TECHNICAL REPORT COVERSHEET

NATURAL RESOURCES EVALUATION TECHNICAL MEMORANDUM

Florida Department of Transportation

District Seven

CR 52/Meridian Avenue/21st Street/Suwanee Way/St. Joe Road

Limits of Project: 21st Street from Church Avenue to Virginia Avenue, Meridian Avenue from west of 17th Street to 21st Street, and St. Joe Road/Suwannee Way from 22nd Street to 21st Street.

Pasco County, Florida

Financial Management Number: 439832-5-32-01

ETDM Number: N/A

Date: November 6, 2024

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 Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

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1. Project Description

The Florida Department of Transportation (FDOT) District Seven, in cooperation with Pasco County, is conducting a Project Development and Environment (PD&E) Study at the intersection of County Road (CR) 52/Meridian Avenue/21st Street/Suwanee Way/St. Joe Road in Pasco County (**Appendix 1**, **Figure 1**). The project limits extend north along 21st Street from Church Avenue to Virginia Avenue, along Meridian Avenue from approximately 750 feet west of 17th Street to 21st Street, and along St. Joe Road/Suwannee Way from 22nd Street to 21st Street.

The purpose of this technical memorandum is to document the possible project impacts to wetlands and other surface waters and to federal and state protected species and designated critical habitat. The identification of measures to avoid, minimize, and mitigate for potential impacts is also discussed.

2. Existing Conditions

For the purposes of this technical memorandum, the project area is defined as the area within the existing and proposed right-of-way within the project limits. The total area covered by the project is approximately 3.3 acres. Due to the limited size of the project and extent of adjacent residential development, the project study area is the same as the project area.

A desktop analysis was conducted to assess the land use/vegetative cover, soils, and upland and wetland habitats present within the project area. This analysis included a review of the following information sources:

- Aerial photographs
- FDOT, Florida Land Use, Cover and Forms Classification System (FLUCFCS), 3rd edition.
- Southwest Florida Water Management District (SWFWMD) FLUCFCS GIS database
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey online mapper and database
- USDA NRCS Soil Survey of Pasco County, Florida
- U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) online mapper.

Biologists familiar with Florida's natural communities conducted a field review of the project area in April and May 2024. The purpose of the review was to verify and refine preliminary habitat boundaries and classification codes established during the desktop review. Attention was given to identifying plant composition for each community and suitability of wildlife habitat.

Based on the desktop review and field observations, a single land use/vegetative cover type and a single soil type were identified in the project area as described below.

2.1 Land Use/Vegetative Cover

The project area is located at the top of a hill at an approximate elevation of 115 feet above sea level. Land use in and surrounding the project area is comprised entirely of single-family residences (FLUCFCS 120) and includes the existing residential roadway network. No natural habitat remains within or adjacent to the project area. Unpaved portions of the project area consist of regularly

mowed lawns and roadsides dominated by bahiagrass (*Paspalum notatum*). No wetlands, streams, ditches, or other surface water features are present within the project limits. A short segment of grassy swale is located along the southeast side of 21st Street at the southern limits of the project; however, this swale is not considered a surface water pursuant to Section 403.803(14) Florida Statutes (F.S.) and Chapter 62-340 Florida Administrative Code (F.A.C). A FLUCFCS based land use/vegetative cover map of the project area is provided in **Appendix 1**, **Figure 2**. Representative photographs of the project area are provided in **Appendix 2**.

2.2 Soils

All soils within the project area are mapped by the NRCS as Tavares fine sand-Urban land complex, a non-hydric soil. A map of the soils within the project area is provided in **Appendix 1**, **Figure 3**. The lack of hydric soils further supports the absence of wetlands in the project area.

3. Protected Species

The project area was assessed for the presence of suitable habitat for federal and state protected species in accordance with the *Endangered Species Act of 1973, as amended* (ESA); Chapter 5B-40 F.A.C., *Preservation of Native Flora of Florida*; Chapter 68A-27 F.A.C., *Rules Relating to Endangered or Threatened Species*; and *Protected Species and Habitat* chapter of the *FDOT PD&E Manual*.

