ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation

S OLD LAKE WILSON ROAD FROM N OF CR-532 TO S OF SINCLAIR RD

District: FDOT District 5

County: Osceola County

ETDM Number: 14456

Financial Management Number: 448781-1-22-01

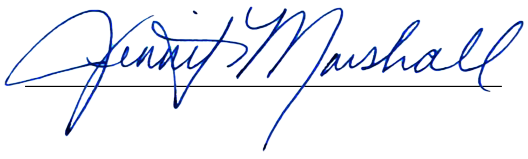
Federal-Aid Project Number: N/A

Project Manager: David Graeber

The Environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding (MOU) dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

This action has been determined to be a Categorical Exclusion, which meets the definition contained in 40 CFR 1508.4, and based on past experience with similar actions and supported by this analysis, does not involve significant environmental impacts.

Signature below constitutes Location and Design Concept Acceptance:



April 5, 2024

Director Office of Environmental Management
Florida Department of Transportation

For additional information, contact:

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This document was prepared in accordance with the FDOT PD&E Manual.

This project has been developed without regard to race, color or national origin, age, sex, religion, disability or family status (Title VI of the Civil Rights Act of 1964, as amended).

On 08/10/2021 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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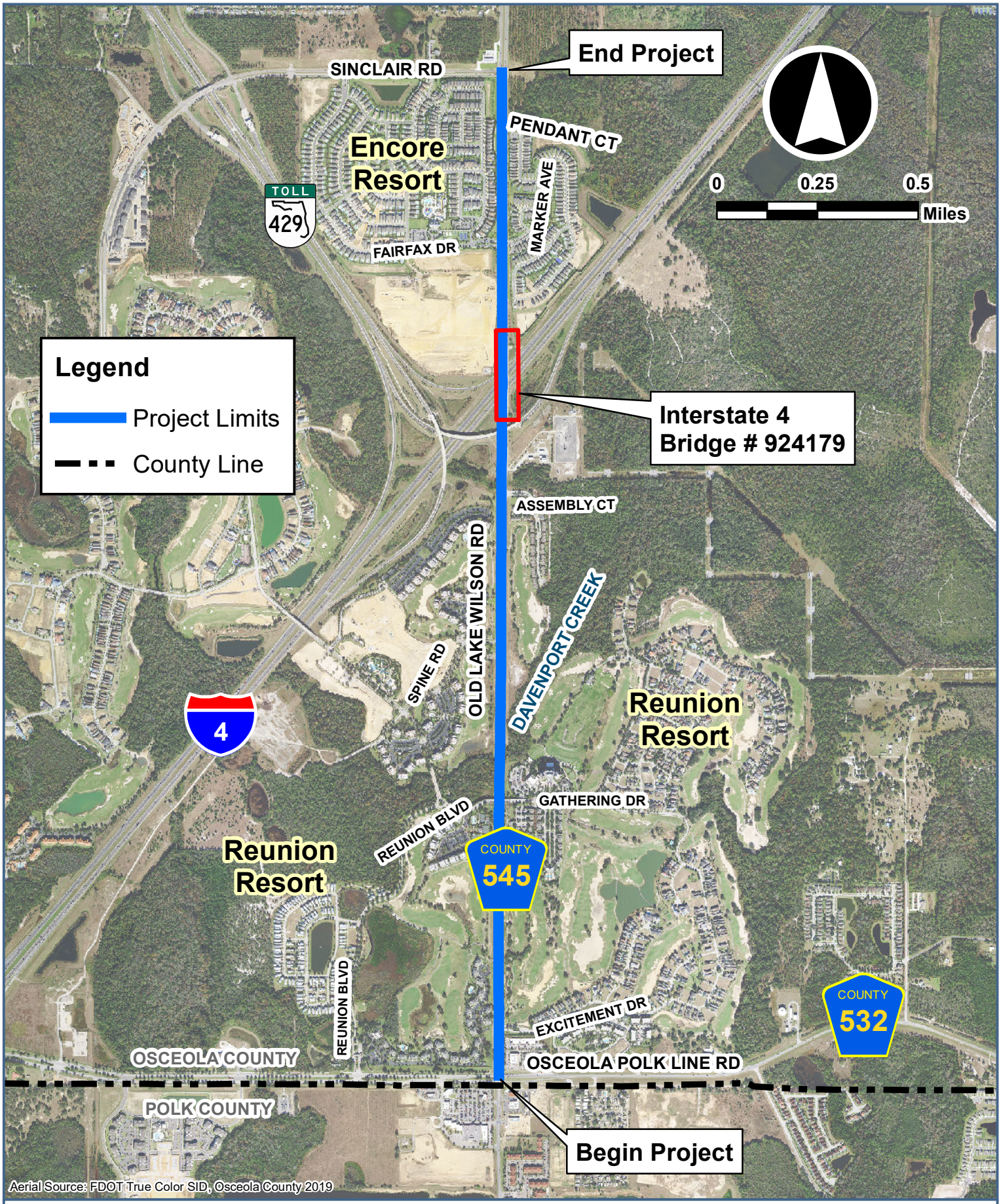


OSCEOLA COUNTY

Old Lake Wilson Road PD&E Study

From CR 532 to Sinclair Road

Osceola County, Florida

Project Location Map

1. Project Information

1.1 Project Description

Osceola County conducted a Project Development and Environment (PD&E) Study to evaluate the proposed widening of Old Lake Wilson Road from CR 532 to Sinclair Road from 2 to 4 lanes, a distance of approximately 2.5 miles. The project also involves widening or replacing the existing bridge over Interstate 4 (I-4) [Bridge #924179] and will add bicycle and pedestrian accommodations since none are provided within the project limits today. The project limits are within Osceola County near the Town of Celebration and are shown on the project location map on previous page.

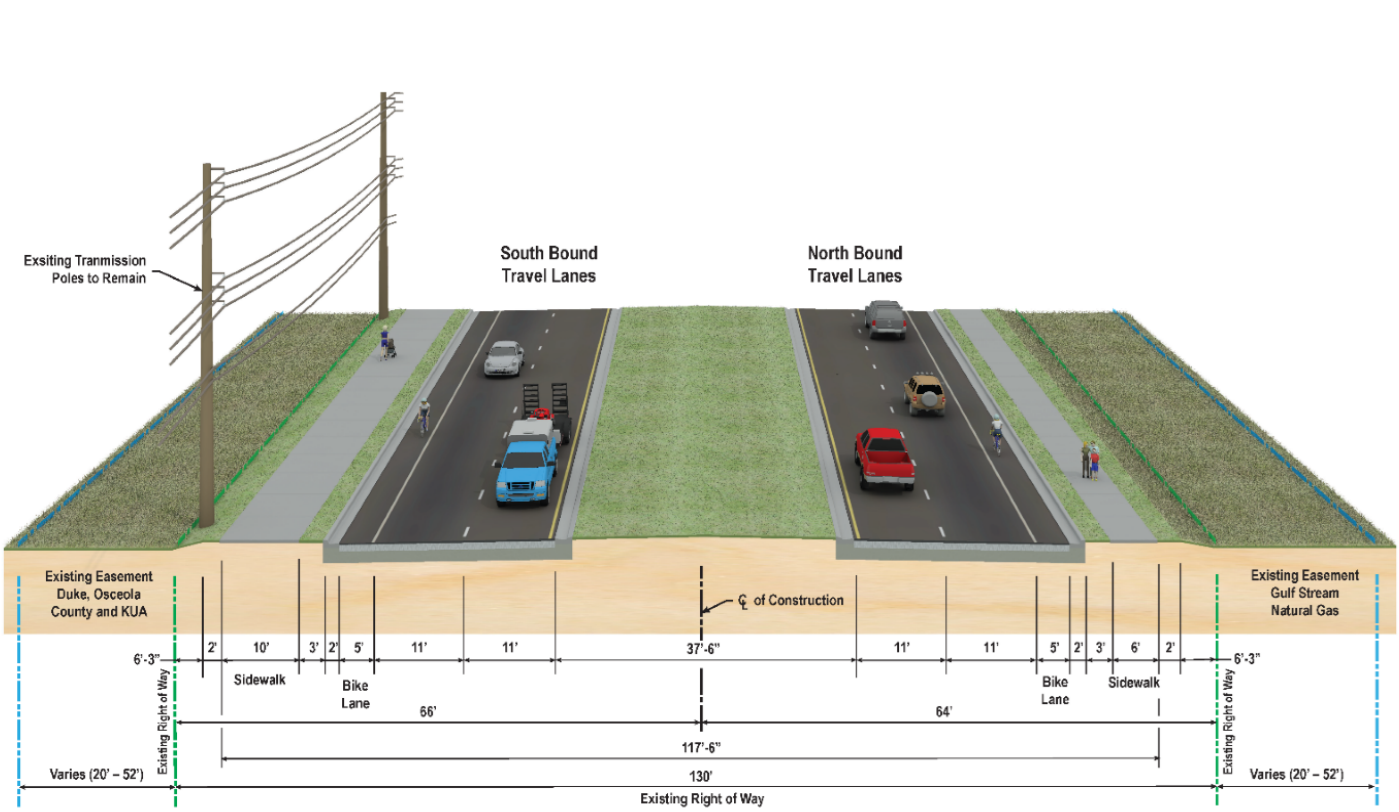
In the existing condition, Old Lake Wilson Road, also known as County Road 545, hereinafter referred to as Old Lake Wilson Road, is a two-lane undivided, rural roadway from CR 532 to approximately one-quarter mile south of Sinclair Road, the project's northern terminus.

The existing typical section includes two 12-foot-wide travel lanes, one in each direction, and four-foot-wide unpaved shoulders. The ROW width is generally 130 feet; however, beginning approximately 900 feet south of Assembly Court to approximately 1,230 feet south of Fairfax Drive/Marker Avenue the ROW width increases incrementally and ultimately reaches a maximum of 250 feet in the vicinity of the I-4 overpass.

Starting approximately one quarter mile south of Sinclair Road, Old Lake Wilson Road transitions to an urban roadway with type E curb on the inside shoulders and type F curb on the outside shoulders. Approaching Sinclair Road, two, 12-foot-wide travel lanes are provided in the northbound direction while one 12-foot-wide travel lane is provided in the southbound direction.

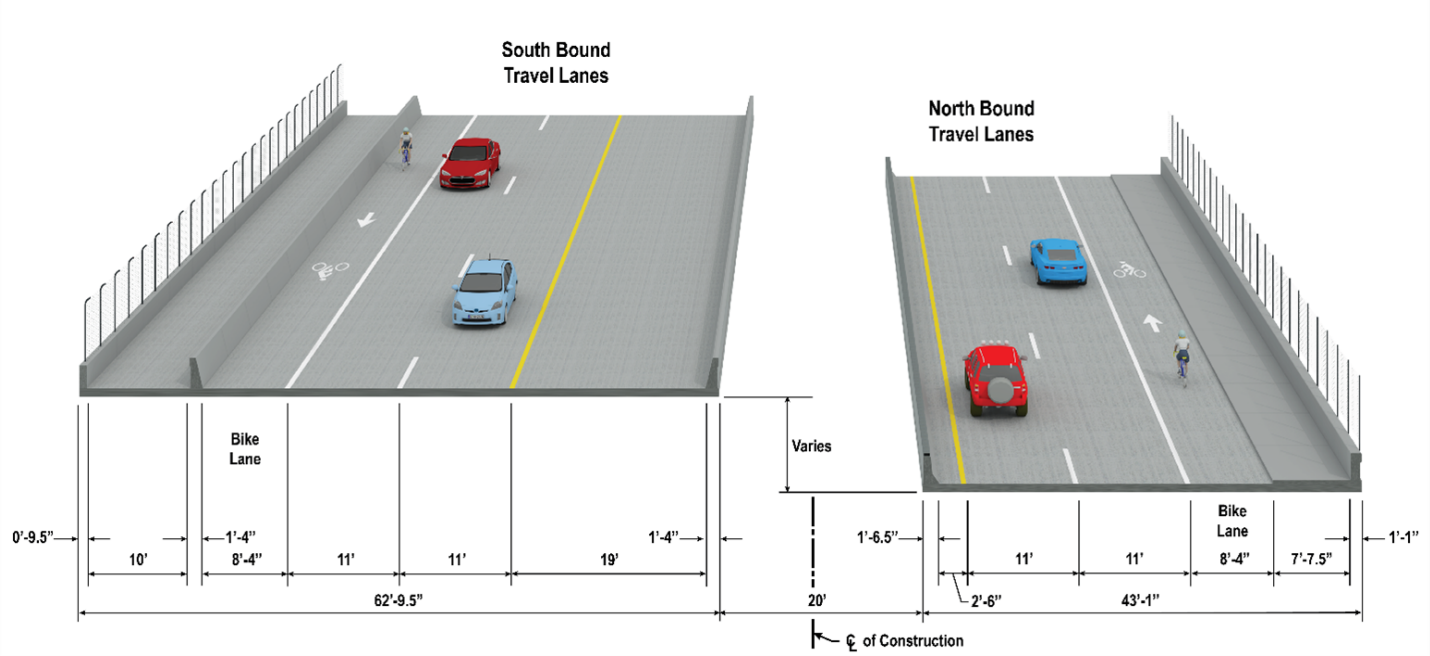
Both termini, CR 532 and Sinclair Road, are signalized intersections. Additionally, there are five unsignalized intersections within the study limits. These include Excitement Drive, Spine Road, Assembly Court, Fairfax Drive / Marker Avenue and Pendant Court.

There are three bridges within the study limits: Gathering Drive/Reunion Boulevard over Old Lake Wilson Road, the southbound onramp from SR 429 to eastbound I-4 and Old Lake Wilson Road over I-4. Additionally, there are three bridge culverts within the study limits: Old Lake Wilson Road over Golf Cart Crossing #1, Old Lake Wilson Road over Golf Cart Crossing #2 and Old Lake Wilson Road over Davenport Creek.



Preferred Roadway Alternative Typical Section

The typical section for the preferred roadway alternative is shown above, and includes two 11-foot-wide travel lanes and a five-foot-wide bike lane in each direction separated by a 37.5-foot-wide raised median. A 10-foot-wide sidewalk is provided on the west side with three feet of sod between the curb and sidewalk, and a six-foot-wide sidewalk is provided on the east side with a three-foot-wide sod strip between the curb and the sidewalk. This typical section requires a minimum of 117.5 feet of ROW and has a design speed of 45 mph and a posted speed of 45 mph. Approximately 2.78 acres of ROW acquisition is anticipated for this project. The ROW impacts were identified near some of the project intersections and in other areas along the corridor to accommodate tie-down slopes.



Preferred Bridge Alternative Typical Section

The typical section for the preferred bridge alternative over I-4 is shown below, and retains the existing Old Lake Wilson Road bridge over I-4, which will serve as the future northbound bridge. A raised sidewalk will be added along the east side of the existing bridge. The two travel lanes will be 11-feet-wide with a 2.5-foot-wide inside shoulder and an 8.3-foot-wide outside shoulder/bike lane. The new southbound bridge will be constructed at a higher elevation to accommodate the future I-4 Beyond the Ultimate (BtU) improvements. It includes two 11-foot-wide travel lanes, a 19-foot-wide inside shoulder, and an 8.3-foot-wide outside shoulder/bike lane. A raised concrete traffic railing separates the 10-foot-wide shared use path and the bicycle lane. The wider inside shoulder is required to allow this new bridge to temporarily accommodate four lanes of traffic when the existing Old Lake Wilson Road bridge is demolished and rebuilt at a higher elevation as part of the I-4 BtU project. The total width of the new bridge is 62.8-feet-wide. The signed Typical Section Package is included within the PER in the project file.

1.2 Purpose and Need

The purpose and need for the project is based on two main elements: increasing capacity and completing the 2.5-mile constrained segment of Old Lake Wilson Road between CR 532 and Sinclair Road. The need for these improvements is described below.

Project Status

The project is located within the jurisdiction of MetroPlan Orlando, the Metropolitan Planning Organization (MPO) covering Orange, Osceola and Seminole Counties. The PD&E Study is documented in MetroPlan Orlando's Fiscal Year (FY) 2023-2027 Transportation Improvement Program (TIP). The project is also documented in MetroPlan Orlando's 2045 Long Range Transportation Plan (LRTP) / Metropolitan Transportation Plan (MTP). According to the latest adopted TIP FY 23-27, approximately $7M in local funding was programmed for design in FY 23. There is currently no funding programmed for the ROW or construction phase; therefore, additional coordination will take place closer to the end of the design phase.

Transportation Demand/Capacity

In the future year (2050) no-build condition, this segment of Old Lake Wilson Road is projected to operate at Level of Service (LOS) F with Annual Average Daily Traffic (AADT) exceeding 30,000 vehicles. In the existing condition, this section of Old Lake Wilson Road operates at a LOS F with an AADT of approximately 20,000 vehicles, exceeding the current two-lane capacity of 15,900 vehicles. This PD&E Study utilized a LOS D target for Old Lake Wilson Road from CR 532 to Sinclair Road.

System Linkage

Old Lake Wilson Road begins as Lake Wilson Road at CR 54 in Osceola County, becomes Old Lake Wilson Road at CR 532, and terminates at US 192 in Osceola County, a distance of approximately six miles. Polk County is in the final design phase for the four-lane widening of Lake Wilson Road from CR 54 to CR 532; moreover, the segment from Sinclair Drive to US 192 is currently a four-lane divided facility. This leaves a 2.5-mile two-lane segment from CR 532 to south of Sinclair Road, which constrains the overall capacity of Old Lake Wilson. Additionally, the two-lane section of roadway creates a gap for bicycle and pedestrian features.

1.3 Planning Consistency

The project is located in Osceola County within the jurisdiction of MetroPlan Orlando. The Project Development and Environment (PD&E) Study is documented in MetroPlan Orlando's Fiscal Year (FY) 2023-2027 Transportation Improvement Program (TIP). The project is also documented in MetroPlan Orlando's 2045 Long Range Transportation Plan (LRTP) / Metropolitan Transportation Plan (MTP). According to the latest adopted TIP FY 23-27, approximately $7M in local funding was programmed for design in FY 23. There is currently no funding programmed for the ROW or construction phase, therefore, additional coordination will take place closer to the end of the design phase.

Currently Adopted LRTP-CFP	**COMMENTS**
Yes	Currently listed in 2045 MTP Cost Feasible Plan Table 18 MTP ID# 8114- Cost Feasible Plan: Strategies, Programs, and Projects with funding identified in the existing TIP as of 9/13/2023.

	Currently Approved	**$**	**FY**	**COMMENTS**
PE (Final Design)				
TIP	Y	$7,000,000	2022/23	The design phase is locally funded in FY 2023. Reflected in newly adopted TIP 2023/27, pg.96 (X-4).
STIP	N			The design phase is locally funded in FY 2023. Reflected in newly adopted TIP 2023/27, pg.96 (X-4).
R/W				
TIP	N			ROW acquisition is unfunded. Osceola County plans to seek State/Federal funds to assist with funding once detailed estimates are well developed. If State/Federal funds becomes available, the TIP will be amended accordingly.
STIP	N			ROW acquisition is unfunded. Osceola County plans to seek State/Federal funds to assist with funding once detailed estimates are well developed. If State/Federal funds becomes available, the TIP will be amended accordingly.
Construction				
TIP	N			Construction is unfunded. Osceola County plans to seek State/Federal funds to assist with funding once detailed estimates are well developed. If State/Federal funds becomes available, the TIP will be amended accordingly.
STIP	N			Construction is unfunded. Osceola County plans to seek State/Federal funds to assist with funding once detailed estimates are well developed. If State/Federal funds becomes available, the TIP will be amended accordingly.

2. Environmental Analysis Summary

	Issues/Resources	Significant Impacts?* Yes	No	Enhance	NoInv
3.	**Social and Economic**				
	1. Social	☐	☒	☐	☐
	2. Economic	☐	☒	☐	☐
	3. Land Use Changes	☐	☒	☐	☐
	4. Mobility	☐	☒	☐	☐
	5. Aesthetic Effects	☐	☒	☐	☐
	6. Relocation Potential	☐	☐	☐	☒
	7. Farmland Resources	☐	☐	☐	☒
4.	**Cultural Resources**				
	1. Section 106 of the National Historic Preservation Act	☐	☒	☐	☐
	2. Section 4(f) of the USDOT Act of 1966, as amended	☐	☐	☐	☒
	3. Section 6(f) of the Land and Water Conservation Fund	☐	☐	☐	☒
	4. Recreational Areas and Protected Lands	☐	☐	☐	☒
5.	**Natural Resources**				
	1. Protected Species and Habitat	☐	☒	☐	☐
	2. Wetlands and Other Surface Waters	☐	☒	☐	☐
	3. Essential Fish Habitat (EFH)	☐	☐	☐	☒
	4. Floodplains	☐	☒	☐	☐
	5. Sole Source Aquifer	☐	☒	☐	☐
	6. Water Resources	☐	☒	☐	☐
	7. Aquatic Preserves	☐	☐	☐	☒
	8. Outstanding Florida Waters	☐	☐	☐	☒
	9. Wild and Scenic Rivers	☐	☐	☐	☒
	10. Coastal Barrier Resources	☐	☐	☐	☒
6.	**Physical Resources**				
	1. Highway Traffic Noise	☐	☒	☐	☐
	2. Air Quality	☐	☒	☐	☐
	3. Contamination	☐	☒	☐	☐
	4. Utilities and Railroads	☐	☒	☐	☐
	5. Construction	☐	☒	☐	☐

USCG Permit

☒ A USCG Permit IS NOT required.

☐ A USCG Permit IS required.

*** Impact Determination:** Yes = Significant; No = No Significant Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the following sections.

3. Social and Economic

The project will not have significant social and economic impacts. Below is a summary of the evaluation performed.

3.1 Social

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed on February 11, 1994, directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

A Sociocultural Data Report (SDR) July 2022 is provided in the project file. According to the SDR for the project, utilizing the 2016-2020 American Community Survey (ACS) based on a 500-foot project buffer, there is a total population of 202 people in 69 households. The low population density is attributed to the abundance of resort style/short-term rental housing availability in the immediate area, in comparison to limited permanent housing. Race and Ethnicity was characterized as follows within the buffered area: White (71.78%), Black or African American (10.89%), Asian (2.48%), Some Other Race (2.48%), Claimed 2 or More Races (11.39%), and Hispanic or Latino of Any Race (25.25%). The White population for Osceola County came in at 66.44%. The Hispanic or Latino of Any Race population in Osceola County (54.71%) is almost double the number observed in the study area buffer. The SDR noted 10 people (or 4.9% of the population) within the 500-foot project buffer between the ages of 20 to 64 with a disability.

