Natural Resources Evaluation

US 41/SR 45 AT CSX GRADE SEPARATION
FROM S OF SR 676 TO N OF SR 676
Project Development & Environment (PD&E) Study
Design Change Reevaluation

Florida Department of Transportation

District 7

Work Program Item Segment No.: 440749-1

Federal Aid Project No.: D719-029-B

ETDM Project No. 14345

Hillsborough County, Florida

February 2023

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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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) is conducting a Design Change and Right of Way (ROW) Authorization Reevaluation of a previous Environmental Assessment (EA) (Work Program Item Segment (WPIS) #No. 255598-1) with a Finding of No Significant Impact (FONSI) approved by the Federal Highway Administration on May 24, 1994. As expressed in the original 1994 EA/FONSI, the need for the 22nd Street Causeway/Causeway Boulevard improvements was based on the following criteria: System Linkage; Capacity; Transportation Demand; Federal, State, or Local Government Authority; Socioeconomic Demand; Modal Interrelationships; Safety; and Navigation.

The current study effort being conducted under WPIS# 440749-1 is evaluating various intersection and operational improvements along Causeway Boulevard east and west of US 41 (SR45/SR599) along US 41 from south of the Causeway Boulevard intersection to north of the Causeway Boulevard intersection. These improvements include the construction of a grade separation of US 41/SR 45 at the CSX railroad crossing located approximately 1,400' south of the Causeway Boulevard intersection. Bicycle and pedestrian facility improvements at US 41 and Causeway Boulevard are also provided.

The portions of the project along Causeway Boulevard and US 41 from the Causeway Boulevard intersection north to S. 23rd Avenue were included in the prior federal and state agency coordination for the EA/FONSI. The portion of the US 41 south of Causeway Boulevard between S. 36th Avenue and Denver Street (including the Delaney Creek crossing) was not included in the prior coordination.

The purpose of this Natural Resources Evaluation (NRE) is to document the natural resources analysis performed to support decisions related to the evaluation of the project Preferred Alternative and to summarize potential impacts to wetlands, federal and state protected species, and Essential Fish Habitat. Measures considered to avoid, minimize, and mitigate for potential impacts resulting from the proposed project are also discussed. This NRE was conducted in accordance with the PD&E manual and applicable State and Federal natural resources regulations.

Protected Species

Twenty (20) federally-protected (18 listed) species and an additional nineteen (19) state-protected (18 listed) species were evaluated based on species ranges including Hillsborough County. Based

on the evaluation conducted, the proposed project **"*may affect, not likely to adversely affect*"** the Gulf sturgeon, smalltooth sawfish, eastern indigo snake, eastern black rail, piping plover, wood stork, and West Indian manatee. The project is anticipated to have **"*no effect*"** on the Florida bonamia, Florida golden aster, pygmy fringe tree, giant manta ray, green sea turtle, Kemp's Ridley sea turtle, loggerhead sea turtle, Florida grasshopper sparrow, Florida scrub-jay, and red knot. For state-listed species, there is **"*no adverse effect anticipated*"** for the gopher tortoise, Florida pine snake, Florida sandhill crane, little blue heron, reddish egret, roseate spoonbill, southeastern American kestrel, and tricolored heron. There is "***no effect anticipated***" for the giant orchid/non-crested eulophia, incised groove-bur, many-flowered grass pink, nodding/scrub pinweed, sand butterfly pea, short-tailed snake, American oystercatcher, and least tern.

During the design and environmental permitting phase, the FDOT will reassess the project action area for potential involvement with federal and state-protected species and coordinate further with the jurisdictional resource agencies if necessary as part of the permitting process.

Wetlands

The project study area was evaluated for the presence of wetlands and other surface waters. Based on the evaluation completed, approximately 8.82 acres of wetlands and other surface waters occur within the project study area. Of these 8.82 acres, the project will impact approximately 0.167 acre of wetlands and 1.55 acres of other surface waters and result in an estimated Uniform Mitigation Assessment Method (UMAM) functional loss of 0.08 unit.

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, Florida Statutes (F.S.), to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 USC. §1344. The project anticipates using commercially available mitigation credits from agency-approved banks with an appropriate geographic service area to provide compensatory mitigation sufficient to offset unavoidable project impacts to wetlands and wetland-dependent species habitat.

Essential Fish Habitat (EFH)

EFH occurs in the estuarine habitats within Delaney Creek and the unnamed tributary to McKay Bay within the project study area. The project will result in direct impacts to estuarine shrub/scrub, estuarine water column, and sand-shell substrates. These direct impacts will total 0.13 acre. Mitigation of EFH impacts is anticipated to be completed in conjunction with the project's

compensatory wetland mitigation. These EFH impacts occur within the service areas of Mangrove Point MB, the Nature Coast MB, and the Tampa Bay MB. Currently, each of these banks have estuarine credits available. Credit availability from all mitigation banks which service the project area will be reassessed during the permitting phase of the project. The FDOT has determined that the project will have "**minimal**" potential adverse effects on EFH.

1 PROJECT OVERVIEW

1.1 Project Background

The Florida Department of Transportation (FDOT) is conducting a Design Change and Right of Way (ROW) Authorization Reevaluation of a previous Environmental Assessment (EA) (WPIS #No. 255598-1) with a Finding of No Significant Impact (FONSI) approved by the Federal Highway Administration on May 24, 1994. **Figure 1-1** shows the limits of the previous PD&E study completed along 22nd Street Causeway/Causeway Boulevard (State Road 676) from State Road (SR) 60 to US 301, in Hillsborough County, Florida. The segment currently being evaluated/advanced is shown as Segment 3 on **Figure 1-1.**

The previous study evaluated anticipated conditions for a 2015 Design Year. The FONSI documented the construction of a six-lane roadway to replace the existing 2- to 4-lane roadway beginning at SR 60 and extending approximately 7 miles east at US 301. Since the completion of the 1994 PD&E Study, Causeway Boulevard has been widened to four-lanes.

The project included a new interchange at US 41/Causeway Boulevard intersection for which the approved concept was a “compressed diamond” interchange with US 41 elevated over Causeway Boulevard. This interchange is also known as a Single Point Urban Interchange (SPUI) or a Tight Urban Diamond Interchange (TUDI). The study identified that the US 41 interchange bridge would carry three lanes of traffic in each direction with a barrier wall separating opposing traffic. The study recommended an additional grade separation of US 41 over the CSX railroad crossing south of Causeway Boulevard while the CSX railroad crossing east of US 41 would remain at-grade with Causeway Boulevard. The concept showed the SPUI ramps oriented along US 41 and one-way, one-lane frontage roads were provided in the southeast and northeast quadrants to provide local property access. Five-foot sidewalks and 4-foot bicycle lanes were proposed along both sides of Causeway Boulevard. The 1994 EA/FONSI design concept is included in **Appendix A**.

The current study effort being conducted under WPIS# 440749-1 is evaluating various intersection and operational improvements along Causeway Boulevard east and west of US 41 (SR 45/SR 599) along US 41 from south of the Causeway Boulevard intersection to north of the

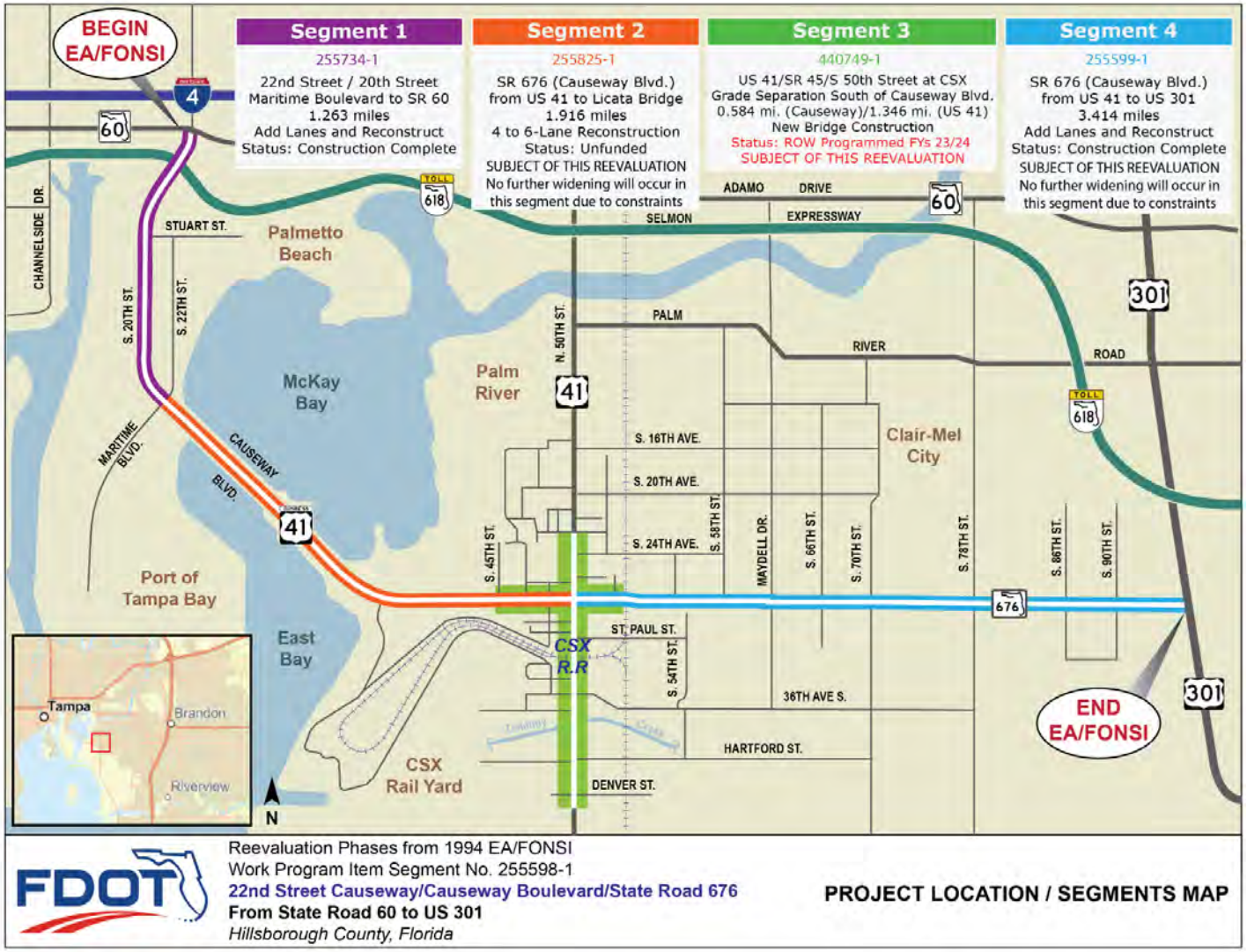


Figure 1-1: Project Location / Segments Map

Causeway Boulevard intersection. These improvements include the construction of a grade separation of US 41/SR 45 at the CSX railroad crossing located approximately 1,400' south of the Causeway Boulevard intersection. Bicycle and pedestrian facility improvements along US 41 and Causeway Boulevard are also provided.

1.2 Project Purpose and Need

Purpose

The purpose of this project is to reduce traffic delays associated with the CSX railroad crossing, adequately support the safe movement of vehicle traffic, including trucks and freight, and enhance connectivity and safety for bicyclists and pedestrians.

Need

As expressed in the original 1994 EA/FONSI, the need for the 22nd Street Causeway/Causeway Boulevard improvements was based on the following criteria: System Linkage; Capacity; Transportation Demand; Federal, State, or Local Government Authority; Socioeconomic Demand; Modal Interrelationships; Safety; and Navigation.

For the current segment, US 41 and Causeway Boulevard are vital arterial highways which serve the City of Tampa located in Hillsborough County. The US 41/SR 45 and Causeway Boulevard intersection experiences traffic delays during the AM and PM peak periods with heavy truck traffic (approximately 13% of the daily volume) traversing through the intersection. The presence of CSX railroad crossings to the south and east of the intersection also further contribute to these traffic delays. The CSX railroad crossing located to the south of the intersection causes traffic delays particularly during the AM peak period. This project will address traffic delays associated with the CSX railroad crossing to the south of the US 41 and Causeway Boulevard intersection and will facilitate the safe movement of vehicle traffic through the project corridor.

In addition, this project will also address multimodal connectivity and safety within the area. Although there are sidewalks and dedicated bicycle lanes along both sides of Causeway Boulevard within the project limits, there are only sidewalks and no dedicated bicycle facilities along US 41 within the project limits. Between 2017 and 2021, there were 10 crashes involving bicyclists or pedestrians. These 10 crashes resulted in 1 fatality as well as a total of 8 injuries.

The proposed improvements have been identified in the Hillsborough County Transportation Planning Organization's (TPO) 2045 Adopted Long Range Transportation Plan (under the

Hillsborough County Freight Hot Spots), the TPO's Fiscal Year 2022/23-2026/27 Transportation Improvement Program, as well as the FDOT's Statewide Transportation Improvement Plan and Strategic Intermodal System (SIS) Adopted 1st 5-Year Program. US 41 has also been identified as a Goods Movement Roadway Corridor from I-4 to the Manatee County Line and is a priority project for the National Highway Freight Program.

1.3 Existing Facility and Proposed Improvements

1.3.1 Existing Facility

The project limits identified along US 41 begin south of Denver Street (MP 22.578) and extend north of the Causeway Boulevard intersection to 23rd Avenue (MP 23.925). The improvements along Causeway Boulevard begin west of 45th Street (MP 3.554) and extend east of the Causeway Boulevard intersection terminating prior to the CSX crossing (624815B; MP 2.971). US 41 is currently a six-lane roadway throughout the project limits and Causeway Boulevard is currently four-lanes. US 41 and Causeway Boulevard are functionally classified by the FDOT as urban principal arterials. US 41 south of Causeway Boulevard and Causeway Boulevard west of US 41 are part of FDOT's Strategic Intermodal System (SIS), designated as a SIS Connector. The CSX railroad crossing east of US 41 is a designated SIS Railway Corridor and the CSX railroad crossing south of Causeway Boulevard is designated as a SIS Railway Connector. There is one bridge culvert south of Causeway Boulevard for US 41 over Delaney Creek (MP 23.003).

US 41 from south of Denver Street to Causeway Boulevard is a divided 6-lane roadway with a 19-foot median, 10-foot outside travel lanes, 11-foot middle and inside travel lanes, curb and gutter, and a sidewalk on both sides. The inside northbound travel lane from north of St. Paul Street becomes one of the two left-turn lanes for the Causeway Boulevard intersection. The sidewalk on the east side is 6-foot wide and the sidewalk on the west side varies from 5-foot to 6-foot wide.

Along US 41 from north of Causeway Boulevard to just north of S. 23rd Avenue, the existing typical section consists of an undivided 6-lane roadway with asphalt pavement, 11-foot travel lanes, a centered 10-foot bi-directional turn lane, curb and gutter, and 4-foot sidewalk along both sides of the roadway.

Along Causeway Boulevard from S. 45th Street to Sagasta Street, the existing typical section consists of an undivided 4-lane roadway with concrete pavement, 12-foot lanes, a centered 14-foot bi-directional turn lane, curb and gutter, 4-foot bike lanes, and 6-foot sidewalks.

The existing typical section of Causeway Boulevard from Sagasta Street to US 41 consists of a divided 4-lane roadway with concrete pavement and 12-foot travel lanes, 4-foot bicycle lanes, and 6-foot sidewalks on both sides. Although the EA/FONSI approved concept along the project portion of Causeway Boulevard called for 6 lanes, prior improvements were only made to a 4-lane roadway due to right-of-way constraints.

The existing typical section of Causeway Boulevard from US 41 to approximately 400 feet east of US 41 consists of a divided 4-lane roadway with concrete pavement, 12-foot outside lanes, 11-foot inside lanes, 4-foot bicycle lanes, curb and gutter and 6-foot sidewalks on both sides. It also includes dual 12-foot left turn lanes and a 12-foot right turn lane in the westbound direction.

The existing typical section of Causeway Boulevard from US 41 to the end project limits consists of a divided 4-lane roadway with asphalt pavement, 12-foot outside lanes and 11-foot inside lanes, curb and gutter, 4-foot bicycle lanes and 6-foot sidewalks on both sides.

The majority of the existing ROW along US 41 is 100 feet wide. In the vicinity of the CSX railroad, the ROW width varies from 100 to 332-feet. CSX Transportation owns a large portion of the adjacent property along both sides of US 41 where the CSX railroad crosses at grade. Causeway Boulevard is 150 feet wide or greater west of S. 45th Street and reduces to 100 feet wide around S. 47th Street. The ROW increases around the US 41 intersection along Causeway Boulevard then reduces to 100 feet wide before the CSX railroad crossing.

1.3.2 Proposed Improvements

This Design Change and ROW Authorization Project Development and Environment (PD&E) Reevaluation study (WPIS# 440749-1), with a 2046 Design Year, is evaluating various operational improvements along US 41/SR 45/SR 599/S. Tamiami Trail (US 41) from south of the Causeway Boulevard intersection to north of the Causeway Boulevard intersection. The study will evaluate roadway widening/reconstruction, new stormwater management facilities, new bridge overpasses at Delaney Creek, the CSX railroad, and other roadways for local traffic needs. Intersection and operational improvements being evaluated include signalization and turn lane additions for Hartford Street, US 41/Causeway Boulevard, and 47th Street. In addition to addressing operational improvements, this project will address the need for pedestrian and bicycle accommodations and improving connectivity and safety for these modes.

There are multiple typical sections throughout the project limits. From just south of Denver Street to north of Trenton Street, the proposed typical section includes reconstructing US 41 with concrete pavement to accommodate a 6-lane divided urban curbed section with 12-foot lanes, 7-foot buffered bicycle lanes, and 10-foot sidewalks on both sides. The median width varies from 19-22 feet to provide turn lanes with raised traffic separators between opposing directions of travel. The proposed improvements will require the acquisition of ROW beyond the existing footprint varying from 0-22 feet along the west side and varying from 0-17 feet along the east side of US 41.

From north of Trenton Street the proposed typical section grade separates US 41 to continue a concrete paved typical section to south of St. Paul Street. The proposed typical section consists of a 6-lane divided urban section with concrete pavement, 12-foot lanes and 10-foot inside and outside paved shoulders. A northbound exit ramp connects to 36th Avenue with a t-intersection configuration on the east side of US 41. The proposed concrete ramp consists of a 15-foot travel lane, 7-foot buffered bicycle lane and a 10-foot sidewalk on the eastside. The existing US 41 southbound mainline pavement will be repurposed to accommodate a two-lane undivided frontage road for local access to adjacent properties. The proposed frontage road is an urban curbed section with asphalt pavement, 12-foot travel lanes, and a 10-foot sidewalk on the west side. Bridge overpasses are proposed for the US 41 mainline over Delaney Creek, 36th Avenue, and the at grade CSX Crossing (No 624802A). The proposed improvements will require the acquisition of ROW varying from 29 to 88 feet along the west side and varying from 39 to 200 feet along the east side.

From north of St. Paul Street to the Causeway Boulevard intersection, the proposed typical section along US 41 consists of a 6-lane divided urban section with concrete pavement, 12-foot lanes, 10-foot outside paved shoulders on the west side and a 7-foot buffered bicycle lane on the east side. The median bifurcates to accommodate three 12-foot left turn lanes approaching the intersection with one 12-foot right turn lane along the outside in the northbound direction. Milling and resurfacing is proposed for the outside 22-feet of the existing southbound lanes. This area will be restriped to provide a frontage road with one 15-foot lane and a 7-foot buffered bicycle lane on the outside with a new raised curb and 10-foot sidewalk. The proposed improvements will require the acquisition of ROW varying from 0 to 160 feet along the east side only.

The proposed typical section for US 41 north of Causeway Boulevard consists of a 6-lane divided urban section with 12-foot lanes, 7-foot buffered bike lanes and 6-foot sidewalks. The northbound

lanes will be asphalt and the southbound lanes will be concrete. There are two 12-foot left turn lanes and one 12-foot right turn lane shown in the southbound direction. The proposed improvements will require the acquisition of ROW varying from 30 to 45 feet along the west side and varying from 0 to 45 feet along the east side.

The proposed typical section for Causeway Boulevard from S. 45th Street to US 41 widens the existing concrete pavement to accommodate a 4-lane divided urban section with 11-foot travel lanes, 7-foot buffered bike lanes and 6-foot sidewalks along the outside. Approaching the US 41 intersection, there are two 11-foot left turn lanes and three 11-foot right turn lanes in the eastbound direction. The proposed improvements will require the acquisition of ROW varying from 0 to 44 feet along the north side only.

The proposed typical section for Causeway Boulevard from US 41 to the end project limit just west of the CSX railroad crossing consists of a westbound concrete and eastbound asphalt 4-lane divided urban section with 11-foot travel lanes, 7-foot buffered bike lanes and 6-foot sidewalks on the outside. Approaching the US 41 intersection, there are two 11-foot left turn lanes and one 11-foot right turn lane in the westbound direction. The proposed improvements will require the acquisition of ROW varying from 0 to 4 feet along the north side only.

The 15% line and grade conceptual design of the Preferred Alternative is provided in **Appendix B**.

1.4 Prior Agency Coordination

The project was evaluated through the FDOT's Efficient Transportation Decision Making (ETDM) process, designated as ETDM project #14345 (2018). An ETDM Advanced Notification package was submitted to members of the Environmental Technical Advisory Team (ETAT) and received comments from the ETAT members on the project's effects on various natural, physical, and social resources. During the project's ETDM review, various federal and state regulatory/permitting agencies reviewed the project's purpose, need and generalized description of anticipated improvements. They provided comments on the project's potential impacts to, and considerations for, natural resources and documentation/permitting under their regulatory purview. The Florida Department of Economic Opportunity noted that the project is located within a Coastal High Hazard Area (CHHA). FWC staff commented that no significant wildlife resources were identified in the project area and that minimal impacts are anticipated to fish or wildlife resources as a result from the project activities. However, their review did not include a site-specific assessment of potential

impacts on waters accessible to manatees. As the project advances and more information is provided relative to anticipated construction over or in waters accessible to manatees, FWC staff will be available to assess potential impacts and recommend if protective measures beyond the Standard Manatee Conditions for In-Water Work (2011) are required.