Information sources reviewed as part of this assessment include the following:

- Audubon Florida EagleWatch Nest Application
- Florida Department of Agriculture and Consumer Services (FDACS) *Endangered, Threatened, and Commercially Exploited Plants of Florida*
- Florida Geographic Data Library (FGDL) databases
- Wunderlin et al., Atlas of Florida Plants
- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix Map Server
- USFWS Critical Habitat Mapper
- USFWS Information for Planning and Consultation (IPaC) Mapper

The potential for occurrence of each species was designated as None, Low, Moderate, or High based on the type of habitat present within the project area, its relative condition, and if the species has been previously documented or was observed in the project area. A potential for occurrence rating of None indicates that the species is known to occur in Pasco County, but no suitable habitat is present in the project area or immediately adjacent areas, historic recorded occurrences were not indicated in the project area, surveys have confirmed a lack of presence, and/or the species is precluded from the area based on its habitat preferences or life history. A potential for occurrence rating of Low indicates that the species is known to occur in Pasco County or the bioregion, but suitable habitat is limited within the project area, or the species is rare or has been extirpated. A potential for occurrence rating of Moderate indicates that the species is known to occur in Pasco County or nearby counties and suitable habitat is well represented within the project area, but no observations or positive indications exist to verify their presence. A potential for occurrence rating of High indicates that the species is suspected within the project area based on known ranges and existence of sufficient suitable habitat within the vicinity of the project, are known to occur within

the project area, have been observed, or have previously been observed or documented in the vicinity.

Direct observations of protected species or their signs of presence (trails, tracks, scat, nests, burrows, or calls) were noted during the May 2024 site review. Based on the information sources reviewed and the results of the site review, an assessment was made of the presence of suitable habitat for nesting, foraging, denning, or roosting by protected species. The presence or absence of suitable habitat and the project impacts to such habitats were then evaluated to derive a determination of effect that the project would have on the species. Results of the analysis are summarized in **Table 1**.

3.1 Federal Listed Species (USFWS)

No federal listed species were observed during the field review.

Species listed by the USFWS IPaC mapper as potentially occurring in the project area include the monarch butterfly, Eastern indigo snake, eastern black rail, Everglade snail kite, whooping crane, and wood stork. No federal protected plants were identified by IPaC as potentially occurring in the project area; however, the *Atlas of Florida Plants* identified one federal-listed plant species as potentially occurring in Pasco County. The potential presence of each of these species in the project area and the anticipated project effects on each is discussed below.

Britton's beargrass (Nolina brittoniana) - endangered

Britton's beargrass was not identified by IPaC as potentially occurring in the project area; however, it is listed by the *Atlas of Florida Plants* as historically occurring in Pasco County. Britton's beargrass inhabits xeric habitats such as scrub and sandhills. No suitable habitat for this plant is present in the project area and there are no documented observations of it in the project area. For these reasons, the potential occurrence of the species is the project area is considered "none" and the project will have **no effect** on the species.

Monarch butterfly (Danaus plexippus) - candidate

The monarch butterfly was identified as a candidate species for protection under the ESA by the USFWS on May 3, 2022. It is not yet proposed for listing and does not have designated critical habitat. Within North America, the monarch butterfly is a highly migratory species which typically winters in Mexico. This species requires a diversity of blooming nectar resources but of particular importance is milkweed (*Asclepias* spp.) which is required for egg deposition and as a larval food source. No milkweed species were observed during the field review and none are expected to be common in the project area due to the adjacent residential development and regularly maintained right-of-way. While adult monarchs could traverse the project area as they feed on other flowering plants, the potential presence of monarch larvae in the project area is expected to be none. If the monarch is listed by USFWS as threatened or endangered and the project may affect the species, FDOT commits to initiating consultation with USFWS to determine appropriate avoidance and minimization measures for protection of the newly listed species.