A comparison of age distribution within the buffered area and Countywide distribution was conducted. Data from the 2016-2020 ACS revealed that the age ranges 5-17, 40-49 and 50-64 within the buffered area accounted for majority of the age distribution, with each range representing 15.84%. In Osceola County, the 50-64 age range (17.29%) reported the highest percentage of age distribution. The median age observed for the buffered area and Osceola County was 29, and 36 respectively.

The 2016-2020 ACS data indicated that the median household income is $57,750 and approximately 5.8 percent of households are below the poverty level. The median household income in Osceola County ($55,538) is slightly lower than the number recorded for the buffered area. According to the same ACS report, of the 69 households surveyed in the buffered area, 10 households (or 14.5%) have Limited English Proficiency (LEP) and two (or 2.9%) households are without a vehicle.

Implementing the Preferred Alternative does not result in any disproportionate adverse impacts to any distinct minority, ethnic, elderly, or handicapped groups and/or low-income households. Instead, the widening of the roadway, widening or replacing of the existing bridge over I-4, and the addition of bicycle and pedestrian accommodations will promote transportation equity and community cohesion. Emergency services are expected to improve with the addition of lanes. A summary of public involvement activities is provided in Section 9 of this report.

3.2 Economic

According to the SDR, Osceola County's population more than tripled between 1990 and 2020, growing from 107,728 to 363,666. Rapid population growth is projected to continue between 2021 and 2045. Based on projections from the University of Florida, Bureau of Economic and Business Research (BEBR, 2022), the County's population is expected to

grow from 406,460 people in 2021 to 657,100 in 2045, considering medium growth. This reflects a population increase of almost 62 percent. With this projected increase in population, coupled with seasonal inflow of tourists to Osceola County, there is an increase in the demand for safe and convenient access to goods, services and jobs. Developable land along the corridor is mostly occupied by mixed-use development, characterized by resort style neighborhoods and golf courses. One of the few remaining large tracts of land located east/northeast of Sinclair Road is under construction and will provide 1.5 million square feet of light industrial space. Once completed the logistics park is anticipated to increase economic activity in the study area by providing space for new businesses and creating new jobs. This project will not result in any business relocation.

3.3 Land Use Changes

The project will not change existing land use patterns in the study area and there is no involvement with farmlands. Osceola County's 2040 Future Land Use Map classifies the area along the project corridor as tourist commercial with clusters of conservation land located north of the Reunion Blvd./Gathering Drive overpass and in the vicinity of Assembly Court. These conservation lands generally match the wetlands in the project area. Future land uses north of the I-4 / SR 429 interchange also contain a mixture of tourist/commercial and conservation. The majority of the developable land in the study area is densely developed, predominantly by the Reunion Resort and Encore Resort, which would restrict the amount of secondary development or land use changes resulting from the project. A land use map that covers the project area is attached.

3.4 Mobility

In the future year (2050) No-Build condition, this segment of Old Lake Wilson Road is projected to operate at Level of Service (LOS) F with Annual Average Daily Traffic (AADT) exceeding 30,000 vehicles. The four-lane widening of the corridor, coupled with the addition of multimodal features and improved access management under the 2050 build condition, is anticipated to have no significant impacts to traffic operations. The proposed improvements will result in the roadway operating at LOS D or better. The planned reconfigured intersections along the corridor are expected to reduce travel delay and improve safety for all users of the roadway.

While Osceola County does not have published LOS standards for roadway segments, previous documents/studies performed by the County have noted a LOS D target for roadways within the urban boundary. The FDOT LOS target for urban roadways is also LOS D so to be consistent with both Osceola County previous documentation and FDOT LOS targets, this PD&E Study utilized a LOS D target for Old Lake Wilson Road from Osceola Polk Line Road (CR 532) to Sinclair Road.

The Preferred Alternative is characterized by a five-foot-wide bike lane in each direction separated by a 37.5-foot-wide raised median, a 10-foot-wide shared use path on the west side, and a five-foot-wide sidewalk is provided on the east side. Pedestrian features will be designed and constructed in accordance with current Americans with Disabilities Act (ADA) standards.

3.5 Aesthetic Effects

In the existing condition, Old Lake Wilson Road is generally a two-lane rural road from CR 532 to Sinclair Road. The existing land use within the project area is primarily classified as urban and built up comprising largely of the Reunion

Resort and Encore Resort. The Preferred Alternative recommends a noise barrier on the west side of Old Lake Wilson Road, within the existing ROW, to limit noise impacts to two of the Heritage Crossing Vacation Rental condominium buildings. The preferred roadway typical section includes the addition of a bike lane, shared-use path, and sidewalk. A 37.5-foot-wide grassed median is also proposed. The addition of greenery and bicycle and pedestrian facilities are anticipated to improve the overall appearance of the roadway and add to the community character of the predominantly developed vacation rental housing. The project area does not contain special viewsheds, community focal points, historic districts or structures, or landmarks.

3.6 Relocation Potential

The preferred alternative is anticipated to impact approximately 18 parcels related to right-of-way required for intersection improvements and slope tie down areas outside of the existing right-of-way. This does not result in any residential or business relocations.

The required ROW for the preferred alternative consists of slivers of land adjacent to the roadway that are primarily along the green space property owned by the Reunion development along both sides of the road. At the CR 532 intersection, there are potential impacts to the Wawa Gas Station parking lot with the addition of the proposed turn lanes. During the design phase, options to minimize ROW impacts will be considered.

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

3.7 Farmland Resources

Lands within the project vicinity do not meet the definition of farmland as defined in 7 CFR § 658 and the provisions of the Farmland Protection Policy Act of 1981 do not apply because the entire project area is located in the urbanized area of Osceola County with no designated farmlands adjacent to the project corridor.

4. Cultural Resources

The project will not have significant impacts to cultural resources. Below is a summary of the evaluation performed.

4.1 Section 106 of the National Historic Preservation Act

A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that these resources do not meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) concurred with this determination on 07/28/2022. Therefore, FDOT, in consultation with SHPO, has determined that the proposed project will result in No Historic Properties Affected.

A CRAS was completed in May 2022 and is available as technical material in the project file. The APE was defined to include the existing and proposed Old Lake Wilson Road ROW. It was extended further to the back or side property lines of parcels adjacent to the ROW, or a distance of no more than 330 feet (100 meters) from the maximum ROW line. The historic and archaeological APE for the pond was delineated by the specific footprint of the existing pond in addition to a 30.5-foot buffer, with consideration of where ground disturbance would take place.

The architectural survey resulted in the identification and evaluation of three historic resources within the Old Lake Wilson Road APE, including two previously recorded resources and one newly recorded resource. The previously recorded historic resources include one resource group (8PO08219 - Mouse Mountain Travel/RV Resort) and one structure (8PO08220- Mouse Mountain Travel/RV Resort Pool). The newly recorded historic resource is a bridge (8OS03232). None of the previously recorded resources were determined to be eligible for the NRHP, and FDOT determined that the newly recorded bridge 8OS03232 is ineligible for NRHP listing. Based on the results of the current survey, the SHPO concurred that all three resources are ineligible for the NRHP, due to a lack of significant historic associations and architectural and/or engineering distinction.

The archaeological survey consisted of systematic shovel testing and pedestrian survey of the project corridor and pond footprints (i.e., the archaeological APE). No artifacts were recovered, and no archaeological sites or occurrences were identified within the APE. Three previously recorded archaeological sites (8OS00100, 8OS00594, and 8OS01867) have been documented within the archaeological APE; however, modern development has removed any trace of these resources.

Given the result of the surveys, FDOT determined that the proposed Old Lake Wilson Road widening project will have no effect on cultural resources listed or eligible for listing on the NRHP. The SHPO concurred with the results of the CRAS and Section 106 finding of ***No Historic Properties Affected*** on July 28, 2022. The concurrence letter can be found in the attachments.

4.2 Section 4(f) of the USDOT Act of 1966, as amended

There are no properties in the project area that are protected pursuant to Section 4(f) of the USDOT Act of 1966.

4.3 Section 6(f) of the Land and Water Conservation Fund Act of 1965

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

4.4 Recreational Areas and Protected Lands

There are no other protected public lands in the project area.

5. Natural Resources

The project will not have significant impacts to natural resources. Below is a summary of the evaluation performed:

5.1 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

A protected species and habitat assessment was conducted to determine the potential effects of the proposed project on protected species and habitat. The results are summarized in the Natural Resource Evaluation Report (NRE)(September 2022) and is provided as technical material in the project file.

Upon completion of the field surveys, it was determined that a total of 58 protected species may occur within the Old Lake Wilson Road study area. Of the 58 species, 5 reptiles, 12 birds, 2 mammals, and 39 plant species were identified as potential occurrence in the study area, based on its habitat preferences, distribution and existing conditions. The table below highlights each species that were evaluated, their regulatory status, and the effect determination under the Preferred Alternative.

Effect Determinations for Protected Species

Common Name	Scientific Name	Status	Effect Determination
Reptiles			
American alligator	*Alligator mississippiensis*	FT (S/A)	NO EFFECT
Blue-tailed mole skink	*Eumeces egregius lividus*	FE	NO EFFECT
Eastern indigo snake	*Drymarchon couperi*	FT	MANLAA
Gopher tortoise	*Gopherus polyphemus*	ST	NAEA
Sand skink	*Neoseps reynoldsi*	FT	NO EFFECT
Birds			
Audubon's crested caracara	*Polyborus plancus audubonii*	FT	NO EFFECT
Southern bald eagle	*Haliaeetus leucocephalus*	BGEPA / MBTA	--
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	FE	NO EFFECT
Florida burrowing owl	*Athene cunicularia floridana*	ST	NAEA
Florida sandhill crane	*Antigone canadensis pratensis*	ST	NAEA
Florida scrub-jay	*Aphelocoma coerulescens*	FT	NO EFFECT
Little blue heron	*Egretta caerulea*	ST	NAEA
Red-cockaded woodpecker	*Dryobates borealis*	FE	NO EFFECT
Roseate spoonbill	*Platalea ajaja*	ST	NO EFFECT
Southeastern American kestrel	*Falco sparverius paulus*	ST	NAEA
Tricolored heron	*Egretta tricolor*	ST	NAEA
Wood stork	*Mycteria americana*	FT	MANLAA

Mammals			
Florida black bear	*Ursus americanus floridanus*	M	--
Southern fox squirrel	*Sciurus niger*	M	--
Plants			
Pine-woods bluestem	*Andropogon arctatus*	ST	NEA
Ashe's savory	*Calamintha ashei*	ST	NEA
Avon Park rabbit-bells	*Crotalaria avonensis**	FE	NO EFFECT
Britton's beargrass	*Nolina brittonia*	FE	NO EFFECT
Carter's warea	*Warea carteri*	FE	NO EFFECT
Celestial lily	*Nemastylis floridana*	SE	NEA
Chapman's sedge	*Carex chapmanii*	ST	NEA
Clasping warea	*Warea amplexifolia**	FE	NO EFFECT
Cutthroat grass	*Panicum abscissum*	SE	NEA
Florida beargrass	*Nolina atopocarpa*	ST	NEA
Florida bonamia	*Bonamia grandiflora**	FT/SE	NO EFFECT
Florida jointweed	*Polygonella basiramia**	FE	NO EFFECT
Florida spiny-pod	*Matelea floridana*	SE	NEA
Florida willow	*Salix floridana*	SE	NEA
Garrett's scrub balm	*Dicerandra christmanii**	FE	NO EFFECT
Giant orchid	*Pteroglossaspis ecristata*	ST	NEA
Hartwrightia	*Hartwrightia floridana*	SE	NEA
Highlands scrub hypericum	*Hypericum cumulicola**	FE	NO EFFECT
Lewton's polygala	*Polygala lewtonii**	FE	NO EFFECT
Many-flowered Grass-pink	*Calopogon multiflorus*	ST	NEA
Nodding pinweed	*Lechea cernua*	ST	NEA
Paper-like nailwort	*Paronychia chartacea ssp.**	FT/SE	NO EFFECT
Piedmont jointgrass	*Coelorachis tuberculosa*	ST	NEA
Pine pinweed	*Lechea divaricate*	SE	NEA
Pinescrub bluestem	*Schizachyrium niveum*	SE	NEA
Pine-woods bluestem	*Andropogon arctatus*	ST	NEA
Plume polybody	*Polypodium plumula*	SE	NEA
Pygmy fringe tree	*Chionanthus pygmaeus**	FE	NO EFFECT
Sand butterfly pea	*Centrosema arenicola*	ST	NEA
Scrub blazing star	*Liatris ohlingerae**	FE	NO EFFECT
Scrub buckwheat	*Eriogonum longifolium var. gnaphalifolium**	FT/SE	NO EFFECT
Scrub lupine	*Lupinus aridorum**	FE	NO EFFECT
Scrub Mint	*Dicerandra frutescens**	FE	NO EFFECT
Scrub pigeon-wing	*Clitoria fragans**	FT/SE	NO EFFECT
Scrub plum	*Prunus geniculata**	FE	NO EFFECT
Short-leaved rosemary	*Conradina brevifolia**	FE	NO EFFECT
Small's jointweed	*Polygonella myriophylla**	FE	NO EFFECT
Star anise	*Illicium parviflorum*	SE	NEA
Swamp plume polybody	*Polypodium ptilodon*	SE	NEA

MANLAA = May Affect, Not Likely to Adversely Affect
NEA = No Effect Anticipated
NAEA = No Adverse Effect Anticipated
FE = Federally Endangered
FT = Federally Threatened
SE - State Endangered
ST = State Threatened
BGEPA - Bald and Golden Eagle Protection Act
MBTA = Migratory Bird Treaty Act
SA = Similarity of Appearance
* Indicates Lake Wales Ridge plants

Determinations of No Effect and MANLAA made using an USFWS effect determination Key do not require further consultation with the USFWS. Additionally, the effect determination of MANLAA for the sand skink was made following the completion of informal consultation with the USFWS following the submittal of the Skink Habitat Assessment, which is discussed below under the sand skink heading and is included in the NRE.

Federally Listed Species and Designated Critical Habitat
The study area is located entirely within the USFWS Consultation Area (CA) for the Audubon's crested caracara, Everglade snail kite, Florida scrub-jay, red-cockaded woodpecker, sand skink and blue-tailed mole skink, and Lake Wales Ridge plants. A CA is intended to identify the geographical landscape where each federally listed species is most likely to occur. Portions of the study area also fall within two wood stork Core Foraging Areas (CFA), which include suitable foraging areas important to the reproductive success of known wood stork nesting colonies. The existing habitats in the study area may also support other federally protected species including the southern bald eagle, and eastern indigo snake. No designated critical habitat occurs within the study area.

Audubon's Crested Caracara
The project is located within the USFWS CA for the Audubon's crested caracara. It is a resident, non-migratory species in Florida that prefers grasslands and pastures in the south-central region of the state, particularly in Glades, Desoto, Highlands, Okeechobee, and Osceola Counties (USFWS, 1999). Historically, caracara have inhabited dry or wet prairies with scattered cabbage palms (Sabal palmetto) and occasionally used lightly wooded areas next to those prairies. Many of those areas were converted and frequently replaced by pastures with non-native sod-forming grasses that still support caracaras. The caracara is classified as threatened due to habitat loss and population decline (Layne, 1996). No critical habitat has been designated for the Audubon's crested caracara.

The corridor is highly developed and lacks the grassland habitat preferred by the caracara. Due to the lack of suitable nesting and foraging habitat within the proposed project area, a species-specific survey was not conducted. According to Florida Natural Areas Inventory (FNAI's) Biodiversity Matrix Query, no individuals have been documented within the project vicinity. No suitable habitat nor individuals were observed during the field reviews. Due to the lack of suitable habitat, the proposed project will have **"no effect"** on the Audubon's crested caracara.

Everglade Snail Kite
The project is located within the USFWS CA for the Everglade snail kite. The Everglade snail kite is classified as endangered due to a "very small population and increasingly limited amount of freshwater marsh with sufficient water to ensure an adequate supply of snails" (Bureau of Sport Fisheries and Wildlife, 1973, p. 120). The USFWS has designated critical habitat for the snail kites, which consists of freshwater marshes near south Florida. The Everglade snail kite is a non-migratory subspecies only found in Florida, particularly near large watersheds (e.g., Everglades, Lake Okeechobee)

and the shallow vegetated edges of lakes that support the apple snail (Pomacea paludosa), the primary component of the snail kite's diet.

The corridor is highly developed and lacks the freshwater marshes and large waterbodies suited for snails and snail kites. No critical habitat for the snail kite occurs within the project corridor. According to FNAI's Biodiversity Matrix Query, no individuals have been documented within the project vicinity. No suitable habitat and no individuals were observed during the field review. Due to the lack of suitable habitat, the proposed project will have **"no effect"** on the Everglade snail kite.

Florida Grasshopper Sparrow

The project is located within the USFWS CA for the Florida grasshopper sparrow. The Florida grasshopper sparrow was listed as endangered because of habitat loss and degradation resulting from conversion of native vegetation to improved pasture and agriculture (51 FR 27492). The Florida grasshopper sparrow is a subspecies of grasshopper sparrow that is endemic to the dry prairie region of central and south Florida. This subspecies is extremely habitat specific and relies on fire every two or three years to maintain its habitat (USFWS, 1999). The primary habitat consists of large (>50 hectares), treeless (less than one tree per acre), and relatively poorly drained prairies dominated by saw palmetto and dwarf oaks (Delany et al., 1985). It is known to occur only in Highlands, Okeechobee, Osceola, and Polk counties (Robertson & Woolfenden, 1992; Delany, 1996). No critical habitat has been designated for the Florida grasshopper sparrow.

The corridor is highly developed and lacks the prairie habitats preferred by the grasshopper sparrow. No suitable habitat and no individuals were observed during the field reviews. Due to the lack of suitable habitat, the proposed alternatives will have **"no effect"** on the Florida grasshopper sparrow.

Florida Scrub-jay

The project is located within the USFWS CA for the Florida scrub-jay. The Florida scrub-jay is classified as threatened due to habitat loss, degradation, and fragmentation (USFWS, 1987). They only occur on ancient dune ecosystems and scrub habitats of peninsular Florida. The entire population of scrub-jays is divided into five sub-regions associated with the major sand deposits of Florida.

The corridor is highly developed and lacks the scrub habitats preferred by the Florida scrub-jay. No suitable habitat and no individuals were observed during field reviews. According to the Florida Scrub-Jay Statewide Survey Map, 1992-1993 (Fitzpatrick et al, 1994) the nearest scrub-jays were documented more than a mile east of the start of the project limits and located within an area which has since been developed. Due to the lack of suitable habitat, the proposed project will have **"no effect"** on the Florida scrub-jay.

Red-Cockaded Woodpecker

The project is located within the USFWS CA for the red-cockaded woodpecker (RCW). The RCW is listed by the USFWS as endangered due to habitat loss, degradation and fragmentation (35 FR 16047). The species is still widely distributed throughout the state, but the largest populations occur on federally managed lands in the panhandle (USFWS, 1999). RCW habitat consists of pine stands or pine-dominated forests with little to no understory and numerous old growth pines, particularly longleaf pines. It excavates cavities in the living part of pine trees, typically choosing trees greater than 80 years old. No critical habitat has been designated for the RCW.

The corridor is highly developed and lacks old growth pines preferred by RCWs. No suitable habitat and no individuals were observed during the field review. Due to the lack of suitable habitat, the proposed project will have **"no effect"** on the red-cockaded woodpecker.

Sand Skink and Blue-tailed Mole Skink

The project is located within the USFWS CA for the sand and blue-tailed mole skinks. Both the sand skink and blue-tailed mole skink are classified as threatened due to habitat loss, degradation and fragmentation (USFWS, 1999). They possess a variety of morphological adaptations for a fossorial lifestyle, such as vestigial and practically non-functioning legs, greatly reduced eyes, and reduced or absent external ear openings. These species are highly adapted to life in sand, spending most of their time "swimming" in loose sand in search of food, shelter, and mates. Their "swimming" motion leaves a sinusoidal ("S"-shaped) track in the soil surface that can be identified through visual pedestrian surveys.

The USFWS sand skink guidelines identify skink habitat as areas that are (1) within the Consultation Area; (2) support suitable skink soils; and (3) at or above 82-feet above sea level. The study area is mapped as containing suitable soils (Candler, Pomello, Pompano, Samsula, and Smyrna) and is above 82 feet in elevation for skinks. For these reasons, a Skink Habitat Assessment was performed on June 16, 2021, to determine if the habitat within the ROW was suitable for skinks. Observed conditions within the habitat assessment areas include disturbance from current land use with surrounding development and roadways limiting connectivity to suitable habitat. Consequently, a request was submitted to the USFWS for concurrence that a coverboard survey is not warranted due to lack suitable skink habitat within the project corridor on September 7, 2021. A letter of concurrence from the USFWS was received on September 30, 2021, which verified the existing conditions would likely preclude sand skinks and blue-tailed mole skinks from utilizing habitats within the project area. Therefore, a coverboard survey for sand skinks or their tracks is not required. The Skink Habitat Assessment and USFWS request and USFWS concurrence documentation is attached. Therefore, due to the lack of suitable habitat, the proposed project will have "**no effect**" on skinks.

Lake Wales Ridge and Other Federally-Listed Plants

The project is located within the USFWS CA for the Lake Wales Ridge Plants group. The Lake Wales Ridge is the remnant of an ancient dune that runs north and south through peninsular Florida. According to FNAI and USFWS, 19 federally-protected plant species associated with the Lake Wales Ridge have potential to occur within the study area.

The corridor is highly developed and plant species occurring within the existing ROW consists of bahiagrass (Paspalum notatum) and other turf grasses. The existing ROW was observed to be mowed and maintained with landscape features throughout the corridor. Due to development and limited natural areas occurring within the study area, these species are unlikely to occur within or adjacent to the project footprint. Ecologists did not observe federally protected plants during field reviews. Due to the lack of habitat and the project footprint remaining almost entirely within the existing mowed and maintained ROW, the proposed project will have **"no effect"** on federally listed plants.

Wood Stork

The wood stork is classified as threatened by the USFWS due to the reduction in food base attributed to a loss of suitable foraging habitat (SFH). The wood stork is associated with freshwater and estuarine wetlands that are used for nesting, roosting, and foraging. Nesting typically occurs in medium to tall trees that occur in stands located in swamps or islands surrounded by open water (Ogden, 1991; Rodgers et al. 1996). Preferred foraging habitat includes wetlands with a mosaic of submerged and/or emergent aquatic depressions in marshes or swamps where fish become concentrated during periods of receding water levels. No critical habitat has been designated for the wood stork.