The NMFS staff conducted site inspections of the project area on August 16, 2018 and August 23, 2018, to assess potential concerns related to living marine resources within Delaney Creek, East Bay, and Hillsborough Bay. They found that certain estuarine habitats within the project area are designated as EFH and that mangroves, seagrasses, and salt marshes in East Bay and Hillsborough Bay may be indirectly affected by the project once completed. The NMFS recommended that stormwater treatment systems be upgraded to prevent degraded water from reaching estuarine and marine habitats within the Tampa Bay system and that best management practices are employed during construction.

The SWFWMD assigned a Degree of Effect of “Moderate” to the project due to the likelihood of non-routine ERP permitting expected for potential pollution sources and the FAVA classification of “More Vulnerable” for the area occupied by the Floridan aquifer. USFWS recommended that impacts to suitable foraging habitat for the wood stork be avoided.

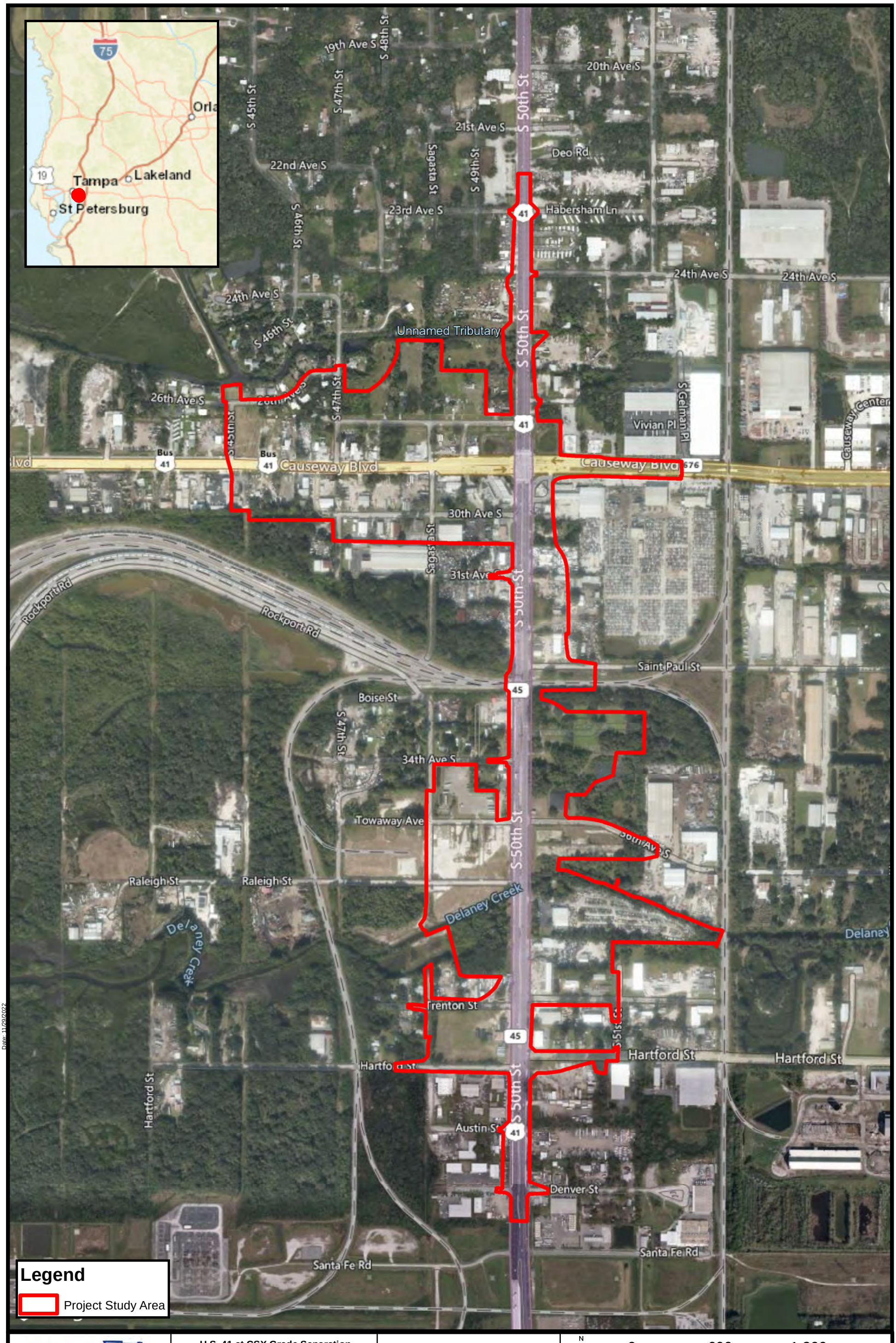
2 STUDY AREA

The study area evaluated for this NRE consisted of the proposed ROW for the Preferred Alternative, the ROW evaluated for various stormwater management facility alternatives, and habitats adjacent to these areas which may be impacted by construction. **Figure 2-1** depicts the project study area with an outline of the Preferred Alternative footprint.

2.1 Existing Conditions

Over 80% of the study area is urban or developed and most of the remaining natural areas are severely fragmented systems which have been subjected to impacts such as contamination or clearing from surrounding urban land uses. South of Causeway Blvd, a majority of the properties adjacent to the project are commercial and industrial businesses, with cross-streets creating a grid-like network off of US 41. Businesses dominate the project area north of Causeway Blvd; however, there are also minor residential areas adjacent to US 41 here. Areas within the study area that are not currently developed are largely attributable to previously demolished sites subject to remnant contamination and/or the presence of wetlands and other surface waters.

US 41 crosses two waterways within the study area. From south to north these are Delaney Creek (south of Causeway Blvd) and an unnamed tributary (north of Causeway Blvd). These systems each flow from east to west across US 41. Delaney Creek flows into East Bay and the unnamed tributary flows into McKay Bay, both of which are part of the larger Tampa Bay. Delaney Creek and the unnamed tributary are both tidally-influenced and are not severed by any control structures. However, water and aquatic species movement within Delaney Creek may be impacted slightly by the low-clearance and timber-supported CSX railroad bridge approximately 1,300 feet downstream (west) of US 41. Water and aquatic species movement within the unnamed tributary may be similarly impacted slightly by a 44-inch equivalent diameter pipe under the S. 47th Street bridge approximately 1,215 feet downstream (west) of US 41. Delaney Creek flows under US 41 through three 11-ft culverts and the unnamed creek flows under US 41 through two 3.5-ft circular pipes.



Date: 11/29/2022

FDOT	**U.S. 41 at CSX Grade Separation** **South of Causeway Blvd** **Hillsborough County, Florida** **FPID No.: 440479-1-22-01** Project Development and Environment Study	Figure 2-1 Project Study Area Sources: ESRI 2022	N 0 600 1,200 Feet 1 inch = 600 feet

2.1.1 Land Use

Existing land use and vegetative cover types within the project study area were evaluated and quantified using the Florida Land Use, Cover and Forms Classification System (FLUCFCS) data (SWFWMD 2017, FDOT 1999). The approximate land use boundaries were referenced onto true color aerial imagery using ArcGIS 10.8 software. Project scientists then verified existing land use and cover classifications within the study area during field reviews conducted in November 2018, March, April, and May 2021, and October 2022. Following the field reviews, the classification of land use and cover types were updated to reflect field-verified conditions. The resulting land use and cover types are shown in **Table 2-1** and **Appendix C**. A brief description of each land use and cover type and its ability to support federal and state protected species follows. Representative photographs of existing site conditions/habitats are included in **Appendix D**.

Table 2-1: Land Use and Cover within the Project Study Area

Land Use or Cover Type	FLUCFCS Code[1]	Acres	Percent of Study Area	Acres within the 1994 EA/FONSI Concept	Acres within the Current Preferred Alternative	Δ between Current and Original Concept (acres)
Residential Low Density	1100	7.96	5.76	0.62	0.66	+0.04
Residential Medium Density	1200	2.37	1.71	0	0	0
Commercial and Services	1400	57.92	41.90	3.48	17.83	+14.35
Industrial	1500	4.24	3.07	0.48	1.77	+1.29
Open Land	1900	9.85	7.13	0.26	1.06	+0.80
Brazilian Pepper	4220	3.08	2.23	0	0	0
Upland Hardwood - Coniferous Mix	4340	2.66	1.92	0	0.63	+0.63
Transportation	8100	41.33	29.9	30.50	30.44	-0.06
Uplands Sub-total		*129.41*	*93.62*	*35.34*	*52.39*	*+17.05*
Streams and Waterways	5100	3.69	2.67	0.08	0.52	+0.52
Reservoirs	5300	2.56	1.85	0.50	1.03	+0.53
Mangrove Swamps	6120	1.85	1.34	0.07	0.063	+0.06
Mixed Wetland Hardwoods	6170	0.71	0.51	0	0	0
Saltwater Marshes	6420	0.01	0.01	0	0.014	-0.01
Wetlands and Other Surface Waters Sub-total		*8.82*	*6.38*	*0.65*	*1.63*[2]	*+1.12*
Total		**138.23**	**100**	**35.93**	**54.11**	**+18.18**

1. (FDOT 1999, SWFWMD 2017)
2. Wetland impact values in this table only identify direct impacts and do not include secondary impacts as the purpose of this table is to show the land uses and cover types directly within the limits of the preferred alternative.

URBAN AND BUILT-UP (FLUCFCS 100 SERIES)

Urban and Built-up land consists "of areas of intensive use with much of the land occupied by man-made structures", including residential, commercial, recreational, industrial, and institutional developments (FDOT 1999). Urban and Built-up land uses within the study area account for 82.34 acres (approximately 60% of the study area) and generally do not provide suitable habitat for protected species. Urban and Built-up lands are the most abundant land uses within the study area.

UPLAND FORESTS (FLUCFCS 400 SERIES)

Upland Forests are areas which support a tree canopy closure of at least ten percent. Upland Forests within the study area consist of Brazilian Pepper (FLUCFCS 422) and Upland Hardwood – Coniferous Mix (FLUCFCS 434). Within the study area, Brazilian Pepper forests account for 3.08 acres (approximately 2% of the study area. Brazilian Pepper (*Schinus terebinthifolia*) is an invasive species and mostly occur near wetlands and waterbodies in the study area. Upland Hardwood – Coniferous Mix forests account for 2.66 acres (approximately 2% of the study area). These forested areas occur in undeveloped upland areas throughout the entirety of the study area. These forested areas typically contain a canopy dominated by slash pine (*Pinus elliotti*), live oak (*Quercus virginiana*), and cabbage palm (*Sabal palmetto*) with understories containing saw palmetto (*Serenoa repens*), Brazilian pepper, caesarweed (*Urena lobata*), and groundcover such as bahia grass (*Paspalum notatum*) and beggarticks (*Bidens frondosa*).

WATER (FLUCFCS 500 SERIES)

Water land uses are defined as "all areas within the land mass of the United States that are predominantly or persistently water covered" (FDOT 1999). Water land cover within the study area consists of Streams and Waterways (FLUCFCS 5100), and Reservoirs (FLUCFCS 530).

Within the study area, Streams and Waterways account for 3.69 acres (approximately 2.7% of the study area). This land use includes Delaney Creek, the unnamed tributary, and wet roadside ditches and swales. While a majority of the Streams and Waterways within the study area are unvegetated, the banks and shallow areas do contain vegetation. Vegetation within the project's Streams and Waterways typically include bahia grass, dollarweed (*Hydrocotyle umbellata*), Peruvian water primrose (*Ludwigia peruviana*), duckweed (*Landoltia punctata*), water spangles (*Salvinia minima*), water hyacinth (*Eichhornia crassipes*), and waterlily (*Nymphaea odorata*).

However, it should be noted that vegetative composition is highly variable across the extent of the project limits.

Three existing stormwater management features occur throughout the project study area and are identified as Reservoirs. These systems cover 2.56 acres (approximately 2% of the study area). These are typically unvegetated open water systems, although some contain shrub vegetation such as Peruvian water primrose, Brazilian pepper, and Carolina willow (*Salix caroliniana*) do occur. Additional discussion of all "Water" land uses is included in Section 4 of this document.

WETLANDS (FLUCFCS 600 SERIES)

Wetlands within the study area are comprised of Mangrove Swamps (FLUCFCS 612), Mixed Wetland Hardwoods (FLUCFCS 617), and Saltwater Marshes (FLUCFCS 642). Eleven (11) wetland systems occur throughout the entirety of the project study area. Wetlands total approximately 1.86% of the project study area. Wetlands within the study area are discussed in greater detail in Section 4 of this document.

TRANSPORTATION, COMMUNICATIONS AND UTILITIES (FLUCFCS 800 SERIES)

Within the study area, Transportation, Communications, and Utilities land uses consists solely of Transportation (FLUCFCS 810).

Transportation land use includes all of the roadway ROW within the study area. Transportation land use covers 41.33 acres (approximately 30% of the study area) and is the second most abundant land use within the study area.

2.1.2 Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Florida (2021) was reviewed to identify hydric soils within the study area for the purposes of assessing wetland boundaries. Maps depicting the soil series within the study area are provided in **Appendix E**. **Table 2-2** lists and details the total area of the soil series present within the study area (NRCS 2021).

Table 2-2: Project Soil Series

Soil Series Name	Hydric Rating	Total Acres within 1994 EA/FONSI Footprint	Total Acres within Study Area	Percent of 1994 EA/FONSI Footprint	Percent of Current Study Area	Δ between Current Study Area and Original Concept (%)
Myakka Fine Sand, 0 to 2 Percent Slopes	Non-Hydric	3.63	31.29	10.10	22.64	+12.54
Pinellas Fine Sand, 0 to 2 Percent Slopes	Non-Hydric	27.44	71.97	76.37	52.06	-24.31
Myakka Fine Sand, Frequently Flooded	Hydric	4.86	34.97	13.53	25.30	+11.77
Hydric Soils Sub-total		*4.86*	*34.97*	14.48	25.30	+11.77
Non-Hydric Soils Sub-total		*31.07*	*103.26*	85.52	74.70	-11.77
Total		**35.93**	**138.23**	**100**	**100**	**0**

3 PROTECTED SPECIES AND HABITAT

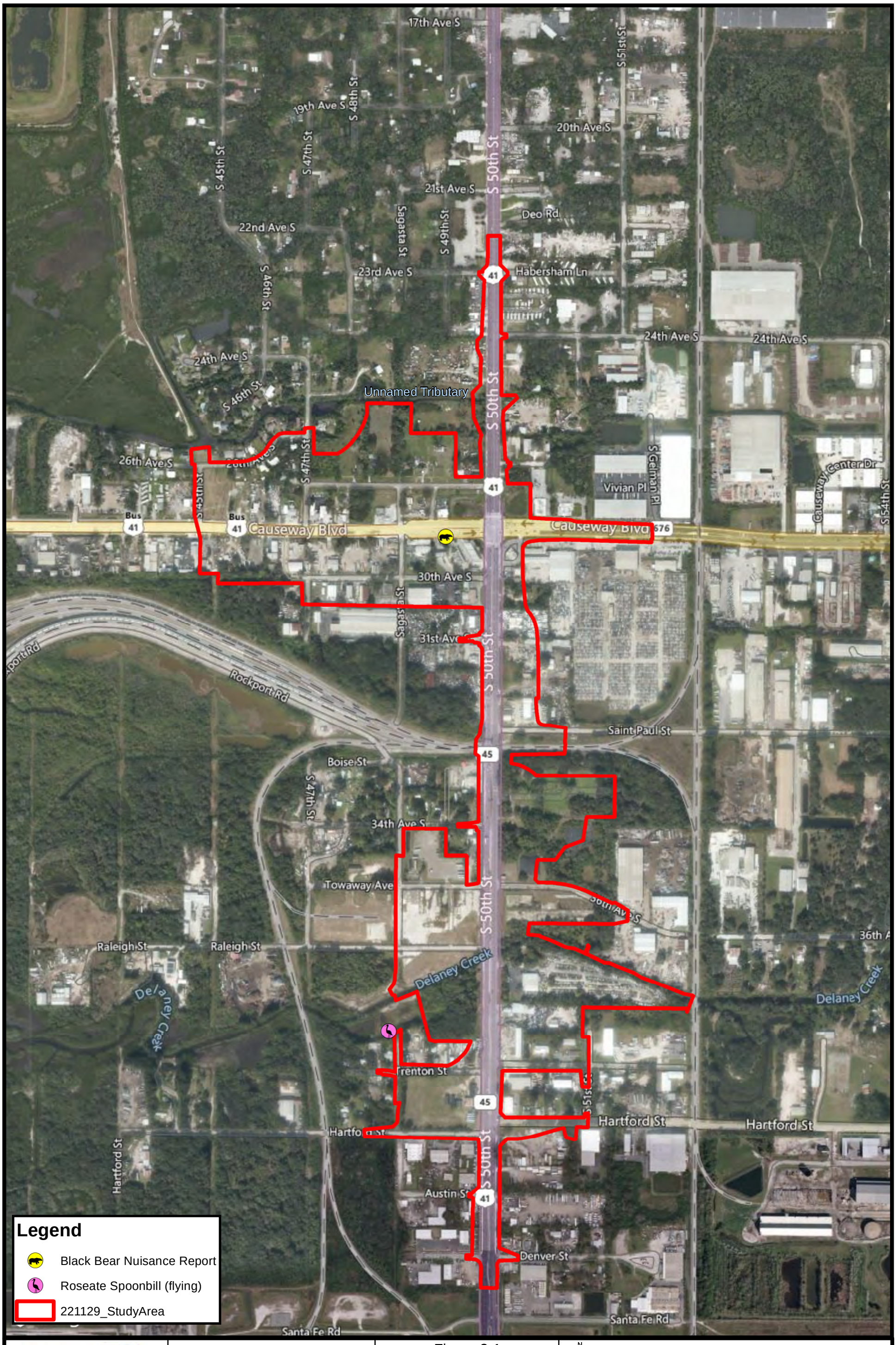
Federal listed species are afforded protections under the Endangered Species Act of 1973, as amended (ESA), falling under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). Within the state of Florida, federal listed species are also afforded protection under Chapter 68A-27, F.A.C., along with state listed species. In Florida, protected animal species are under the jurisdiction of the Florida Fish and Wildlife Conservation Commission (FWC) while protected plant species are under the jurisdiction of the Florida Department of Agriculture & Consumer Services (FDACS) under Chapter 5B-40, F.A.C. The analysis of protected species occurring within the project area is consistent with *Protected Species and Habitat* Section of the FDOT's PD&E Manual.

3.1 Methodology

Literature reviews, agency database searches, and field surveys were conducted to document the potential presence of state and federal protected species, their habitat and critical habitat within the study area. Information sources and databases included the following:

- Environmental Systems Research Institute (ESRI) World Imagery (ESRI 2022)
- Google Earth (2020)
- FDOT ETDM Environmental Screening Tool (2022)
- NRCS SSURGO Database (NRCS 2021)
- Florida Geographic Data Library (FGDL 2022)
- USFWS Species Lists and Datasets (2020, 2021, 2021a-c)
- FWC Species Lists and Datasets (2021a-d, 2022a-c)
- FDACS Species Lists (2022)
- Florida Natural Areas Inventory (FNAI) (2020, 2022)

Based on the results of database searches and review of aerial photographs, field survey methods for specific habitat types and lists of target species were developed. Documented occurrences of protected species based on available desktop information and field reviews are identified in **Figure 3-1**. Given the generally urban nature of the project study areas, species occurrence data is minimal. Additionally, environmental concerns expressed by the ETAT members during the ETDM



Legend

- Black Bear Nuisance Report
- Roseate Spoonbill (flying)
- 221129_StudyArea

FDOT

U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01

Project Development and Environment Study

Figure 3-1
Documented Species Occurrences

Sources:
Audubon Society 2022, ESRI 2022, FWC 2021d, 2022c, RK&K 2022

N

0 600 1,200

Feet

1 inch = 600 feet

Programming Screen Summary Report were considered when identifying target species and survey methods.

Following the desktop analysis, a field reconnaissance of the study area was conducted November 30, 2018. Additional field reviews were conducted on March 31, April 14, April 22, May 5, 2021, and October 13, 2022. The field reviews were conducted by qualified biologists and consisted of vehicular and pedestrian surveys of habitats within the study area. During these surveys, areas of remaining habitat were visually inspected for vegetative type and cover, level of disturbance, management techniques, and overall potential suitability to support listed species and general wildlife.

A list of potentially occurring protected species was developed and each species was assigned a low, moderate, or high likelihood of occurrence within habitats found within the study area. Definitions for likelihood of occurrence are provided below. **Table 3-1** lists the federal and state protected wildlife and plant species as well as each species' likelihood of occurrence within the study area.

None – indicates that the species is known to occur in Hillsborough County, no suitable habitat is present in the project action area and/or immediately adjacent areas, historic recorded occurrences were not indicated in the area, surveys have confirmed a lack of presence, and/or the species is precluded from the area based on its habits or life history.

Low – indicates that the species is known to occur in Hillsborough County, suitable habitat is limited in the project action area and/or immediately adjacent areas, historic recorded occurrences were not indicated in the area, and/or the species is unlikely based on what is known about its habits or life history.

Moderate – indicates the species is known to occur in Hillsborough County, suitable habitat for that species is present in the proposed improvement and/or immediately adjacent areas, but the species has not been observed in past studies, past or current field surveys, or documented on the database. Species with a moderate rating may require Standard Construction Precautions during construction or additional surveys in construction. Standard Construction Precautions anticipated to be implemented for the project are provided in **Appendix F**.