Table 1 Protected Species Summary

Common Name	Scientific Name	Listing Status		Habitat	Potential for	Effect
Common Name		Fed ¹	St ²	_ Trabitat	Occurrence	Determination
Plants		l .				
Curtis' milkweed	Asclepias curtissii		Е	Scrub/sandhills	None	No effect
						anticipated
Auricled spleenwort	Asplenium erosum		Е	Mesic/hydric hammocks, basin swamps	None	No effect
						anticipated
Hammock fern	Blechnum occidentale var.		Е	Limestone outcrops and sinkholes	None	No effect
	minor					anticipated
Manyflowered grasspink	Calopogon multiflorus		Т	Mesic flatwoods, dry prairies	None	No effect
						anticipated
Chapman's sedge	Carex chapmannii		Т	Hydric hammock, bottomland forest	None	No effect
						anticipated
Sand butterfly pea	Centrosema arenicola		E	Sandhill, scrubby flatwoods, dry upland	None	No effect
				woods		anticipated
Piedmont jointgrass	Coelorachis tuberculosa		Т	Ephemeral ponds, margins of sandhill	None	No effect
				upland lakes and depressions marshes		anticipated
Needleroot airplant orchid	Dendrophylax porrectus		Т	Swamps, mesic forests; epiphytic	None	No effect
						anticipated
Spoon-leaved sundew	Drosera intermedia		Т	Pond margins, seepage stream banks,	None	No effect
				cypress tree hummocks		anticipated
Garberia	Garberia heterophylla		Т	Dry sandy areas of sand pine scrub, oak	None	No effect
				scrub, and sandhills		anticipated
Tampa mock vervain	Glandularia tampensis		Е	Openings in moist hammocks, live oak-	None	No effect
				cabbage palm hammocks, pine-		anticipated
				palmetto flatwoods		
Spiked crested coralroot	Hexalectris spicata		Е	Calcareous hammocks and shell	None	No effect
				middens with a well-developed duff layer		anticipated
Catesby's lily	Lilium catesbaei		Т	Mesic flatwoods, dry/wet prairies	None	No effect
						anticipated
Pondspice	Litsea aestivalis		E	Peaty soils in edges of baygalls,	None	No effect
				flatwoods ponds, depression marshes,		anticipated
				cypress domes		

0	Scientific Name	Listing Status			Potential for	Effect
Common Name		Fed ¹	tus St²	Habitat	Occurrence	Determination
Cardinal flower	Lobelia cardinalis		T	Streambanks, hydric hammocks, spring runs and swamps; often in standing water	None	No effect anticipated
Pygmypipes	Monotropsis reynoldsiae		E	Upland hardwood forests, hammocks, sand pine and oak scrub	None	No effect anticipated
Simpson's stopper	Myrcianthes fragrans		Т	Mostly coastal hammocks	None	No effect anticipated
Celestial lily	Nemastylis floridana		Е	Wet flatwoods, prairies, marshes, cabbage palm hammock edges	None	No effect anticipated
Britton's beargrass	Nolina brittoniana	Е	Е	Scrub, sandhills, scrubby flatwoods, xeric hammocks	None	No effect
Hand fern	Ophioglossum palmatum		E	"Boots" or old leaf bases of cabbage palms in maritime hammocks or wet hammocks	None	No effect anticipated
Erect pricklypear	Opuntia stricta		Т	Pine rocklands, shell middens, dunes, and coastal hammocks	None	No effect anticipated
Widespread polypody	Pecluma dispersa		E	Tree branches and limestone outcrops in dry hammocks	None	No effect anticipated
Plume polypody	Pecluma plumula		Е	Tree branches or limestone in hammocks, wet woods, and limesinks	None	No effect anticipated
Comb polypody	Pecluma ptilota var. bourgeauana		Е	Rockland hammocks, strand swamps, and wet woods	None	No effect anticipated
Blueflower butterwort	Pinguicula caerulea		Т	Pine flatwoods and wet prairies	None	No effect anticipated
Yellow butterwort	Pinguicula lutea		Т	Pine flatwoods and wet prairies	None	No effect anticipated
Yellow fringed orchid	Platanthera ciliaris		Т	Open wet prairies, wet flatwoods, bogs, seepage slopes, wet pine barrens, and peaty depressions	None	No effect anticipated
Crested yellow orchid	Platanthera cristata		Т	Open wet prairies, wet flatwoods, bogs, seepage slopes, wet pine barrens, and peaty depressions	None	No effect anticipated
Southern tubercled orchid	Platanthera flava		T	Swamps and hydric hammocks	None	No effect anticipated