According to the USFWS South Florida Ecological Service office, the habitats within 18.6 miles of a wood stork breeding colony are considered to be wood stork CFAs. The study area is entirely within the CFA of two wood stork colonies: Lake Russell and Gatorland. No wood storks or wood stork rookeries were observed during the field review. Minimal suitable habitat was observed adjacent to the bridge over Davenport Creek. The majority of this area is heavily forested and would preclude wood stork foraging. The Preferred Alternative will impact 0.02 acres of SFH. In accordance with the South

Florida Programmatic Concurrence Key for the Wood Stork (USFWS, 2010), the proposed project (A) impacts SFH at a location greater than 0.47 mile from a colony site; and (B) impacts to SFH is less than 0.5 acre; therefore, the proposed project **"may affect, but is not likely adversely affect"** the wood stork, and the key is attached.

Eastern Indigo Snake

The eastern indigo snake is listed by the USFWS as threatened due to over-collecting for the pet trade as well as habitat loss and fragmentation (USFWS, 1999). The eastern indigo snake is widely distributed throughout central and south Florida. They occur in a broad range of habitats, from scrub and sandhill to wet prairies and mangrove swamps. Eastern indigo snakes are mostly closely associated with habitats occupied by gopher tortoises whose burrows provide refugia from cold or desiccating conditions (USFWS, 1999). No critical habitat has been designated for the eastern indigo snake.

Suitable habitat for the eastern indigo snake was observed within the study area. No eastern indigo snakes were observed during the field review. Suitable habitat for the gopher tortoise was observed and one gopher tortoise burrow was identified within the proposed project area. A 100% gopher tortoise survey was not conducted during this PD&E Study but will be required before construction activities commence. To address any potential effects to the eastern indigo snake to the eastern indigo snake, all potentially occupied gopher tortoise burrows within the limits of construction will be excavated and the Standard Protection Measures for the Indigo Snake (USFWS, 2013) will be implemented during construction activities. As a result, the proposed project **"may affect, but is not likely to adversely affect"** the eastern indigo snake. The effect determination was made using the following sequence from the Eastern Indigo Snake Effect Determination Key (USFWS, 2017) A>B>C>D>E, the key is also attached.

State Listed Species

Gopher Tortoise

The gopher tortoise is listed as threatened by the FWC. They occur in the southeastern Coastal Plain from Louisiana to South Carolina; the largest portion of the population is located in Florida (FWC, 2012). Gopher tortoises require well-drained, sandy soils for burrowing and nest construction, with a generally open canopy and an abundance of herbaceous ground cover, particularly broadleaf grasses, wiregrass (Aristida stricta), legumes, and fruits for foraging. Gopher tortoises can be found in most types of upland communities, including disturbed areas and pastures. No critical habitat has been designated for the gopher tortoise.

Suitable gopher tortoise habitat was observed within the study area. A 100% gopher tortoise survey was not conducted. One gopher tortoise burrow was observed within the study area, but not within the footprint of the Preferred Alternative. No individual gopher tortoises were observed during the field review. A permit may be necessary from FWC if tortoises are present within 25-feet of any permanent or temporary construction area. Based on the information provided above, the proposed project is anticipated to have **"no adverse affect anticipated"** to the gopher tortoise.

Florida Burrowing Owl

The Florida burrowing owl is listed by the FWC as threatened due to loss of native habitat, dependence on altered habitat, and lack of regulatory protections (FWC,2013a). The burrowing owl is a non- migratory, year-round breeding resident of Florida, and maintains home ranges and territories while nesting. Burrowing owls inhabit upland areas that are sparsely vegetated. Natural habitats include dry prairie and sandhill, but they will make use of ruderal areas such as pastures, golf courses, parks, and road rights-of-way because much of their native habitat has been altered or converted to other uses.

Due to development and limited natural areas occurring within the study area, minimal suitable habitat was observed within the study area. The golf course and open land areas adjacent to the existing ROW may provide suitable habitat for the burrowing owl. Ecologists did not observe burrowing owls or their burrows during the field surveys. Burrowing owls

usually dig their own burrows but are known to utilize gopher tortoise and armadillo burrows. As aforementioned, one gopher tortoise burrow was observed within the study area during field reviews. Pre-construction surveys will be conducted to adhere to the components of the Imperiled Species Management Plan (ISMP) and the Conservation and Permitting Guidelines for the Florida Burrowing Owl (FWC, 2018a); therefore, there is **"no adverse effect anticipated"** for the burrowing owl as a result of the proposed project. If burrowing owls are observed onsite, coordination with the FWC will occur to discuss avoidance, minimization, and permitting options as applicable.

Florida Sandhill Crane

The Florida sandhill crane is listed by the FWC as threatened due to the loss and degradation of nesting and foraging habitat from development and hydrologic alteration to their potential nesting habitat (FWC, 2013b). It is widely distributed throughout most of peninsular Florida. Sandhill cranes rely on shallow marshes for roosting and nesting and open upland and wetland habitats for foraging (Wood and Nesbitt, 2001).

Ecologists did not observe Florida sandhill cranes during field surveys. Suitable foraging habitat occurs throughout the study area, and consists primarily of the roadway ROW, adjacent golf course, and existing stormwater ponds. Suitable nesting habitat occurs within the existing stormwater ponds associated with I-4. Avoidance measures that eliminate the need for FWC take permitting include: (1) avoid impacts to natural wetlands used for breeding, feeding, or sheltering; (2) avoid activities within 400-feet of active nest; and (3) avoid land use conversion within 1,500-feet of the nest site until after young are capable of sustained flight. A pre-construction survey will be conducted to adhere to the components of the ISMP and the Conservation and Permitting Guidelines for the Sandhill Crane; therefore, **"no adverse effect anticipated"** for the Florida sandhill crane resulting from the proposed project.

Southeastern American Kestrel

The southeastern American kestrel is listed by the FWC as threatened due to habitat loss, degradation and fragmentation, as well as lack of regulatory protection (FWC, 2013c). The southeastern American kestrel is the only non-migratory, permanent resident kestrel of Florida. However, the seasonal occurrence of a migratory subspecies of the northern American kestrel (Falco sparverius sparverius) occurs from September through March in Florida. Confident identification of southeastern American kestrels can only be made during the portion of the breeding season when migratory species are not present (FWC, 2013c). The southeastern American kestrel is a secondary cavity nester, preferring habitats of sandhill and open pine savannah maintained by fire. They can be found in pine habitats, woodland edges, prairies, pastures, and agricultural lands.

Ecologists did not observe kestrels or potential cavity trees during field surveys. Suitable habitat for the southeastern American kestrel is limited within the study area, and primarily consists of foraging habitat associated with the adjacent golf course. Areas of suitable habitat near the northern terminus of the project, consisting of coniferous plantations, have been recently developed and no longer provide suitable habitat. Preconstruction surveys will be conducted in accordance with the Species Conservation Measures and Permitting Guidelines for the Southeastern American Kestrel (FWC, 2020) as applicable if potential nesting habitat is to be impacted during future project phases. Based on the information provided, there is **"no adverse effect anticipated"** for the southeastern American kestrel.

Imperiled Wading Birds

Three wading birds have the potential to occur in the study area. These species are the little blue heron, roseate spoonbill, and tricolored heron. These species are listed by the FWC as threatened due to the loss and degradation of habitat, particularly from hydrologic alterations to their essential foraging areas (FWC, 2013d). Little blue herons, roseate spoonbills and tricolored herons are widely distributed throughout peninsular Florida. Wading birds depend on healthy wetlands and vegetated areas suitable for resting and breeding which are near foraging areas (FWC, 2013d). They forage

in freshwater, brackish, and saltwater habitats. They tend to nest in multi-species colonies of a variety of woody vegetation types including cypress, willow, maple, black mangrove and cabbage palm (FNAI, 2001).

Ecologists did not observe any imperiled wading birds during field surveys. No wading bird rookeries occur within the study area. No nesting activity was observed during field surveys. Potential foraging habitat is limited to the existing stormwater ponds and Davenport Creek. Wetland impact avoidance and minimization measures have been implemented, including utilizing the existing stormwater ponds. Compensatory mitigation will be provided for adverse impact to wetlands. These measures are anticipated to mitigate impacts to these species. Therefore, there is **"no adverse effect anticipated"** for wading birds resulting from the proposed project.

State Listed Plant Species

Through regulation by the FDACS Division of Plant Industry, Florida protects plant species native to the state that are endangered, threatened, or commercially exploited. The Florida Regulated Plant Index includes all plants listed as endangered, threatened, or commercially exploited as defined in Chapter 5B-40.0055, F.A.C. According to FNAI, 19 state listed plant species have potential to occur within the proposed project area.

The corridor is highly developed and plant species occurring within the existing ROW consist of primarily of bahiagrass and other turf grasses. Due to development and limited natural areas occurring within the study area, these species are unlikely to occur within or adjacent to the project footprint. Ecologists did not observe any protected plant species during field reviews. The existing ROW was observed to be mowed and maintained with landscape features throughout the corridor. Due to the lack of habitat and the project footprint remaining almost entirely within the existing mowed and maintained ROW, there is **"no effect anticipated"** as a result of the proposed project to state listed plant species.

Other Protected Species or Habitats

Southern Bald Eagle

The bald eagle was removed from the ESA in 2007 and Florida's Endangered and Threatened Species list; however, it remains protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles tend to nest in the tops of very tall trees that provide unobstructed lines of sight to nearby habitats, particularly lakes and other open waters. Because eagles are piscivorous (fish-eating) raptors, nearly all eagles' nests occur within 1.8 miles of water (Wood et.al., 1989). No critical habitat has been designated for the bald eagle.

According to the FWC's Eagle Nest locator and the Audubon Florida EagleWatch Public Nest App, the nearest nest (Nest OS231) is located more than 1.5 miles from the project corridor. The proposed project will have no impact on the bald eagle since the project activities will occur outside of the 660-foot buffer protection zone for bald eagle nests.

Florida Black Bear

The Florida black bear was removed from Florida's Endangered and Threatened Species list in 2018; however, it remains protected under Chapter 68A-4.009 F.A.C., Florida Black Bear Conservation Plan. The study area is located in the common range of the FWC South Central Bear Management Unit (BMU). Common areas have the second highest density of bear locations, and these areas are where bears are spreading from their core areas and spending a fair amount of their time.

The black bear utilizes a large variety of habitats but prefer large contiguous forested tracts with mast-producing trees and berry producing shrubs. Due to the existing development within the Old Lake Wilson Road corridor, these types of habitats are limited and found outside the project area. Suitable habitat occurs adjacent to the study area, particularly the Reedy Creek corridor. The mobility of bears and other wildlife though the project area is limited by the surrounding development

as evidence by the FWC data. The most current FWC data for the Florida black bear was reviewed and documents one bear mortality (2017) and one recent bear call (2021) within the study area (Figure 3-1). The proposed project will have no impact on the Florida black bear based on the lack of habitat and bear utilization within the project corridor, as the majority of bear activity occurs outside the project limits in areas of suitable habitat associated with the Reedy Creek corridor.

Southern Fox Squirrel

The southern fox squirrel was removed from Florida's Endangered and Threatened Species list in 2018; however, it remains protected under Chapter 68A-4001, 68A-1.004, and 68A-29.002(1)c F.A.C. The southern fox squirrel inhabits open, fire-maintained longleaf pine, turkey oak, sandhills, and flatwoods (FNAI, 2001; FWC, 2013). Additionally, they are known to utilize suburban habitats including parks and golf courses.

Ecologists did not observe individuals or nests during the field. Additionally, minimal suitable habitat was observed within the study area and is limited to the adjacent golf course as recent construction has eliminated suitable habitat near the northern terminus of the proposed project. The proposed project will have no impact on the southern fox squirrel due to the lack of suitable habitat within the proposed project area.

5.2 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

The study area is located within the Reedy Creek Regulatory Basin. An evaluation to determine if wetlands or other surface waters occur within the study area was conducted in January 2021 and July 2021. The wetland evaluation relied on literature reviews and field surveys to identify the location, extent, and functional value of wetlands in the study area. These sites were assessed further to determine the potential direct, indirect, or cumulative effects of the proposed project. Mitigation options to satisfy permit requirements from regulatory agencies were also evaluated. Early coordination was conducted during the ETDM process with the South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), Environmental Protection Agency (EPA) and United States Fish and Wildlife Service (USFWS).

The findings of the wetlands and surface water evaluation are documented in the NRE report (September 2022), prepared under separate cover. The NRE report is available in the project file.

The table below depicts each wetland, identification number, FLUCFCS classification, and NWI classification:

Wetlands and Other Surface Waters in the Old Lake Wilson Road Study Area

Wetland Number	FLUCFCS Classification	USFWS NWI Classification	Description
WL 1A	617	PFO1C	Mixed Wetland Hardwoods
WL 1B	617	PFO1C	Mixed Wetland Hardwoods
WL 2A	617	PFO1C	Mixed Wetland Hardwoods
WL 2B	617	PFO1C	Mixed Wetland Hardwoods
WL 3	630	PFO1C	Wetland Forested Mixed

WL 4	617	PFO1C	Mixed Wetland Hardwoods
WL 5	617	PFO1C	Mixed Wetland Hardwoods
WL 6	641	PEM1C/PAB3H	Freshwater Marsh
SW 1	530	N/A	Reservoirs
SW 2A	510	PFO1C	Streams and Waterways
SW 2B	510	PFO1C	Streams and Waterways
SW 3	530	N/A	Reservoirs
SW 4	510	N/A	Reservoirs
SW 5	530	N/A	Reservoirs
SW 6	530	N/A	Reservoirs
SW 7	837	N/A	Reservoirs
SW 8	510	N/A	Reservoirs
SW 9	510	N/A	Reservoirs

The Preferred Alternative will result in 0.49 acres of direct impacts to wetlands and 0.05 acres of direct impacts to other surface waters. The Preferred Alternative may also result in indirect impacts to wetlands. Adverse indirect impacts (secondary impacts) were calculated using a 25-ft. buffer from the direct wetland impact. The Preferred Alternative will result in 0.34 acres of secondary impacts. No cumulative impacts to wetlands or other surface waters are anticipated. The following table summarizes the direct and indirect impacts to surface waters and wetlands for the Preferred Alternative.

Summary of Direct & Indirect Wetland Impacts

Wetland ID	FLUCFCS	Description	Direct Impact (Acres)	Secondary Impact (Acres)
WL 1A	617	Mixed Wetland Hardwoods	0.20	0.08
WL 1B	617	Mixed Wetland Hardwoods	0.01	0.02
WL 2A	510	Mixed Wetland Hardwoods	0.06	0.09
WL 2B	510	Mixed Wetland Hardwoods	0.22	0.15
SW 1	530	Reservoirs	0.01	0
SW 2A	510	Streams and Waterways	0.03	0
SW 2B	510	Streams and Waterways	0.01	0
Total Impacts				
Direct Wetland Impacts		Secondary Wetland Impacts		Surface Water Impacts
0.49 (ac)		0.34 (ac)		0.05 (ac)

The wetland assessment was conducted in accordance with the Uniform Mitigation Assessment Method (UMAM), as described in Chapter 62-345, F.A.C. The UMAM is the state-wide methodology for determining the functional value provided by wetlands and other surface waters and the amount of mitigation required to offset adverse impacts to those areas for regulatory permits. The results of the UMAM assessment are provided in the following table.

Proposed Wetland Functional Loss Due to Impacts from Preferred Alternative

Wetland ID	Wetland Type	Impact Type	UMMA Delta	Impact Area (ac.)	Functional Loss
WL 1A, 1B	Forested	Direct	0.60	0.21	0.120
		Secondary	0.07	0.10	0.007
WL 2, 2A	Forested	Direct	0.57	0.28	0.159

		Secondary	.07	.24	0.016
Total Direct Functional Loss					**0.279**
Total Secondary Functional Loss					**0.023**
Total Functional Loss					**0.302**

The Preferred Alternative was evaluated for impacts to wetlands in accordance with EO 11990 and USDOT Order 5560.1A . The Preferred Alternative will be constructed almost entirely within the existing ROW to avoid impacts to wetlands. Unavoidable wetland and surface water impacts outside the existing ROW are associated with the replacement of the bridge culvert at Davenport Creek. Due to the age and condition of the existing bridge, it was determined that replacement was the only option. In order to minimize impacts to wetlands, the Preferred Alternative proposes to replace the existing bridge culvert with a new four cell, 12'x8' concrete box culvert to accommodate the proposed improvements. The proposed project will have no significant short-term or long-term adverse impacts to wetlands.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Avoidance and minimization measures will continue to be evaluated during the design and permitting phases of the proposed project. Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. 1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and any other mitigation options that satisfy state and federal requirements. Currently, multiple mitigation banks within the impacted watershed, including Reedy Creek, Southport Ranch, Florida, and Bullfrog Bay mitigation banks, have available credits to provide the appropriate mitigation.

5.3 Essential Fish Habitat (EFH)

There is no Essential Fish Habitat (EFH) in the project area.

5.4 Floodplains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

The project is located within the jurisdiction of the SFWMD and the FDEP. The project is divided into eight (8) sub-basins based on the existing roadway profile, roadside ditch profiles, and culvert and cross drain locations. The proposed widening of Old Lake Wilson Road from two to four lanes will result in minor impacts to the adjacent Federal Emergency Management Agency (FEMA) floodplains. The estimated magnitude of fill is negligible with respect to the relative size of the floodplain area (both upstream and downstream). However, the floodplain impacts extending across the proposed culvert and bridge culvert extensions and replacements will need to be further analyzed during the design phase. The proposed bridge culvert widening over the regulatory floodway at Davenport Creek will require a FEMA No-Rise Certification be processed through Osceola County Floodplain Management. The proposed improvements will have a transverse encroachment on Davenport Creek and Davenport Creek tributary. There are no known flooding issues within the project limits. A FEMA floodplain map is provided in the attachments.

Existing Culverts within Project Limits

Approximate Station	Cross Culvert Size	Length (ft)	Structure Number
147+00	Quadruple 11'X7.5' metal arch pipe	42	924147 (bridge culvert)
183+00	Triple 42" RCP	127	EX-169 (per I-4 BtU Plans)
201+15	Single 24" RCP	247	EX-255 (per I-4 BtU Plans)

Modifications to existing drainage structures such as the extension of cross drains included in this project will result in an insignificant change in their capacity to carry floodwater. These modifications will cause minimal increases in flood heights and flood limits which will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant change in flood risks or damage. In addition, replacement drainage structures for this project will perform hydraulically in a manner equal to or greater than the existing structure, and backwater surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes due to the modification or replacement of existing structures. Therefore, it has been determined that this encroachment is not significant.

A Location Hydraulics Report (LHR) (March 2022) and Bridge Hydraulics Assessment (BHA) (March 2022) were completed to evaluate impacts to floodplains and to assess the risk for flooding associated with the proposed roadway improvements. A copy of each report can be located in the project file.

5.5 Sole Source Aquifer

Biscayne Aquifer

The project limits lie within the boundaries of the Biscayne Sole Source Aquifer Streamflow and Recharge Source Zone which includes portions of Osceola County extending south towards the Everglades. The proposed roadway will have a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed, by closed storm sewer pipes, to one or more of the potential pond sites. Captured stormwater will receive treatment and attenuation by the wet detention pond before discharging to the adjacent stormwater outfall. The proposed stormwater facilities will meet all SFWMD criteria, therefore, water quality impacts to downstream receiving waters are not anticipated to occur. A sole source aquifer checklist was sent to the EPA for concurrence on June 7, 2022 and is provided in the project file. EPA concurrence was received on July 20, 2022 and is attached.

5.6 Water Resources

The project is within the SFWMD and the Reedy Creek Regulatory Basin, specifically the Davenport Creek (WBID 3170K). All projects located within the jurisdiction of the SFWMD are required to meet state water quality standard set forth in Chapter 62-302, Florida Administrative Code (FAC). The approach to meet water quality standards is to provide treatment for the increase in impervious area and restore or replace existing treatment facilities impacted by this project. Stormwater runoff from Old Lake Wilson Road is currently collected by roadside ditches with no permitted water quality treatment and attenuation, which flows into existing culverts and cross drains throughout the study corridor, discharging into Davenport Creek. The study limits fall within Davenport Creek which is not currently impaired for total nitrogen (TN) or total phosphorus (TP). However, Reedy Creek, the outfall for Davenport Creek, is impaired for TN and TP and Davenport Creek is located within the Lake Okeechobee Watershed which has a Basin Management Action Plan (BMAP) for phosphorus. The general flow of surface waters within the project limits is from west to east.

This project discharges to surface or ground water and will alter the drainage system. A Water Quality Impact Evaluation Checklist (WQIE) was completed in September 2022 and is provided in the file as technical material. The proposed roadway will have a curb and gutter stormwater collection system. Stormwater captured by the proposed inlets will be conveyed to existing stormwater management facilities. The conveyance system will be designed during the design phase.

A Pond Siting Report (PSR) (June 2022) was completed to evaluate potential locations for drainage ponds associated with the proposed roadway improvements. The PSR is included in the project file. Wet detention and dry retention ponds will provide for water quality improvements as well as water quantity attenuation for the project runoff. The existing stormwater ponds were permitted to accommodate additional treatment volume for the 4-lane widening of Old Lake Wilson Road.

The proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SFWMD in Chapter 62-302 of the FAC. It is therefore anticipated that no adverse effects will occur to the water quality within the project area. Osceola County will continue to coordinate water quality and quantity impacts and stormwater management with the appropriate regulatory agencies as required throughout the design and permitting phases of the project, as well as during and after construction. Potential water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with FDEP's National Pollutant Discharge Elimination System (NPDES) Permit including the preparation of a Stormwater Pollution Prevention Plan (SWPPP); Individual Environmental Resource Permit (ERP); the latest edition of the FDOT Standard Specification for Road and Bridge Construction; and through the use of Best Management Practices (BMPs) that will be implemented during construction and will be provided following guidelines established in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (July 2013) and FDOT Standards. These include sediment barriers, temporary basins, inlet protection systems, and turbidity barriers. The contractor will also be required to provide an erosion control plan and follow the Stormwater Pollution Prevention Plans (SWPPP) prepared during the design phase of the project.

5.7 Aquatic Preserves

There are no aquatic preserves in the project area.

5.8 Outstanding Florida Waters

There are no Outstanding Florida Waters (OFW) in the project area.

5.9 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

5.10 Coastal Barrier Resources

There are no Coastal Barrier Resources in the project area.

6. Physical Resources

The project will not have significant impacts to physical resources. Below is a summary of the evaluation performed for these resources.