High – indicates the species occurs in Hillsborough County, is suspected within the project action area based on known ranges and existence of sufficient preferred habitat in the project action area and/or immediately adjacent areas and has been previously observed or documented in the vicinity.

Table 3-1. Potential for Occurrence and Proposed Effect Determinations for Federal and State Protected Species for the Project Study Area

Species	Listing Status[1]		Potential for Occurrence	Proposed Effect Determination
	Federal	State		
Plants				
Florida Bonamia (*Bonamia grandiflora*)	Threatened	Threatened	***None***	***No effect***
Florida Golden Aster (*Chrysopsis floridana*)	Endangered	Endangered	***None***	***No effect***
Pygmy Fringe-tree (*Chionanthus pygmaeus*)	Endangered	Endangered	***None***	***No effect***
Giant Orchid/Non-Crested Eulophia (*Pteroglopssaspis ecristata = Eulophia ecristata*	N/A	Threatened	***None***	***No effect anticipated***
Incised Groove-Bur (*Agrimonia incisa*)	N/A	Threatened	***None***	***No effect anticipated***
Many-flowered Grass Pink (*Calopogon multiflorus*)	N/A	Threatened	***None***	***No effect anticipated***
Nodding/Scrub Pinweed (*Lechea cernua*)	N/A	Threatened	***None***	***No effect anticipated***
Sand Butterfly Pea (*Centrosema arenicola*)	N/A	Threatened	***None***	***No effect anticipated***
Invertebrates				
Monarch Butterfly (*Danaus plexippus*)	Candidate	N/A	***High***	***N/A***
Fish				
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	Endangered	Endangered	***Low***	***May affect, not likely to adversely affect***
Smalltooth Sawfish (Pristis pectinata)	Endangered	Endangered	***Low***	***May affect, not likely to adversely affect***
Giant Manta Ray (*Manta birostris*)	Threatened	Threatened	***None***	***No effect***
Reptiles				
Eastern Indigo Snake (*Drymarchon corais couperi*)	Threatened	Threatened	***Low***	***May affect, not likely to adversely affect***
Green Sea Turtle (Chelonia Mydas)	Threatened	Threatened	***None***	***No effect***
Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)	Endangered	Endangered	***None***	***No effect***
Loggerhead Sea Turtle (*Caretta caretta*)	Threatened	Threatened	***None***	***No effect***
Florida Pine Snake (*Pituophis melanoleucus mugitus*)	N/A	Threatened	***Low***	***No adverse effect anticipated***

Species	Listing Status[1]		Potential for Occurrence	Proposed Effect Determination
	Federal	State		
Gopher Tortoise (*Gopherus polyphemus*)	N/A	Threatened	***Low***	***No adverse effect anticipated***
Short-tailed Snake (*Lampropeltis extenuata*)	N/A	Threatened	***None***	***No effect anticipated***
Birds				
Eastern Black Rail (*Laterallus jamaicensis jamaicensis*)	Threatened	Threatened	***Low***	***May affect, not likely to adversely affect***
Florida Grasshopper Sparrow (*Ammodramus savannarum floridanus*)	Endangered	Endangered	***None***	***No effect***
Florida Scrub-Jay (*Aphelocoma coerulescens*)	Threatened	Threatened	***None***	***No effect***
Piping Plover (*Charadrius melodus*)	Threatened	Threatened	***None***	***No effect***
Red Knot (*Calidris canutus rufa*)	Threatened	Threatened	***None***	***No effect***
Wood Stork (*Mycteria americana*)	Threatened	Threatened	***High***	***May affect, not likely to adversely affect***
American Oystercatcher (*Haematopus palliates*)	N/A	Threatened	***None***	***No effect anticipated***
Black Skimmer (*Rynchops niger*)	N/A	Threatened	***None***	***No effect anticipated***
Florida Burrowing Owl (*Athene cunicularia floridana*)	N/A	Threatened	***Low***	***No adverse effect anticipated***
Florida Sandhill Crane (*Antigone canadensis pratensis*)	N/A	Threatened	***High***	***No adverse effect anticipated***
Least Tern (*Sternula antillarum*)	N/A	Threatened	***None***	***No effect anticipated***
Little Blue Heron (*Egretta caerulea*)	N/A	Threatened	***High***	***No adverse effect anticipated***
Reddish Egret (*Egretta rufescens*)	N/A	Threatened	***High***	***No adverse effect anticipated***
Roseate Spoonbill (*Platalea ajaja*)	N/A	Threatened	***High***	***No adverse effect anticipated***
Southeastern American Kestrel (*Falco sparverius paulus*)	N/A	Threatened	***Low***	***No adverse effect anticipated***
Tricolored Heron (*Egretta tricolor*)	N/A	Threatened	***High***	***No adverse effect anticipated***
Bald Eagle (*Haliaeetus leucocephalus*)[2]	N/A	N/A	***Moderate***	***N/A***
Mammals				
West Indian Manatee (*Trichechus manatus latirostris*)	Threatened	Threatened	***Moderate***	***May affect, not likely to adversely affect***
Florida Black Bear (*Ursus americana floridana*)[3]	N/A	N/A	***Low***	***N/A***

1: FWC listing status was not included for species with the same federal listing status due to the State's deferment to federal status under Chapter 68A-27, F.A.C.

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

3: The Florida black bear is protected by FAC 68A-1.004 which makes it illegal to possess, injure, shoot, wound, trap, collect, or sell Florida black bears or their parts except as authorized by FWC rule or permit.

3.2 Federal Listed Species and Designated Critical Habitat

3.2.1 Flora

The study area was evaluated for the potential occurrence of federally-listed plant species. Three federally-listed plant species were considered due to previous documentation of occurrence within Hillsborough County and are discussed below. No federally-listed plant species were observed during project field reviews. Additionally, the three plant species which were considered all occur in scrub habitat. No scrub habitat occurs within the project study area, so design phase surveys are not necessary.

Florida Bonamia (*Bonamia grandiflora*)

The Florida bonamia is federal listed as threatened. It is endemic to peninsular Florida and most known populations are found in the Ocala National Forest in Marion County (USFWS 2022a). This species has been documented sporadically throughout central Florida, including Hillsborough County (Wunderlin et al. 2021). The species occurs in scrub habitat with scrub oak species and sand pine (*Pinus clausa*) in areas within the scrub exposed to sunlight. No suitable habitat for this species exists within the project study area. The species was not observed during field reviews or documented within the FNAI *Standard Data Report* (2020) (**Appendix F**), so the potential for species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is expected to have **"*no effect*"** on the Florida bonamia.

Florida Golden Aster (*Chrysopsis floridana*)

The Florida golden aster is federal listed as endangered. Surveys conducted in 2004 identified several populations within Hillsborough County (USFWS 2022a). The species occurs in scrub oak/sand pine scrub and beach dunes with little to no canopy. No suitable habitat for this species exists within the project study area. The species was not observed during field reviews or documented within the FNAI *Standard Data Report* (2020), so the potential for species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is expected to have **"*no effect*"** on the Florida golden aster.

Pygmy Fringe-tree (*Chionanthus pygmaeus*)

The pygmy fringe-tree is federal listed as endangered. This species has been documented sporadically throughout central Florida, including Hillsborough County (Wunderlin et al. 2021). This species occurs in scrub, sandhill, and xeric oak habitats, primarily those found on the Lake Wales Ridge (FNAI 2022). No suitable habitat for this species exists within the project study area. The species was not observed during field reviews or documented within the FNAI *Standard Data Report* (2020), so the potential for species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is expected to have **"*no effect*"** on the pygmy fringe-tree.

3.2.2 Fauna

Seventeen federally-protected species (fifteen listed species and one candidate species, plus the bald eagle which is discussed further in section 3.4) were considered due to previous documentation of occurrence within, or with range proximity to Hillsborough County and are discussed as follows.

Monarch Butterfly (*Danaus plexippus*)

The monarch butterfly was identified as a candidate species for protections 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.) (USFWS 2022a). Milkweed is a microhabitat requirement for this species to both deposit eggs and as a larval nutrition source. Swamp milkweed (*Asclepias incarnata*) was observed sporadically adjacent to various wet roadside ditches during project field reviews and it is possible that this species may be used by the monarch butterfly. Given the occurrence of swamp milkweed within the project study area, and the monarch's mobility, the potential for occurrence of this species within the project study area is considered **high**. As this species is currently a candidate species and not currently proposed for listing, consultation for this species is not required at this time.

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

The Gulf sturgeon is federal listed as threatened. The Gulf sturgeon is a sub-species of the Atlantic sturgeon that can be found from Lake Pontchartrain and the Pearl River system in Louisiana and Mississippi to the Suwannee River in Florida (NMFS 2022a). An anadromous species, the species hatches in the freshwater of rivers, then head out to sea as juveniles, and return to the rivers of their birth to spawn (lay eggs) when they reach adulthood (NMFS 2022a). The project study area is well outside the species' typical range and designated critical habitat limits (Suwanee River and Florida panhandle tributary streams); however, available information indicates that the species is rarely captured in the vicinity of Tampa Bay and Charlotte Harbor (FWC 2022a). Although some Gulf sturgeon may use East Bay and McKay Bay downstream the study area, given the project's direct connectivity to the Gulf of Mexico, the possibility of the species within or adjacent to the project study area cannot be discounted. The species was not documented within the FNAI Detailed Report and the likelihood of occurrence of this species within the study area is considered **low** given the project's location outside of this species' typical range.

There is a remote potential that individual Gulf sturgeon could utilize portions of Delaney Creek or the unnamed tributary north of Causeway Boulevard within the project study area. This is due to the proximity of the project and tidal connectivity to East Bay and McKay Bay, as well as the lack of obstructive features downstream from the project location. However, both Delaney Creek and the unnamed tributary are more creek-like in nature than significant riverine systems typically associated with and used by the species.

Currently, Delaney Creek flows under US 41 via three culverts and the unnamed system north of the Causeway Boulevard intersection flows under US 41 via concrete pipes. The existing bridge culvert at Delaney Creek is a triple 11-ft wide that is 8 feet tall. The pipes which facilitate the unnamed tributary north of the Causeway Boulevard intersection consist of a double 42-inch reinforced concrete pipe. The proposed alternative would replace the Delaney Creek bridge culvert with four separate bridges. The proposed alternative would replace the pipes at the unnamed tributary with larger pipes. While the Preferred Alternative proposes bridges over Delaney Creek, subaqueous noise impacts to the Gulf sturgeon associated with bridge pile installation are anticipated to be minimal, as there will not be any piles installed within the channel limits. The FDOT will implement the *Southeast Regional Office (SERO) Protected Species Construction Conditions* (2021) and the Gulf sturgeon special provision (SP 00070104-8) (**Appendix G**) during

construction over, in, or adjacent to potential Gulf sturgeon habitat. The nearest designated Gulf sturgeon critical habitat is located approximately 102 miles north northwest near the Lower Suwanee National Wildlife Refuge. Considering these factors, the project **"*may affect, not likely to adversely affect*"** the Gulf sturgeon.

Smalltooth Sawfish (*Pristis pectinata*)

The smalltooth sawfish is federal listed as endangered. Although smalltooth sawfish are found primarily from Charlotte Harbor to the Florida Keys, the species has been documented to occur at various locations along the west coast of Florida, including in the vicinity of Tampa Bay (FMNH 2022). Juvenile smalltooth sawfish habitats differ from adult habitats. Juveniles inhabit coastal areas such as estuaries, river mouths, and bays year-round. They have been recorded from a variety of habitat types including un-vegetated mud and sand bottoms, especially along red mangrove (*Rhizophora mangle*) shorelines. Also, juveniles use creeks and canals that connect to the main stem of rivers as habitat. Potential habitat includes waters under docks, bridges, and piers. Juveniles typically inhabit salinities between 18 and 30 parts per thousand (PPT) (the ocean is 35), sometimes miles up rivers. Adult smalltooth sawfish are typically found in open water habitats but have been encountered near coral reefs and occur inshore during the spring when females give birth and mating is thought to occur (FWC 2022a). The project study area is approximately 64 miles north of designated smalltooth sawfish critical habitat at the mouth of the Charlotte Harbor estuary. Given the project's direct connectivity to the Gulf of Mexico, the possibility of the species within or adjacent to the project study area cannot be discounted. The potential for smalltooth sawfish occurrence within the project study area is considered to be **low**.

Similar to the Gulf sturgeon, there is a remote potential that individual smalltooth sawfish could utilize portions of Delaney Creek or the unnamed riverine system north of Causeway Boulevard within the project study area. As discussed for the sturgeon, the replacement of the existing bridge culvert with bridges is anticipated to result in a minimal potential noise/vibratory impacts to the sawfish as no piles will be installed within the channel limits.

The project will also commit to implementing the NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (2006) and FDOT Supplemental Standard Specification 7-1.4.1 *Additional Requirements for Smalltooth Sawfish* during bridge construction (**Appendix G**) to avoid and minimize adverse impacts to the species. Considering the low potential for occurrence within the project study area and the implementation of these protection measures, the Preferred Alternative

"*may affect, not likely to adversely affect*" the smalltooth sawfish. There will be no impacts to designated critical habitat for the species, as none occurs in the project vicinity.

Giant Manta Ray (*Manta birostris*)

The giant manta ray is federal listed as threatened. While this species is commonly found in near-shore oceanic waters, it can be found in estuarine waters, oceanic inlets, bays, and intercoastal waterways (NMFS 2022a). Given the connectivity of Delaney Creek and the unnamed creek within the project study area to McKay Bay, there is a possibility of occurrence for this species. However, unlike the sturgeon and sawfish, estuarine habitats such as mangroves, do not play an important part in the manta's life history and their occurrence within estuarine habitats is seemingly incidental. Mating typically occurs over coral reefs and pups are born live at approximately 1 meter (3.2 feet) in size and do not require protective habitats (NMFS 2022a). There is no critical habitat designated for the giant manta ray. Additionally, this species was not documented within the FNAI *Standard Data Report.* Considering these factors, the potential for occurrence of this species is considered to be **none**.

While there is potential for occurrence of this species within the project study area, any occurrence would solely be incidental. The project will not impact any suitable habitat for this species. Additionally, given the species' size ("wingspan" up to 29.5 ft, FWC 2022a), any mantas occurring within the project limits would risk stranding themselves given the relative narrowness and shallowness of the two project creeks. Should mantas venture within the project limits they would more sooner be at risk of hypoxemia/anoxia/asphyxiation from stranding than any potential impacts from construction activities as this species must constantly be swimming in order to oxygenate its gills (NMFS 2022a). Considering this and the various protective measures the project will use such as those for the smalltooth sawfish, Gulf sturgeon, sea turtles, and stormwater/turbidity control BMPs as well as that the project will not impact any suitable manta ray habitat, the Preferred Alternative will have "***no effect***" on the giant manta ray.

Eastern Indigo Snake (*Drymarchon corais couperi*)

The eastern indigo snake is federal listed as a threatened species. The species is distributed throughout the southeastern United States but is subject to loss and degradation of habitat and human intervention. The species is found in a variety of habitats including swamps, wet prairies, xeric pinelands, and scrub areas. It may utilize gopher tortoise burrows for shelter during the winter

and to escape the heat during the summer. No gopher tortoise burrows or other refugia suitable for the eastern indigo snake were observed during the field reviews; however, areas of suitable habitat for this species occur adjacent to the project ROW. Although this species was not observed during project field reviews or documented within the project vicinity in the FNAI *Standard Data Report*, the species may occur in the project vicinity based on its range and habitat preferences. However, the potential for occurrence of this species within the project study area is considered to be **low** due to extent of human development and fragmentation of suitable habitat. There is no designated critical habitat for this species. As required by state regulations (FWC 2020), the FDOT will relocate all impacted gopher tortoises prior to construction commencement and inspect all snake refugia each morning prior to planned site manipulation of an area. If any eastern indigo snakes are found, they will be allowed to vacate the area prior to additional site manipulation. The FDOT commits to implementing the USFWS' *Standard Protection Measures for the Eastern Indigo Snake* (2021a) and FDOT Supplemental Specification 7-1.4.1 *Additional Requirements for Eastern Indigo Snake* during construction (**Appendix G**). The USWFS' *Revised Consultation Key for the Eastern Indigo Snake* (2013) states that if a project meets the following parameters, an effect determination of **"*may affect, not likely to adversely affect*"** is the prescribed result per the following key couplets: A>B>C>MANLAA.

Green Sea Turtle (*Chelonia Mydas*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), and Loggerhead Sea Turtle (*Caretta caretta*)

Within Florida, the green sea turtle and loggerhead sea turtle are federal listed as threatened and the Kemp's Ridley sea turtle is federal listed as endangered. These species are known to range throughout the Gulf of Mexico and occur along west Florida beaches. Green, loggerhead and Kemp's Ridley sea turtle typically use Gulf coast beaches and coastal dunes for nesting.

The project study area does not contain any primary beach or coastal dune habitat, so no suitable sea turtle nesting habitat occurs within or adjacent to the project study area. Sea turtles are also unlikely to utilize the riverine systems within the project study area. This is supported by the lack of documented sea turtle strandings in these systems and that the nearest documented stranding is approximately 2-miles west of the project in the mouth of East Bay (FWC 2021b). Although tidal systems within the project area are accessible to sea turtles, sea turtles are not known to utilize riverine or tidal creek systems. The project limits are located approximately 36 miles northeast of the nearest Loggerhead Sea Turtle Critical Habitat along the shoreline of Greer Island Park.

Considering the lack of suitable habitat nesting, and distance from critical habitat, the potential for sea turtle species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is anticipated to have "**no effect**" on the green, Kemp's Ridley and loggerhead sea turtles.

Eastern Black Rail (*Laterallus jamaicensis jamaicensis*)

The eastern black rail is federal listed as threatened. This species nests on or near the ground typically in freshwater marshes and saltwater marshes with limited tidal activity. Marsh habitat does occur within the project study area northeast of the Delaney Creek crossing and 0.01 acre of this habitat will be impacted by the Preferred Alternative. However, the species was also not observed during field reviews or documented within the FNAI *Standard Data Report* (2020), so the potential for species occurrence within the project study area is considered to be **low**. There is no critical habitat designated for this species. If any active avian nests are encountered during construction, construction will be halted and the FDOT will coordinate further actions with the USFWS, as necessary. Therefore, the Preferred Alternative **"*may affect, not likely to adversely affect*"** the eastern black rail.

Florida Grasshopper Sparrow (*Ammodramus savannarum floridanus*)

The Florida grasshopper sparrow is federal listed as endangered. It is a subspecies of grasshopper sparrow that is endemic to the dry prairie region of central and south Florida. The subspecies is extremely habitat specific and relies on fire every two to three years to maintain its habitat. The USFWS estimates that fewer than 75 wild individuals of this species remain, with the current populations inhabiting conservation lands and still decreasing. Due to this severe population decline the USFWS initiated a captive breeding program in 2016. The program led to the first captive-bred Florida grasshopper sparrow chicks in May of that year (USFWS 2016).

Records of this species document it as historically occurring within Collier, Miami-Dade, DeSoto, Glades, Hendry, Highlands, Polk, Okeechobee, and Osceola counties, but the USFWS consultation area includes parts of Hillsborough County, including portions of the project study area. There is no designated critical habitat for this species. Additionally, there are no documented occurrences of the Florida grasshopper sparrow within the project area and the habitat within the project limits does not satisfy the fire-maintained, treeless, dry prairie which is required by this species. Additionally, there were no observations of the Florida grasshopper sparrow during field reviews. Due to these factors

and the current state of the Florida grasshopper sparrow populations, the potential for species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is expected to have **"*no effect*"** on the Florida grasshopper sparrow.

Florida Scrub-Jay (*Aphelocoma coerulescens*)

The Florida scrub-jay is federal listed as threatened. The species is endemic to peninsular Florida from Collier County north to approximately Alachua County. This species inhabits sand pine and xeric oak scrub, and scrubby flatwoods, which are adapted to periodic drought and frequent fires. Three classes of scrub-jay habitat are defined by the USFWS *Species Conservation Guidelines*, (2004):

Type I – any upland plant community in which percent cover of the substrate by scrub oak species is 15 percent or more.

Type II – any plant community, not meeting the definition of Type I habitat, in which one or more scrub oak species is represented.

Type III – any upland or seasonally dry wetland within 400 meters (0.25 miles) of any area designated as Type I or Type II habitat.

No scrub oak species were documented within or adjacent to the project study area; therefore, no suitable scrub-jay habitat occurs within or adjacent to the project study area per USFWS definitions.

There is no critical habitat designated for this species. Additionally, the nearest documented scrub-jay occurrence is approximately 8.3 miles southeast of the southern project terminus near Boyette in Hillsborough County (FWC 1994) and this species was not observed/heard during project field reviews. The species was not documented in the project vicinity within the FNAI *Standard Data Report*. Therefore, the potential for species occurrence within the project study area is considered to be **none** and the Preferred Alternative will have **"*no effect*"** on the Florida scrub-jay.

Piping Plover (*Charadrius melodus*)

The piping plover is federal listed as threatened. This species is found on open, sandy beaches as well as tidal flats and mud flats, and other areas resembling these features such as roof tops, spoil islands, and gravel piles. There is critical habitat for this species located approximately 25 miles southwest of the project near Cabbage Key and 25 miles northwest near Caladesi Island. Based on

the most recent field review, mud flats may temporarily be present within portions of the channels of Delaney Creek and the unnamed tributary during low tide conditions. These conditions may provide intermittent foraging habitat. However, these portions are not anticipated to be impacted by the proposed improvements. Several existing buildings will be removed associated with ROW acquisition and construction for the project. However, based on a review of available aerial photography, none of these buildings appear to have gravel roof tops that could provide nesting habitat. This species was not observed during project field reviews and was also not documented within the FNAI *Standard Data Report*. Considering the lack of suitable nesting habitat within the project study area for this species and the lack of documented occurrences, the potential for species occurrence within the study area is considered **low**. Considering the possible intermittent foraging habitat, the Preferred Alternative "**may affect, not likely to adversely affect**" the piping plover.