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Common Name	Scientific Name	Listing Status		Habitat	Potential for	Effect
Common Namo		Fed ¹	St ²		Occurrence	Determination
Snowy orchid	Platanthera nivea		Т	Wet flatwoods and prairies	None	No effect
	<u> </u>					anticipated
Rose pogonia	Pogonia ophioglossoides		Т	Wet prairies, marshes, seepage slopes, wet ditches	None	No effect anticipated
Leafless beaked	Sacoila lanceolata var.		Т	Hammocks and flatwoods	None	No effect
ladiestresses	lanceolata					anticipated
Hooded pitcherplant	Sarracenia minor		Т	Mesic and wet flatwoods, bogs, marsh ecotones, wet ditches	None	No effect anticipated
Lacelip ladiestresses	Spiranthes laciniata		Т	Most meadows, marshes, swamps	None	No effect
<u> </u>						anticipated
Giant airplant	Tillandsia utriculata		Е	Bright, exposed areas in swamps,	None	No effect
				hammocks, mesic flatwoods, periphery of basin marshes		anticipated
Florida mayten	Tricerma phyllanthoides		Т	Scrub, dry open sandy areas	None	No effect
						anticipated
Treat's zephyrlily	Zephyranthes atamasca var.		T	Bottomland forest, hydric hammock, wet	None	No effect
	treatiae			flatwoods		anticipated
Insects		_		-		
Monarch butterfly	Danaus plexippus	С		Variety of upland and wetland habitats	None (larvae	N/A
				with flowering plants. Require Asclepias	only)	
				spp. for egg deposition and as larval food source		
Reptiles		I			1	<u> </u>
Gopher tortoise	Gopherus polyphemus		T	Xeric uplands, pine flatwoods, pastures	None	No effect
						anticipated
Short-tailed snake	Lampropeltis extenuate		Т	Longleaf pine and xeric oak sandhills,	None	No effect
				scrub, xeric hammocks		anticipated
Florida pine snake	Pituophis melanoleucus		T	Well drained sandy soils with a moderate	None	No effect
	mugitus			to open canopy		anticipated
Birds						ı
Florida scrub jay	Aphelocoma coerulescens	T		Fire-maintained scrub	None	No effect
Scott's seaside sparrow	Ammodramus maritimus		Т	Tidal marshes	None	No effect
	peninsulae					anticipated

Common Name	Scientific Name	Listing Status		Habitat	Potential for	Effect
Common Name		Fed ¹	St ²	_ riabitat	Occurrence	Determination
Florida burrowing owl	Athene cunicularia		Т	Open prairies, golf courses, airfields, pastures, vacant lots	None	No effect anticipated
Marian's marsh wren	Cistohorus palustris marianae		Т	Tidal marshes dominated by black needle rush and cordgrass	None	No effect anticipated
Little blue heron	Egretta caerulea		Т	Wetlands, streams, lakes, ponds, ditches, canals	None	No effect anticipated
Tricolored heron	Egretta tricolor		Т	Wetlands, streams, lakes, ponds, ditches, canals	None	No effect anticipated
Southeastern American kestrel	Falco sparverius paulus		Т	Open pine flatwoods, woodland edges, prairies, pastures	None	No effect anticipated
Whooping crane	Grus americana	Exp, NE		Shallow marshes and adjacent open grasslands	None	No effect
Florida sandhill crane	Grus canadensis		Т	Freshwater marshes, prairies, pastures, roadsides in proximity to nesting habitat	None	No effect anticipated
American oystercatcher	Haematopus palliates		Т	Coastal beaches, sandbars, spoil islands, shell rakes, salt marsh, oyster reefs	None	No effect anticipated
Bald eagle	Haliaeetus leucocephalus	-	-	Nests in tall trees in the vicinity of large waterbodies	None	N/A
Eastern black rail	Laterallus jamaicensis jamaicensis	Т		Salt and freshwater marshes with dense herbaceous ground cover	None	No effect
Wood stork	Mycteria americana	Т		Nests in cypress domes, forages in tidal and freshwater swamps/marshes, shallow streams, creeks, ditches, canals	None	No effect
Everglade snail kite	Rostrhamus sociabilis plumbeus	Е		Shallow freshwater marshes, grassy shorelines of lakes	None	No effect
Black skimmer	Rynchops niger		Т	Estuaries, coastal beaches, sandbars	None	No effect anticipated
Least tern	Sternula antillarum	,	Т	Coastal areas with sand and gravel beaches, gravel rooftops	None	No effect anticipated