6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

A Noise Study Report (NSR) (July 2022) was prepared to evaluate the potential impacts of traffic noise on the surrounding community. A copy of the NSR is located in the project file as a technical material. This project is defined as a Type I project. The study was conducted for the project following FDOT procedures that comply with Title 23 CFR, Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. The evaluation uses methodologies established by the FDOT and documented in the PD&E Manual. The prediction of traffic noise levels with and without the roadway improvements was performed using the FHWA's Traffic Noise Model (TNM-Version 2.5).

The findings contained in the NSR outlines the traffic noise impact analysis conducted for 470 noise sensitive sites (receptors) for the 2020 existing condition. The analysis results indicate that fifteen receptors are currently experiencing exterior noise levels that meet or exceed the FDOT Noise Abatement Criterion (NAC). Project noise levels are predicted to meet or exceed the NAC at 28 receptors, with the highest noise level being 70.2 dB(A) in Heritage Crossing Vacation Rental condominiums. When compared to the existing condition, the proposed project increases exterior noise levels throughout the corridor by an average of 2.0 dB(A). While none of the noise increases are considered substantial (i.e., 15 dB(A) or more over existing levels), the project exceeds the NAC and requires abatement consideration of the impacts.

To mitigate these impacts, noise barriers were considered as an abatement measure. For a noise barrier to be considered acoustically feasible, at least two impacted receptor sites must achieve at least a 5.0 dB(A) reduction in traffic noise. Consequently, noise barriers were not evaluated for the four isolated/single impacted receptors, identified in the NSR as receptors 4-7, 6-1c, 7-16, and 10-7. Of the 28 receptors predicted to meet or exceed the NAC, 22 were located within the Heritage Crossing neighborhood, and 6 were located in The Terrace neighborhood and Golf Course.

Upon completion of the evaluation for a barrier as SB1 at Heritage Crossing (NSA 3), it was determined that it provides an average noise reduction of 6.4 dB (A) to 15 of the 21 NAC B impacted receptors. This barrier meets FDOT's required 7.0 dB(A) noise reduction design goal (NRDG) and the $42,000 per benefited receptor cost-reasonableness criterion.

Osceola County is committed to the construction of feasible and reasonable noise abatement measures identified for SB 1 at Heritage Crossing (NSA 3) contingent upon the following conditions:

1. Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
2. Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
3. Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;

4. Community input supporting types, heights, and locations of the noise barrier(s) is provided to the FDOT District Office; and
5. Safety and engineering aspects related to the roadway user and the adjacent property owner have been reviewed, and any conflicts or issues resolved.

Final recommendations on the construction of abatement measures will be determined during the project's final design and through the public involvement process.

Based on the existing land use within the limits of this project, construction of the proposed roadway improvements may have noise or vibration impacts. If unanticipated noise or vibration issues occur during the construction process, the Project Engineer, in coordination with Osceola County's Noise Specialist and the Contractor, will explore mitigation measures to reduce said nuisance.

6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.
Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

6.3 Contamination

A Contamination Screening Evaluation Report (CSER) (January 2022) was prepared for this project and is a part of the project file, along with a map showing the potential contamination sites. The CSER identified and evaluated known or potential contamination sites, identified recommendations concerning these sites, and described possible impacts to the proposed project. Each potential contamination site was assigned a contamination risk rating (CRR) of No, Low, Medium, or High. Upon completion of the CSER, 17 potential contamination sites were identified. Seven of these sites received a CRR of Medium and no sites received a CRR of High. Sites receiving a CRR of Medium are as follows:

Medium CRR sites:

- Site C11/C12-Facility ID 110037313485, 9810601 - 7-Eleven Food Store #34045 - 7585 Osceola-Polk County Line Road
- Sites 14 and 18-Historic row crops - East and west of study corridor
- Site D15-Facility ID 9816099 - WAWA Food Market #5299 - 8103 Lake Wilson Road
- Site 20-Facility ID 9203007 - Heller Brothers Packing Corporation - 2 miles south of 192
- Sites 22A/22B-Reunion Golf Course - adjacent to the ROW
- Site 23-Former agricultural land use along site corridor

CRRs are based on current conditions and may not reflect conditions that could exist in the future. When the project progresses through design to construction, the rating may change based on changes in design, construction activities, construction methods, ROW needs, or other factors. FDOT will perform an updated review of available public records and other pertinent data once construction plans and ROW acquisition needs have been finalized to ascertain the latest

information concerning assessment or remediation activities at sites identified in this CSER. Recommendations for future activities will be made based on the results of the updated records and design reviews. All medium and high ranked contamination sites will undergo a Level II Assessment. Level II investigations are recommended during the design phase, prior to ROW acquisition or roadway construction activities.

If dewatering is necessary during construction, a SFWMD Water Use Permit may be required. The contractor would be held responsible for ensuring compliance with any necessary dewatering permit(s). Any dewatering operations near potentially contaminated areas shall be limited to low-flow and short-term. The contractor shall implement appropriate measures to preclude the migration of potentially contaminated ground water into the project area. Additionally, dewatering will be from the surficial aquifer and infiltration basins should be used to direct this dewatering discharge back into the same surficial aquifer from which it was pumped from. If there were space limitations and an infiltration basin of sufficient size could not be constructed, then some dewatering discharge may be directed to local water ways at rates they can handle and at cleanliness levels established by the state. This will be reviewed and permitted through SFWMD. To adequately reduce or properly mitigate for potential impacts to the Sole Source Aquifer from dewatering operations, proper implementation of BMPs found in the U.S. Bureau of Reclamation Engineering Geology Field Manual, Chapter 20 Water Control are required. Any soil excavations and/or dewatering effluent generated during construction will be handled appropriately using BMPs to preclude the potential migration of contaminants within the project corridor. In addition, any construction activities conducted within a potentially contaminated area must protect the health of workers and the public.

Resolution of problems regarding contamination will be coordinated by Osceola County or designated representative with appropriate regulatory agencies and action will be taken, where applicable. Further coordination with the regulatory agencies, and possibly field surveys involving monitoring wells, soil borings and other site-specific methods, can identify potential contamination issues so that avoidance, minimization, and remediation measures can be taken.

6.4 Utilities and Railroads

There are no existing railroad crossings within the project limits. A total of 19 utility providers were identified in the project area. Coordination amongst utility providers and operators occurred in January 2021. The utilities providers and operations were provided conceptual plans of the future build alternative for review and to further assess utility impacts. Since these utility impacts occur within the Old Lake Wilson Road ROW, utility relocation is expected during the construction phase and can be more accurately determined during the design phase. The table below provides information on the name of each impacted company and the location of the existing facilities. The Utility Assessment Report dated June 2022 is available in the project file.

Summary of Utility Easements

Utility Agency/Owner	**General Easement Description**
Charter Communications	BFO from STA 220 to STA 232+43.29 on the east side of Old Lake Wilson Rd. and outside of the ROW
Florida Gas Transmission	18" OD x 0.375" WT Grade X-52, Natural Gas pipeline crosses Old Lake Wilson Rd. between STA 185 and STA 190 running at a diagonal which is perpendicular to SR 400
KUA	KUA has a pipeline briefly runs outside of the ROW along the E side of S. Old Lake Wilson Rd. and ends at a facility near I-4
Gulfstream Natural Gas System	16" steel gas main runs on the east side of S. Old Lake Wilson Rd.

Duke Energy Distribution	12.47 KV buried electric runs on the west side of S. Old Lake Wilson Rd. 12.47 KB buried electric crosses S. Old Lake Wilson Rd. at STA. 106+25 (Excitement Dr.) and continues running north on the east side of S. Old Lake Wilson Rd. until just south of Sinclair Rd. where is crosses to the west side of N. Old Lake Wilson Rd. South of Gathering Dr./Reunion Blvd. buried electric crosses under S. Old Lake Wilson Rd. On the north side of Spine Rd. buried electric crosses under S. Old Lake Wilson Rd. and runs on the north side of Spine Rd. Just south of and just north of Assembly Ct. buried electric lines cross under S. Old Lake Wilson Rd., additionally an overhead electric line runs northeast and stops west of S. Old Lake Wilson Rd. and turns to buried electric before paralleling S. Old Lake Wilson Rd. and stopping at SR 400 Just north of I-4 a buried electric line crosses under N. Old Lake Wilson Rd. At Fairfax Dr./Marker Ave. two buried electric lines cross on the north and south side of Fairfax. Dr.
TECO Peoples Gas - Orlando	2" PE gas main crossing S. Old Lake Wilson Rd. at Excitement Dr. and a short run of 2" PE gas main running on the west side of Old Lake Wilson Rd. outside of the ROW Just north of Assembly Ct. a 4" PE and a 6" coated steel gas main cross S. Old Lake Wilson Rd. and run outside of the ROW line on the northeast side of Assembly Ct. The 4" PE gas main on the north side of Fairfax Dr. turns north on the west side of N. Old Lake Wilson Rd. and runs out of the ROW until STA 216+50
Spectra Energy - Sabal Trail	On the north side of Sinclair Rd., a 36" high pressure natural gas transmission line runs in a 50' easement
Uniti Fiber	(3) 1 1/4" HDPE Ducts and 3/4" fiber cable runs outside of the ROW on the east side of S. Old Lake Wilson Rd. from STA 180+50 to STA 185

6.5 Construction

Short-term construction related noise, vibration and wetland impacts will be minimized through the use of Best Management Practices (BMPs) and by adherence to FDOT's most current edition of Standard Specifications for Road and Bridge Construction. These specifications include BMP measures such as the use of siltation barriers, dewatering structures, and containment devices that will be implemented for controlling turbid water discharges outside of construction limits.

Maintenance of Traffic and Sequence of Construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of lane closures and other pertinent information to the traveling public. The local news media will be notified in advance of lane closings and other construction related activities, which could excessively inconvenience the community so that motorists, residents, and business persons can plan travel routes in advance.

Access to all businesses, recreational facilities, and residences will be maintained to the extent practical through controlled construction scheduling. Traffic delays will be controlled to the extent possible where many construction operations are in progress at the same time. The contractor will be required to maintain one lane of traffic in each direction at all times, and to comply with the BMPs of FDOT. Also, present traffic movements will be always maintained. No

locations will require temporary roads or bridges.

Noise control measures will include those contained in FDOT's Standard Specifications for Road and Bridge Construction. A National Pollutant Discharge Elimination System (NPDES) construction permit is required for this project.

7. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the Preliminary Engineering Report.

8. Permits

The following environmental permits are anticipated for this project:

State Permit(s)	Status
DEP or WMD Environmental Resource Permit (ERP)	To be acquired
DEP National Pollutant Discharge Elimination System Permit	To be acquired
FWC Gopher Tortoise Relocation Permit	To be acquired
State 404 Permit	To be acquired

Local Permit(s)	Status
Osceola County - FEMA No-Rise	To be acquired

9. Public Involvement

The following is a summary of public involvement activities conducted for this project:

Summary of Activities Other than the Public Hearing
Public involvement activities were integrated into the PD&E study process providing the opportunity for property owners, residents, businesses, government entities and agencies to share their ideas and concerns with the study team. In addition to the project website, ImproveOldLakeWilsonRoad.com, the Orlando Sentinel, and Florida Administrative Registrar were used to notify the public of the project and public meetings. Newsletters were also emailed and mailed to elected officials, property owners, appointed government staff and project stakeholders.

Public Involvement Plan
A Public Involvement Plan (PIP) was developed and approved in February 2021. The purpose of the PIP was to guide the public outreach process in establishing and maintaining communication with the public throughout the study and incorporating public input during the roadway improvement evaluations. A copy of the PIP can be found in the project file.

Project Kick-Off Notification
The project kick-off notification was accomplished through a newsletter to elected and appointed officials, federal and state agencies, regional organizations, Native American Tribes, communities and stakeholders, and property owners within 300-feet of each side of the study corridor. The project kick-off newsletter to the elected and appointed officials was an attachment to the project kick-off notification email which was distributed on February 9, 2021. The project kick-off newsletter was mailed to other stakeholders on February 8, 2021. Copies of the Kick-off newsletter are included in the Comments and Coordination Report, provided in the project file.

Alternative Public Meeting
The Alternatives Public Meeting was conducted as a hybrid public meeting. Attendees were given the option to attend an in-person event or to attend virtually via GoToWebinar. The in-person meeting was held at Kenzie's at the Clubhouse at Mystic Dunes Resort and Golf Club on Tuesday, February 22, 2022 between 5:30 and 7:30 pm. Alternatives public meeting notifications were distributed to elected and appointed officials on January 26, 2022, a public meeting notice was posted on CFLRoads.com and property notifications were mailed on January 28, 2022. An advertisement was placed in the Orlando Sentinel - Osceola County Edition. The advertisement was published on Thursday, February 10, 2022. In addition to the newspaper advertisement, the public meeting was also noticed in the Florida Administrative Register on Monday, February 14, 2022 in Volume 48/30. The workshop hosted 50 members of the public (20 were in person and 30 were online via GoToWebinar), three County staff members, and eight study team members.

The workshop included a narrated presentation, which ran on a loop, that discussed the project's purpose and need, the project alternatives, and the potential impacts associated with the alternatives. Project displays were provided including large format prints of the project alternatives, the roadway and I-4 bridge typical sections, and a comparative evaluation matrix of the alternatives. Project handouts containing project information were given out to all attendees. Lastly, comment forms were provided for attendees to complete at the workshops or to mail within 10 days after the workshop. The comment period concluded on March 4, 2022, and 18 written comments were received. Comments received at the workshop were closely considered while determining the recommended roadway widening alternative. The Public Meeting Summary is provided in the project file.

A summary of the comments received at the Alternatives Public Meeting and their responses are provided in the table.

Comment Topic	General Response
Opposed to project	The proposed widening of Old Lake Wilson Road from CR 532 to Sinclair Road from two to four lanes is needed to serve expected future traffic on Old Lake Wilson Road. In addition to widening Old Lake Wilson Road to four lanes, improvements are proposed at intersections along the project corridor, including at Sinclair Road. These improvements are needed for the roadway and intersections to operate at acceptable levels of service through the year 2050.
Addition of access roads to Celebration	The scope of this study to consider widening Old Lake Wilson Road to a four lane roadway from CR 532 to Sinclair Road did not include consideration of any new connections to Celebration.
In favor of bike lanes	The County's goal is to deliver a project that achieves its safety and operational goals and is acceptable to the community.
Concern for bike lanes on roadway	The on-road bicycle lanes are meant for use by experienced cyclists and recreational cyclists would use the wider sidewalk along the west side of the road.
Request for speed reduction	The proposed four lane roadway is expected to be posted at 45 mph.

Over development of the area	The scope of this project is to evaluate the widening of Old Lake Wilson Road to 4-lanes to address existing and future traffic volumes, to improve safety, and to evaluate the addition of bicycle and pedestrian features. In regard to nearby development, all development within Osceola County must meet our Land Development Code (LDC) and Comprehensive Plan in relation to development criteria, some of which include location, density, and transportation improvements to mitigate their impact to the overall system. Additionally, Osceola and Polk County Development Review, Transportation, and Public Works staff hold quarterly meetings to discuss projects that impact each other's transportation systems. The County's also have a good working relationship to allow project specific discussions between staff to occur more frequently as may be needed. Finally, the LDC does require developments to include both Open Space and Recreation. The Open Space [green space] shall be properly designed and located and shall function as an amenity to the residents and users of the development, while recreation shall be provided at a ratio of one acre per 50 homes. Separate from the Open Space and Recreation provided by developments, Osceola County offers over 40 parks and recreation facilities. These range from recreational pathways where you can take a jog, sports fields for youth & adults, nature trails to explore our wildlife, meeting places for the community and exciting lakefront vistas for fishing, swimming, and boating. If you would like to learn more about these facilities, please do so by visiting our Osceola County Parks web page.
In favor of the project to help alleviate traffic	Thank you for your comments in support of the project. Your comments have been added to the project files.
Requests for noise walls	As part of this PD&E Study, a traffic noise study is being conducted to identify the locations of potential noise-impacted residences and to evaluate whether noise walls are a feasible and cost-reasonable method to mitigate increases in traffic noise levels.

Comments and responses are provided in the Comments and Coordination Report included in the project file.

Stakeholder Coordination Meetings

Prior to the Alternatives Public Meeting, described above, the project team gave a presentation to the Reunion West and Reunion East Community Development District Board of Directors in a joint meeting on February 10, 2022. This presentation included an overview of the PD&E Study process, the roadway and bridge improvements being considered, the costs and impacts of the alternatives, and the schedule for the PD&E Study. The Board members asked general questions about the project and expressed their support for the proposed widening but no written comments were received. The purpose of this meeting was to coordinate with the community and discuss potential right-of-way impacts to green space owned by the Development District and gather their feedback on the proposed alternatives and preferred alternative.

Date of Public Hearing: 06/13/2023

Summary of Public Hearing

A hybrid Public Hearing was held on Tuesday, June 13, 2023, at Kenzie's at the Clubhouse, located at Mystic Dunes Resort and Golf Club, 7600 Mystic Dunes Lane, Celebration, FL 34747 and online via GoToWebinar. This public hearing was advertised in compliance with all federal and state requirements. The following notifications were distributed for the Hybrid Public Hearing:

- Notifications to elected officials were sent by email on May 17, 2023
- Notifications to appointed officials and other stakeholders were sent by email on May 17, 2023
- Notifications to property owners were sent via USPS on May 17, 2023
- A press release was distributed by FDOT's Public Information Office on June 6, 2023
- An advertisement was published in the Orlando Sentinel - Osceola County Edition on Sunday, May 21, 2023, and Sunday, June 4, 2023
- An advertisement was published in the Florida Administrative Register on May 30, 2023

At the in-person hearing, a copy of the Title VI Civil Rights Act board was displayed. A project handout, comment forms, and a speaker card were given to each attendee. The purpose of the hearing was to present information regarding the preferred alternative and receive input from the public and other stakeholders regarding the proposed improvements. The in-person hearing began in an open house format at 5:30 p.m. and virtual attendees were able to log in starting at 6:15 p.m.

At 6:30 p.m. the formal hearing began with a live introduction by the County Project Manager followed by a narrated PowerPoint presentation. Public testimony began with virtual comments followed by the opportunity to provide in-person comments. One member of the public provided a virtual comment. No members of the public wished to make comments in-person. The public hearing concluded at 6:54 p.m.

At the public hearing, attendees had an opportunity to view a presentation, project displays, the alternatives evaluation matrix, and other documentation. The online portion of the hearing included showing the presentation, accepting comments and questions from the online attendees, and reading the one virtual comment aloud for the project record. The presentation included information regarding the PD&E Study process, the alternatives that were evaluated, a comparison matrix, and the preferred alternative. Members of the project team were available to discuss the project with attendees at the in-person venue prior to the start of the formal hearing. A total of 26 people attended in-person and 31 attended online.

There was 1 comment submitted online, 1 comment form submitted in person during the public hearing, and 12 emailed comments submitted within the 14-day comment period.

Of the 14 comments received during the 14-day comment period, 4 were in favor of the project, 4 shared concerns related to potential loss of property/increased noise, 3 of the comments requested additional improvements outside of the study project limits, 2 comments were related to the project timeline, and 1 comment expressing concern over maintaining accessibility during construction. In addition, project staff spoke with members of the Osceola County Fire Rescue who noted that there is currently only an unpaved access point into the Heritage Crossing development and If something blocks that access point, they want to have another way to get into the neighborhood. This comment was noted and has been included as a project commitment.

Responses were provided to each comment received, and were sent via mail and email by the County Project Manager. A Frequently Asked Questions (FAQ) document was also uploaded to the project website.

All public involvement activities, including comments received along with responses, are summarized in the Comments and Coordination Report provided in the project file.

10. Commitments Summary

1. The most recent version of the USFWS Standard Protection Measures for the Eastern Indigo Snake will be utilized during construction.
2. Osceola County is committed to the construction of feasible and reasonable noise abatement measures identified for SBA 1 at Heritage Crossing (NSA 3) contingent upon the following conditions:

   a) Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;

   b) Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;

   c) Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;

   d) Community input supporting types, heights, and locations of the noise barrier(s) is provided to the FDOT District Office; and

   e) Safety and engineering aspects related to the roadway user and the adjacent property owner have been reviewed, and any conflicts or issues resolved.
3. During the design phase, the design team will coordinate with Osceola County Fire Rescue regarding alternative access to the Heritage Crossing development off of Old Lake Wilson Road.
4. The proposed bridge culvert widening over the regulatory floodway at Davenport Creek will require a FEMA No-Rise Certification be processed through Osceola County Floodplain Management

11. Technical Materials

The following technical materials have been prepared to support this Environmental Document and are included in the Project File.

Sociocultural Data Report
Cultural Resources Assessment Survey (CRAS)
Natural Resources Evaluation (NRE)
Location Hydraulics Report (LHR)
Pond Siting Report (PSR)
Water Quality Impact Evaluation (WQIE)
Contamination Screening Evaluation Report (CSER)
Utilities Assessment Package
Noise Study Report (NSR)
Location Hydraulics Report (LHR)
Bridge Hydraulic Report (BHR)
Project Traffic Analysis Report
Preliminary Engineering Report
Public Involvement Plan

Attachments

Planning Consistency
Project Plan Consistency Documentation

Social and Economic
Existing Land Use Map
Future Land Use Map
NRCS Coordination Documentation

Cultural Resources
SHPO Concurrence Letter
Section 106 Resource Map

Natural Resources
USFWS Species Concurrence Letter for Sand Skink
Wetlands Map
Other Supporting Documentation related to Protected Species and Habitat
Floodplains Map
EPA Sole Source Aquifer Concurrence (Section 1424[e] of the Safe Drinking Water Act)
Eastern Indigo Snake Key
OLW Wood Stork Effect Determination Key

Physical Resources
Noise Map
Potential Contamination Site Map

Public Involvement
448781-1 Old Lake Wilson Road Public Hearing Transcript
Public Hearing Certification Documentation
Public Hearing Certification Documentation - Project Manager

Planning Consistency Appendix

Contents:

Project Plan Consistency Documentation

MetroPlan Orlando
Transportation Improvement Program

Locally Funded Highway Projects

Orange County

Project Number	Project Name or Designation	Project Description: From	To	Length (Miles)	Work Description	2045 MTP Reference	Historic Cost Prior to 2022/23 ($000's)	Project Status and Cost ($000's): 2022/23	2023/24	2024/25	2025/26	2026/27	Funding Sources	Project Phases	Estimated Future Cost After 2026/27 ($000's)	Total Project Cost ($000's)	Responsible Agency
75074	Caneel Bay Blvd.	Crosston Cir.	Orange/Osceola Co. Line	0.27	New 2-Lane Road	Tech. Series 12		①	①	①	①	①	DRI	PE/ROW/CST			Orange Co.
						Page 12-6 E+C	①	①	①	①	①	①	**Total**		①	①	

① Projects are funded by a developer with private funds under a road agreement. The funding amounts are not included in Orange County's Capital Improvement Program.