Red Knot (*Calidris canutus rufa*)

The red knot is federal listed as threatened. This species breeds and nests in the tundra but migrates as far as the southern tip of South America during the winter. During migrations, red knots can be found in the coastal and inland U.S. At these times, it is found primarily in intertidal marine habitats with large areas of exposed intertidal sediments, especially near estuaries and bays. Optimal non-breeding habitat provides protection from predators, has sufficient exposed feeding grounds with mollusks at the highest tides, and is free from excessive human disturbance. Delaney Creek and the unnamed riverine system north of the Causeway Boulevard are tidally influenced. However, there are no suitable sandy habitats adjacent to these systems that contain mollusks that would provide suitable foraging habitat for this species. Additionally, the project study area is anticipated to be too disturbed by human development for this species to occur within the study area. There is no critical habitat designated for this species. This species was also not observed during project field reviews or documented within the FNAI *Standard Data Report*. Therefore, the potential for species occurrence within the project study area is considered to be **none** and the Preferred Alternative will have **"*no effect*"** on the red knot.

Wood Stork (*Mycteria americana*)

The wood stork is federal listed as threatened. This species is primarily associated with freshwater and estuarine habitats for nesting, roosting, and foraging. Typical foraging sites include freshwater marshes, stock ponds, shallow, seasonally flooded roadside and agricultural ditches, managed

impoundments, and depressions in cypress (*Taxodium* spp.) heads and swamp sloughs. There is no critical habitat designated for this species. Suitable Foraging Habitat (SFH) characterized by water that is relatively calm, uncluttered by dense thickets of aquatic vegetation, and having a water depth between 5 and 15 inches (USFWS 2008). The proposed project occurs within the 15-mile core foraging area radius of five known active wood stork colonies (the Alligator Lake, Ferman Corporation, Lake Forest, Northlakes – Sage Brush, and Sheldon Rd – Citrus Park colonies) (USFWS 2020). During the project field reviews, wood storks were not observed roosting or foraging within the project study area. The species is not documented in the project vicinity but is listed as "likely" within the FNAI *Standard Data Report.* Based on available habitats, the species' potential for occurrence within the project study area is considered to be **high**.

As discussed further in Section 4, the proposed improvements will directly impact 1.78 acres of wetlands and other surface waters. These wetlands and other surface waters provide SFH for wood storks. As wetland impacts will not exceed five acres, a wood stork foraging habitat assessment is not required per the wood stork consultation key.

Unavoidable impacts to wetlands and other surface waters comprising potential wood stork suitable foraging habitat will be mitigated. Compensatory mitigation credits sufficient to offset unavoidable project impacts will be purchased from one or more USFWS-approved mitigation banks with a geographic service area suitable to offset impacts within the core foraging area. The specific conservation banks and exact number of credits to be purchased will be specified in the final permitting document. Considering these factors and based on *The Corps of Engineers, Jacksonville District, U. S. Fish and Wildlife Service, Jacksonville Ecological Services Field Office and State of Florida Effect Determination Key for The Wood Stork In Central And North Peninsular Florida* (USFWS 2008), the project "***may affect, not likely to adversely affect***" the wood stork per the following key couplets: A>B>C>D>E>MANLAA.

West Indian Manatee (*Trichechus manatus latirostris*)

This species is federal listed as threatened. Manatees typically reside in coastal waters and rivers which are connected to warm water refugia such as springs. They also require sheltered coves for feeding, resting, and calving.

Manatees may utilize the portions of Delaney Creek; however, this is unlikely based on the relatively narrow and shallow dimensions of this system (i.e., increased potential for stranding). The

unnamed tributary north of the Causeway Blvd intersection is also considered accessible to manatees, despite its similar narrowness and shallowness, as a 44-inch pipe at the downstream crossing under South 47th Avenue is the only structure between the crossing under US 41 and McKay Bay. A pipe of this size is not small enough to reasonably conclude that it would preclude manatees from traveling upstream; although it may act as a deterrent, particularly for larger individuals. These factors result in a **low** potential of occurrence. The project is not located within an Important Manatee Area, it will not provide new access for watercraft, and it will have no impacts to submerged aquatic vegetation. Additionally, the FDOT will utilize the most current version of the *Standard Manatee Conditions for In-Water Work* (USFWS 2011) and FDOT Supplemental Specification 7-1.4.1 *Additional Requirements for Manatees* during construction during construction over, in, or adjacent to potential manatee habitat. The FDOT will include manatee exclusion grates on culverts and pipes accessible to manatees in accordance with the most current version of the FWC Grates and Other Manatee Exclusion Devices for Culverts and Pipes. Considering all of these factors, the proposed project "***may affect, not likely to adversely affect***" the West Indian manatee in accordance with the *USACE Effect Determination Key for the Manatee in Florida* (2013) based on the following key couplets: A>B>C>G>>N>O>MANLAA.

3.2.3 Critical Habitat

Critical habitat for the West Indian manatee occurs at the Little Manatee River in Hillsborough County. However, this designated habitat is approximately 13.6 miles outside (south) of the project study area (USFWS 2021b). The Gulf sturgeon, smalltooth sawfish, green sea turtle, and loggerhead sea turtle do have designated critical habitat. However, none of the critical habitat for these species occurs within Hillsborough County. No designated critical habitat for any federally-listed species occurs within or immediately adjacent to the project study area. Therefore, the proposed improvements will not result in the destruction or adverse modification of any designated critical habitat.

3.3 State Listed Species

3.3.1 Flora

In addition to the species discussed previously in subsection 3.2.1, five (5) additional state-listed plant species were assessed due to previous documentation of occurrence within Hillsborough

County. No state-listed plant species were observed during project field reviews. Due to a lack of suitable habitat for the species considered, future plant surveys are not anticipated to be necessary.

Giant Orchid/Non-Crested Eulophia (*Pteroglopssaspis ecristata = Eulophia ecristata*)

The giant orchid/non-crested eulophia is state listed as threatened. The species is documented from numerous counties within peninsular Florida, including Hillsborough County (Wunderlin et al. 2021). This species is found in sandhill, scrub, pine flatwoods, pine rocklands, and occasionally in old fields (FNAI 2022). Although not observed during field reviews or documented within the FNAI *Standard Data Report*, the species may occur in the project vicinity based on its range and habitat preferences. Based on the extent and history of local development, the potential for occurrence of this species within the project study area is considered to be **none** and there is "***no effect anticipated***" for the giant orchid/non-crested eulophia from the Preferred Alternative.

Incised Groove-Bur (*Agrimonia incisa*)

The incised groove-bur is state listed as threatened. This species is typically found in sandy, xeric habitats such as sandhill or scrub in open areas exposed to sunlight. Although a historic occurrence of this species was documented within the FNAI *Standard Data Report*, the part of Hillsborough County where the project occurs has been heavily developed since this documentation. Currently, there are no xeric sandhill or scrub habitats within the project study area, so the potential for species occurrence within the project study area is considered to be **none**. Therefore, the Preferred Alternative is expected to have **"*no effect anticipated*"** on the incised groove-bur.

Many-flowered Grass Pink (*Calopogon multiflorus*)

The many-flowered grass pink orchid is state listed as threatened. This species is an annual herb typically found in dry to moist flatwoods with longleaf pine, wiregrass (*Aristida stricta*) and saw palmetto, usually in association with fire-maintained habitats (FNAI 2022). Although known historically to occur throughout Florida, including Hillsborough County, the species is now considered to be rare due to fire suppression and habitat conversion. No flatwood or sandhill habitats occur within and adjacent to the project study area. This species was not observed during project field reviews or documented within the FNAI *Standard Data Report*. The potential for this species occurring within the project study area is considered to be **none** and there is "***no effect anticipated***" for the many-flowered grass pink orchid from the Preferred Alternative.

Nodding/Scrub Pinweed (*Lechea cernua*)

Nodding/scrub pinweed is state listed as threatened. This species is endemic to peninsular Florida, including Hillsborough County (Wunderlin et al. 2021). This species is native to dry sandy areas, sand pine scrub, scrub, dunes, and sandy ridges from central Florida southward (FNAI 2022). No suitable habitats were observed within the project study area. The species was not observed during field reviews or documented within the FNAI Standard Data Report. The potential for occurrence of this species within the project study area is considered to be **none** and there is "***no effect anticipated***" for the nodding/scrub pinweed from the Preferred Alternative.

Sand Butterfly Pea (*Centrosema arenicola*)

The sand butterfly pea is state listed as endangered. This species is endemic to peninsular Florida, including Hillsborough County (Wunderlin et al. 2021). This species is found in sandhill, scrubby flatwoods, dry upland woods (FNAI 2022). No suitable habitats were observed within the project study area. The species was not observed during field reviews or documented within the FNAI *Standard Data Report*. The potential for occurrence of this species within the project study area is considered to be **none** and there is "***no effect anticipated***" for the sand butterfly pea from the Preferred Alternative.

3.3.2 Fauna

The thirteen species discussed in this section are listed by the FWC (2021a) and included within the FWC's 2016 *Imperiled Species Management Plan* (ISMP). Additional species-specific action plans and permitting guidelines are summarized as applicable. The Florida black bear is also provided state-level protections but is not currently listed. The black bear is discussed further in section 3.4.

Florida Pine Snake (*Pituophis melanoleucus mugitus*)

The Florida pine snake currently is state listed as threatened. This species occurs throughout Florida and inhabits areas that feature well-drained sandy soils with a moderate to open canopy. Preferred landscapes have a moderate to mostly open canopy cover of primarily pine trees (*Pinus* spp.) and scrubby oaks (*Quercus* spp.). The species is frequently a commensal species with gopher tortoises. Some upland habitats are present within and adjacent to the project study area; however, vegetation is dense in these areas and no gopher tortoises were observed during project field reviews. These habitats have also been fragmented by the substantial development in the

project study area. This species was not documented in the FNAI *Standard Data Report.* Considering the low-quality habitat, substantial development, lack of observed gopher tortoise burrows, and lack of documented occurrences, the potential for occurrence of this species within the project study area is considered to be **low**.

Although a species-specific incidental take permit is not anticipated at this time, as discussed in the species' action plan (FWC 2013), if a pine snake is encountered during project construction activities, it will be allowed to escape unharmed. Therefore, there is "***no adverse effect anticipated***" for the Florida pine snake from the Preferred Alternative.

Gopher Tortoise (*Gopher polyphemus*)

The gopher tortoise currently is state listed as threatened. This species occurs throughout Florida and requires well-drained and loose sandy soils for burrowing and low-growing herbs and grasses for foraging. The gopher tortoise is found in a wide variety of habitats including scrub, xeric oak hammocks, dry prairies, pine flatwoods, pastures, and lawns.

No gopher tortoise burrows were observed during the project field reviews and this species was not documented in the FNAI *Standard Data Report.* Local upland habitats have been fragmented by the substantial development in the project study area. Considering the low-quality habitat, substantial development, lack of observed gopher tortoise burrows, and lack of documented occurrences, the potential for occurrence of this species within the project study area is considered to be **low**. Current FWC guidelines require a gopher tortoise relocation permit for any ground disturbance activity occurring within 25 feet (ft) of a potentially occupied gopher tortoise burrow (FWC 2020). If this species is encountered during project construction, construction will immediately stop and the FDOT will coordinate with the FWC to obtain the appropriate permit and will take appropriate actions (such as excavation and/or relocation of resident tortoises) to prevent impacts to the gopher tortoise. Considering these factors and the moderate potential of occurrence for this species, there is **"*no adverse effect anticipated*"** for the gopher tortoise.

Short-tailed Snake (*Lampropeltis extenuata*)

The short-tailed snake is state listed as threatened. This species is endemic to Florida but is only found from the Suwannee River south to Highlands County (FWC 2022a). This is a fossorial species which typically spends most of its time buried in sand. It can typically be found in xeric habitats such as scrub or sandhills. Xeric habitats with sandy soils are not present within the project

study area. This species was also not documented in the FNAI *Standard Data Report*. Therefore, the potential for species occurrence within the project study area is considered to be **none** and the proposed Preferred Alternative will have **"*no effect anticipated*"** on the short-tailed snake.

American Oystercatcher (*Haematopus palliates*), Black Skimmer (*Rynchops niger*), and Least Tern (*Sternula antillarum*)

The American oystercatcher, black skimmer, and least tern are state listed as threatened. These species are beach-nesting water birds that use varying habitats including coastal waters, beaches, bays, estuaries, sandbars, and tidal creeks as well as artificial nesting areas such as dredge spoil islands, gravel rooftops, agricultural areas, and construction sites. Several existing buildings will be removed associated with ROW acquisition for the project. However, based on a review of available aerial photography, none of these buildings appear to have gravel roof tops that could provide nesting habitat. While coastal (beach/dune) habitat does not occur within the project study area, Delaney Creek, and the unnamed tributary north of the Causeway Blvd intersection are tidally influenced within the study area. However, there is no sandy habitat adjacent to these systems where these species would forage. These species were also not observed during project field reviews or documented within the FNAI *Standard Data Report*. Therefore, the potential for species occurrence within the project study area is considered to be **none** and there is "**no effect anticipated**" by the Preferred Alternative on the American oystercatcher, black skimmer, and least tern.

Florida Burrowing Owl (*Athene cunicularia floridana*)

The Florida burrowing owl is state listed as threatened. The range of the burrowing owl is throughout the peninsular Florida in patches and localized areas. The species inhabits open prairies in Florida that have very little understory vegetation and good visibility. These areas include golf courses, airports, pastures, agriculture fields, and vacant lots. Several vacant lots exist within the study area, particularly north of Delaney Creek. The species is noted to live in relatively close proximity to development elsewhere within their range (e.g., Cape Coral and Marco Island). However, upland habitats within the study area are low quality habitat for this species due to vegetation density and/or contamination impacts. Additionally, no burrowing owls or owl burrows were observed within or adjacent to the project study area. Due to the poor-quality habitat for this species, lack of documentation within the FNAI *Standard Data Report,* and lack of field observations, the potential occurrence for this species within the project study area is considered to

be **none** and there is "***no effect anticipated***" for the Florida burrowing owl. If burrowing owls or their burrows are encountered during project construction, the FDOT will coordinate further with the FWC as necessary.

Florida Sandhill Crane (*Antigone canadensis pratensis*)

The Florida sandhill crane is state listed as threatened. This species utilizes shallow, non-forested wetlands to build its nest and open areas such as lawns and crop fields for foraging. Foraging habitat is present along sodded areas within the roadway ROW. Although no Florida sandhill cranes were seen/heard and no potential crane nests were observed during the project field reviews, the species has a **high** potential to occur. As discussed further in Section 4, the proposed improvements will result in unavoidable impacts to wetlands and other surface water habitats that may be used by this species for foraging and nesting. However, the upland habitats that may provide foraging habitat and are proposed for impact are not unique or limited in the project vicinity. It is expected that there is "**no adverse effect anticipated**" by the Preferred Alternative on this species, as the project's implementation of wetland impact avoidance and minimization measures, as well as compensatory mitigation to offset unavoidable project impacts are anticipated to reduce impacts to the Florida sandhill crane. If the species is documented nesting within the project area during future project phases, the FDOT will coordinate further with the FWC and follow the *Species Conservation Measures and Permitting Guidelines* as applicable.

Little Blue Heron (*Egretta caerulea*), Reddish Egret (*Egretta rufescens*), Roseate Spoonbill (*Platalea ajaja*), and Tricolored Heron (*Egretta tricolor*)

The little blue heron, reddish egret, roseate spoonbill, and tricolored heron are state listed as threatened. These species utilize shallow herbaceous or shrub-dominated wetlands for both nesting and foraging habitat. Foraging habitat is present within wetlands and other surface waters within the project study area. A review of the FWC's Water Bird Locator database (2022b) does not show any current or former wading bird colonies or rookeries in the project vicinity. One roseate spoonbill was observed in flight south of Delaney Creek during the October 2022 field review (see **Figure 3-1**). Although no potential nests or nesting rookeries were observed during the project field reviews, all these species have a **high** potential to occur given their accepted occurrence throughout Hillsborough County. As discussed further in Section 4, the proposed improvements will result in unavoidable impacts to wetlands and other surface water habitats that may be used by these species for foraging and nesting. Based on the project's implementation of wetland impact

avoidance and minimization measures, as well as compensatory mitigation to offset unavoidable project impacts, it is expected that there is "**no adverse effect anticipated**" from the Preferred Alternative for the little blue heron, reddish egret, roseate spoonbill, and tricolored heron, as If these species are documented nesting within the project during future project phases, the FDOT will coordinate further with the FWC and follow the *Species Conservation Measures and Permitting Guidelines* as applicable.

Southeastern American Kestrel (*Falco sparverius paulus*)

The southeastern American kestrel is state listed as threatened. The foraging habitats this species frequents include woodlands, sandhill, and fire-maintained savannah pine habitats. However, it will also use alternative habitats which include pastures and open fields located in residential areas. The species prefers open patches of grass or bare ground with unobstructed views to detect prey while hunting. Within these habitats, kestrels will nest in cavities excavated by woodpeckers in large dead trees and occasionally wooden utility poles. Nest boxes are also used by kestrels, which have become an important artificial habitat for the kestrel due to the loss of primary nesting habitats. Habitats within the project study area are generally too densely vegetated to provide suitable habitat for this species. Additionally, no potential nesting cavities or individual kestrels were seen/heard during the field review and this species was not documented within the FNAI *Standard Data Report*. Therefore, the potential occurrence for this species within the project study area is considered to be **low** and there is "***no adverse effect anticipated***" for the southeastern American kestrel.

3.4 Other Protected Species

Bald Eagle (*Haliaeetus leucocephalus*)

The bald eagle is no longer listed under the ESA; however, it remains protected under the federal Bald and Golden Eagle Protection Act (16 U.S.C. § 668 et seq.) and the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.). A review of the FWC's Bald Eagle database (FWC 2022c) and the Audubon Society's Eagle Watch Mapper (Audubon Society 2022) showed the nearest historical occurrence of a bald eagle nests to be nests HL 051 and HL 017 approximately 0.96 and 1.14 miles north and southeast of the project, respectively. No bald eagles were seen/heard and no eagle nests were observed within 660 feet of the project study area during the project field review. However, there is a potential for the species to use forested habitats and man-made cellular/radio

towers within and adjacent to the study area for roosting and foraging. The potential for occurrence of this species within the project study area is considered to be **moderate**. If the species is documented nesting within 660 feet of the project footprint during future project phases, the FDOT will coordinate further with the USFWS as applicable. The project is not anticipated to result in adverse impacts to the bald eagle.

Florida Black Bear (*Ursus americanus floridanus*)

The Florida black bear is no longer a state-listed species but is still afforded protection by the Bear Conservation Rule (68A-4.009, F.A.C.). Black bears prefer habitats with a dense understory such as forested wetlands and uplands, natural pinelands, hammocks, scrub, and shrub lands, but will use just about every habitat type in Florida, including swamps. The project occurs within the "occasional" range of the FWC's South Central Bear Management Unit (FWC 2021e). Black bear road mortality and nuisance occurrence data (FWC 2021c & 2021d) were reviewed to assess the level of occurrence within the project limits. No road kills were documented within the project limits and only one nuisance report occurs within the project study area which was documented in 2014. No bears or bear tracks were observed during field reviews. Even though there is a prior nuisance report in the project vicinity, the presence of bears locally is an extremely atypical occurrence within this heavily urbanized area and the potential for occurrence of this species within the project study area is considered to be **low**. Given the lack of documented occurrences of this species, no further considerations are required at this time. The project is not anticipated to result in adverse impacts to the black bear.

4 WETLANDS AND OTHER SURFACE WATERS

The locations, limits, types, nature, and functions of all surface waters, including wetlands within the project limits were assessed as part of compliance with Presidential Executive Order (EO) 11990, "Protection of Wetlands" and USDOT Order 5660.1A, *Preservation of the Nation's Wetlands*. These federal policies require avoidance of long and short-term impacts and avoidance of direct and indirect support of new construction in wetlands to the fullest extent practicable. The analysis of protected species occurring within the project area is consistent with *Wetlands and Other Surface Waters* Section of the FDOT's PD&E Manual.

4.1 Methodology

Wetland and other surface water boundaries were approximated in both desktop and field evaluations in conformance with the federal and state criteria promulgated in the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987), the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region: Version 2* (USACE 2010), the *Florida Wetlands Delineation Manual* (Gilbert et. al 1995) and Rule 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters. Background research conducted to identify the wetland communities occurring within the study area included review of the USFWS National Wetland Inventory (NWI) (2021c), Land Use and Cover data from the SWFWMD (2017), Soil Survey Geographic (SSURGO) Database for Florida (NRCS 2020, 2021), and aerial photography interpretation (ESRI 2022 & Google Earth 2020). Data verification was conducted during field reconnaissance surveys.

The approximate boundaries of all wetland and other surface water features occurring within the study area were mapped, assigned an identification number, and categorized in accordance with the USFWS NWI GIS data (2021c) and the FLUCFCS designation (SWFWMD 2017). Dominant vegetative strata, plant species (Tobe et. al 1998), hydrologic indicators, and soil characteristics were assessed and documented.

Wetlands and other surface water features were designated based upon their status, hydrology, and soils. Vegetated wetland systems (i.e., mangrove swamps, saltwater marshes, etc.) were designated as wetlands (WL) and occur throughout the entirety of the study area, particularly adjacent to Delaney Creek and the unnamed tributary. Ditches which are relatively permanent waters, were excavated in hydric soils, and/or contain hydrophytic vegetation were designated as

other surface waters (OSW). Open water, unvegetated systems within the study area which are hydrologically isolated were identified as ponds (P). Delaney Creek within the project study area is identified as DC. Maps depicting wetlands and other surface water features occurring within the study area are provided in **Appendix H** and site photos are available in **Appendix D**.