Mammals								
Florida black bear	Ursus americanus floridanus	-	-	Upland and wetland forested	None	N/A		
				communities				

¹ Federal listed by U.S. Fish and Wildlife Service (USFWS)

2 Plants state listed by Florida Department of Agriculture and Consumer Services (FDACS). Wildlife state listed by Florida Fish and Wildlife Conservation Commission (FWC)

Abbreviations:

C = Candidate

E = Endangered

T = Threatened

Exp, NE = Experimental population, non-essential

Florida scrub jay (Aphelocoma coerulescens) - threatened

The Florida scrub jay was not identified by IPaC as potentially occurring in the project area; however, the project area is within the USFWS consultation area for the species. The Florida scrub jay inhabits fire-maintained scrub areas. No suitable habitat for the species occurs within or adjacent to the project area; therefore, there is no potential for occurrence. For these reasons, the project will have **no effect** on the Florida scrub jay.

Eastern black rail (Laterallus jamaicensis ssp. jamaicensis) – threatened

Eastern black rails are found in a variety of salt, brackish, and freshwater marsh habitats that can be tidally or non-tidally influenced. Within these areas, the birds occupy relatively high elevations along heavily vegetated wetland gradients, with soils that are moist or flooded to a shallow depth (1 to 6 centimeters). Suitable habitat for the eastern black rail does not exist within the project area due to the lack of wetlands and proximity of the adjacent roadways and residential development. For these reasons, there is no potential for occurrence of the eastern black rail in the project area and the project will have **no effect** on the species.

Everglade snail kite (Rostrhamus sociabilis plumbeus) – endangered

Everglade snail kites inhabit shallow freshwater marshes and shallow grassy shorelines of lakes and feed almost exclusively on the apple snail. The project area does not support suitable nesting or foraging habitat for the Everglade snail kite and there is no potential for the species to occur in the project area. For this reason, the project will have **no effect** on the Everglade snail kite.

Whooping crane (Grus americana) - experimental population, non-essential

The whooping crane (Grus americana) in Florida is a federally designated non-essential experimental population which is defined as a population that has been established within its historical range under Section 10(j) of the ESA to aid in its recovery. The USFWS has determined a non-essential population is not necessary for the continued existence of the species. Whooping cranes utilize a variety of habitats including coast marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh, pastures and agricultural fields, and sand or tidal flats.

Whooping cranes occurred naturally in the eastern United States until the mid-twentieth century with records of whooping cranes in Florida until the 1930s. However, the only natural whooping crane nesting population currently is located in Wood Buffalo National Park (Canada) that winters in Arkansas National Wildlife Refuge (Texas). The 2011 Five-Year Review of the Whooping Crane (USFWS) identified four populations of whooping cranes, two of which are in Florida. There is a non-migratory population in Central Florida that the FWC introduced between 1993 and 2005. This effort was stopped in 2008 due to survival and reproduction problems. The FWC Fish and Wildlife Research Institute (FWRI) is also involved in a multi-agency project to restore migratory whooping cranes to the eastern United States. Between 2001 and 2017, cranes were taught a migration route using ultralight aircraft from Wisconsin to Florida. The USFWS IPaC listed the whooping crane as potentially occurring within the project action area. However, there are no historical observations of the whooping crane in the project action area. The probability of whooping cranes being within the project action area is considered none based on the nearest known populations (primarily being in Kissimmee, Florida to the east and Chassahowitzka Wildlife Management Area to the north) well outside of the project study area and lack of observations.

Pursuant to USFWS IPaC, for the purpose of consultation, non-essential experimental populations are treated as threatened species on National Wildlife Refuge and National Park land, requiring consultation under Section 7(a)(2) of the ESA. However, for non-federal lands, they are treated as proposed species that do not require consultation. Therefore, consultation of the whooping crane is not required at this time based on their status, low probability of occurrence, and lack of historical observations in the project action area.