Osceola County

92043	Simpson Rd.	Myers Rd.	US 192	4.10	Widen to 4 Lanes, aux turn lanes, & multi-use trail	Tech. Series 12		47,973	0	0	0	0	LFS	CST			Osceola Co.
						Page 12-6 E+C	**31,021**	**47,973**	**0**	**0**	**0**	**0**	**Total**		**0**	**78,994**	
92079	Carroll St.	John Young Pkwy.	Michigan Ave.	1.51	Widen to 5 Lanes sidewalks	Future MTP Modification		1,530	0	0	0	0	LFS/GF	CST			Osceola Co.
							12,419	**1,530**	**0**	**0**	**0**	**0**	**Total**		**0**	**13,949**	
92071	Neptune Rd.	Partin Settlement Rd.	E US 192	3.90	Widen to 4 Lanes bike lane/multi-use trail	Tech. Series 12		2,712	0	0	0	0	MFSEZ/MFEZ/MFWZ	CST			Osceola Co.
						Page 12-6 E+C	**79,985**	**2,712**	**0**	**0**	**0**	**0**	**Total**		**0**	**82,697**	
92103	Old Lake Wilson Rd.	CR 532 (Osceola Polk County Line Rd.)	Sinclair Rd	3.01	Widen to 4 Lanes, bike lanes, sidewalks, & bridge over I-4	Cost Feas. Plan		7,000	0	0	0	0	LFS/GF	PE			Osceola Co.
						Table 18	**1,500**	**7,000**	**0**	**0**	**0**	**0**	**Total**		**71,019**	**79,519**	
92112	Boggy Creek Rd.	Simpson Rd	Narcoossee Rd. N of I-4	5.90	Widening 4 lanes, sidewalks, bicycle accommodations, curb and gutter	Cost Feas. Plan		39,884	0	0	0	0	LFS	CST			Osceola Co.
						Table 18	**33,475**	**39,884**	**0**	**0**	**0**	**0**	**Total**		**0**	**73,359**	
92114	Partin Settlement Rd.	Neptune Rd.	E. Lakeshore Blvd.	2.70	Widening from 2 to 4 lanes Sidewalks, bicycle accommodations drainage improvements	Cost Feas. Plan		28,930	0	0	0	0	LFS	PE/CST			Osceola Co.
						Table 18	**12,904**	**28,930**	**0**	**0**	**0**	**0**	**Total**		**0**	**41,834**	
92115	S. Poinciana Blvd.	Pleasant Hill Rd.	Crescent Lakes Way	5.80	Widening from 2 to 4 lanes	Cost Feas. Plan		48,460	0	0	0	0	LFS	PE/CST			Osceola Co.
						Table 18	**13,622**	**48,460**	**0**	**0**	**0**	**0**	**Total**		**0**	**62,082**	
92117	Westside Blvd Extension	Barry Rd.	Armadillo Ave.	0.75	New 4 lane Roadway sidewalks, bicycle accommodations curb and gutter	Tech. Series 12		10,454	471	0	0	0	MFWZ	PE/ROW/CST			Osceola Co.
						Page 12-6 E+C	**269**	**10,454**	**471**	**0**	**0**	**0**	**Total**		**0**	**11,194**	
92127	Neovation Way	Neptune Rd.	Neocity Way	0.59	New 4 lane Roadway sidewalks, bicycle accommodations veloway, curb and gutter	Cost Feas. Plan		6,106	0	0	0	0	GF	CST			Osceola Co.
						Table 10	**1,434**	**6,106**	**0**	**0**	**0**	**0**	**Total**		**1,225**	**8,765**	

Note: All projects include sidewalks and non-designated bike lanes.

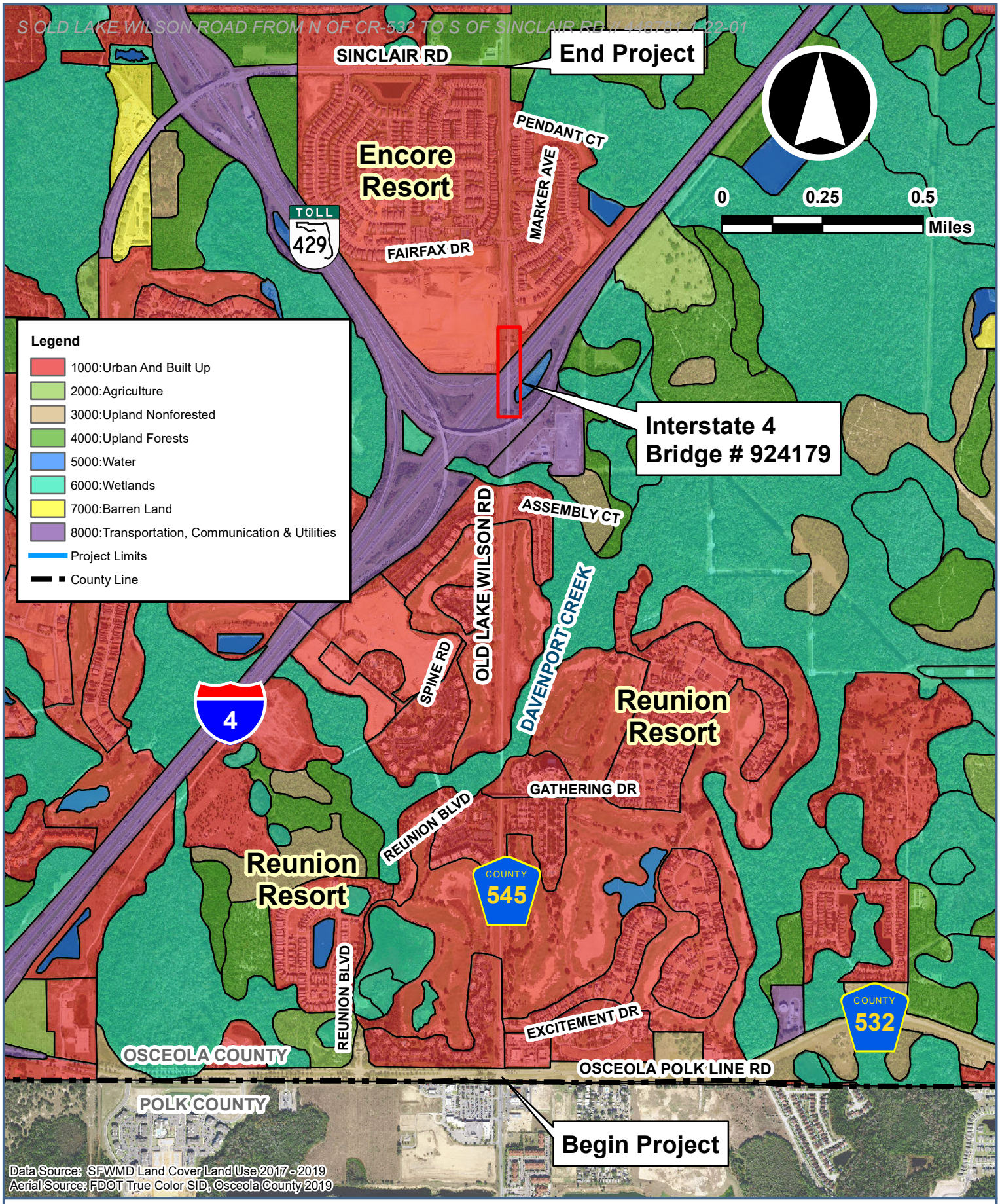
Fund 143 - Mobility Fee West Zone

Program / Function / Project	Proposed CIP by Fiscal Year					Total
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	2023/27
Transportation						
4300 - Transportation Projects						
Michigan Ave Pedestrian Safety - 4406	390,000	1,589,280	0	0	0	1,979,280
Old Lake Wilson Road - 4404	7,000,000	0	0	0	0	7,000,000
Osceola Parkway Arterial Improvements - T22-017	0	213,989	0	1,854,574	0	2,068,563
Poinciana Blvd (Pleasant Hill to Crescent Lakes Way) - 4177	30,459,798	0	0	0	0	30,459,798
Westside Blvd. Extension - 4407	10,454,060	0	0	0	0	10,454,060
Total: 4300 - Transportation Projects	**48,303,858**	**1,803,269**	**0**	**1,854,574**	**0**	**51,961,701**
Total: Transportation	**48,303,858**	**1,803,269**	**0**	**1,854,574**	**0**	**51,961,701**
Total: 143	**48,303,858**	**1,803,269**	**0**	**1,854,574**	**0**	**51,961,701**

MTP ID#	Facility Name & Limits	Project Description	Length (miles)	Project Phase	Total Project Cost (2020 $'s) Shown in Millions	Existing TIP as of 9/13/2023		Plan Period I: 2026-2030		Plan Period II: 2031-2035		Plan Period III: 2036-2045		Unfunded Needs	
						Phase	YOE $'s	Phase	YOE $'s	Phase	YOE $'s	Phase	YOE $'s	Phase	YOE $'s
8114	Old Lake Wilson Rd From: Osceola / Polk CL To: Sinclair Rd	Widen from 2 to 4 lanes	3.01	PD&E	$ 1.61	PD&E	$ 1.61		$ -		$ -		$ -		$ -
				PE	$ 9.71	PE	$ 9.71		$ -		$ -		$ -		$ -
				ROW	$ 7.35	ROW	$ 7.35		$ -		$ -		$ -		$ -
				ENV	$ 0.07	ENV	$ 0.07		$ -		$ -		$ -		$ -
				CST	$ 97.09	CST	$ 97.09		$ -		$ -		$ -		$ -
				CEI	$ 7.71	CEI	$ 7.71		$ -		$ -		$ -		$ -
8139	Old Lake Wilson Rd From: US 192 To: CR 532	Operational / Safety	5.15	PD&E	$ -		$ -		$ -		$ -		$ -		$ -
				PE	$ 3.67		$ -		$ -		$ -	PE	$ 7.52		$ -
				ROW	$ 5.50		$ -		$ -		$ -	ROW	$ 11.27		$ -
				ENV	$ 1.83		$ -		$ -		$ -	ENV	$ 3.76		$ -
				CST	$ 12.22		$ -		$ -		$ -	CST	$ 25.05		$ -
				CEI	$ 1.22		$ -		$ -		$ -	CEI	$ 2.51		$ -
8102	Hoagland Blvd From: US 192 To: Columbia Ave	Widen from 2 to 4 lanes	0.26	PD&E	$ 0.14		$ -		$ -		$ -	PD&E	$ 0.29		$ -
				PE	$ 0.42		$ -		$ -		$ -	PE	$ 0.86		$ -
				ROW	$ 0.63		$ -		$ -		$ -	ROW	$ 1.28		$ -
				ENV	$ 0.21		$ -		$ -		$ -	ENV	$ 0.43		$ -
				CST	$ 1.39		$ -		$ -		$ -	CST	$ 2.86		$ -
				CEI	$ 0.14		$ -		$ -		$ -	CEI	$ 0.29		$ -
8152	Partin Settlement Rd From: Neptune Rd To: E. Lakeshore Blvd	Widen from 2 to 4 lanes	2.70	PD&E	$ 1.45	PD&E	$ 1.45		$ -		$ -		$ -		$ -
				PE	$ 4.34	PE	$ 4.34		$ -		$ -		$ -		$ -
				ROW	$ 6.51	ROW	$ 6.51		$ -		$ -		$ -		$ -
				ENV	$ 2.17	ENV	$ 2.17		$ -		$ -		$ -		$ -
				CST	$ 14.47		$ -	CST	$ 19.10		$ -		$ -		$ -
				CEI	$ 1.45		$ -	CEI	$ 1.91		$ -		$ -		$ -
8119	Sinclair Rd From: Goodman Rd To: Tradition Blvd	New 2 Lane Roadway	1.47	PD&E	$ 0.72		$ -		$ -	PD&E	$ 1.12		$ -		$ -
				PE	$ 2.16		$ -		$ -	PE	$ 3.35		$ -		$ -
				ROW	$ 3.24		$ -		$ -	ROW	$ 5.02		$ -		$ -
				ENV	$ 1.08		$ -		$ -	ENV	$ 1.67		$ -		$ -
				CST	$ 7.19		$ -		$ -		$ -	CST	$ 10.32		$ -
				CEI	$ 0.72		$ -		$ -		$ -	CEI	$ 1.47		$ -
8133	Westside Blvd From: Monaco Blvd To: Tri County Rd	New 4 Lane Roadway	2.52	PD&E	$ 1.90		$ -		$ -	PD&E	$ 2.95		$ -		$ -
				PE	$ 5.71		$ -		$ -	PE	$ 8.86		$ -		$ -
				ROW	$ 8.57		$ -		$ -		$ -	ROW	$ 17.57		$ -
				ENV	$ 2.86		$ -		$ -		$ -	ENV	$ 5.86		$ -
				CST	$ 19.05		$ -		$ -		$ -	CST	$ 39.05		$ -
				CEI	$ 1.90		$ -		$ -		$ -	CEI	$ 3.91		$ -
8116	Fortune Rd From: Simpson Road To: Kissimmee Bay Blvd	Widen from 2 to 4 lanes	1.40	PD&E	$ 0.75		$ -		$ -	PD&E	$ 1.16		$ -		$ -
				PE	$ 2.24		$ -		$ -	PE	$ 3.48		$ -		$ -
				ROW	$ 3.37		$ -		$ -		$ -	ROW	$ 6.90		$ -
				ENV	$ 1.12		$ -		$ -		$ -	ENV	$ 2.30		$ -
				CST	$ 7.48		$ -		$ -		$ -	CST	$ 15.33		$ -
				CEI	$ 0.75		$ -		$ -		$ -	CEI	$ 1.53		$ -
8125	Bill Beck Blvd From: Osceola Pkwy To: US 192	New 2 Lane Roadway	0.96	PD&E	$ 0.47		$ -		$ -		$ -	PD&E	$ 0.96		$ -
				PE	$ 1.41		$ -		$ -		$ -	PE	$ 2.89		$ -
				ROW	$ 2.12		$ -		$ -		$ -	ROW	$ 4.34		$ -
				ENV	$ 0.71		$ -		$ -		$ -	ENV	$ 1.45		$ -
				CST	$ 4.70		$ -		$ -		$ -	CST	$ 9.64		$ -
				CEI	$ 0.47		$ -		$ -		$ -	CEI	$ 0.96		$ -

Social and Economic Appendix

Contents:



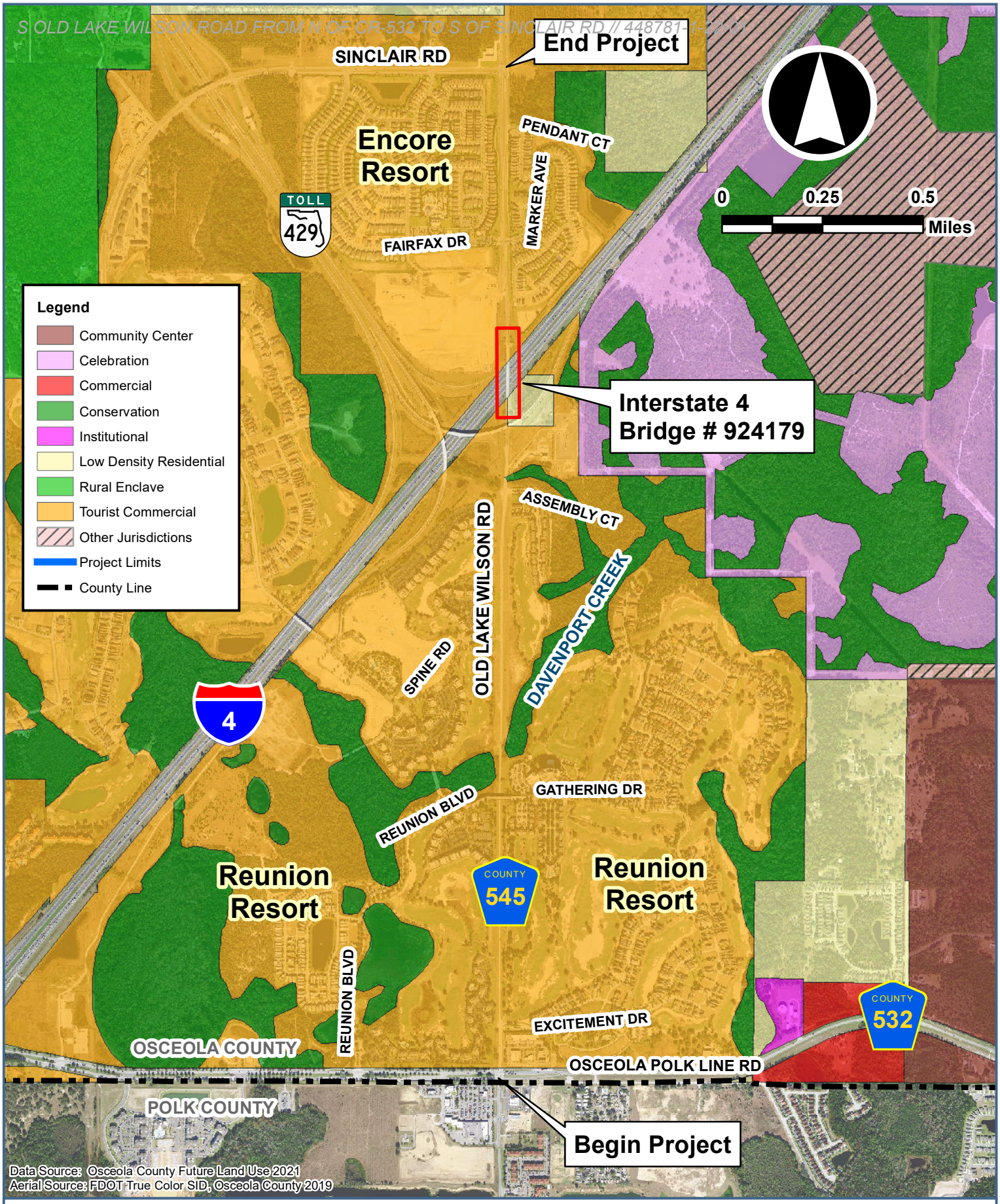
OSCEOLA COUNTY

Old Lake Wilson Road PD&E Study

From CR 532 to Sinclair Road

Osceola County, Florida

Existing Land Use Map



OSCEOLA COUNTY

Old Lake Wilson Road PD&E Study

From CR 532 to Sinclair Road

Osceola County, Florida

Future Land Use Map

USDA

United States Department of Agriculture

May 20, 2022

Morgan Morris, EI
Engineer II & Planner
INWOOD CONSULTING ENGINEERS, INC.
3000 Dovera Dr., Suite 200, Oviedo, FL 32765

Subject: Old Lake Wilson Road Widening Farmlands

Dear Morgan Morris;

The following guidance is provided for your information.

The Natural Resources Conservation Service (NRCS) has reviewed the: Old Lake Wilson Road Widening Farmlands in Osceola County, Florida.

The Agriculture and Food Act of 1981, (Public Law 97-98) containing the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549, is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency.

Based on the information provided for the area of interest located in Osceola County, Florida, Highlands county FL. The area in question meets one or more of the above criteria for exemption since the location *is in non-prime farm ground* according to the Code of Federal Regulation 7CFR 658, Farmland Protection Policy Act, Section 658-2. You are exempt from filling the AD1006 at this time. Use this letter as proof of exemption. No further action with regard to FPPA is required on your part.

If you have any questions for this project please email me, isabelle.giuliani@usda.gov. Any future projects, please refer me as the point of contact.

NRCS - Farmland Protection Policy Act Website:
https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

Sincerely,

ISABELLE GIULIANI CASTILLO
Digitally signed by ISABELLE GIULIANI CASTILLO
Date: 2024.02.01 09:31:38 -05'00'

ISABELLE GIULIANI
Area Resource Soil Scientist
USDA NRCS Florida

Natural Resources Conservation Service
324 8th Avenue, West, Suite 104
Palmetto, FL 34221
941-729-6804/855-464-1961 (FAX)

Cultural Resources Appendix

Contents:

SHPO Concurrence Letter

Section 106 Resource Map

Florida Department of Transportation

RON DESANTIS
GOVERNOR

719 South Woodland Boulevard
DeLand, FL 32720

JARED W. PERDUE, P.E.
SECRETARY

July 19, 2022

Ms. Alissa S. Lotane
Director and State Historic Preservation Officer
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Attn: Ms. Alyssa McManus, Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey
Old Lake Wilson Road from CR 532 to Sinclair Road
Osceola and Polk Counties, Florida
Osceola County Project No. PS-20-11842-DG
Financial Management No. 448781-1-22-01

Dear Ms. Lotane,

Enclosed please find one copy of the report titled *Cultural Resource Assessment Survey for the Old Lake Wilson Road Widening from CR 532 to Sinclair Road Project Development and Environment Study, Osceola and Polk Counties, Florida.* This report presents the findings of a CRAS conducted in support of the proposed widening of Old Lake Wilson Road in Osceola and Polk Counties, Florida. The Board of County Commissioners for Osceola County is proposing to widen the existing Old Lake Wilson Road from two lanes to four lanes, as well as the potential construction of sidewalks, bike facilities, medians, closed drainage systems, and the widening or replacement of the existing bridge over Interstate 4 (I-4). No new ponds are proposed as part of this project. Four existing ponds in the Interstate 4 (I-4) interchange will be used and may be regraded as part of the current project. Total project length is approximately 4.5 kilometers (2.8 miles). This project is locally funded and the current study is being conducted in anticipation of federal or state permitting or funding with oversight through the Florida Department of Transportation (FDOT) District 5, at later stages of construction.

The Old Lake Wilson Road Area of Potential Effects (APE) was defined to include the existing and proposed right-of-way. This APE was extended to the back or side of property lines of parcels adjacent to the right-of-way or a distance of no more than 100 meters (330 feet) from the right-of-way line. For the I-4 interchange ponds, the APE was defined as the existing pond footprints and a buffer based on the project plans provided by Inwood Consulting Engineers. The proposed and existing right-of-way comprises the archaeological APE for the corridor because ground

disturbance for the project will be limited to that area. The archaeological APE associated with each pond was defined as the specific footprint of the pond in addition to a 10-meter (30.5-foot) buffer because that is the area where ground disturbance will take place. The historic structure survey was conducted within the larger APE that accounts for potential visual effects.