4.2 Existing Surface Waters

The existing conditions of all surface waters (including wetlands) within the study area were assessed using GIS data resources and field verification. One-hundred thirty-eight (138) polygons were mapped within the project study area. These systems occur within the Hillsborough and Tampa Bay HUC12 watersheds. These systems are further described in the following text and **Table 4-1** which includes the acreage of the systems occurring within the study area, which basin each system occurs in, each system's FLUCFCS Description (FDOT 1999), as well as the NWI classification (Cowardin et al 1979). It is anticipated that all identified systems will be jurisdictional to state and federal permitting entities given the proximity and hydrologic connections of all systems with Delaney Creek and the unnamed tributary. Delaney Creek is a USACE 404 retained waterway.

Table 4-1: Wetlands and Other Surface Waters within Study Area

Polygon Number	FLUCFCS Classification	FLUCFCS Description	NWI Classification	Acres Within the Study Area	Acres within the 1994 EA/FONSI Footprint	Δ between Current Study Area and Original Concept (acres)
Other Surface Waters						
OSW-1	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-2	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-3	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-4	5100	Streams and Waterways	R2Emx	0.02	0.01	+0.01
OSW-5	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-6	5100	Streams and Waterways	R2Emx	0.002	0	+0.002
OSW-7	5100	Streams and Waterways	PSS3x	0.02	0	+0.02
OSW-8	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-9	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-10	5100	Streams and Waterways	PSS3x	0.01	0	+0.01
OSW-11	5100	Streams and Waterways	PSS3x	0.02	0	+0.02
OSW-12	5100	Streams and Waterways	R2Emx	0.002	0	+0.002
OSW-13	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-14	5100	Streams and Waterways	R2Emx	0.01	0.01	0
OSW-15	5100	Streams and Waterways	R2Emx	0.01	0.01	0
OSW-25*	5100	Streams and Waterways	R2Emx	0.02	0.01	+0.01

Polygon Number	FLUCFCS Classification	FLUCFCS Description	NWI Classification	Acres Within the Study Area	Acres within the 1994 EA/FONSI Footprint	Δ between Current Study Area and Original Concept (acres)
OSW-26	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-27	5100	Streams and Waterways	R2Emx	0.01	0	+0.04
OSW-28	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-29	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-30	5100	Streams and Waterways	R2Emx	0.03	0	+0.03
OSW-31	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-32	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-33	5100	Streams and Waterways	PSS3x	0.02	0	+0.02
OSW-34	5100	Streams and Waterways	PSS3x	0.03	0	+0.03
OSW-35	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-36	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-37	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-38	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-39	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-40	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-41	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-42	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-43	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-44	5100	Streams and Waterways	R2Emx	0.01	0.01	0
OSW-45	5100	Streams and Waterways	R2Emx	0.01	0.01	0
OSW-46	5100	Streams and Waterways	PSS3x	0.01	0	+0.01
OSW-47	5100	Streams and Waterways	PSS3x	0.01	0	+0.01
OSW-48	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-49	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-62	5100	Streams and Waterways	PFO3x	0.07	0	+0.07
OSW-63	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-64	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-65	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-66	5100	Streams and Waterways	R2Emx	0.002	0	+0.002
OSW-67	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-68	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-69	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-70	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-71	5100	Streams and Waterways	PSS3x	0.02	0	+0.02
OSW-72	5100	Streams and Waterways	PSS3x	0.03	0	+0.03
OSW-73	5100	Streams and Waterways	PSS3x	0.01	0	+0.01
OSW-74	5100	Streams and Waterways	PSS3x	0.01	0	+0.01
OSW-75	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-76	5100	Streams and Waterways	PSS3x	0.02	0	+0.02
OSW-77	5100	Streams and Waterways	PSS3x	0.09	0	+0.09
OSW-78	5100	Streams and Waterways	PSS3x	0.07	0	+0.07
OSW-79	5100	Streams and Waterways	PSS3x	0.12	0.01	+0.11

Polygon Number	FLUCFCS Classification	FLUCFCS Description	NWI Classification	Acres Within the Study Area	Acres within the 1994 EA/FONSI Footprint	Δ between Current Study Area and Original Concept (acres)
OSW-80	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-81	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-82	5100	Streams and Waterways	R2Emx	0.002	0	+0.002
OSW-83	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-84	5100	Streams and Waterways	R2Emx	0.004	0	+0.004
OSW-85	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-86	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-87	5100	Streams and Waterways	R2Emx	0.002	0	+0.02
OSW-88	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-89	5100	Streams and Waterways	R2Emx	0.001	0	+0.001
OSW-90	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-91	5100	Streams and Waterways	R2Emx	0.05	0.01	+0.04
OSW-92	5100	Streams and Waterways	R2Emx	0.03	0	+0.02
OSW-93	5100	Streams and Waterways	PSS3x	0.11	0	+0.11
OSW-94	5100	Streams and Waterways	R2Emx	0.02	0	+0.02
OSW-95	5100	Streams and Waterways	R2Emx	0.06	0	+0.06
OSW-96	5100	Streams and Waterways	R2Emx	0.003	0	+0.003
OSW-97	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-98	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-99	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-100	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-101	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-102	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-103	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-104	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-105	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-106	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-107	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-108	5100	Streams and Waterways	R2Emx	0.01	0	+0.01
OSW-109	5100	Streams and Waterways	R2Emx	0.04	0	+0.04
OSW-110	5100	Streams and Waterways	R2Emx	0.22	0	+0.22
DC-1	5100	Streams and Waterways	E2SB	0.55	0	+0.55
DC-2	5100	Streams and Waterways	E2SB	1.43	0	+1.43
P-1	5300	Reservoirs	L2UB4x	0.98	0.24	+0.74
P-2	5300	Reservoirs	L2UB4x	0.79	0.26	+0.53
P-3	5300	Reservoirs	L2UB4x	0.79	0	+0.79
Other Surface Waters Total				6.25	0.58	+5.67
Wetlands						
WL-3*	6120	Mangrove Swamps	E2FO3	0.20	0.04	+0.16
WL-4	6120	Mangrove Swamps	E2FO3	0.05	0.03	+0.02
WL-5	6120	Mangrove Swamps	E2FO3	0.03	0	+0.03
WL-6	6120	Mangrove Swamps	E2FO3	0.03	0	+0.03

Polygon Number	FLUCFCS Classification	FLUCFCS Description	NWI Classification	Acres Within the Study Area	Acres within the 1994 EA/FONSI Footprint	Δ between Current Study Area and Original Concept (acres)
WL-7	6120	Mangrove Swamps	E2FO3	1.36	0	+1.36
WL-8	6410	Saltwater Marshes	E2SS	0.01	0	+0.01
WL-9	6120	Mangrove Swamps	E2FO3	0.001	0	+0.001
WL-10	6120	Mangrove Swamps	E2FO3	0.16	0	+0.16
WL-11	6170	Mixed Wetland Hardwoods	E2FO3	0.07	0	+0.07
WL-12	6120	Mangrove Swamps	E2FO3	0.02	0	+0.02
WL-13	6170	Mixed Wetland Hardwoods	E2FO3	0.64	0	+0.64
Wetlands Total				2.57	0.07	+2.50

* WL-1 and WL-2 and OSW-16 through OSW-24, OSW-50 through OSW-61 were identified due to proximity to previously assessed alternatives and do not occur within the project study area. Therefore, they are not identified within this document.

Streams and Waterways (FLUCFCS 510)

Streams and Waterways within the study area consist of Delaney Creek (identified as DC-1 and DC-2) and 109 roadway ditches (identified as OSW-1 to OSW-109) within roadway ROW and on private properties.

Within the study area, DC-1 occurs from west of US 41 to south of Raleigh St and DC-2 occurs from east of US 41 to north of Trenton St. Within the project limits, DC-1 and DC-2 are tidal creek channels that have been re-shaped and re-aligned during the course of the urbanization of the adjacent area. These systems contain vegetation such as red, white, and black mangrove, Brazilian pepper, and cattails. DC-1 and DC-2 occur over Myakka soil series.

SW-1 to SW-109 are roadside ditches which typically contain weedy/ruderal species such as dollarweed, maidencane (*Panicum hemitomon*), alligator weed (*Alternanthera philoxeroides*), Brazilian pepper, and water hyssops (*Bacopa monnieri*). These roadside ditches occur over Myakka and Pinellas soils series. SW-110 is also a drainage ditch on private property located between 36th Ave and Saint Paul St. This ditch appears to have been excavated in late 2022 after the property was sold and the new owner replaced the former paintball field with a parking lot. SW-110 is fairly unvegetated but does contain intermittent cattails and Peruvian water primrose.

Reservoirs (FLUCFCS 530)

P-1, P-2 and P-3 are excavated stormwater management features (wet ponds) within the study area. These systems are fenced and periodically maintained along the banks where they feature

bahia grass, and typically contain shrub vegetation such as Peruvian water primrose, dollarweed, and cattail within the pond bottom. The soil map units within these systems consist exclusively of Pinellas soil series.

Mangrove Swamps (FLUCFCS 612)

WL-3, WL-4, WL-6, WL-7, WL-9, WL-10, and WL-12 are the mangrove swamps within the study area. All the mangrove swamps are hydrologically contiguous with the tidal portion of Delaney Creek and the unnamed tributary north of Causeway Blvd. These systems are all dominated by red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), and/or white mangrove (*Laguncularia racemosa*). These systems also contain giant leather fern, saltbush (*Atriplex pentandra*), and Brazilian pepper. Many of the mangroves and Fakahatchee grass present at Wetland 6 appeared to have been planted as a mitigation site, however, no mitigation permits were found for this area in SWFWMD's online permit mapper. The soil map units within these systems consist of Myakka and Pinellas soils series.

Mixed Wetland Hardwoods (FLUCFCS 617)

WL-11 and WL-13 are the only two mixed wetland hardwoods within the study area. WL-11 occurs along the southern banks of Delaney Creek approximately 1,000 feet east of US 41. WL-13 occurs approximately 350 feet east of US 41 on private property adjacent to OSW-110. These systems are typically dominated by water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), Brazilian pepper, red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). These systems occur over Myakka soils series.

Saltwater Marshes (FLUCFCS 642)

WL-8 is the only saltwater marsh within the study area. It is an emergent-dominated system hydrologically contiguous with Delaney Creek. This system contains species such as soft-stem bullrush (*Scirpus validus*), curly dock (*Rumex crispus*), soft rush (*Juncus effusus*), white mangrove, and saltbush. This system occurs over the Myakka soils series.

4.3 Impact Avoidance and Minimization

Pursuant to Executive Order 11990, *Protection of Wetlands*, federal actions should avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or

modification of wetlands and avoid direct or indirect support of construction in wetlands wherever there is a practicable alternative. Unavoidable wetland impacts resulting from construction of the project will occur from the selected alternative given the presence of Delaney Creek and the unnamed tributary and their associated wetlands within the project limits. Transportation safety standards for side slopes, lane widths, horizontal zones/clear zones, waterway clearance, structures, driver sight distance, and stormwater management facility design necessitate these impacts. Impacts to wetlands are unavoidable for the Preferred Alternative due to the presence of wetlands within the existing ROW. Wetland impacts were minimized and avoided to the greatest extent practicable considering the necessary safety standards. The Preferred Alternative maximizes the use of the existing roadway footprint and ROW. The project footprint has been reduced to the greatest extent practicable within wetlands so that all impacts will only occur where the project crosses Delaney Creek and the unnamed tributary and for stormwater pond outfalls. The project design also utilizes retaining/mechanically stabilized earth (MSE) in areas adjacent to wetlands and other surface waters which further reduced the project's impacts to those systems.

4.4 Wetland Impact Analysis

The project will directly impact approximately 0.077 acre (0.063 acre from roadway improvements and 0.014 acre from the preferred pond sites) of wetlands and result in approximately 0.09 acre of secondary wetland impacts (0.08 acre from roadway improvements and 0.01 acre from preferred pond sites). Direct and secondary impacts from the project total approximately 0.167 acre of wetland impacts. Direct impacts were calculated from impacts resulting directly from the project footprint and secondary impacts were calculated using a 25-ft buffer from the primary impacts. All project impacts are within the Tampa Bay Basin.

Approximately 1.55 acres of impacts (0.99 acre from roadway improvements and 0.56 acre from the preferred pond sites) to other surface waters (including Delaney Creek and the unnamed creek) are anticipated from the construction of the project. All impacts to these systems occur within the Tampa Bay Basin. Only the impacts to Delaney Creek (totaling approximately 0.044 acre from the roadway alternative) and OSW-93 (0.08 acre from a proposed pond outfall) occur over historic hydric soils. Aside from a minor impact to the newly excavated OSW-110 (0.001-acre impact), all impacts to wetlands and other surface waters which would result from construction of the preferred pond sites, will come from the required outfalls for the ponds.

Impacts to project wetlands were assessed using the Uniform Mitigation Assessment Method (UMAM). The UMAM (Chapter 62-345 F.A.C.) was developed by the State of Florida to assess the ecological functions provided by wetlands and the amount of mitigation necessary to offset the loss of functions by a proposed project. UMAM was subsequently adopted by the USACE. The UMAM analysis is based on assessing an area on three criteria: location and landscape support, water environment, and community structure. These criteria are scored with the whole increment values between "10" (indicating the highest quality system) and "0" (indicating no present value). The three criteria are summed and divided by 30 to yield a score for the assessment area between "0" and "1". The difference between the "with project" and "current" condition is calculated to result in the "Delta". The UMAM delta is multiplied by the area of wetland impact to quantify the loss of wetland functions (functional loss).

UMAM was used to analyze the quality of the wetlands which will be impacted by the project. Each individual wetland within the project corridor was evaluated using UMAM and the assessment area was calculated based on the proposed improvements. The wetlands within the project corridor were grouped together based on wetland type, function, overall characteristics, and watershed.

UMAM data sheets were compiled for each wetland type and are provided in **Appendix I**. The functional loss for the wetlands within the project footprint was calculated and a summary table of the functional loss by habitat is included in **Table 4-2**. The impact acreage of other surface waters (FLUCFCS 510 and FLUCFCS 530) is provided; however, functional loss was not calculated for these as mitigation is not required for these systems (excluding OSW-93). OSW-93 was also assessed using UMAM, since it contains hydrophytic vegetation and occurs over historic hydric soils. However, secondary impacts for OSW-93 were not calculated as it is not a naturally occurring wetland system, but rather a manmade, excavated drainage feature, which fulfills some wetland functions. Delaney Creek is a retained water by the USACE, so Clean Water Act Section 404 wetland dredge and fill permitting is anticipated to be completed through the USACE, rather than the FDEP. Given the proximity of all impacted wetlands to Delaney Creek, it is anticipated that all impacted wetlands are Section 404 jurisdictional with the USACE.

Direct wetland impacts from the project (0.077 acre) will result in an estimated functional loss of 0.06 unit. These impacts include 0.063 acre of impacts from the roadway improvements resulting in a functional loss of 0.05 unit and 0.014 acre of impacts from the project stormwater ponds which would result in a functional loss of 0.01 unit. The secondary wetland impacts associated with the

project (0.09 acre) will result in an estimated functional loss of 0.011 unit. These impacts include 0.08 acre of impacts from the roadway improvements resulting in a functional loss of 0.01 unit and 0.01 acre of impacts from the project stormwater ponds which would result in a functional loss of 0.001 unit.

Total direct and secondary wetland impacts from the project roadway improvements (0.143 acre) are estimated to have a total functional loss of 0.06 unit. Total direct and secondary wetland impacts from the project stormwater ponds (0.024 acre) are estimated to have a total functional loss of 0.02 unit. Combined, the project will impact 0.167 acre of wetland (direct and secondary impacts for the roadway improvements and stormwater ponds) and result in an estimated functional loss of 0.08 unit.

Table 4-2: Project Wetland and Other Surface Water Impacts and UMAM Analysis Summary

Project Feature	Impacted Systems	FLUCFCS Classification	Herbaceous/Forested Systems	Direct Impact Area Total (Acres)	Secondary Impact Area Total (Acres)	Total Impact Area (Acres)	Delta (Direct/Secondary)	Direct Functional Loss	Secondary Functional Loss	Total Functional Loss
Roadway Improvements	DC-1 & DC-2	5100: Streams and Waterways	N/A	0.044	N/A	0.044	N/A	N/A	N/A	N/A
	OSW-4, OSW-8, OSW-45, OSW-70, OSW-73, OSW-74, OSW-75, OSW-76, OSW-77, OSW-78, OSW-79, OSW-82, OSW-91, OSW-92, OSW-94, OSW-95, OSW-96, & OSW-98	5100: Streams and Waterways	N/A	0.476	N/A	0.476	N/A	N/A	N/A	N/A
	P-1, P-2, & P-3	5300: Reservoirs	N/A	0.47	N/A	0.47	N/A	N/A	N/A	N/A
	Other Surface Waters Total	N/A	N/A	0.99	N/A	0.99	N/A	N/A	N/A	N/A
	WL-3, WL-4, WL-6, WL-7, & WL-9	6120: Mangrove Swamps	Forested	0.05	0.08	0.13	-0.70/-0.067	0.04	0.01	0.05
	WL-8	6420: Saltwater Marshes	Herbaceous	0.013	N/A	0.013	-0.50	0.001	N/A	0.01
	Wetlands Total	N/A	N/A	0.063	0.08	0.143	N/A	0.05	0.01	0.06
Stormwater Ponds	OSW-110	5100: Streams and Waterways	N/A	0.001	N/A	0.001	N/A	N/A	N/A	N/A
	P-1 & P-2	5300: Reservoirs	N/A	0.56	N/A	0.56	N/A	N/A	N/A	N/A
	Other Surface Waters Total	N/A	N/A	0.56	N/A	0.56	N/A	N/A	N/A	N/A
	WL-12	6120: Mangrove Swamps	Forested	0.014	0.01	0.024	-0.70/-0.067	0.01	0.001	0.02*
	Wetlands Total	6120: Mangrove Swamps	Forested	0.014	0.01	0.024	N/A	0.01	0.001	0.02
Project Total	**Other Surface Waters**	**N/A**	**N/A**	**1.55**	**N/A**	**1.55**	**N/A**	**N/A**	**N/A**	**N/A**
	Wetlands	**N/A**	**N/A**	**0.077**	**0.09**	**0.167**	**N/A**	**0.06**	**0.011**	**0.08**

***Rounded up from 0.011 per previous direction from SWFWMD**

4.5 Conceptual Mitigation Plan

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S. and 33 U.S.C. §1344. In 2008 the USACE and the U.S. Environmental Protection Agency (USEPA) issued regulations governing compensatory mitigation for activities authorized by the Department of the Army (Federal Register 2008). These regulations, as promulgated in 33 CFR Part 332, establish a hierarchy for determining the type and location of compensatory mitigation. Briefly summarized, the rule establishes a preference for the use of mitigation bank credits if a mitigation bank has the appropriate number of and resource type of credits available. If the permitted impacts are not in the service area of an approved mitigation bank or in-lieu fee program cannot be used to provide the required compensatory mitigation, the rule establishes a preference for permittee responsible mitigation under a watershed approach.

Total wetland impacts from the project are 0.373 acre (direct, secondary, and OSW-93) and would result in an estimated functional loss of 0.18 unit. Of these impacts, it is estimated that there will be a functional loss of 0.12 unit to estuarine forested systems, 0.01 unit will be to estuarine herbaceous systems, and 0.05 unit will be to a freshwater herbaceous system. All of these impacts will occur within the Tampa Bay basin.

The project anticipates using commercially available mitigation credits from agency-approved banks with an appropriate geographic service area to provide compensatory mitigation sufficient to offset unavoidable project impacts to wetlands and wetland-dependent species habitat. The mitigation banks within the Tampa Bay Basin include the Mangrove Point Mitigation Bank (MB), the Nature Coast MB, and the Tampa Bay MB. **Table 4-3** below details the types and amounts of credits available at these banks. These values are based on review of the USACE Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) conducted on November 9, 2022. Although credit availability among these banks will likely change in the time between this PD&E study's conclusion and the project's future environmental permitting efforts, sufficient mitigation credits are available to offset the impacts from the proposed improvements. With compensatory mitigation completed within the same watershed where the impacts are incurred, the project will not result in cumulative impacts.

Table 4-3: Compensatory Wetland Mitigation Options

Bank Name	Credit Classification	Assessment Method	Basin	Available Credits
Mangrove Point MB	Estuarine Intertidal Emergent and Estuarine Intertidal Forested	UMAM	Tampa Bay	0.97 emergent 4.22 forested
Nature Coast MB	Palustrine Forested, Palustrine Emergent Estuarine Intertidal Emergent, and Estuarine Intertidal Forested	UMAM	Tampa Bay	2.66 forested (palustrine) 0.33 emergent (palustrine) 1.57 emergent (estuarine) 8.15 forested (estuarine)
Tampa Bay MB	Estuarine Intertidal Emergent, Estuarine Intertidal Forested, Palustrine Emergent, and Palustrine Open Water	E-WRAP WRAP	Tampa Bay	21.63 emergent (estuarine) 0.20 forested (estuarine) 6.88 emergent (palustrine) 2.94 open water (palustrine)

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. The exact number of mitigation credits required to fully offset the lost value of functions resulting from the project's wetland impacts will be determined during the design phase and in coordination with the state and federal environmental permitting agencies.

4.6 Significant Waters and Protection Areas

Significant Waters and Protection Areas include Aquatic Preserves, Outstanding Florida Waters (OFW), Wild and Scenic Rivers, and Class I and Class II waters. There are no designated significant waters or protection areas within or adjacent to the project study area.

