegetation consists of live oak, turkey oak (), longleaf pine, and slash pine. The understory includes broomsedge, bluestem, lopsided indiangrass (*Sorghastrum secundum*), saw palmetto, and pineland threeawn.

Appendix C

Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or "approval" from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11" x 17" or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A <u>DEAD</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

Appendix D

UMAM Datasheet

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-275 From North of Dr. Martin Luther King, Jr. Boulevard to North of Bearss Avenue - Ponds		Wetland 5

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641 Freshwater March	PEM1	Impact	0.06 ac

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Hillsborough River	III	None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 5 is an isolated system that continues north outside the the limits of the proposed pond. It is located south of Bearss on the west side of I-275. It is primarily surrounded by interstate and residential development.

Assessment area description

Wetland 5 is a herbaceous system that has become established by nuisance/exotic vegetation. The assesment area is comprised on cattail (*Typha* sp.) and primrose willow (*Ludwidgia* peruviana).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
I-275	None

Functions	Mitigation for previous permit/other historic use
stromwater storage/treatment and foraging habitat	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Small mammals, amphibians, songbirds, wading birds etc.	wading birds (T), wood stork (T)

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:	Assessment date(s):
ESA	9/26/2018

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

Site/Project Name	Application Number	Assessment Area Name or Number
I-275 From North of Dr. Martin Luther King, Jr. Boulevard to North of Bearss Avenue - Ponds		Wetland 5
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	ESA	9/26/2018

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	with: 0	Wetland 5 is an isolated system that continues north outside the the limits of the proposed pond. It is located south of Bearss on the west side of I-275. It is primarily surrounded by interstate and residential development. . Significantly reduced wildlife utilization due to its location within surrounding areas that are largely developed.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0	Standing water observed. Appears to primarily function for stormwater storage and treatment purposes.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 3	with: 0	Wetland 5 is a herbaceous system that has become established by nuisance/exotic vegetation. The assesment area is comprised on cattail (*Typha* sp.) and primrose willow (*Ludwidgia peruviana*). The assessment area is 100 percent nuisacne/exotic vegetation.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.40	with: 0

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

For impact assessment areas
FL = delta x acres = 0.02

Delta = [with-current]
0.40

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

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