This CRAS was conducted in accordance with the requirements set forth in the National Historic Preservation Act of 1966, as amended, and Chapter 267, Florida Statutes (F.S.). The investigations were carried out in conformity with the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management Standards and Operations Manual (FDHR 2003). In addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code.

The archaeological survey included shovel testing and pedestrian survey within the archaeological APE. No artifacts were recovered, and no archaeological sites or archaeological occurrences were identified within the APE. Three previously recorded archaeological sites (8OS00100, 8OS00594, and 8OS01867) have been recorded within the archaeological APE; however, modern development has removed any trace of these resources from the archaeological APE. No further archaeological work is recommended.

The architectural history survey resulted in the identification of three historic resources, including two previously recorded resources (8PO08219 and 8PO08220) and one newly recorded resource (8OS03232). All three resources are recommended ineligible for the NRHP. No further work is recommended.

Based on the results of this CRAS, it is the opinion of SEARCH that the proposed undertaking will have no effect on NRHP-listed or -eligible historic properties. No further work is recommended.

I respectfully request your concurrence with the findings of the enclosed report.

If you have any questions or need further assistance, please contact Catherine Owen, District Cultural Resource Coordinator, at (386) 943-5383 or me at (386) 943-5411.

Sincerely,

William G. Walsh
Environmental Manager
FDOT, District Five

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey Report complete and sufficient and ☑ concurs / ☐ does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number 2022-4475. Or, the SHPO finds the attached document contains _____ insufficient information. In accordance with the Programmatic Agreement among the ACHP, SHPO and FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida, if providing concurrence with a finding of No Historic Properties Affected for a project as a whole, or to No Adverse Effect on a specific historic property, SHPO shall presume that FDOT may approve the project as de minimis use under Section 4(f) under 23 CFR 774.
SHPO Comments:
Kelly L. Chase, DSHPO Digitally signed by Kelly L. Chase, DSHPO DN: cn=Kelly L. Chase, DSHPO, o, ou, email=kelly.chase@dos.myflorida.com, c=US Date: 2022.07.28 16:03:20 -04'00' 7.28.2022 Alissa S. Lotane, Director Date Florida Division of Historical Resources

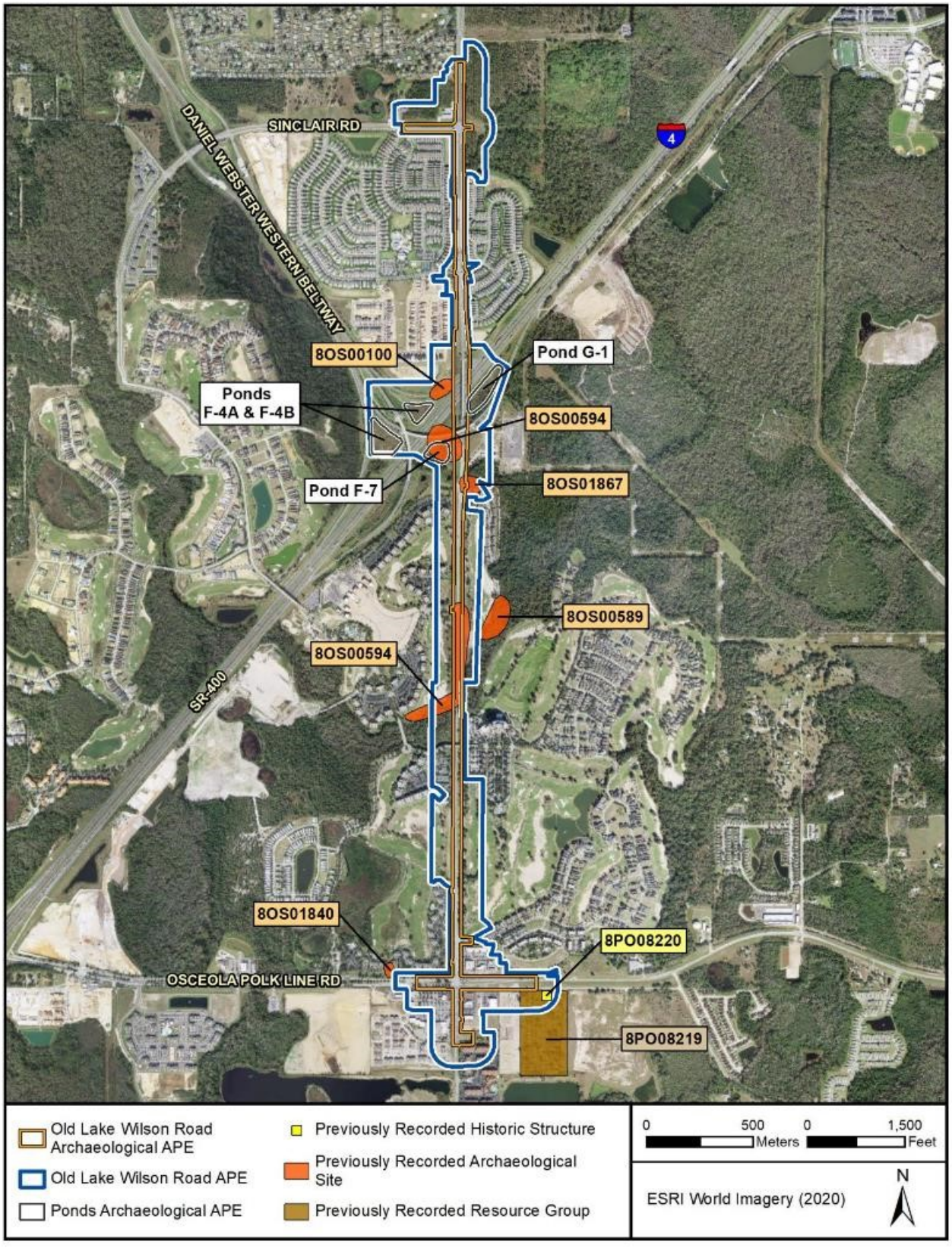


Figure 5. Previously recorded cultural resources within the Old Lake Wilson Road APE.

Natural Resources Appendix

Contents:

Jada Barhorst

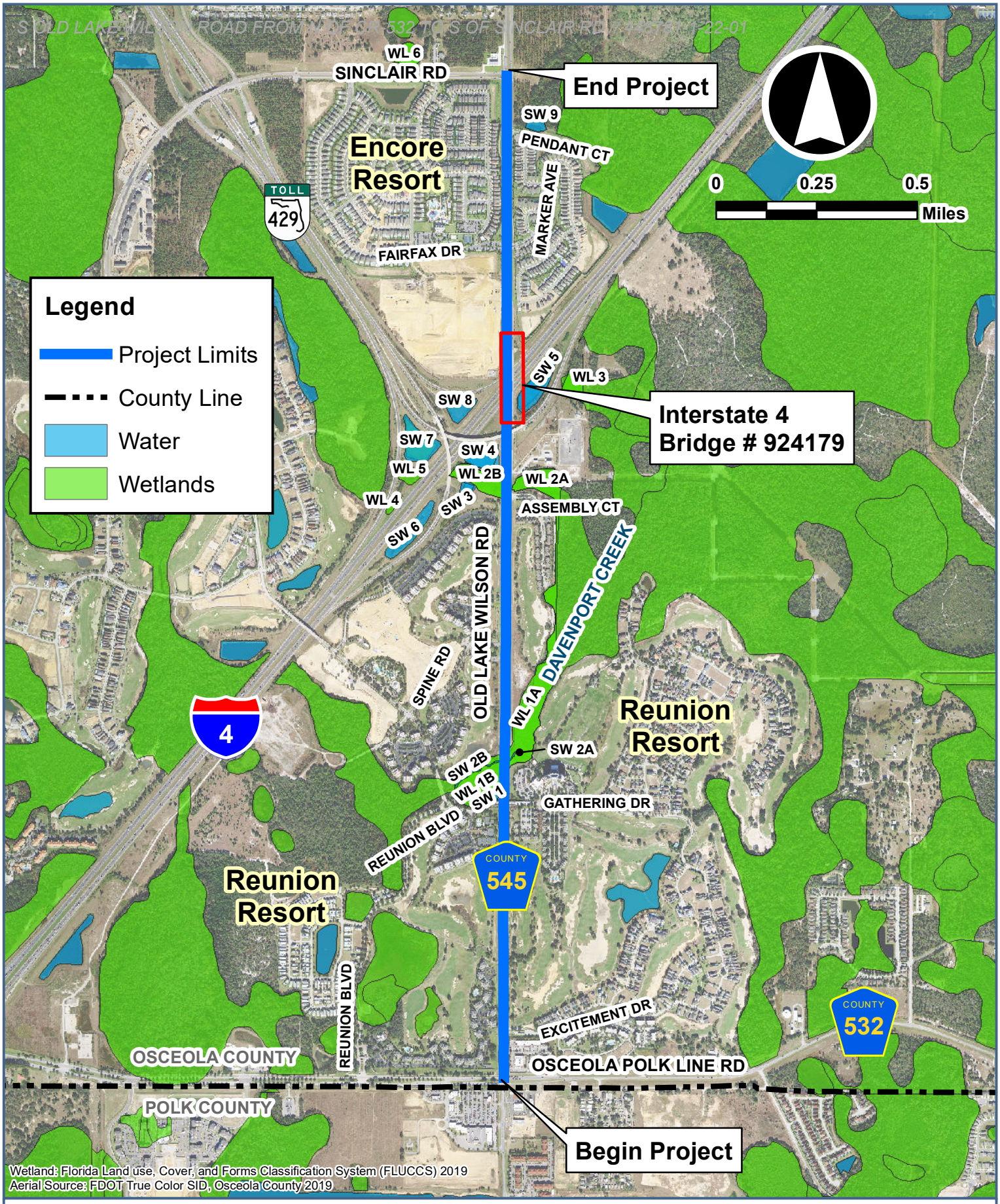
From: Wrublik, John <john_wrublik@fws.gov>
Sent: Thursday, September 30, 2021 12:09 PM
To: Jada Barhorst
Subject: CR 545(Old Lake Wilson Road) from CR 532 to Sinclair Road

Jada,

I am the Transportation Biologist for the U. S. Fish and Wildlife Service's Vero Beach Office and I handle the review of road projects. I have reviewed the information provided in your email to the Service dated September 9, 2021, for the proposed widening of CR 545 (Old Lake Wilson Road) from just North of CR 532 to just south of Sinclair Road in Osceola County. If appears that the skink soils within the project footprint are covered by a think mat of vegetation (turf grasses etc.) with little or no bare ground or have been altered by rocky fill material. I would agree that these conditions would likely preclude sand skinks and blue-tailed mole skinks from using these areas. Therefore, the Service would not request that cover board surveys for sand skinks or their tracks be conducted within these areas.

Sincerely

John M. Wrublik
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
Office: (772) 469-4282
Fax: (772) 562-4288
email: John_Wrublik@fws.gov



Wetland: Florida Land use, Cover, and Forms Classification System (FLUCCS) 2019
Aerial Source: FDOT True Color SID, Osceola County 2019

OSCEOLA COUNTY

Old Lake Wilson Road PD&E Study

From CR 532 to Sinclair Road

Osceola County, Florida

Wetland Map

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service

March 23, 2021

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia 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; Georgia Field Office: gaes_assistance@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 17in 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 and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). 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. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. 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 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. Â
- Immediately notify supervisor or the applicants 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 DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicants 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
Georgia Field Office: (706) 613-9493

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 11in paper and then properly folded, is attached). Â Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR 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

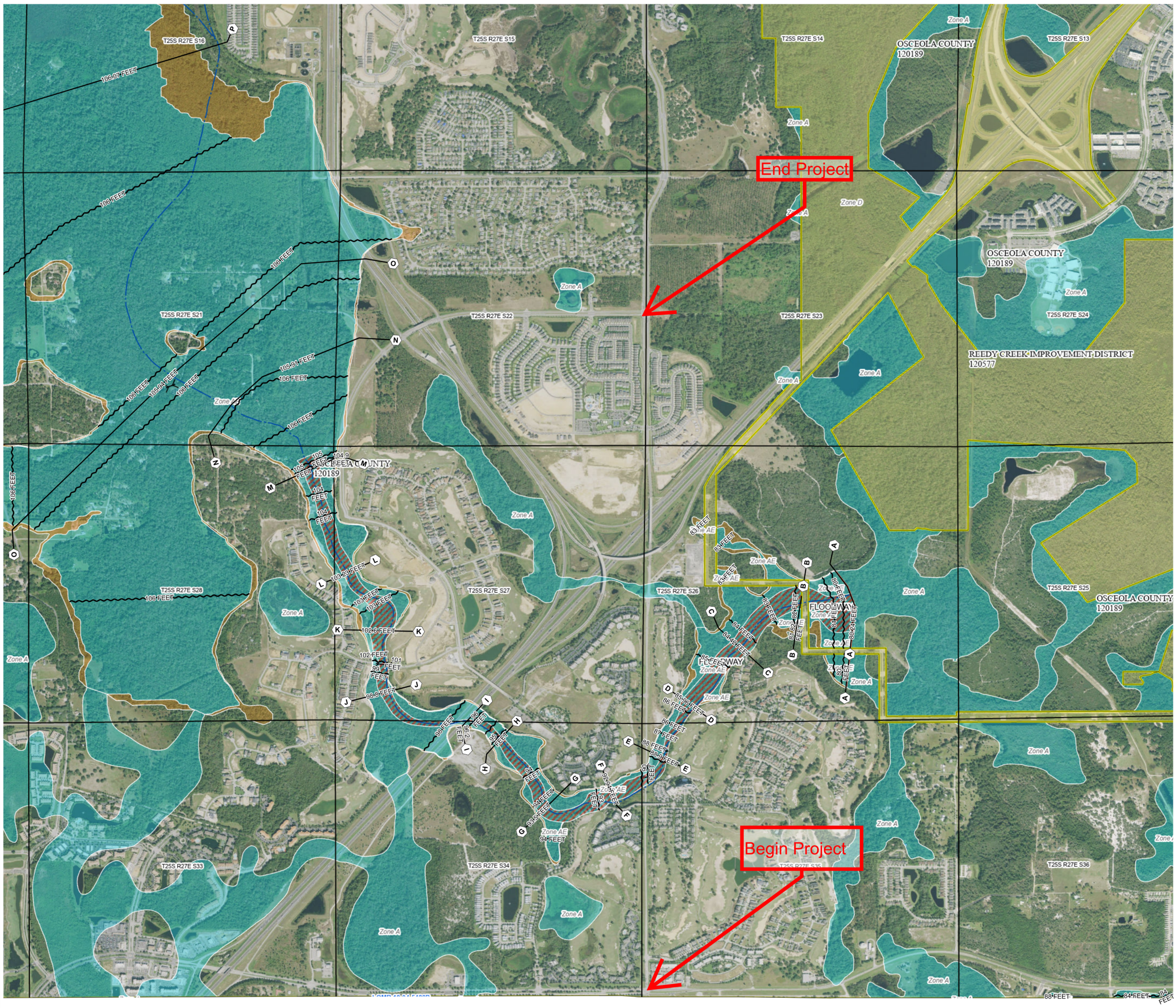
1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities,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



81°33'44.16"W 28°15'3.69"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **12/10/2020 6:01 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

N

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 3,000 4,000 Feet

0 105 210 420 630 840 Meters

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

OSCEOLA COUNTY, FLORIDA AND INCORPORATED AREAS

PANEL 40 OF 900

Panel Contains:

COMMUNITY	NUMBER	PANEL
OSCEOLA COUNTY	120189	0040
REEDY CREEK IMPROVEMENT DISTRICT	120577	0040
POLK COUNTY	120261	0040

MAP NUMBER
12097C0040G
EFFECTIVE DATE
June 18, 2013

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-3104

July 20, 2022

Mr. William G. Walsh
Environmental Administrator
Florida Department of Transportation, District 5
719 S. Woodland Boulevard
DeLand, FL 32720

Subject: Sole Source Aquifer Review/Concurrence for Old Lake Wilson Road PD&E Study project in Osceola County, Florida, Financial Project ID: 448781-1-22-01.

Dear Mr. Walsh:

The U.S. Environmental Protection Agency, Region 4 received the Florida Department of Transportation's (FDOT) request on June 9, 2022, to review the above referenced project pursuant to Section 1424(e) of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300h-3. The objective of the EPA's review is to determine if the project lies within the boundaries, including recharge and streamflow source zones, of an EPA designated Sole Source Aquifer (SSA), and to determine if the project poses potential adverse health or environmental impacts. A SSA is the sole or principal water source for a designated area.

Old Lake Wilson Road PD&E Study project (Project) has been determined to lie inside the designated boundaries of the Biscayne Sole Source Aquifer and based on the information provided, may cause a significant impact to the aquifer system when the Project's bridge foundations are installed and/or construction dewatering is undertaken. However, with proper implementation of best management practices (BMPs), these potential impacts can be adequately reduced or properly mitigated. To that effect, when installing bridge foundations, the FDOT must adhere to the list of BMPs provided as items 1 and 2 below. The dewatering operation BMPs are listed in item 3 below:

1. FDOT Design Manual Chapter 320 Stormwater Pollution Prevention Plan (SWPPP)
2. FDOT Standard Specification for Road and Bridge Construction,
    a. Section 6 – Control of Materials
    b. Section 104 – Prevention, Control, And Abatement of Erosion and Water Pollution
    c. Section 455 – Structures Foundations
3. U.S. Bureau of Reclamation Engineering Geology Field Manual – Chapter 20 Water Control. https://www.usbr.gov/tsc/techreferences/mands/geologyfieldmanual-vol2/Chapter20.pdf

Furthermore, all debris from any demolition of the existing structures must be properly contained and removed from the site prior to construction of the new structure. If applicable, all county flood plain management plans and public notification processes must be followed. During construction, it is the EPA's understanding and expectation that those responsible for the project will strictly adhere to all

Federal, State, and local government permits, ordinances, planning designs, construction codes, operation, maintenance, and engineering requirements, and any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control must also be followed and State and local environmental offices must be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. The following website provides information regarding the Florida Department of Environmental Protection's Source Water Assessment and Protection Program.
http://www.dep.state.fl.us/swapp/Default.htm

The EPA finds that, if the conditions outlined above are adhered to, this Project should have no significant impact to the aquifer system. Please note that this "no significant impact" finding has been determined based on compliance with the requirements outlined above and, on the information provided. Further, this finding only relates to Section 1424(e) of the SDWA, 42 U.S.C. § 300h-3. If there are any significant changes to the project, the EPA Region 4 office should be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or Rafi.Khurram@epa.gov or Mr. Larry Cole at 404-562-9474 or Cole.Larry@epa.gov.

Sincerely,

ALANNA CONLEY

Digitally signed by ALANNA CONLEY
Date: 2022.07.20 22:54:20 -04'00'

Alanna Conley, Chief
Groundwater, UIC and GIS Section
Safe Drinking Water Branch
EPA, Region 4, Atlanta, GA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

August 1, 2017

Donnie Kinard
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Subject: Consultation Key for the Eastern Indigo Snake – Revised

Dear Mr. Kinard:

This letter revises and replaces the January 25, 2010, and August 13, 2013, letters to the U.S. Army Corps of Engineers (Corps) regarding the use of the eastern indigo snake programmatic effect determination key (Key) for projects occurring within the South Florida Ecological Service's Office (SFESO) jurisdiction. This revision supersedes all prior versions of the Key in the SFESO area. The purpose of this revision is to clarify portions of the previous keys based on questions we have been asked, specifically related to habitat and refugia used by eastern indigo snakes (*Drymarchon corais couperi*), in the southern portion of their range and within the jurisdiction of the SFESO. This Key is provided pursuant to the Service's authorities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*). This Key revision has been assigned Service Consultation Code: 41420-2009-I-0467-R001.

The purpose of this Key is to assist the Corps (or other Federal action agency) in making appropriate effects determinations for the eastern indigo snake under section 7 of the Act, and streamline informal consultation with the SFESO for the eastern indigo snake when the proposed action can be walked through the Key. The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

This Key uses project size and home ranges of eastern indigo snakes as the basis for making determinations of "may affect, but is not likely to adversely affect" (NLAA) and "may affect. and is likely to adversely affect" (may affect). Suitable habitat for the eastern indigo snake consists of a mosaic of habitats types, most of which occur throughout South Florida. Information on home ranges for individuals is not available in specific habitats in South Florida. Therefore, the SFESO uses the information from a 26-year study conducted by Layne and Steiner (1996) at Archbold Biological Station, Lake Placid, Florida, as the best available

information. Layne and Steiner (1996) determined the average home range size for a female eastern indigo snake was 46 acres and 184 acres for a male.

Projects that would remove/destroy less than 25 acres of eastern indigo snake habitat are expected to result in the loss of a portion of an eastern indigo snakes home range that would not impair the ability of the individual to feed, breed, and shelter. Therefore, the Service finds that take would not be reasonably certain to occur due to habitat loss. However, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take. Consequently, projects less than 25 acres that include the Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and a commitment to excavate underground refugia as part of the proposed action would be expected to avoid take and thus, may affect, but are not likely to adversely affect the species.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

Projects that would remove 25 acres or more of eastern indigo snake habitat could remove more than half of a female eastern indigo snakes home range. This loss of habitat within a home range would be expected to significantly impair the ability of that individual to feed, breed, and shelter. Therefore, the Service finds take through habitat loss would be reasonably certain to occur and formal consultation is appropriate. Furthermore, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures* for the *Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take.

Eastern indigo snakes use a variety of habitat and are difficult to detect. Therefore, site specific information on the land use, observations of eastern indigo snakes within the vicinity, as well as other factors, as appropriate, will all be considered by the Service when making a final recommendation on the appropriate effects determination and whether it is appropriate to conclude consultation with the Corps (or other Federal action agency) formally or informally for projects that will impact 25 acres or more of habitat. Accordingly, when the use of the Key results in a determination of "may affect," the Corps (or other Federal action agency) is advised that consultation may be concluded informally or formally, depending on the project specific effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps (or other Federal action agency) desires to proceed with a consultation request prior to receiving

additional technical assistance from the Service, we recommend the agency documents the biological rationale for their determination and proceed with a request accordingly.

If the use of the Key results in a determination of "no effect," no further consultation is necessary with the SFESO. If the use of the Key results in a determination of "NLAA," the SFESO concurs with this determination based on the rationale provide above, and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake. For "no effect" or "NLAA" determinations, the Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach your no effect or NLAA determination in the project record and proceed with other species analysis as warranted.