5 ESSENTIAL FISH HABITAT ASSESSMENT

Essential fish habitat (EFH) and habitat areas of particular concern (HAPC) are designated by the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) and the regional fishery management councils for species managed under the Magnuson-Stevens Fishery Conservation and Management Act as amended (MSFCMA). The MSFCMA established eight Fishery Management Councils (FMC) across the country that are tasked with creating and amending Fishery Management Plans (FMP). The Southeast Region Habitat Conservation Division, Gulf of Mexico Fishery Management Council (GMFMC) GIS data inventories for the Gulf of Mexico EFH and HAPC were evaluated to determine the presence or absence of these resources within the project limits (NMFS 2022b). An EFH assessment was conducted in accordance with the *Essential Fish Habitat* Chapter of the PD&E manual.

Within the study area, EFH occurs at Delany Creek, the unnamed creek, and wetlands which are hydrologically contiguous with these waters. The Southeast Region Habitat Conservation Division, Gulf of Mexico Fishery Management Council (GMFMC) GIS data inventories for the Gulf of Mexico EFH and HAPC were evaluated to determine the presence or absence of these resources within the project limits (NMFS 2022b). The project contains identified EFH for paneid shrimp, red drum, reef fish, coastal migratory pelagics and highly migratory shark species.

5.1 EFH Types and Anticipated Impacts

The study area includes EFH that may support federal managed species as identified by NMFS during the ETDM Screening. The following provides a brief description of each federal managed species identified by NMFS as potentially supported by EFH in the study area.

Impacts to EFH will be offset either by the purchase of mitigation credits from a mitigation bank or by the creation of an FDOT mitigation site.

Field reviews confirmed the presence of mangroves, saltwater marsh, estuarine water column, and sand-shell substrates within the survey area. The EFH types within the study area and anticipated project impacts to these are discussed below and the impacts to the discussed systems are included in the wetland and other surface water maps provided in **Appendix H**.

Estuarine Shrub/Scrub (mangroves/saltwater marsh)

Mangroves and saltwater marsh are important as foraging, refuge and nursery habitat for numerous species. Within the project study area, there are eight wetlands dominated by mangroves and one which is a saltwater marsh containing soft rush and soft-stem bullrush. As previously discussed, the mangrove systems contain red, black, and white mangroves. Both the mangrove and saltwater marsh systems can be classified as estuarine shrub/scrub EFH. The project will directly impact 0.077 acre of estuarine shrub/scrub EFH, primarily from fill and clearing activities. It is anticipated that these impacts will be offset by purchase of commercially available mitigation credits. Considering these limited impacts and the compensatory mitigation to be provided, it is determined that the project will have "**minimal**" potential adverse effects on estuarine shrub/scrub EFH.

Estuarine Water Column

Estuarine water column occurs at Delaney Creek which is hydrologically contiguous with McKay Bay and at the unnamed tributary. Visibility within these systems was noted as fairly low (less than 1 foot) during project field reviews. Estuarine water column provides habitat for spawning, breeding, foraging, and supports life stages for a for a variety of important commercial and recreational fisheries and their prey species. In a water column, species may segregate by salinity, water temperature, and/or dissolved oxygen. While the project will not result in any new crossings of estuarine water column, there will be incidental impacts to the estuarine water column associated primarily from shading; although, the stormwater pond outfalls will result in fill within Delaney Creek. The impacts to Delaney Creek from the roadway (shading) impacts are 0.044 acre and the impacts to the unnamed tributary from the roadway (shading) are 0.01 acre. These impacts (totaling 0.054 acre) are anticipated to be negligible given the low visibility of the system and the extent of estuarine waters of the greater Tampa Bay region. These impacts will be minimized to the greatest extent practicable through the use of standard industry practices such as floating or staked turbidity barrier. Additionally, there will be no pile-driving activities conducted within estuarine water column, or any other EFH. Considering these factors, the project will have "**minimal**" potential adverse effects on estuarine water column.

Sand-Shell Substrates

Substrates located under the Delaney Creek and unnamed tributary water columns provide burrowing, resting and foraging habitat for numerous species. The NRCS (2020) maps the soils within Delaney Creek as Myakka Fine Sand and as Myakka Fine Sand and Pinellas Fine Sand within the unnamed tributary. The soil substrates within the waterway channels are predominantly

fine sand and muck. Although four bridges will be constructed over Delaney Creek, there will be no impacts to substrates from bridge construction, as all piles will be installed outside the limits of the channel. However, substrate impacts will result from the construction of stormwater pond outfalls and from the culvert at the unnamed tributary. Additionally, shading impacts will result from the bridges themselves. However, shading is anticipated to have insignificant impacts on the substrate of these crossings due to the low visibility of the system at the crossing. This EFH type is neither unique to, nor limited within the general project vicinity. Considering that impacts to the substrates within Delaney Creek and the unnamed tributary will be limited to outfall/culvert fill and shading, it is determined that the project will have "**minimal**" potential adverse effects on sand-shell substrate EFH.

5.2 Habitat Areas of Particular Concern

The project study area is not located within or adjacent to any designated HAPC, according to the 1998 FMP (GMFMC 1998, NMFS 2022b).

5.3 Federal Managed Species

The study area includes EFH that may support federal managed species based on available data. Based on review of the NMFS EFH Mapper (2022b), the estuarine shrub/scrub and estuarine water column/substrates EFH within the project action area which may be impacted by construction of the Preferred Alternative and associated features may provide suitable habitat for the species presented below. Of the managed fisheries species identified, various species use nearshore habitats at only certain life stages (typically at either early development or adult stages). It should be noted that no individuals of any of the identified species were observed or documented within the project study area.

- Paneid Shrimp (4 species)
- Red Drum
- Reef Fish
    - Grouper (18 species)
    - Jack (4 species)
    - Snappers (14 species)
    - Tilefish (5 species)
    - Triggerfish (gray triggerfish)

    - Wrasse (hogfish)
- Coastal Migratory Pelagic Species
    - King Mackerel
    - Spanish Mackerel
    - Cobia
- Highly Migratory Species (Sharks)
    - Atlantic Sharpnose Shark
    - Blacktip Shark
    - Bonnethead Shark
    - Bull Shark
    - Lemon Shark

5.4 Summary of EFH Impacts and Conceptual Mitigation Plan

Project-related activities may have direct (e.g., physical disruption) or indirect (e.g., loss of prey species) effects on EFH and may be site-specific or habitat-wide. The project will result in direct impacts to estuarine shrub/scrub, estuarine water column, and sand-shell substrates. These direct impacts will total 0.19 acre. It is intended that the offset of EFH impacts can be accomplished in conjunction with the completion of compensatory mitigation for the project's unavoidable wetland impacts. These EFH impacts occur within the service areas of Mangrove Point MB, the Nature Coast MB, and the Tampa Bay MB. Credit availability from all mitigation banks which service the project area will be reassessed during the permitting phase of the project. The exact number of mitigation credits required to fully offset the lost value of functions resulting from the project's EFH impacts will be determined during the design phase and in future coordination with the NMFS. The negligible/incidental impacts to the estuarine water column will be minimized through the adherence to agency-issued permits and the implementation of industry-standard stormwater/turbidity control Best Management Practices (BMPs).

6 ANTICIPATED PERMITS, COORDINATION, AND AUTHORIZATIONS

Environmental permits, coordination, and authorizations from the following agencies will likely be required for construction of this project:

Anticipated Permits/Authorizations

- SWFWMD – Individual Environmental Resource Permit (ERP)
- USACE – Section 404 Standard Individual Permit
- FDEP – National Pollutant Discharge Elimination System (NPDES) Permit (to be obtained by contractor)
- Tampa Port Authority – Sovereign Submerged Land easement(s)

Anticipated Coordination

- USFWS – ESA Section 7 consultation for federally-listed plant and animal species (excluding the smalltooth sawfish, giant manta ray, and swimming sea turtle species), coordination for bald eagle and other migratory bird species.
- NMFS – ESA Section 7 consultation for the smalltooth sawfish, giant manta ray, and sea turtle species, consultation for impacts to EFH
- FWC – Coordination for state-listed animal species and the black bear.
- FDACS – Coordination for state-listed plant species.

Prior resource agency coordination for the 1994 EA/FONSI design relative to the current project segment is provided in **Appendix J**. Key points of this coordination were as follows:

- USCG – The tributaries canals of Delaney Creek are not considered navigable waters of the US for bridge permitting purposes. (Exhibit 1)
- Department of Environmental Regulation (now FDEP) – Permits will be required prior to construction commencement. Project impacts to marine, wetland, and protected species habitats should be eliminated and reduced to the extent possible. (Exhibits 3, 4 & 12)
- State Clearinghouse – The project is preliminarily consistent with the Florida Coastal Management Program. (Exhibit 3)
- USFWS – The proposed project is not likely to adversely affect the West Indian manatee or other federally-listed threatened or endangered species but will be reviewed pending receipt of additional species information and USACE permit applications. (Exhibit 9)

- Florida Game and Fresh Water Fish Commission (now FWC) – Addressed potential project involvement with endangered, threatened and special concern species, expressed a preference for wetland enhancement as mitigation and recommended the evaluation of wildlife undercrossing features at the Delaney Creek crossings. (Exhibits 10 & 11)

Various agency coordination has been conducted in support of the current PM# 440749-1 project. A letter dated March 12, 2021 (see **Appendix K**) from the FDEP confirmed that Delaney Creek and the unnamed tributary north of the US 41/Causeway intersection are not sovereign submerged lands within the project study area. This authority has been delegated to the Tampa Port Authority and further coordination will occur as part of the project's Design and permitting phase. Additionally, several pre-application meetings have been held with SWFWMD most recently on December 1, 2022. Pre-application meetings with SWFWMD were also held on March 12, 2020, and November 18, 2021. The meeting minutes from these meetings are also included in **Appendix K**.

7 CONCLUSION

7.1 Protected Species and Habitat

The study area was evaluated for the presence of federal and/or state protected species and their suitable habitat in accordance with Section 7 of the ESA and the *Protected Species and Habitat* Chapter of the PD&E Manual. Based on this evaluation the proposed project **"*may affect, not likely to adversely affect*"** the Gulf sturgeon, smalltooth sawfish, eastern indigo snake, eastern black rail, wood stork, and West Indian manatee. The project is anticipated to have **"*no effect*"** on the Florida bonamia, Florida golden aster, pygmy fringe tree, giant manta ray, green sea turtle, Kemp's Ridley sea turtle, loggerhead sea turtle, Florida grasshopper sparrow, Florida scrub-jay, piping plover, and red knot.

In deferring to the specific effect determinations for federally-listed species, there is **"*no adverse effect anticipated*"** for the gopher tortoise, Florida pine snake, Florida sandhill crane, little blue heron, reddish egret, roseate spoonbill, southeastern American kestrel, and tricolored heron. There is "***no effect anticipated***" for the giant orchid/non-crested eulophia, incised groove-bur, many-flowered grass pink, nodding/scrub pinweed, sand butterfly pea, short-tailed snake, American oystercatcher, and least tern.

Multiple protection measures are to be employed to avoid and minimize any potential effects to these species. Some of the measures employed are anticipated to include agency coordination during the project's design/permitting phase, the use of BMPs, and species-specific standard protection measures (e.g., eastern indigo snake, Gulf sturgeon, smalltooth sawfish and manatee) during construction. During the design and permitting phases the FDOT will reassess the project action area for potential involvement with federal and state-protected species and coordinate further with the USFWS, NMFS, FWC and FDACS if necessary, as part of the permitting process.

7.2 Wetlands Finding

Construction of the Preferred Alternative will result in 0.167 acre of wetland impacts (direct and secondary) and 1.55 acres of impact to other surface waters. Wetland and other surface water boundaries used have not been field verified with resource agency staff but will be during the project's environmental permit phase.

Per section 4.3, wetland and other surface water impacts were avoided to the greatest extent practicable, so that the only impacts are those relating to the unavoidable crossings of Delaney Creek and the unnamed tributary and stormwater system outfalls. The habitat functions of impacted wetlands were quantitatively and qualitatively assessed using the UMAM as per Chapter 62-345, F.A.C. Total direct and secondary wetland impacts from the project roadway improvements (0.143 acre) are estimated to have a total functional loss of 0.06 unit. Total direct and secondary wetland impacts from the project stormwater ponds (0.024 acre) are estimated to have a total functional loss of 0.02 unit. It should also be noted that all wetland impacts will be to estuarine systems. Combined, the project will impact 0.167 acre of wetland (direct and secondary impacts for the roadway improvements and stormwater ponds) and result in an estimated functional loss of 0.08 unit. UMAM functional assessments have not been field reviewed by any resource/permitting agency.

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, Florida Statutes (F.S.), to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 USC. §1344. The project anticipates using commercially available mitigation credits from agency-approved banks with an appropriate geographic service area to provide compensatory mitigation sufficient to offset unavoidable project impacts to wetlands and wetland-dependent species habitat.

In accordance with Executive Order 11990 and US DOT 5660.1A, and based on the documentation of existing wetland conditions as presented in the NRE, and in consideration of the Preferred Alternative and its effects on wetlands, it is hereby determined that:

- The proposed project will have no significant short-term or long-term adverse impacts to wetlands. Wetland impacts were primarily avoided and minimized by keeping the proposed roadway improvements mostly within existing ROW and by locating preferred pond sites (other than outfalls) within uplands.
- There is no practicable alternative to construction in wetlands.
- Measures have been taken to minimize harm to wetlands.

7.3 Essential Fish Habitat

The proposed project is located within an area designated as EFH for three Fishery Management Plans (FMP): Gulf of Mexico, Coastal Migratory Pelagic, and Highly Migratory Species management

plans. NOAA Fisheries has identified and described EFH for 56 managed species within the project study area. These include 4 managed shrimp species, the red drum, 43 managed reef species, 3 managed coastal migratory pelagic species, and 5 managed highly migratory species. The project will result in direct impacts to estuarine shrub/scrub, estuarine water column, and sand-shell substrates. These direct impacts will total 0.13 acre. It is intended that the offset of EFH impacts can be accomplished in conjunction with the completion of compensatory mitigation for the project's unavoidable wetland impacts. These EFH impacts occur within the service areas of Mangrove Point MB, the Nature Coast MB, and the Tampa Bay MB. Credit availability from all mitigation banks which service the project area will be reassessed during the permitting phase of the project. The exact number of mitigation credits required to fully offset the lost value of functions resulting from the project's EFH impacts will be determined during the design phase and in future coordination with the NMFS. The negligible/incidental impacts to the estuarine water column will be minimized through the adherence to agency-issued permits and the implementation of industry-standard stormwater/turbidity control BMPs. The FDOT has determined that the project will have "**minimal**" potential adverse effects on EFH.

7.4 Commitments

Based on the findings of this NRE, the FDOT commits to undertake the following actions in addition to all actions otherwise required by state and federal laws:

Commitments:

- The FDOT will implement the *Construction Special Provisions Gulf Sturgeon Protection Guidelines* during construction over, in, or adjacent to potential Gulf sturgeon habitat to avoid and minimize adverse impacts to the Gulf sturgeon.
- The FDOT will implement the NMFS' SERO's Protected Species Construction Conditions and FDOT Supplemental Standard Specification 7-1.4.1 Additional Requirements for Smalltooth Sawfish during construction over, in, or adjacent to potential Gulf sturgeon habitat to avoid and minimize adverse impacts to the smalltooth sawfish.
- The FDOT will implement the most current version of the USFWS' *Standard Protection Measures for the Eastern Indigo Snake*.
- The FDOT will further evaluate the need for installing manatee exclusion grates (as per FDOT Standard Index 430-001) on drainage outfall pipes which discharge to Delaney Creek and the unnamed tributary to McKay Bay.

- The FDOT will utilize the most recent version of the *Standard Manatee Conditions for In-Water Work* and FDOT Supplemental Specification 7-1.4.1 Additional Requirements for Manatees during construction during construction over, in, or adjacent to potential manatee habitat.
- The FDOT will include manatee exclusion grates on culverts and pipes accessible to manatees at Delaney Creek and the unnamed tributary in accordance with the most current version of the FWC Grates and Other Manatee Exclusion Devices for Culverts and Pipes.

Implementation Measures:

- The FDOT will comply with the most current gopher tortoise permitting guidelines prior to project construction. This will include a gopher tortoise survey and gopher tortoise relocation, as necessary.
- The FDOT will provide appropriate mitigation for all impacts to wetlands and EFH. Currently, the FDOT anticipates purchasing commercially available mitigation credits.
- The FDOT will review the project area for potential undocumented eagle nests during the project permitting phase.
- The FDOT will implement the FDOT's Special Provision for the manatee (SP0070104-4), sawfish (SP0070104-5), eastern indigo snake (SP0070104-7), sturgeon (SP0070104-8), gopher tortoise (SP0070104-3), and Florida black bear (SP0070104-1) during project construction.
- The FDOT will implement industry standard stormwater/turbidity control BMPs during construction in or adjacent to wetlands and other surface waters. This will include implementing a Stormwater Pollution Prevention Plan and complying with the general and specific conditions of any state or federal permits as well as the implementation of the FDOT's *Standard Specifications for Road and Bridge Construction*.

The FDOT will coordinate the results of this NRE with the USACE, USFWS, NMFS, FDACS, FDEP, and FWC to receive concurrence from these agencies that all issues pertaining to natural resources which may be impacted by this project have been appropriately addressed. After concurrence with this NRE has been obtained, the FDOT will continue to coordinate with these agencies throughout future phases of this project to obtain necessary permits and to address how any changes to the proposed project will impact natural resources. Final determination of jurisdictional boundaries and

mitigation requirements will be coordinated between the FDOT and permitting agencies during the design and permitting stages of the project.

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APPENDICES

Appendix A: 1994 EA/FONSI Conceptual Design Within the Current 440749-1 Segment Limits

Appendix B: 440749-1 Concept Graphics

Appendix C: Florida Land Use, Cover and Forms Classification (FLUCFCS) Maps

Appendix D: Project Site Photos

Appendix E: Natural Resources Conservation Service (NRCS) Soils Maps

Appendix F: Florida Natural Areas Inventory (FNAI) Standard Data Report

Appendix G: Species Protection Measures/Supplemental Specifications

Appendix H: Project Wetland and Other Surface Water Maps

Appendix I: Uniform Mitigation Assessment Method (UMAM) Data Sheets

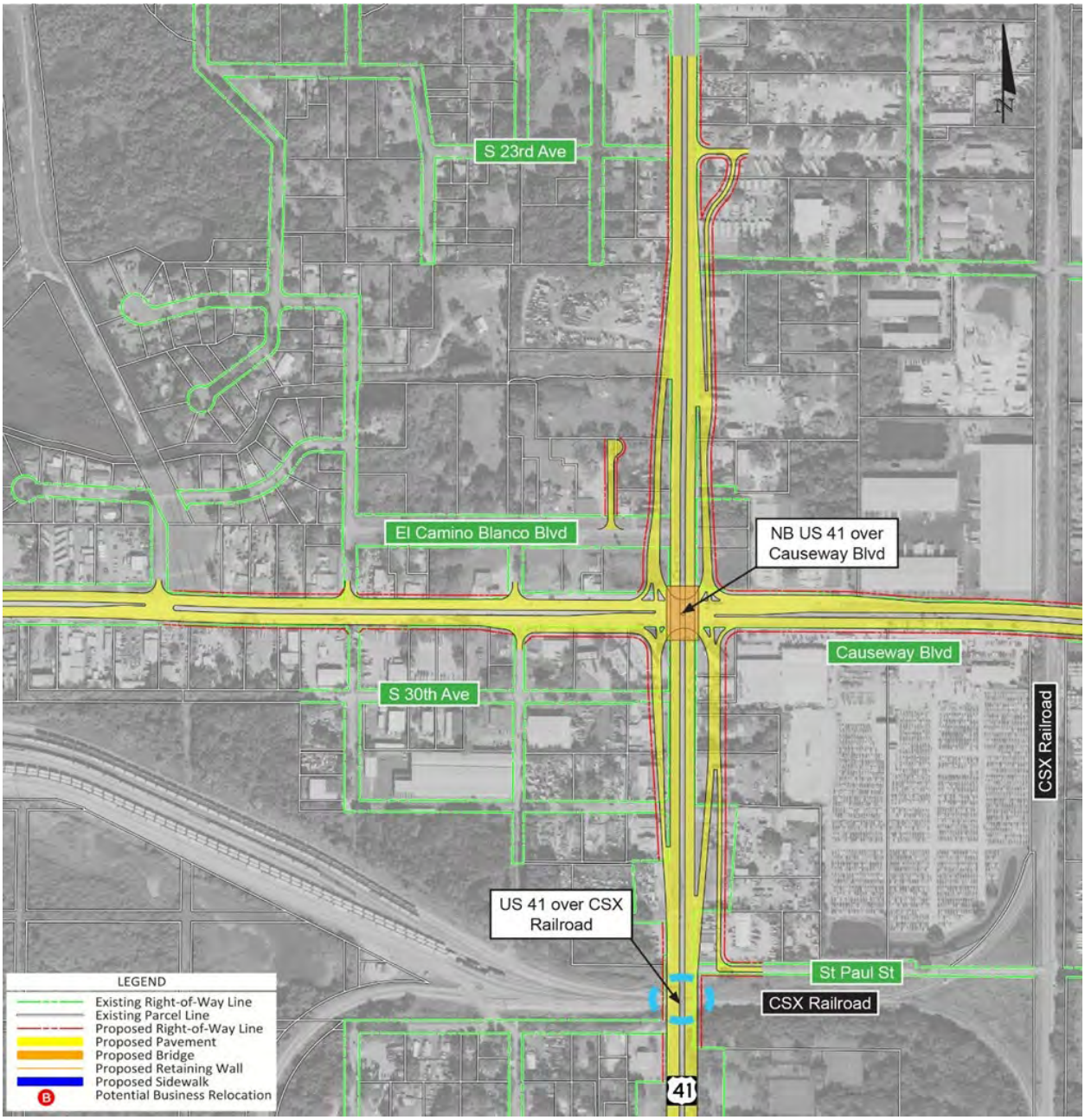
Appendix J: 1994 EA/FONSI Resource Agency Coordination

Appendix K: Updated 440749-1 Resource Agency Coordination

Appendix A

1994 EA/FONSI Conceptual Design Within the Current 440749-1 Segment Limits

Approved Causeway Boulevard. US 41 Interchange Design Concept (1994 EA/FONSI)



MATCH LINE SHT. 15

0 100 200

26th AVE.