Wood stork (Mycteria americana) – threatened

The project is located within the 15-mile radius foraging area of three reported active wood stork roosts; however, none are located within or immediately adjacent to the project area. No wetlands or other surface waters are present within the project area; therefore, no suitable foraging habitat for the wood stork will be impacted by the project. Due to lack of suitable habitat there is no potential for the wood stork to occur in the project area. The proposed stormwater management system for the project will consist mostly of a closed pipe system and will not create any suitable foraging habitat for the wood stork; therefore, the project determination for the wood stork is **no effect.**

Eastern indigo snake (*Drymarchon couperi*) – threatened

Due to the lack of natural habitat and prevalence of residential development within and adjacent to the project area, there is no potential for the eastern indigo snake to occur in the project area. For this reason, the project will have **no effect** on the Eastern indigo snake.

3.2 Federal Designated Critical Habitat

The project area was evaluated for the occurrence of critical habitat as defined by the ESA, 50 CFR Part 424, and the *Protected Species and Habitat* chapter of the *FDOT PD&E Manual*. No designated critical habitat for any federal listed species is present within or adjacent to the project area. As a result, there will be no destruction or adverse modification of any designated critical habitat.

3.3 State Listed Species

No state protected species were observed during the field review.

The Atlas of Florida Plants identified 37 state-listed plant species as potentially occurring in Pasco County (Table 1). However, no suitable habitat for any of these plant species exists within the project area and their potential for occurrence is "none". Consequently, there is **no effect anticipated** to any state-listed plants as a result of the project.

Regarding state-listed wildlife, three reptile and 10 avian (bird) species are listed by the Florida Fish and Wildlife Conservation Commission (FWC) as potentially occurring in Pasco County (Table 1). Due to the limited project area, extensive residential development surrounding the project area, and regular maintenance of the existing right-of-way, no suitable habitat for any of these species is present in the project area. No observations of state-listed species are reported in the project area. For these reasons, their potential for occurrence in the project area is considered none, and there is **no effect anticipated** to any state-listed wildlife as a result of the project.

3.4 Other Protected Species

Bald eagle (Haliaeetus leucocephalus) - not listed

The bald eagle is no longer listed under the ESA; however, it remains federally protected under the *Bald and Golden Eagle Protection Act* and the *Migratory Bird Treaty Act of 1918*. Bald eagle nests are generally located near water bodies that provide a dependable food source. Suitable foraging habitat for the bald eagle does not occur in the vicinity of the project. Based on Audubon EagleWatch nest 2024 data, the nearest bald eagle nest is located approximately 1.3 miles from the project. For this reason, the project is not expected to have an adverse effect on any bald eagles.

Florida black bear (Ursus americanus floridanus) – not listed

The Florida black bear is not a state or federal listed species; however, it is protected under FWC's Florida Black Bear Conservation Rule (Rule 68A-4.009, F.A.C.). The project area is within FWC's Florida Black Bear Big Bend Management Unit. The Florida black bear requires forested areas for cover and foraging. No such habitat exists within the project area. Additionally, are no reported occurrences of black bears within one mile of the project area. For these reasons, the potential occurrence of Florida black bears in the project area is considered "none" and no impacts to the Florida black bear are anticipated.

4. Wetlands and Other Surface Waters

In accordance with EO 11990, *Protection of Wetlands*, and the *Wetlands and Other Surface Waters* chapter of the *FDOT PD&E Manual*, the proposed project has been evaluated for potential effects to wetlands and other surface waters. FDOT has undertaken all actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. No wetlands or other surface waters are present in the project area; therefore, none will be impacted by the project. Therefore, it is determined that the proposed project will have no significant short- or long-term adverse impacts to wetlands or other surface waters.