Eastern Indigo Snake Programmatic Effect Determination Key
Revised July 2017
South Florida Ecological Service Office

Scope of the Key

This Key should be used only in the review of permit applications for effects determinations for the eastern indigo snake (*Drymarchon corais couperi*) within the South Florida Ecological Service's Office (SFESO) area (Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie Counties). There is no designated critical habitat for the eastern indigo snake.

This Key is subject to revision as the Corps (or other Federal action agency) and Service deem necessary and in particular whenever there is new information on eastern indigo snake biology and effects of proposed projects.

The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

Habitat

Habitat use varies seasonally between upland and wetland areas, especially in the more northern parts of the species' range. In southern parts of their range eastern indigo snakes are habitat generalists which use most available habitat types. Movements between habitat types in northern areas of their range may relate to the need for thermal refugia (protection from cold and/or heat).

In northern areas of their range eastern indigo snakes prefer an interspersion of tortoise-inhabited sandhills and wetlands (Landers and Speake 1980). In these northern regions eastern indigo

snakes most often use forested areas rich with gopher tortoise burrows, hollowed root channels, hollow logs, or the burrows of rodents, armadillos, or land crabs as thermal refugia during cooler seasons (Lawler 1977; Moler 1985a; Layne and Steiner 1996). The eastern indigo snake in the northern region is typically classified as a longleaf pine savanna specialist because here, in the northern four-fifths of its range, the eastern indigo snake is typically only found in vicinity of xeric longleaf pine–turkey oak sandhills inhabited by the gopher tortoise (Means 2006).

In the milder climates of central and southern Florida, comprising the remaining one fifth of its range, thermal refugia such as those provided by gopher tortoise burrows may not be as critical to survival of indigo snakes. Consequently, eastern indigo snakes in these regions use a more diverse assemblage of habitats such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, muckland fields, coastal dunes, and xeric sandhill communities; with highest population concentrations of eastern indigo snakes occurring in the sandhill and pineland regions of northern and central Florida (Service 1999). Eastern indigo snakes have also been found on agricultural lands with close proximity to wetlands (Zeigler 2006).

In south Florida, agricultural sites (*e.g.*, sugar cane fields and citrus groves) are occupied by eastern indigo snakes. The use of sugarcane fields by eastern indigo snakes was first documented by Layne and Steiner in 1996. In these areas there is typically an abundance of wetland and upland ecotones (due to the presence of many ditches and canals), which support a diverse prey base for foraging. In fact, some speculate agricultural areas may actually have a higher density of eastern indigo snakes than natural communities due to the increased availability of prey. Gopher tortoise burrows are absent at these locations but there is an abundance of both natural and artificial refugia. Enge and Endries (2009) reporting on the status of the eastern indigo snake included sugarcane fields and citrus groves in a Global Information Systems (GIS)-base map of potential eastern indigo snake habitat. Numerous sightings of eastern indigo snakes within sugarcane fields have been reported within south Florida (Florida Fish and Wildlife Conservation Commission Indigo Snake Database [Enge 2017]). A recent study associated with the Comprehensive Everglades Restoration Plan (CERP) (A-1 FEB Project formerly A-1 Reservoir; Service code: 41420-2006-F-0477) documented eastern indigo snakes within sugarcane fields. The snakes used artificial habitats such as piles of limerock, construction debris, and pump stations. Recent studies also associated with the CERP at the C-44 Project (Service code: 41420-2009-FA-0314), and C-43 Project (Service code: 41420-2007-F-0589) documented eastern indigo snakes within citrus groves. The snakes used artificial habitats such as boards, sheets of tin, construction debris, pipes, drain pipes in abandoned buildings and septic tanks.

In extreme south Florida (*i.e.*, the Everglades and Florida Keys), eastern indigo snakes also utilize tropical hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats. Though eastern indigo snakes have been found in all available habitats of south Florida it is thought they prefer hammocks and pine forests since most observations occur there and use of these areas is disproportionate compared to the relatively small total area of these habitats (Steiner *et al.* 1983).

Even though thermal stress may not be a limiting factor throughout the year in south Florida, eastern indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigo snakes use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Layne and Steiner 1996; Wilson and Porras 1983). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges.

Minimization Measures

The Service developed protection measures for the eastern indigo snake "Standard Protection Measures for the Eastern Indigo Snake" (Service 2013) located at: https://www.fws.gov/verobeach/ReptilesPDFs/20130812_EIS%20Standard%20Protection%20Measures_final.pdf. These protections measures (or the most updated version) are considered a minimization measure for projects proposed within eastern indigo snake habitat.

Determinations

If the use of this Key results in a determination of "**no effect**," no further consultation is necessary with the SFESO.

If the use of this Key results in a determination of "**NLAA**," the SFESO concurs with this determination and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake.

For no effect or NLAA determinations, the Corps (or other Federal action agency) should make a note in the project file indicating the pathway used to reach your no effect or NLAA determination.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the subsequent Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

If the use of this Key results in a determination of "**may affect**," consultation may be concluded informally or formally depending on project effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps desires to proceed with a consultation request prior to receiving additional technical assistance from the Service, we recommend the Corps document the biological rationale for their determination and proceed with a request accordingly.

A. Project is not located in open water or salt marsh.....go to B

Project is located solely in open water or salt marsh.....**no effect**

B. Permit will be conditioned for use of the Service's most current guidance for Standard Protection Measures For The Eastern Indigo Snake (currently 2013) during site preparation and project construction.....go to C

Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested.....**may affect**

C. The project will impact less than 25 acres of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....go to D

The project will impact 25 acres or more of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....**may affect**

D. The project has no known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and/or injured during project activities.....**NLAA**

The project has known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and /or injured.....go to E

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be excavated prior to site manipulation in the vicinity of the burrow[1]. If an eastern indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an eastern indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.....**NLAA**[2]

Permit will not be conditioned as outlined above.....**may affect**

End Key

[1] If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at http://myfwc.com/gophertortoise.

[2] Please note, if the proposed project will impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, NLAA is not the appropriate conclusion. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range

Working with the Fish and Wildlife Foundation of Florida, the Service has established a fund to support conservation and recovery for the eastern indigo snake. Any project that has the potential to affect the eastern indigo snake and/or its habitat is encouraged to make a voluntary contribution to this fund. If you would like additional information about how to make a contribution and how these monies are used to support eastern indigo snake recovery please contact Ashleigh Blackford, Connie Cassler, or José Rivera at 772-562-3559.

This revised Key is effective immediately upon receipt by the Corps. Should circumstances change or new information become available regarding the eastern indigo snake and/or implementation of the Key, the determinations herein may be reconsidered and this Key further revised or amended.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. If you have any questions or comments regarding this Key, please contact the SFESO at 772-562-3909.

Sincerely,

Roxanna Hinzman
Field Supervisor
South Florida Ecological Services

Cc:
Corps, Jacksonville, Florida (Dale Beter, Muriel Blaisdell, Ingrid Gilbert, Angela Ryan, Irene Sadowski, Victoria White, Alisa Zarbo)
Service, Athens, Georgia (Michelle Elmore)
Service, Jacksonville, Florida (Annie Dziergowski)
Service, Panama City, Florida (Sean Blomquist)

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

May 18, 2010

Donnie Kinard
Chief, Regulatory Division
Jacksonville District Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Service Federal Activity Code: 41420-2007-FA-1494
Service Consultation Code: 41420-2007-I-0964
Subject: South Florida Programmatic Concurrence
Species: Wood Stork

Dear Mr. Kinard:

This letter addresses minor errors identified in our January 25, 2010, wood stork key and as such, supplants the previous key. The key criteria and wood stork biomass foraging assessment methodology have not been affected by these minor revisions.

The Fish and Wildlife Service's (Service) South Florida Ecological Services Office (SFESO) and the U.S. Army Corps of Engineers Jacksonville District (Corps) have been working together to streamline the consultation process for federally listed species associated with the Corps' wetland permitting program. The Service provided letters to the Corps dated March 23, 2007, and October 18, 2007, in response to a request for a multi-county programmatic concurrence with a criteria-based determination of "may affect, not likely to adversely affect" (NLAA) for the threatened eastern indigo snake (*Drymarchon corais couperi*) and the endangered wood stork (*Mycteria americana*) for projects involving freshwater wetland impacts within specified Florida counties. In our letters, we provided effect determination keys for these two federally listed species, with specific criteria for the Service to concur with a determination of NLAA.

The Service has revisited these keys recently and believes new information provides cause to revise these keys. Specifically, the new information relates to foraging efficiencies and prey base assessments for the wood stork and permitting requirements for the eastern indigo snake. This letter addresses the wood stork key and is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*). The eastern indigo snake key will be provided in a separate letter.

Wood stork

Habitat

The wood stork is primarily associated with freshwater and estuarine habitats that are used for nesting, roosting, and foraging. Wood storks typically construct their nests in medium to tall

trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water (Ogden 1991, 1996; Rodgers et al. 1996). Successful colonies are those that have limited human disturbance and low exposure to land-based predators. Nesting colonies protected from land-based predators are characterized as those surrounded by large expanses of open water or where the nest trees are inundated at the onset of nesting and remain inundated throughout most of the breeding cycle. These colonies have water depths between 0.9 and 1.5 meters (3 and 5 feet) during the breeding season.

Successful nesting generally involves combinations of average or above-average rainfall during the summer rainy season and an absence of unusually rainy or cold weather during the winter-spring breeding season (Kahl 1964; Rodgers et al. 1987). This pattern produces widespread and prolonged flooding of summer marshes, which maximize production of freshwater fishes, followed by steady drying that concentrate fish during the season when storks nest (Kahl 1964). Successful nesting colonies are those that have a large number of foraging sites. To maintain a wide range of foraging sites, a variety of wetland types should be present, with both short and long hydroperiods. The Service (1999) describes a short hydroperiod as a 1 to 5-month wet/dry cycle, and a long hydroperiod as greater than 5 months. During the wet season, wood storks generally feed in the shallow water of the short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as they progressively dry-down (though usually retaining some surface water throughout the dry season).

Wood storks occur in a wide variety of wetland habitats. Typical foraging sites for the wood stork include freshwater marshes and stock ponds, shallow, seasonally flooded roadside and agricultural ditches, narrow tidal creeks and shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas with highly concentrated prey. Through tactolocation, or grope feeding, wood storks in south Florida feed almost exclusively on fish between 2 and 25 centimeters [cm] (1 and 10 inches) in length (Ogden et al. 1976). Good foraging conditions are characterized by water that is relatively calm, uncluttered by dense thickets of aquatic vegetation, and having a water depth between 5 and 38 cm (5 and 15 inches) deep, although wood storks may forage in other wetlands. Ideally, preferred foraging wetlands would include a mosaic of emergent and shallow open-water areas. The emergent component provides nursery habitat for small fish, frogs, and other aquatic prey and the shallow, open-water areas provide sites for concentration of the prey during seasonal dry-down of the wetland.

Conservation Measures

The Service routinely concurs with the Corps' "may affect, not likely to adversely affect" determination for individual project effects to the wood stork when project effects are insignificant due to scope or location, or if assurances are given that wetland impacts have been avoided, minimized, and adequately compensated such that there is no net loss in foraging potential. We utilize our *Habitat Management Guidelines for the Wood Stork in the Southeast Region* (Service 1990) (Enclosure 1) (HMG) in project evaluation. The HMG is currently under review and once final will replace the enclosed HMG. There is no designated critical habitat for the wood stork.

The SFESO recognizes a 29.9 kilometer [km] (18.6-mile) core foraging area (CFA) around all known wood stork colonies in south Florida. Enclosure 2 (to be updated as necessary) provides locations of colonies and their CFAs in south Florida that have been documented as active within the last 10 years. The Service believes loss of suitable wetlands within these CFAs may reduce foraging opportunities for the wood stork. To minimize adverse effects to the wood stork, we recommend compensation be provided for impacts to foraging habitat. The compensation should consider wetland type, location, function, and value (hydrology, vegetation, prey utilization) to ensure that wetland functions lost due to the project are adequately offset. Wetlands offered as compensation should be of the same hydroperiod and located within the CFAs of the affected wood stork colonies. The Service may accept, under special circumstances, wetland compensation located outside the CFAs of the affected wood stork nesting colonies. On occasion, wetland credits purchased from a "Service Approved" mitigation bank located outside the CFAs could be acceptable to the Service, depending on location of impacted wetlands relative to the permitted service area of the bank, and whether or not the bank has wetlands having the same hydroperiod as the impacted wetland.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing the Wood Stork Effect Determination Key below. If the use of this key results in a Corps determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination[1]. This Key is subject to revisitation as the Corps and Service deem necessary.

The Key is as follows:

A. Project within 0.76 km (0.47 mile)[2] of an active colony site[3] ..... "*may affect*[4]"

Project impacts Suitable Foraging Habitat (SFH)[5] at a location greater than 0.76 km (0.47 mile) from a colony site..... ....."*go to* B"

[1] With an outcome of "no effect" or "NLAA" as outlined in this key, and the project has less than 20.2 hectares (50 acres) of wetland impacts, the requirements of section 7 of the Act are fulfilled for the wood stork and no further action is required. For projects with greater than 20.2 hectares (50 acres) of wetland impacts, written concurrence of NLAA from the Service is necessary.

[2] Within the secondary zone (the average distance from the border of a colony to the limits of the secondary zone is 0.76 km (2,500 feet, or 0.47 mi).

[3] An active colony is defined as a colony that is currently being used for nesting by wood storks or has historically over the last 10 years been used for nesting by wood storks.

[4] Consultation may be concluded informally or formally depending on project impacts.

[5] Suitable foraging habitat (SFH) includes wetlands that typically have shallow-open water areas that are relatively calm and have a permanent or seasonal water depth between 5 to 38 cm (2 to 15 inches) deep. Other shallow non-wetland water bodies are also SFH. SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to freshwater marshes, small ponds, shallow, seasonally flooded roadside or agricultural ditches, seasonally flooded pastures, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs.

Project does not affect SFH……..…..*"no effect[1]"*.

B. Project impact to SFH is less than 0.20 hectare (one-half acre)[6]……..……*NLAA[1]"*

Project impact to SFH is greater in scope than 0.20 hectare (one-half acre)....……*go to* C

C. Project impacts to SFH not within the CFA (29.9 km, 18.6 miles) of a colony site ……..…….…….…..……*go to* D

Project impacts to SFH within the CFA of a colony site …….…..…...…….*go to* E

D. Project impacts to SFH have been avoided and minimized to the extent practicable; compensation (Service approved mitigation bank or as provided in accordance with Mitigation Rule 33 CFR Part 332) for unavoidable impacts is proposed in accordance with the CWA section 404(b)(1) guidelines; and habitat compensation replaces the foraging value matching the hydroperiod[7] of the wetlands affected and provides foraging value similar to, or higher than, that of impacted wetlands. See Enclosure 3 for a detailed discussion of the hydroperiod foraging values, an example, and further guidance[8]…….. *NLAA[1]"*

Project not as above.……... *"may affect[4]"*

E. Project provides SFH compensation in accordance with the CWA section 404(b)(1) guidelines and is not contrary to the HMG; habitat compensation is within the appropriate CFA or within the service area of a Service-approved mitigation bank; and habitat compensation replaces foraging value, consisting of wetland enhancement or restoration matching the hydroperiod[7] of the wetlands affected, and provides foraging value similar

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[6] On an individual basis, SFH impacts to wetlands less than 0.20 hectare (one-half acre) generally will not have a measurable effect on wood storks, although we request that the Corps require mitigation for these losses when appropriate. Wood storks are a wide ranging species, and individually, habitat change from impacts to SFH less than one-half acre are not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

[7] Several researchers (Flemming et al. 1994; Ceilley and Bortone 2000) believe that the short hydroperiod wetlands provide a more important pre-nesting foraging food source and a greater early nestling survivor value for wood storks than the foraging base (grams of fish per square meter) than long hydroperiod wetlands provide. Although the short hydroperiod wetlands may provide less fish, these prey bases historically were more extensive and met the foraging needs of the pre-nesting storks and the early-age nestlings. Nest productivity may suffer as a result of the loss of short hydroperiod wetlands. We believe that most wetland fill and excavation impacts permitted in south Florida are in short hydroperiod wetlands. Therefore, we believe that it is especially important that impacts to these short hydroperiod wetlands within CFAs are avoided, minimized, and compensated for by enhancement/restoration of short hydroperiod wetlands.

[8] For this Key, the Service requires an analysis of foraging prey base losses and enhancements from the proposed action as shown in the examples in Enclosure 3 for projects with greater than 2.02 hectares (5 acres) of wetland impacts. For projects with less than 2.02 hectares (5 acres) of wetland impacts, an individual foraging prey base analysis is not necessary although type for type wetland compensation is still a requirement of the Key.

to, or higher than, that of impacted wetlands. See Enclosure 3 for a detailed discussion of the hydroperiod foraging values, an example, and further guidance[8]……..... *"NLAA[1]"*

Project does not satisfy these elements ……..……..…..…..... *"may affect[4]"*

This Key does not apply to Comprehensive Everglades Restoration Plan projects, as they will require project-specific consultations with the Service.

Monitoring and Reporting Effects

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued where the effect determination was: "may affect, not likely to adversely affect." We request that the Corps send us an annual summary consisting of: project dates, Corps identification numbers, project acreages, project wetland acreages, and project locations in latitude and longitude in decimal degrees.

Thank you for your cooperation and effort in protecting federally listed species. If you have any questions, please contact Allen Webb at extension 246.

Sincerely yours,

Paul Souza
Field Supervisor
South Florida Ecological Services Office

Enclosures

cc: w/enclosures (electronic only)
Corps, Jacksonville, Florida (Stu Santos)
EPA, West Palm Beach, Florida (Richard Harvey)
FWC, Vero Beach, Florida (Joe Walsh)
Service, Jacksonville, Florida (Billy Brooks)

LITERATURE CITED

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

U.S. Fish and Wildlife Service. 1990. Habitat management guidelines for the wood stork in the southeast region. Prepared by John C. Ogden for the Southeast Region U.S. Fish and Wildlife Service; Atlanta, Georgia.

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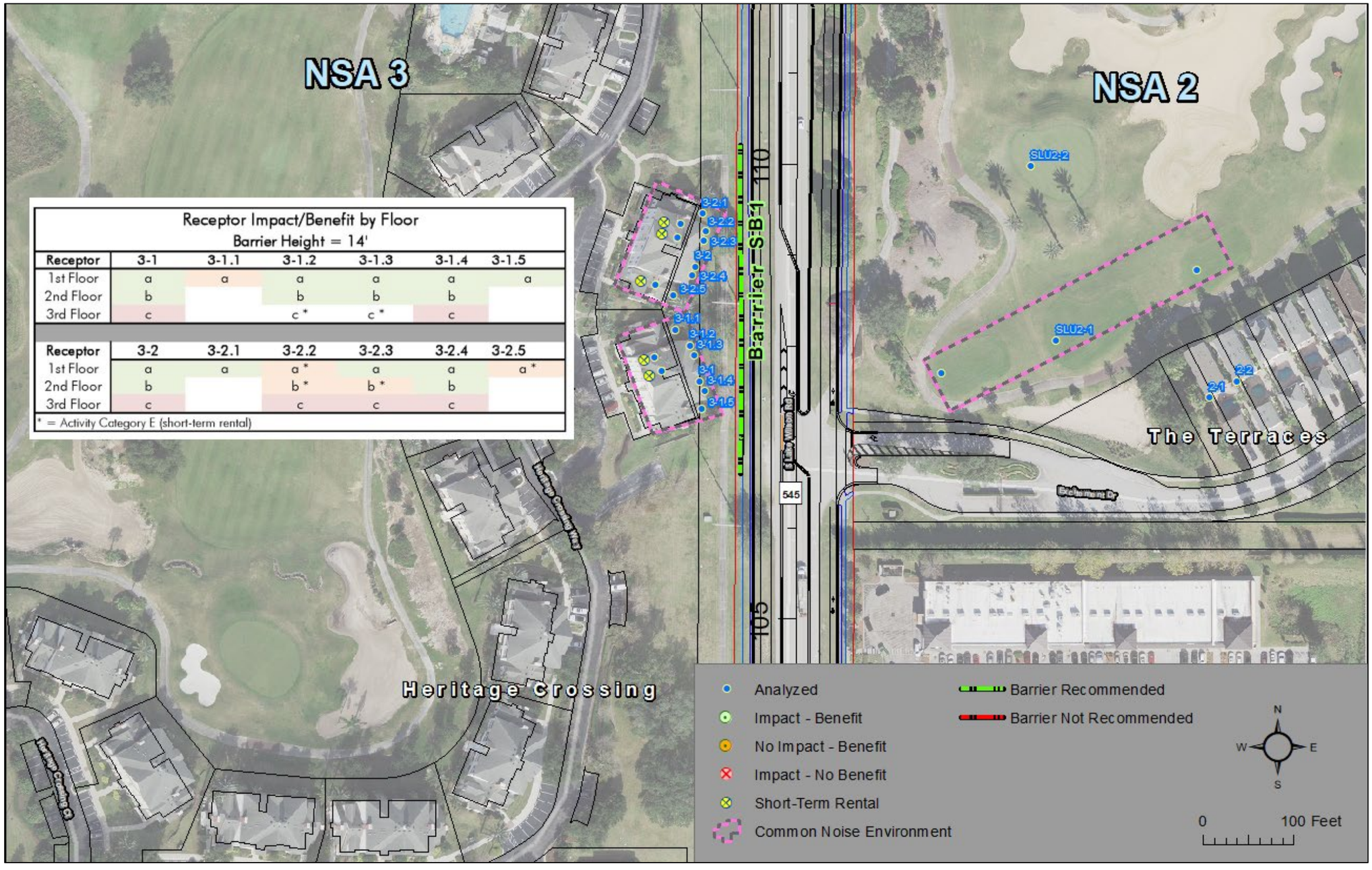
Physical Resources Appendix

Contents:

Figure 3: Recommended Barrier SB1

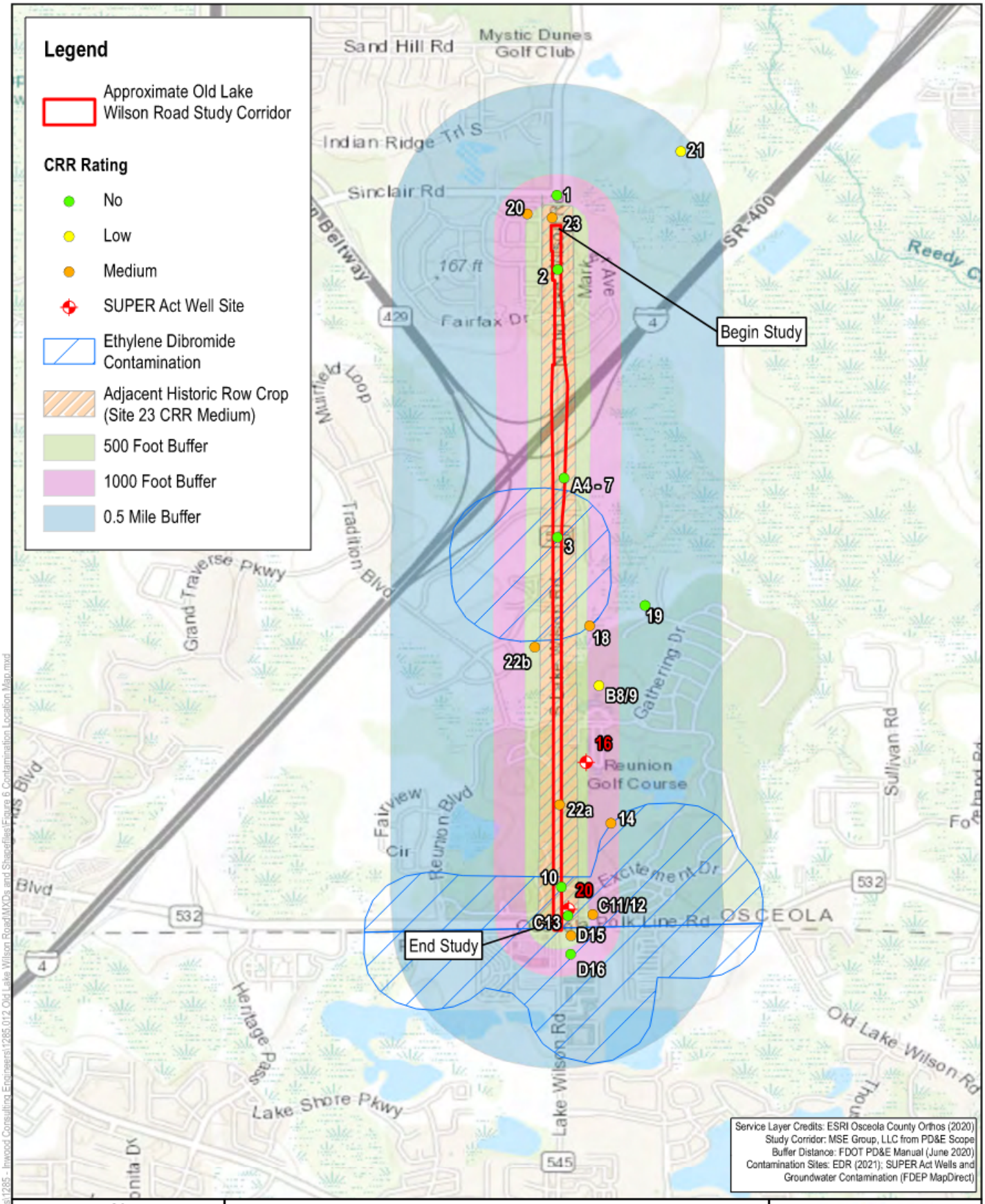


Receptor Impact/Benefit by Floor
Barrier Height = 14'

Receptor	3-1	3-1.1	3-1.2	3-1.3	3-1.4	3-1.5
1st Floor	a	a	a	a	a	a
2nd Floor	b		b	b	b	
3rd Floor	c		c *	c *	c	

Receptor	3-2	3-2.1	3-2.2	3-2.3	3-2.4	3-2.5
1st Floor	a	a	a *	a	a	a *
2nd Floor	b		b *	b *	b	
3rd Floor	c		c	c	c	

* = Activity Category E (short-term rental)



N

0 1,200 2,400 Feet

DRN: KJT	APR: JC
DATE: 12.16.2021	PN: 1285.012

Old Lake Wilson Road
from 730 feet South of Sinclair Road to
County Road 532 (Osceola-Polk County Line Road
Contamination Location Map
Osceola County, Florida

Figure No. 6

Document Path: T:\GIS_Client Files\1285_Inwood Consulting Engineers\1285.012 Old Lake Wilson Road\MXDs and Shapefiles\Figure 6 Contamination Location Map.mxd

Public Involvement Appendix

Contents:

448781-1 Old Lake Wilson Road Public Hearing Transcript
Public Hearing Certification Documentation
Public Hearing Certification Documentation - Project Manager

407.423.9900
Fax 407.841.2779
Toll Free 855-MYDEPOS

OLD LAKE WILSON ROAD

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

FROM COUNTY ROAD 532 TO SINCLAIR ROAD

OSCEOLA COUNTY, FLORIDA

FINANCIAL PROJECT IDENTIFICATION (FPID) NUMBER 448781-1

EFFICIENT TRANSPORTATION DECISION MAKING

(ETDM) NO. 14456

_____/

PUBLIC MEETING

DATE: JUNE 13, 2023

REPORTER: ASHLEY MICHEL

PLACE: KENZIE'S (MYSTIC DUNES RESORT AND GOLF CLUB),
7600 MYSTIC DUNES LANE
CELEBRATION, FLORIDA 34747

APPEARANCES

Also Present: Stephanie Underwood, P.E., Osceola County Project Manager, David Dangel, P.E., Consultant Project Manager, Amanda Ashby, Project Consultant

INDEX

EXHIBITS

(None marked)

PROCEEDINGS

MS. UNDERWOOD: Good evening.

AUDIENCE: Good evening.

MS. UNDERWOOD: Osceola County would like to welcome you to the public hearing for the Old Lake Wilson Road Project Development and Environment Study. My name is Stephanie Underwood, and I'm the project manager for Osceola County. At this time, we'd like to thank federal, state, county, or city officials who may be present tonight, either here in person or online. For those of you attending in person, when you arrived this evening, you were offered a comment form and speaker card. Tables and boxes for comment forms have been provided. You may also turn your comment forms in to project staff here tonight. If you would like to speak at the microphone this evening, please fill out the speaker card and staff will be by to collect them from you following the presentation. For those of you participating online, please enter your comments in the questions box of GoToWebinar. Those attending in person may also provide their comments directly to our court reporter here if they do not wish to speak at the microphone. All comments, regardless of how they are received tonight, will be given

equal consideration. I will now turn it over to our project team to begin the presentation.

AUTOMATED: Osceola County welcomes you to the public hearing for the Old Lake Wilson Road Project Development and Environment, or PD&E, study, Financial Project ID number 448781-1 and Efficient Transportation Decision Making, or ETDM, number 14456. We appreciate your attendance and participation. The purpose of this hearing is to provide you the opportunity to offer comments about proposed improvements to Old Lake Wilson Road, from County Road 532 to Sinclair Road, in Osceola County. The environmental review, consultation, and other actions required by applicable federal and environmental laws to this project are being or have been carried out by FDOT, pursuant to 23 United States Code section 327, and a Memorandum of Understanding dated May 26, 2022, and executed by FHWA and FDOT. This hearing is being conducted in a hybrid format to provide multiple ways for the public to receive information about the project and provide input. This hearing is being conducted in person, virtually through GoToWebinar, and over the phone. If you dialed in today on the telephone line, the presentation is available on the project

website at www.improveoldlakewilsonroad.com. That is www.I-M-P-R-O-V-E-O-L-D-L-A-K-E-W-I-L-S-O-N-R-O-A-D.com. For online participants, the GoToWebinar control panel should be visible in the upper right corner of your computer screen. If joining GoToWebinar on your mobile device, simply tap the screen to display the same options. The blue arrows in both images point to where you will find the questions box. You can type a comment or question into the questions box, then click Send to submit your comment or question to staff. The red arrows in both images point to where you can find handouts, documents, and comments forms for this public hearing. Click the Handouts icon to see available handouts. Click on the file name to download. If you happen to experience a technical issue during this hearing, please type the issue in the questions box on the GoToWebinar control panel to report it. You can also send an e-mail to aashby@inwoodinc.com. That is A-A-S-H-B-Y@I-N-W-O-O-D-I-N-C.com. Or call (407) 494-1009 to report it. Staff will do their best to assist you. Osceola County complies with various non-discrimination laws and regulations, including Title 6 of the Civil Rights Act of 1964 and the Americans with Disabilities Act, or ADA.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons wishing to express their concerns relative to compliance with Title 6 may do so by contacting Brenda Hernandez by e-mail at B-R-E-N-D-A-I dot H-E-R-N-A-N-D-E-Z at Osceola dot org, by telephone at (407)742-1208, or TTY teletypewriters 711 for the Florida relay system. This public hearing was advertised, and is being conducted consistent with the federal and state requirements shown here. This public hearing was advertised in the Florida Administrative Register, on the Osceola County website, the Orlando Sentinel, Osceola County Edition, and on the public web page at www.improveoldlakewilsonroad.com. In addition, adjacent property owners, interested individuals, elected and appointed officials, and government agencies were also notified about this public hearing. You may be asking, what is a PD&E study? It is a process developed to adhere to the National Environmental Policy Act of 1969, or NEPA. NEPA states that the agencies receiving federal funds must consider a project's impact on the surrounding environment. The study examines potential engineering solutions and evaluates

environmental analyses, cultural and social impacts, soliciting and addressing public input, costs, and other data to determine a preferred alternative for the roadway improvements. Several alternatives were examined throughout the study process, and a preferred alternative is recommended. As funding becomes available, the PD&E study is followed by the adoption of the preferred alternative by the Osceola County Board of County Commissioners and FDOT's Office of Environmental Management, and then it's advanced into design, right of way acquisition, and finally construction. The Old Lake Wilson Road PD&E study limits are from County Road 532 north to Sinclair Road in Osceola County, a distance of approximately two and a half miles. The project involves evaluating the widening of the existing two- lane roadway to a four-lane divided roadway, and the addition of bicycle and pedestrian features. The project is needed because the existing two-lane road within the study area will become the constraining point between the designed four-lane widening to the south in Polk County and the existing four-lane roadway north of Sinclair Road. This section of two-lane road will reduce the overall capacity of Old Lake Wilson Road. Without

improvements, Old Lake Wilson Road is projected to operate at a level of service F, with annual average daily traffic volume exceeding 30,000 vehicles per day by the year 2050, meaning the existing two lanes cannot handle the traffic anticipated to occur in the area, resulting in increased congestion. The two-lane section of roadway also creates a gap in bicycle and pedestrian features from the north and south. Safety improvements, such as the addition of a raised median, adding turn lanes at intersections, and adding accommodations for bicyclists and pedestrians, are also being considered. Within the project limits, Old Lake Wilson Road is a two-lane undivided rural roadway with two 12-foot wide travel lanes and unpaved shoulder. There are existing traffic signals at the County Road 532 and Sinclair Road intersections. Additionally, there are five unsignalized intersections at Excitement Drive, Spine Road, Assembly Court, Fairfax Drive Marker Avenue, and Pendant Court. There are also three bridges within the study limits. Throughout this study, a no-build alternative is also considered. This means that no improvements would be made other than routine maintenance, and Old Lake Wilson Road would remain as it is today. The no-build option

remains a viable option throughout the duration of the study. Along with the no-build alternative, various build alternatives were considered. Alternative 1 includes widening to a four-lane divided urban roadway with two 11-foot travel lanes in each direction, separated by a 37.5-foot wide median. Five-foot wide bike lanes are provided along each side of the road. A ten-foot-wide sidewalk is included along the west side of the road, and a five-foot wide sidewalk is included along the east. With Alternative 1, the existing Old Lake Wilson Road Bridge over Interstate 4 is proposed to remain and would be re-striped to accommodate two northbound travel lanes. A raised sidewalk will be added to the existing bridge. A new southbound bridge would be constructed at a higher elevation, with a wider inside shoulder that would accommodate future Interstate 4 improvements. This new bridge would include two 11-foot travel lanes and a 10-foot-wide sidewalk. Even though Alternative 1 can generally be constructed within the existing right of way, small amounts of additional right of way are required along the corridor. Additional right of way is also required for some intersection improvements. Please see the aerial graphics on

display and available on the project website for a detailed view of the alignment and potential right of way requirements. Alternative 2 is very similar. However, this typical section includes wider, seven-foot buffered bike lanes along each side of the road, and a reduced sidewalk with eight feet on the west side of the road. The same five-foot sidewalk is included on the east side. The Alternative 2 bridge option is similar to the first. However, it includes an eight-foot-wide sidewalk on the proposed new southbound bridge to match the proposed roadway. As with Alternative 1, the proposed four-lane improvements for Alternative 2 can generally be constructed within the existing right of way. Small amounts of additional right of way are required along the corridor. Additional right of way is also required for some intersection improvements. Please see the aerial graphics on display and available on the project website for a detailed view of the alignment and potential right of way requirements. Looking at the individual intersections, at the County Road 532 intersection, this study's traffic analyses indicate that an additional northbound right turn lane on Lake Wilson Road and an additional westbound right turn lane on County Road

532 will be required. These improvements will be needed to enhance the Polk County widening of Lake Wilson Road and improvements to the County Road 532 intersection that are currently underway. At Excitement Drive, a southbound directional median opening with a northbound U-turn is proposed. A traffic signal is proposed at the Spine Road intersection. A full median opening is proposed at the Assembly Court intersection. A traffic signal is proposed at the Fairfax Drive Marker Avenue intersection. Additional right of way will be required along both sides of the road for the improvements at this intersection. For safety reasons, the county is about to install a temporary signal at this intersection ahead of any future improvements. A traffic signal is also proposed at the Sinclair Road intersection. Additional right of way will be required along Sinclair Road to accommodate proposed dual right turn lanes. Right of way requirements will be determined during the future design phase. The right of way acquisition phase is currently not funded. For questions regarding potential right-of-way acquisitions, please contact Paul Satchfield, Osceola County real estate management director, by e-mail at

paul.satchfield@osceola.org. That is P-A-U-L.S-A-T-C-H-F-I-E-L-D.@osceola.org. The evaluation matrix shows the impact, cost, and other elements of the no-build and the two build alternatives. The preferred build alternative is Alternative 1. This was based on prior public input that showed support for a wider sidewalk. The estimated cost of the preferred alternative is $123.9 million. The breakdown of the cost is provided in the display documents and the project handout. The proposed roadway improvements will include curb and gutter to collect stormwater runoff, with underground pipes to existing ponds. The existing Reunion Pond sites were designed to account for the four-lane widening of Old Lake Wilson Road. Agreements in place between Reunion and the County will allow runoff from the improved Old Lake Wilson Road to utilize the existing ponds. There may be the need for expansion of some existing FDOT ponds within the I4 right of way. With any improvements, the effects to natural, cultural, social, and physical environments must be considered. The goal of the study is to meet the transportation need while avoiding, minimizing, or mitigating project effects. This includes effects on wetlands, flood plains,

protected species, water quality, contamination sites, noise, air quality, historic structures, and archeological sites. The potential effects of the preferred alternative have been determined. The project may affect, but is not likely to adversely affect, the federally listed Eastern Indigo Snake, Wood Stork, and Gopher Tortoise. It is estimated that 0.49 acres of wetland will be impacted and 2.01-acre feet of flood plains will be impacted. No change to flood risk will occur as a result of impacts to flood plains. The preferred alternative will provide an economic enhancement by reducing vehicle delays and improving mobility. There will be no adverse effects to archeological or historic resources. Seven sites have been given a medium potential ranking for contamination. And the noise study has identified one noise barrier as feasible and cost-reasonable, adjacent to Heritage Crossing on the west side of Old Lake Wilson Road, north of County Road 532. The final location and dimensions of the noise wall will be determined during the design phase. Environmental effects will be reevaluated during the design phase. The PD&E study began in December 2020. Following tonight's public hearing, project team will finalize the preferred

alternative and the study documents. The PD&E study is expected to be completed in the fall of 2023, following approval by the Osceola County Board of County Commissioners and acceptance of the location and design concept of the preferred alternative by the FDOT Office of Environmental Management. A project of this size can take between eight and ten years from planning study to construction completion. All of this depends on the availability of funding. At this time, design is funded and will begin in 2023. Right of way acquisition and construction phases are not currently funded for this project. It is anticipated that future phases of this project may be funded, at least in part, with federal grant funds. Project documents are on display for review at two locations, the West Osceola Branch Library at 305 Campus Street, Celebration, Florida, 34747, and at the Osceola County Administration Building at 1 Courthouse Square, Kissimmee, Florida, 34741. The documents will be on display at these locations until June 27, 2023. The project documents are also available for review on the project website at www.improveoldlakewilsonroad.com. That is www.I-M-P-R-O-V-E-O-L-D-L-A-K-E-W-I-L-S-O-N-R-O-A-D.com. We

encourage your input and feedback about this project. All public comments and questions are part of the public record, and every method for providing public comments and questions carries equal weight. While comments and questions will be accepted at any time, those submitted by June 27, 2023, will become part of the project's public hearing record. All comments and questions will be responded to in writing following the hearing. This public hearing is being recorded. A verbatim transcript will be made of all oral proceedings. A recording of this presentation will be posted on the project's webpage within one week following the hearing. There are multiple ways to submit comments or questions. If attending in person, you can provide verbal comments at the microphone during the upcoming public comment portion of tonight's hearing. Please fill out a speaker request card so we will know you wish to speak. You may also provide your comment directly to the court reporter. If attending online, please type your comment or question into the questions box in the GoToWebinar control panel. We will read your comment or question out loud to be included as part of oral proceedings. If attending as a dial in participant you can call the project manager at

(407) 742-0565 to provide verbal comments after the public hearing during normal business hours. Written comments can be provided in multiple ways. For those at the in person location, you can complete a printed comment form and drop it in the box provided. You can also submit your written comment to the court reporter. If you're participating online, you can submit written comments in the questions box in the GoToWebinar control panel. Written comments can also be submitted on the project website at www.improveoldlakewilsonroad.com. That is www.I-M-P-R-O-V-E-O-L-D-L-A-K-E-W-I-L-S-O-N-R-O-A-D.com. You can also contact the project manager directly by e-mail at stephanie.underwood@osceola.org. That is S-T-E-P-H-A-N-I-E-.-U-N-D-E-R-W-O-O-D @osceola.org. Or by U.S. mail at 1 Court House Square, Suite 3100, Kissimmee, Florida, 34741. This contact information is also available on the public hearing notification that you may have received by mail. We will now enter the formal public comment period for this project. Anyone desiring to make an in person verbal statement regarding the project will now have the opportunity to speak at the microphone. Please note, to ensure all who wish to speak are able to,

all comments and questions will be responded to in writing following the public hearing. For online participants, please enter your question or comment into the questions box on the GoToWebinar on the control panel. Remember, if you want to leave a verbal comment or question over the phone, call the county project manager at (407) 742-0565 after the hearing. Regardless of how you choose to provide the comments or questions please submit them by June 27, 2023 to be included as part of this public hearing.

MS. ASHBY: All right. Thank you. We're going to move into the question and comments period. So if you are at the venue and you're holding a speaker card, please raise your hand and staff will be by to collect them. If you would like to speak, get your card from staff, get this filled out. If you are speaking at the microphone, we ask that you limit your input to three minuets so that everyone has an opportunity to speak this evening. Please come to the microphone so that the court reporter will be able to get a complete record of your comments. For those of you attending online, please type your comment or question into the questions box in the GoToWebinar control panel and I'll read your comment or question out loud to be included as a

part of Oral proceedings. I do have one comments that's come in online. And just a reminder to my online attendees, under the handouts drop down, you can view and download all of tonight's project handouts. And those are also available as well as tonight's presentation on the project website, and that's at improve Old lake Wilson -- at www.improveoldlakewilsonroad.com. So let me go ahead and get started with my first online comment. Dennis, would you go ahead and turn on the camera as well, please? All right, perfect. So online I have a comment from Don Barber (phonetic), and they stated, how did you determine heritage crossing was the only housing development that would warrant a noise wall? What about the other developments that sit along the road? All right, and thank you for your question, Don. As a reminder, we will be responding to all the questions and comments that come in this evening in a document that will be posted on the project website following this public hearing. If you have any other questions or comments, please feel free to type them in online. Right now I'm going to go ahead and switch it over to venue, if we have any comments or questions if anyone would like to speak there.

MS. UNDERWOOD: Okay. We did not receive any speaker cards. But if anyone still would like to speak, they still have an opportunity to come up and speak. We just ask for your name and address if you'd like to do so. Anybody? Okay. All right. Well then, on behalf of Osceola County, thank you, everyone, for attending this public hearing and providing your input on this project. If you have any questions or comments that you think of this evening and you want to provide them to us, that would be great. We just ask that you please submit them by June 27th. Contact information and recording of this public hearing, project documents, and other exhibits displayed this evening at the public hearing will be posted on the project website at www.improveoldlakewilsonroad.com. It is now 6:54 and I hereby officially close the public hearing for the Old Lake Wilson Road PD&E study. Thank you again, and everyone have a great evening.

(PUBLIC MEETING CONCLUDED AT 6:55 P.M.)

C E R T I F I C A T E

STATE OF FLORIDA)

COUNTY OF ORANGE)

I, ASHLEY MICHEL, Court Reporter and Notary Public for the State of Florida at Large, do hereby certify that I was authorized to and did report the foregoing proceeding, and that said transcript is a true record of the said proceeding.

I FURTHER CERTIFY that I am not of counsel for, related to, or employed by any of the parties or attorneys involved herein, nor am I financially interested in said action.

Submitted on: June 28, 2023.

X 

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ASHLEY MICHEL

Court Reporter, Notary Public

C E R T I F I C A T E

STATE OF FLORIDA)

COUNTY OF ORANGE)

I, ASHLEY MICHEL, Court Reporter and Notary Public for the State of Florida at Large, do hereby certify that I was authorized to and did report the foregoing proceeding, and that said transcript is a true record of the said proceeding.

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Submitted on: June 28, 2023.

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ASHLEY MICHEL

Court Reporter, Notary Public

FLORIDA DEPARTMENT OF TRANSPORTATION

PUBLIC HEARING CERTIFICATION

Old Lake Wilson Road

Project Development and Environment (PD&E) Study

from N of CR 532 to S of Sinclair Road

Osceola County, Florida

Financial Management No.: 448781-1

I certify that a public hearing was conducted on June 13, 2023, beginning at 5:30 p.m. for the above project. A transcript was made and the document attached is a full, true, and complete transcript of what was said at the hearing.

Nicholas Hartley

Digitally signed by Nicholas Hartley
Date: 2024.03.28 16:06:30 -04'00'

(Name)

1/24/2024
Date

Osceola County Project Manager
(Title of County Representative)