47th ST.

ZONE A

50th STREET

EL CAMINO BLANCO

45th ST.

COMMERCIAL

RESTAURANT

R

C

AUTO SALES

SWAP SHOP

STORE

BOAT REPAIR

PUB

TECO

CAUSEWAY BLVD. (S.R. 676)

MATCH LINE SHT. 7

MATCH LINE SHT. 9

COMMERCIAL

SEPTIC TANK SERVICE

GARDEN SHOP

30th AVE

AUTO GARAGE

GAS STATION

AUTO REPAIR

AUTO SALVAGE

SAGASTA ST.

U.S. 41

ZONE A

31 st. AVE

THE MEDIAN OPENING LOCATIONS FOR THIS PROJECT WILL BE DETERMINED DURING THE DESIGN PHASE OF THIS PROJECT.

MATCH LINE SHT. 16

	FLORIDA DEPARTMENT OF TRANSPORTATION FAP No. M-1802-(1) WPA No. 7113839 STATE PROJECT No. 10250-1525	22nd STREET CAUSEWAY / CAUSEWAY BLVD (SR. 676) FROM U.S. 301 TO SR. 60 PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY	CORRIDOR ANALYSIS / CONCEPTUAL PLANS PHOTO DATE: 10/29/90	ORIGINAL REVISIONS	JOB NO. 10 620.00 DRAWN DESIGNED CHECKED QC SHEET 8 OF 16

THE MEDIAN OPENING LOCATIONS FOR THIS PROJECT WILL BE DETERMINED DURING THE DESIGN PHASE OF THIS PROJECT.

EAST SECTION US 41 TO US 301	FLORIDA DEPARTMENT OF TRANSPORTATION FAP No. M-1802-(1) WPA No. 7113839 STATE PROJECT No. 10250-1525	22nd STREET CAUSEWAY / CAUSEWAY BLVD (SR. 676) FROM U.S. 301 TO SR. 60 PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY	CORRIDOR ANALYSIS / CONCEPTUAL PLANS PHOTO DATE: 10/29/90	ORIGINAL REVISIONS	SHEET 9 OF 16

THE MEDIAN OPENING LOCATIONS FOR THIS PROJECT WILL BE DETERMINED DURING THE DESIGN PHASE OF THIS PROJECT.

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THE MEDIAN OPENING LOCATIONS FOR THIS PROJECT WILL BE DETERMINED DURING THE DESIGN PHASE OF THIS PROJECT.

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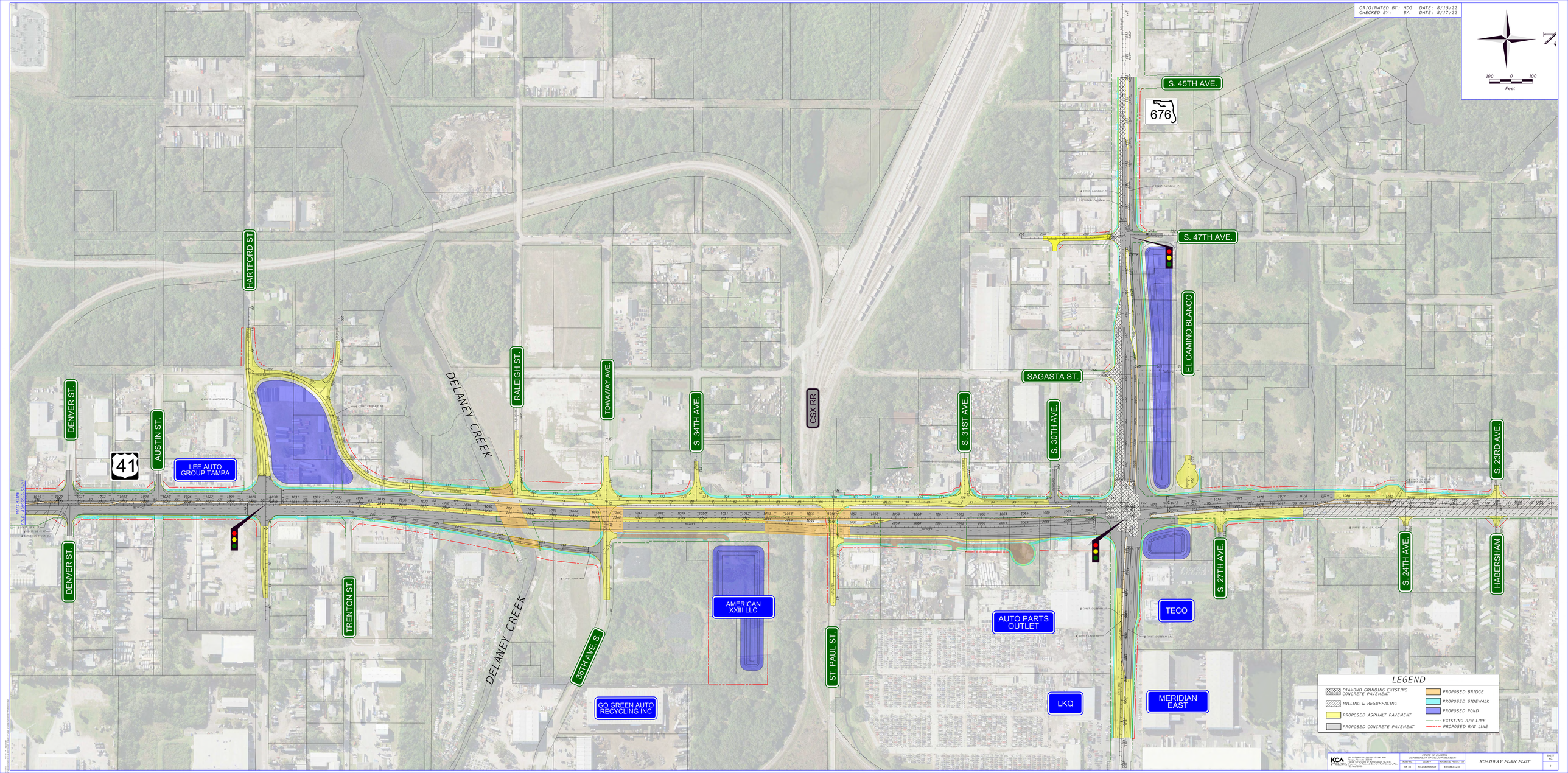
Appendix B

440749-1 Concept Graphics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CHECKED BY: BA DATE: 8/17/22
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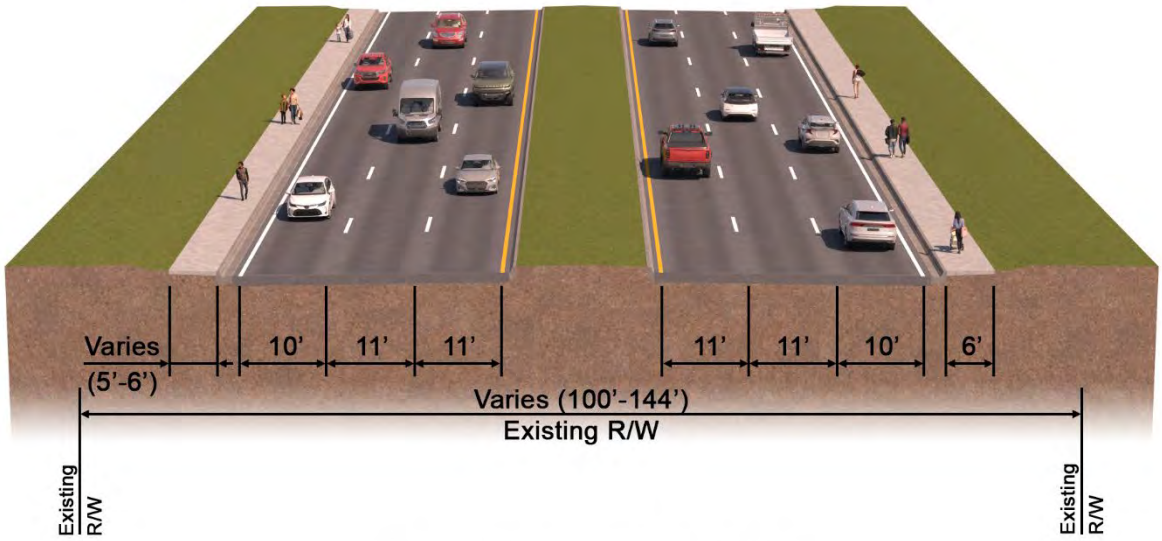
DENVER ST.
AUSTIN ST.
41
LEE AUTO GROUP TAMPA
RALEIGH ST.
DELANEY CREEK
TOWAWAY AVE.
S. 34TH AVE.
CSX RR
S. 31ST AVE.
S. 30TH AVE.
S. 23RD AVE.
TRENTON ST.
AMERICAN XXIII LLC
ST. PAUL ST.
AUTO PARTS OUTLET
TECO
S. 27TH AVE.
S. 24TH AVE.
HABERSHAM
385TH AVE. S.
GO GREEN AUTO RECYCLING INC
LKQ
MERIDIAN EAST
LEGEND
DIAMOND GRINDING EXISTING CONCRETE PAVEMENT
MILLING & RESURFACING
PROPOSED ASPHALT PAVEMENT
PROPOSED CONCRETE PAVEMENT
PROPOSED BRIDGE
PROPOSED SIDEWALK
PROPOSED POND
EXISTING R/W LINE
PROPOSED R/W LINE
KCA
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
ROAD NO. COUNTY FINANCIAL PROJECT ID
SR 45 HILLSBOROUGH 440748-1-52-01
ROADWAY PLAN PLOT
SHEET NO. 1

440749-1 US 41 at CSX Grade Sparation PD&E Reevaluation – Existing Roadway Typical Sections



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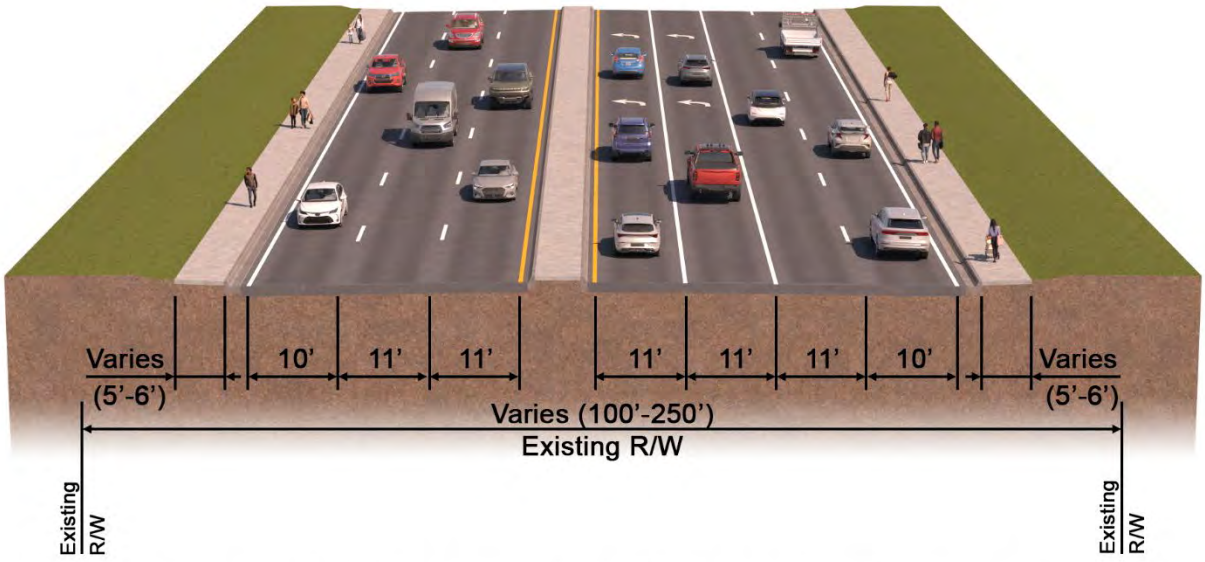

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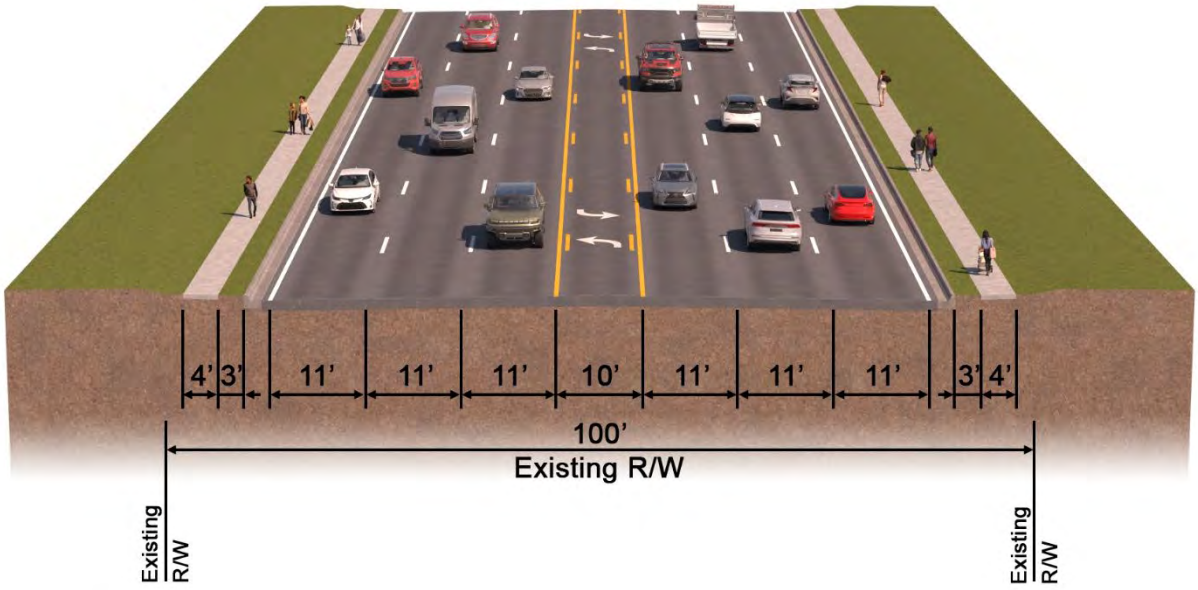

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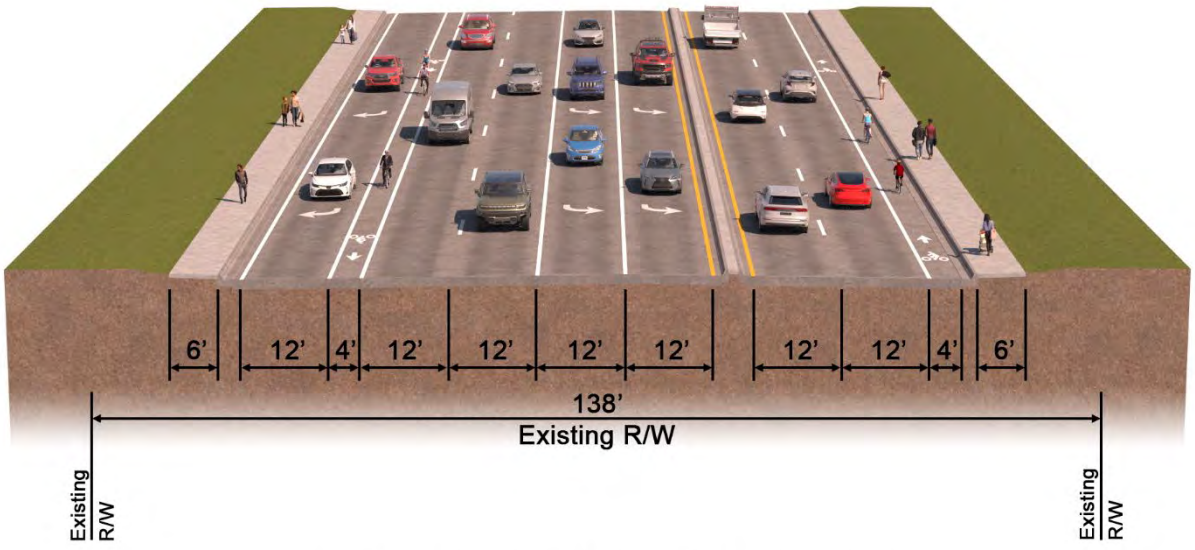

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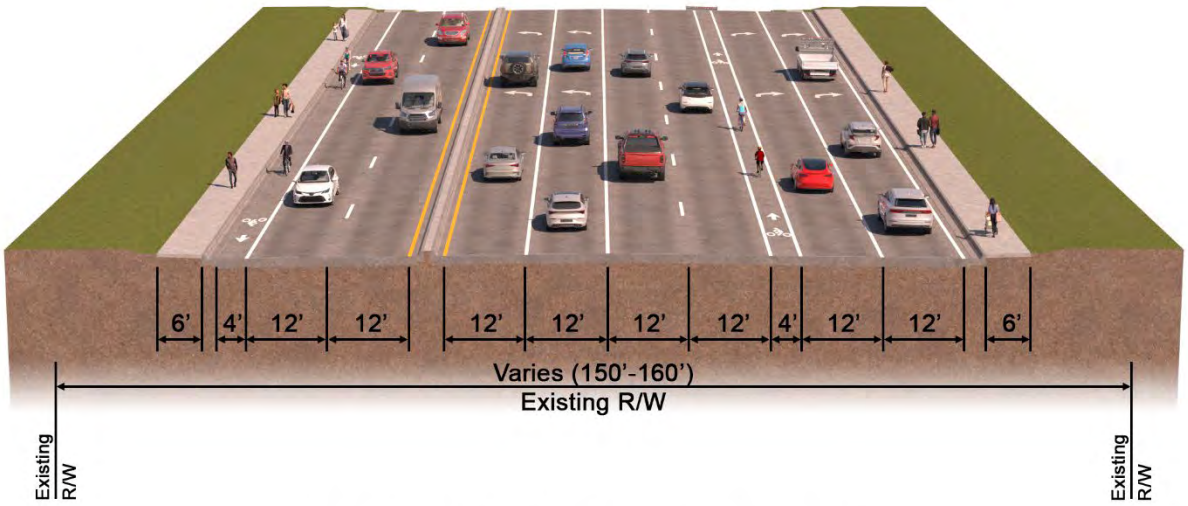

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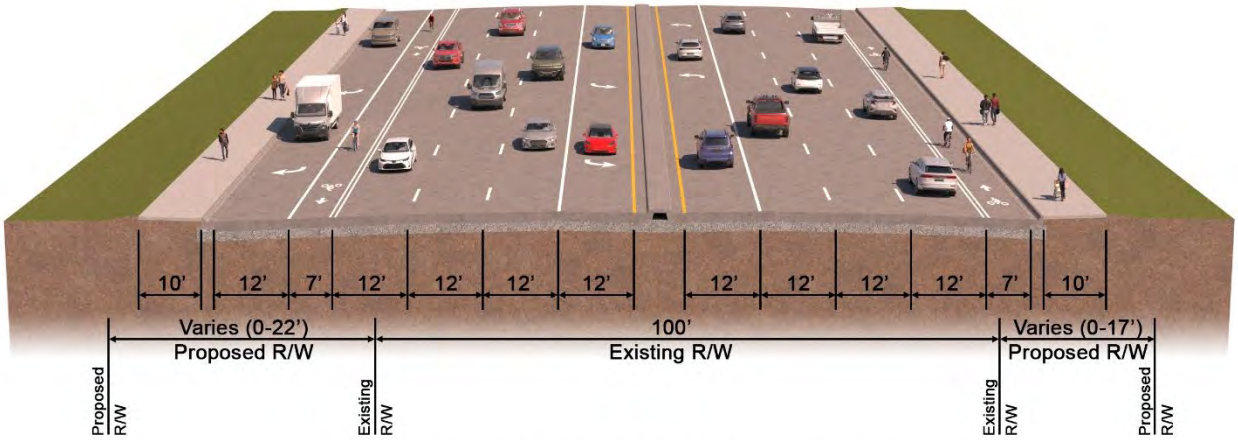
440749-1 US 41 at CSX Grade Sparation PD&E Reevaluation – Proposed Roadway Typical Sections



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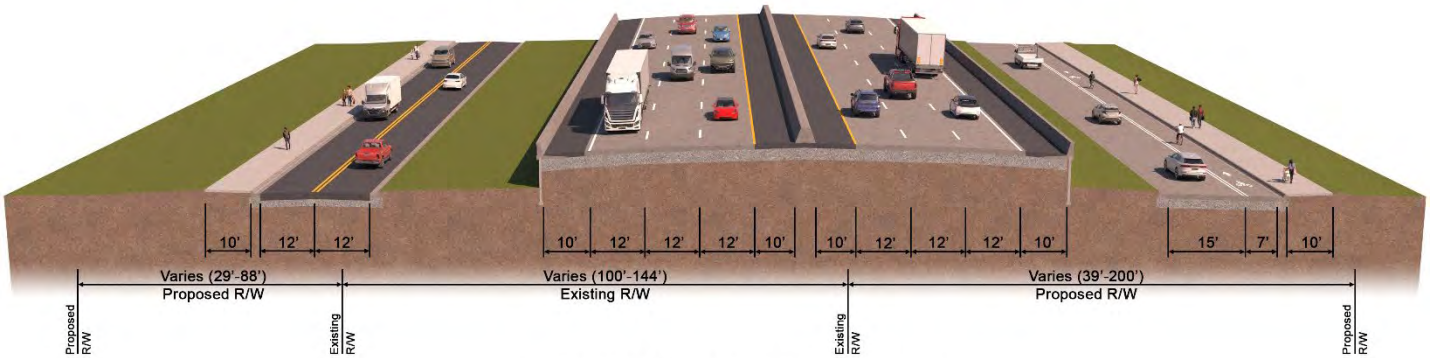