5. Anticipated Permits

Both the Southwest Florida Water Management District (SWFWMD) and U.S. Army Corps of Engineers (USACE) regulate impacts to wetlands and other surface waters in Pasco County. Other agencies, including USFWS and FWC, review and comment on wetland permit applications. Anticipated environmental permits required for the project include an Environmental Resource Permit (ERP) from the SWFWMD. An ERP is required for authorization of the proposed stormwater management system associated with the project which will convert the current drainage system to a closed pipe system. Due to lack of WOTUS within the project area, a Section 404 permit from the USACE is not anticipated. The project will also require a National Pollutant Discharge Elimination System (NPDES) permit from the Florida Department of Environmental Protection (FDEP). Should gopher tortoises or their burrows be found within the project area, a Gopher Tortoise Relocation Permit may be required from the FWC.

6. Commitments

To minimize impacts to protected species and their habitats to the greatest extent practicable, the following commitments will be adhered to:

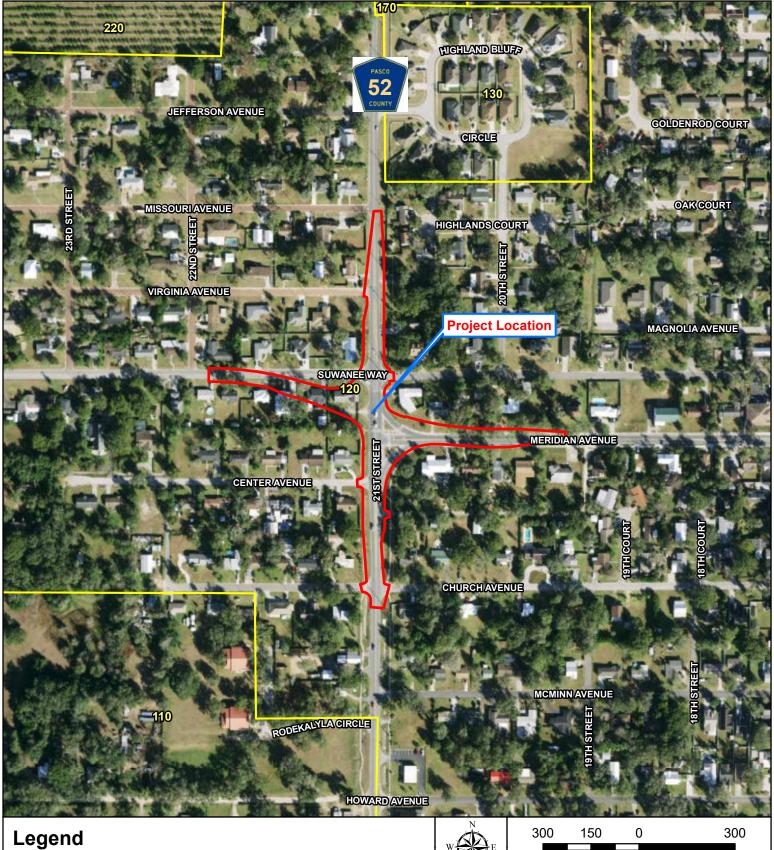
• If the monarch butterfly is listed by the USFWS as threatened or endangered and the project may affect the species, FDOT commits to initiate consultation with USFWS to determine appropriate avoidance and minimization measures for protection of the species.

7. References

- Audubon. 2024. Audubon Florida EagleWatch Nest Application. Audubon Center for Birds of Prey, National Audubon Society. Available at <u>About The EagleWatch Program | Audubon Center for Birds of Prey</u>
- Florida Fish and Wildlife Conservation Commission (FWC). 2023. *Gopher Tortoise Permitting Guidelines*. Revised November 30, 2023. Available at <u>Gopher Tortoise Permitting Guidelines</u> Revisions | FWC (myfwc.com)
- Florida Natural Areas Inventory (FNAI). 2024. Biodiversity Matrix Map Server. Available at Biodiversity Matrix Intro Florida Natural Areas Inventory (fnai.org)
- U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2024. Web Soil Survey. Available at Web Soil Survey Home (usda.gov)
- U.S. Fish and Wildlife Service (USFWS). 2024. Critical Habitat for Threatened & Endangered Species online mapper. Available at Critical Habitat for Threatened & Endangered Species [USFWS] (arcgis.com)
- Wunderlin, R. P., B. F. Hansen, A. R. Franck, and F. B. Essig. 2024. *Atlas of Florida Plants*. Available at <u>ISB: Atlas of Florida Plants (usf.edu)</u>. [S. M. Landry and K. N. Campbell (application development), USF Water Institute.] Institute for Systemic Botany, University of South Florida, Tampa.

APPENDIX 1 FIGURES







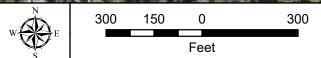
110: Residential Low Density, <2 dwelling units/acre

120: Residential Medium Density, 2 To 5 dwelling units/acre

130: Residential High Density

170: Institutional

220: Tree Crops



FLUCFCS Land Use Map CR 52 at Meridian Avenue

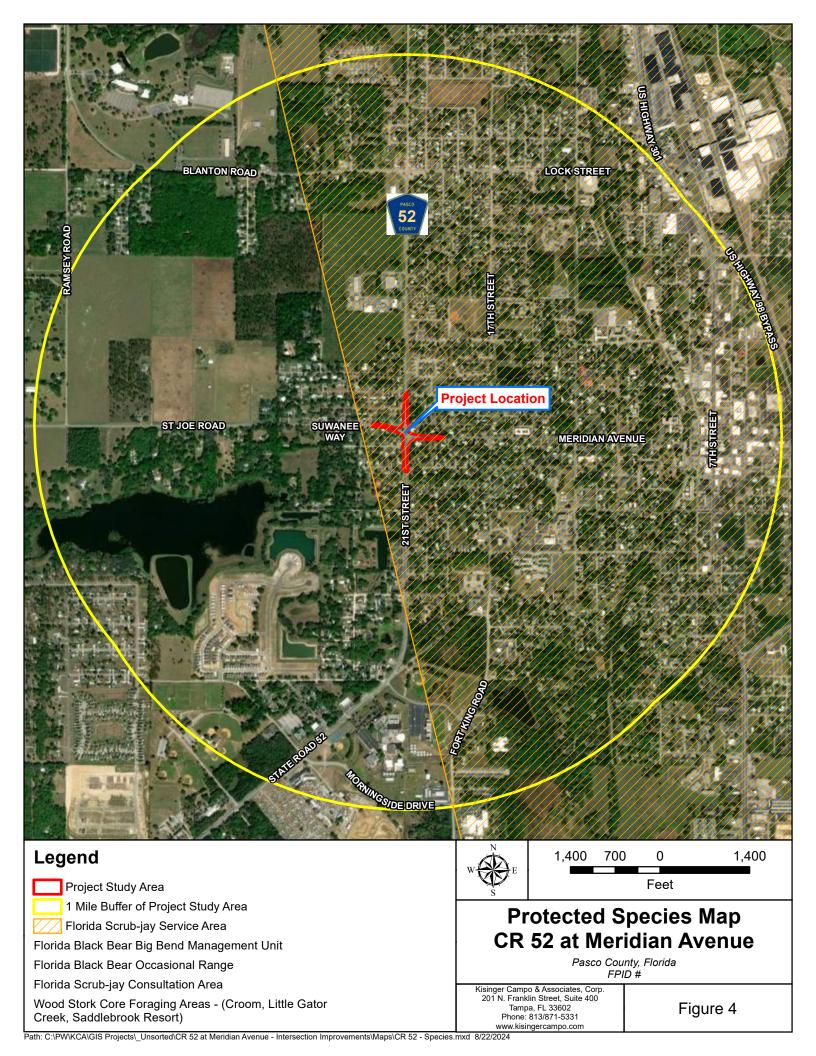
Pasco County, Florida FPID #

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

Figure 2



Path: C:\PW\KCA\GIS Projects_Unsorted\CR 52 at Meridian Avenue - Intersection Improvements\Maps\CR 52 - Soils.mxd 8/22/2024



APPENDIX 2 REPRESENTATIVE PHOTOGRAPHS

All photos taken April 3, 2024



Photo 1: View south at intersection of Meridian Avenue and 21st Street



Photo 2: View northwest at intersection of Virginia Avenue and 21st Street



Photo 3: View south along 21st Street at Missouri Avenue.



Photo 4: View south along 21st Street north of Virginia Avenue



Photo 5: View south along 21st Street at Center Avenue



Photo 6: View south along 21st Street south of Center Avenue