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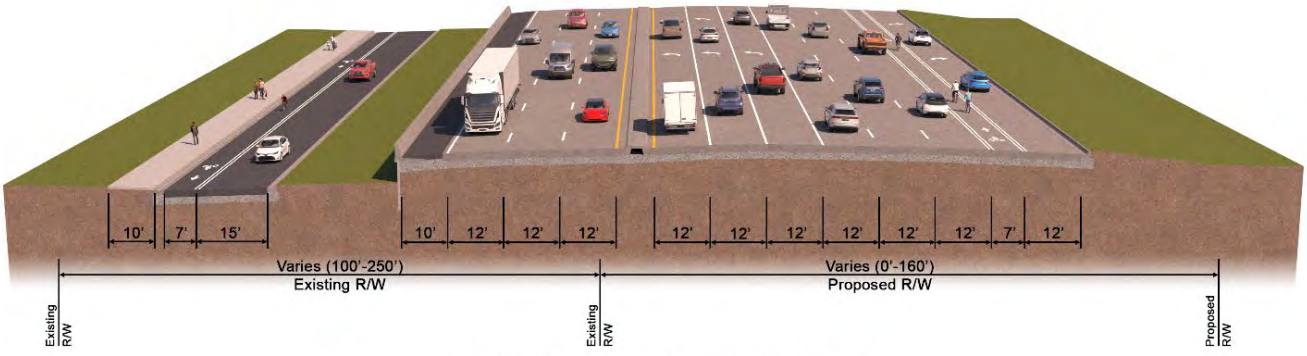

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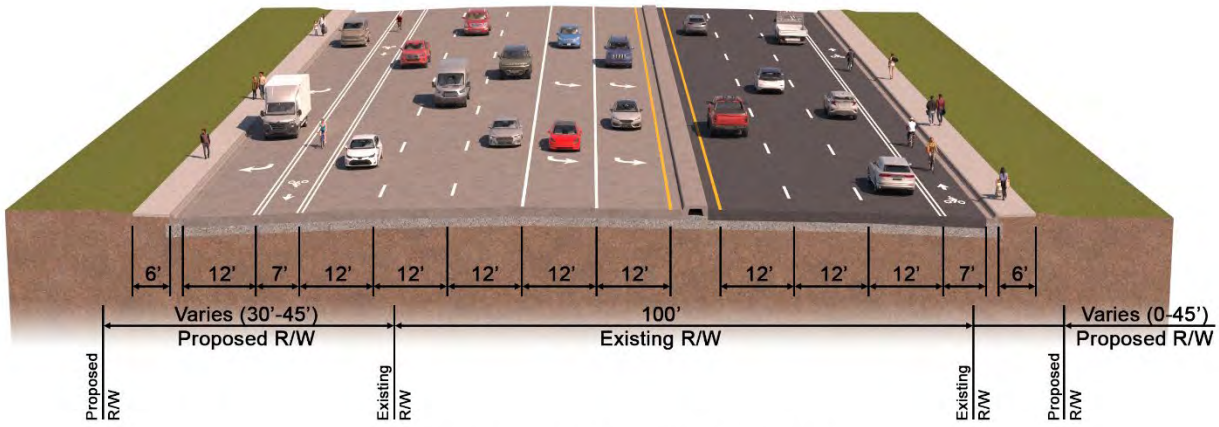
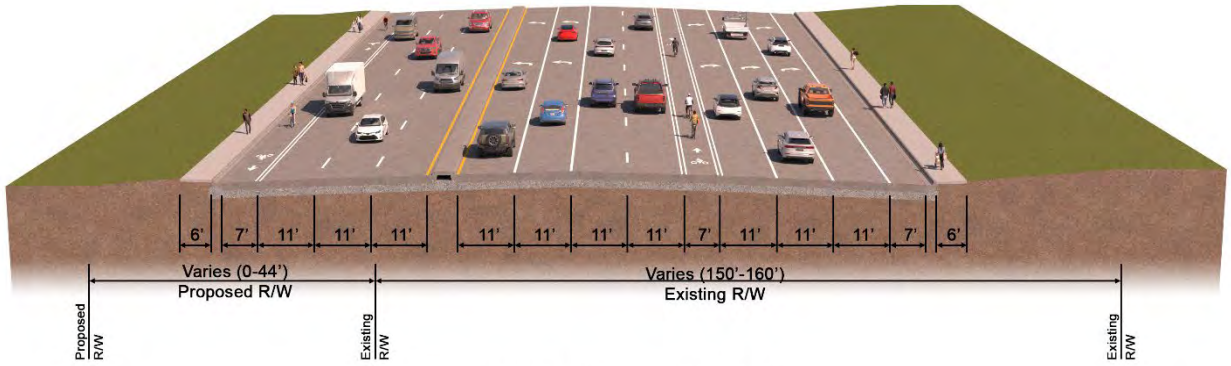


US 41 from Causeway Boulevard to S. 24th Avenue



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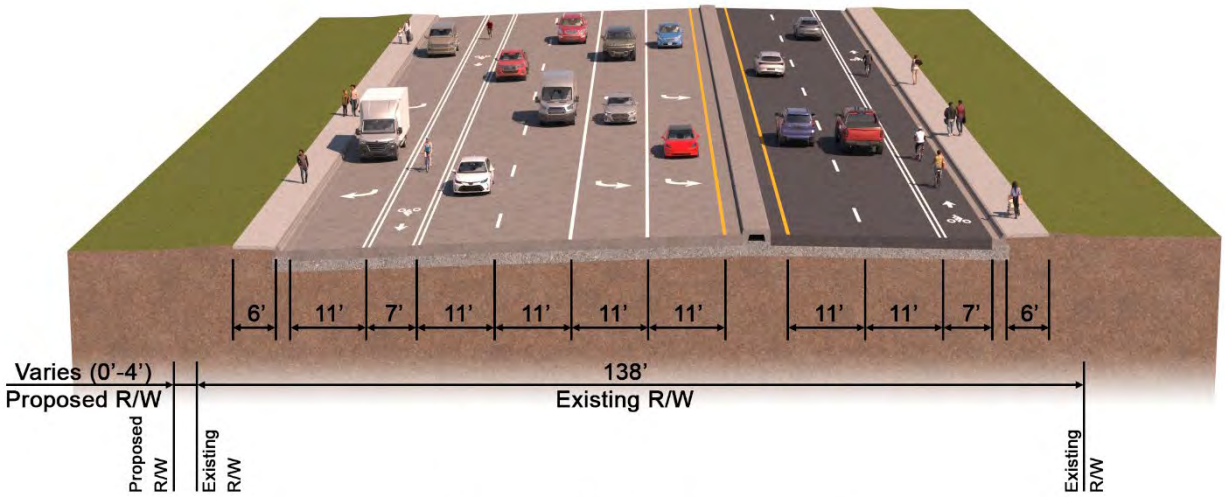
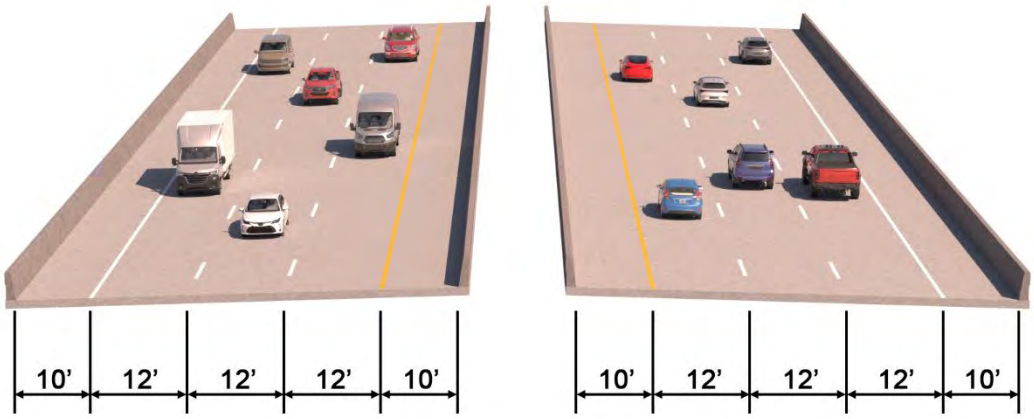


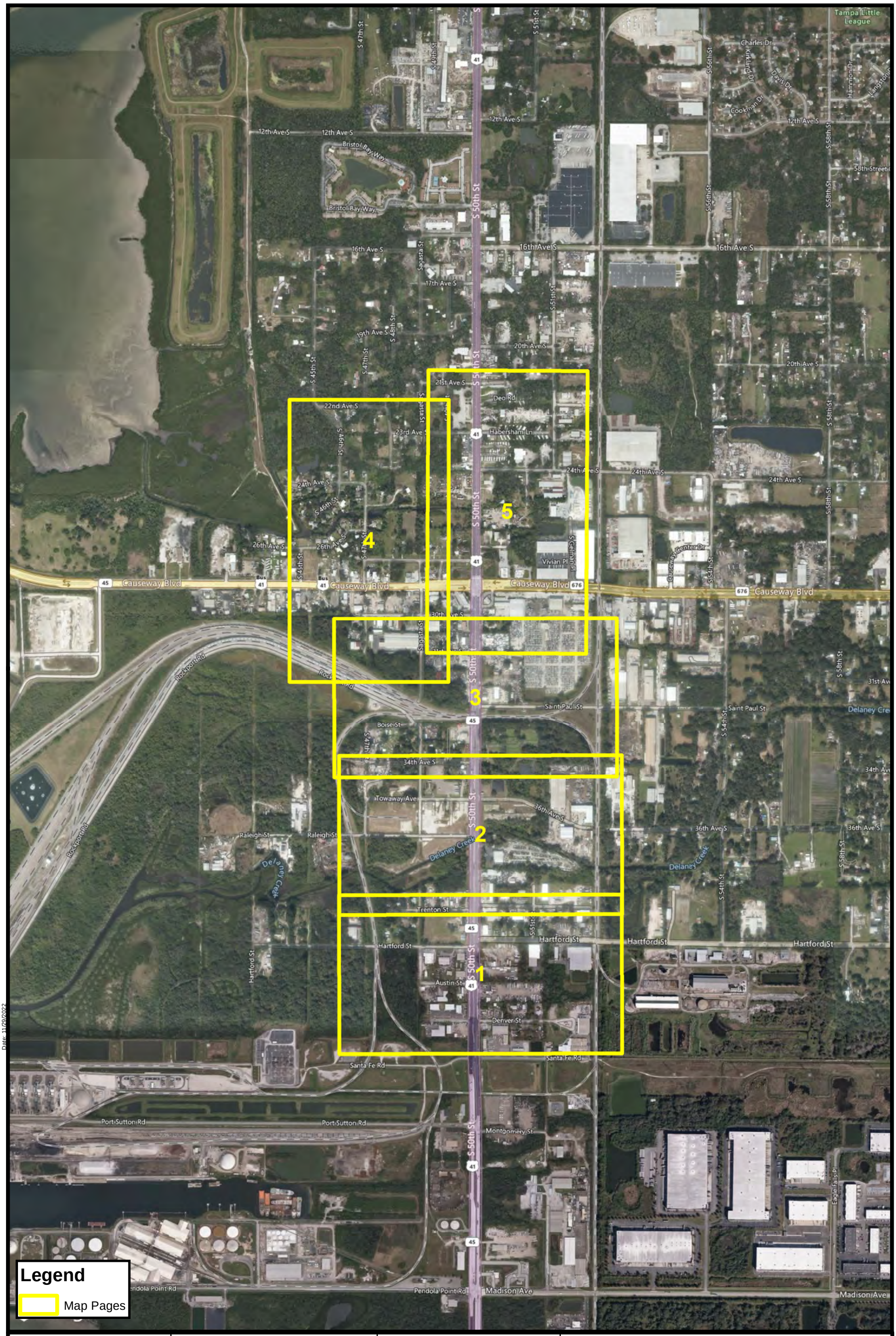
Causeway Boulevard east of US 41



US 41 Bridges over the CSX Railroad ROW and St. Paul Street

Appendix C

Florida Land Use, Cover and Forms Classification (FLUCFCS) Maps



Date: 11/29/2022

Legend

Map Pages

FDOT	**U.S. 41 at CSX Grade Separation** **South of Causeway Blvd** **Hillsborough County, Florida** **FPID No.: 440479-1-22-01** Project Development and Environment Study	Map Index Sources: ESRI 2022	N 0 1,000 2,000 Feet 1 inch = 1,000 feet

LEGEND

FLUCFCS

- 1100 : Residential Low Density
- 1400 : Commercial and Services
- 4340 : Upland Hardwood - Coniferous Mixed
- 5100 : Streams and Waterways
- 5300 : Reservoirs
- 8100 : Transportation

FDOT

U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Land Use Maps

Sources:
ESRI 2022; SWFWMD 2017; RK&K 2022

N

0 200 400 600 800

Feet

1 inch = 200 feet

LEGEND

FLUCFCS

- 1100 : Residential Low Density
- 1400 : Commercial and Services
- 1500 : Industrial
- 1900 : Open Land
- 4220 : Brazilian Pepper
- 4340 : Upland Hardwood - Coniferous Mixed
- 5100 : Streams and Waterways
- 6120 : Mangrove Swamps
- 6170 : Mixed Wetland Hardwoods
- 6420 : Saltwater Marshes
- 8100 : Transportation

FDOT

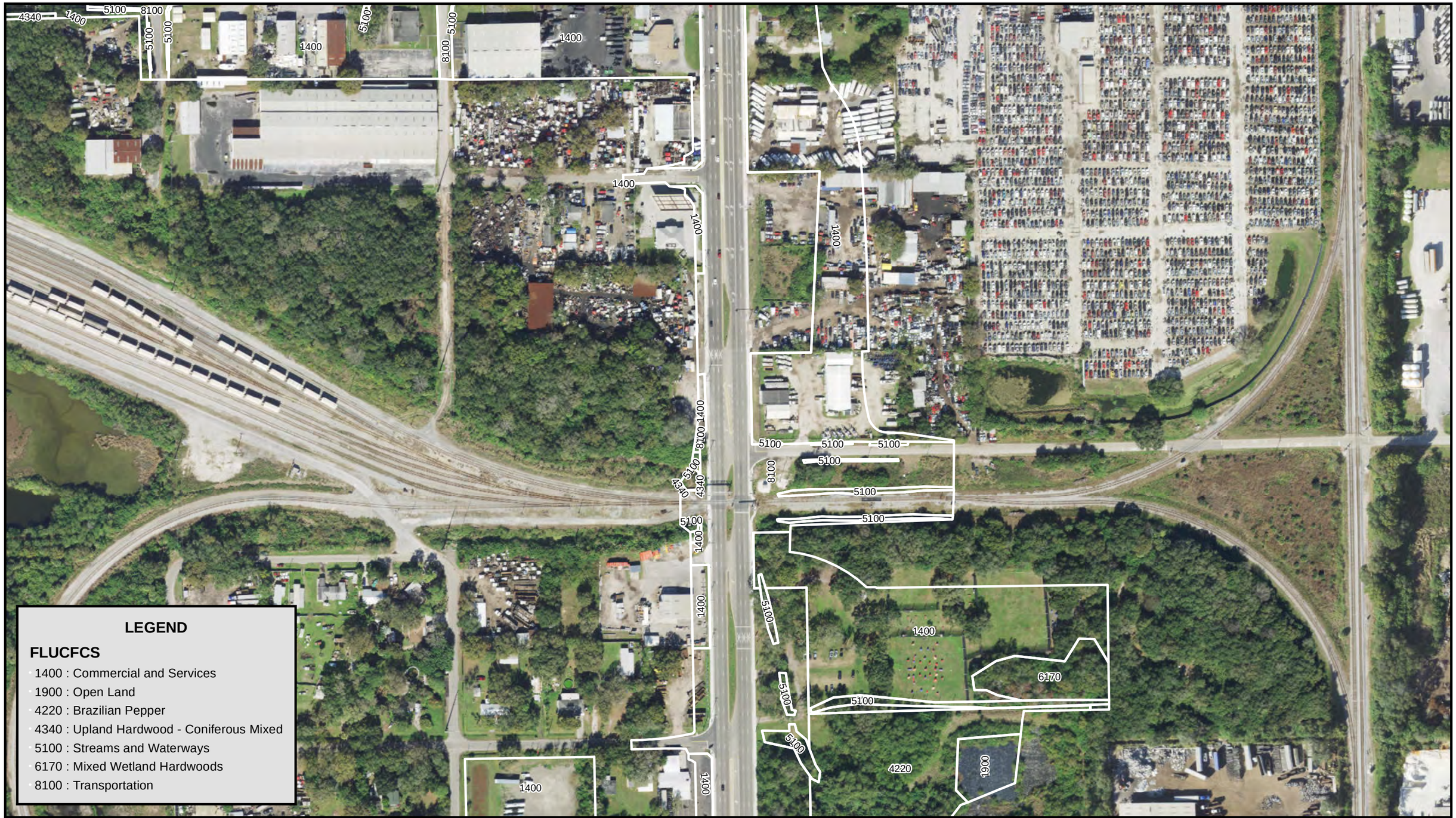
U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Land Use Maps

Sources:
ESRI 2022; SWFWMD 2017; RK&K 2022

N

0 200 400 600 800
Feet
1 inch = 200 feet



LEGEND

FLUCFCS

- 1400 : Commercial and Services
- 1900 : Open Land
- 4220 : Brazilian Pepper
- 4340 : Upland Hardwood - Coniferous Mixed
- 5100 : Streams and Waterways
- 6170 : Mixed Wetland Hardwoods
- 8100 : Transportation

FDOT

U.S. 41 at CSX Grade Separation
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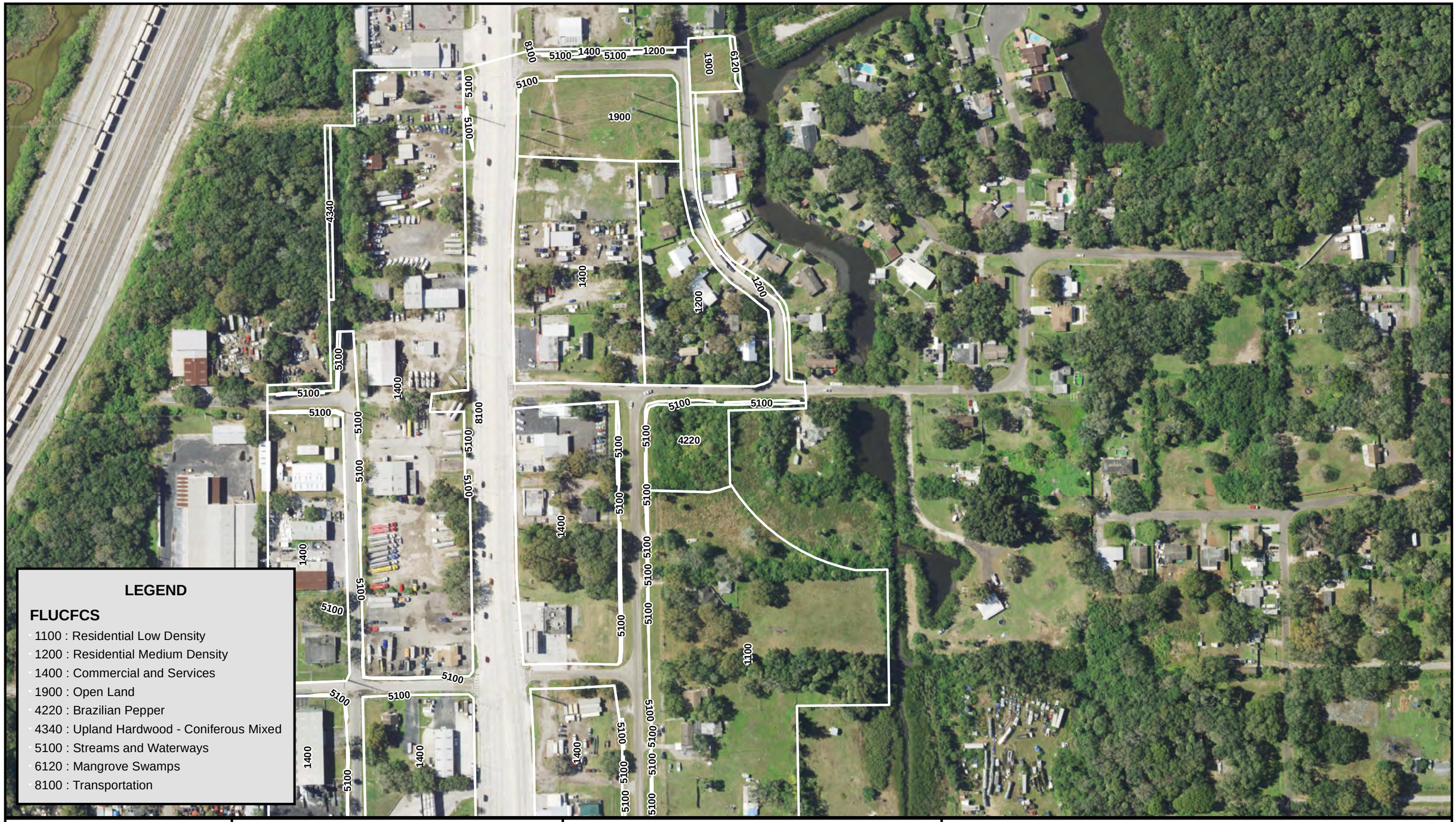
Land Use Maps

Sources:
ESRI 2022; SWFWMD 2017; RK&K 2022

N

0 200 400 600 800
Feet
1 inch = 200 feet

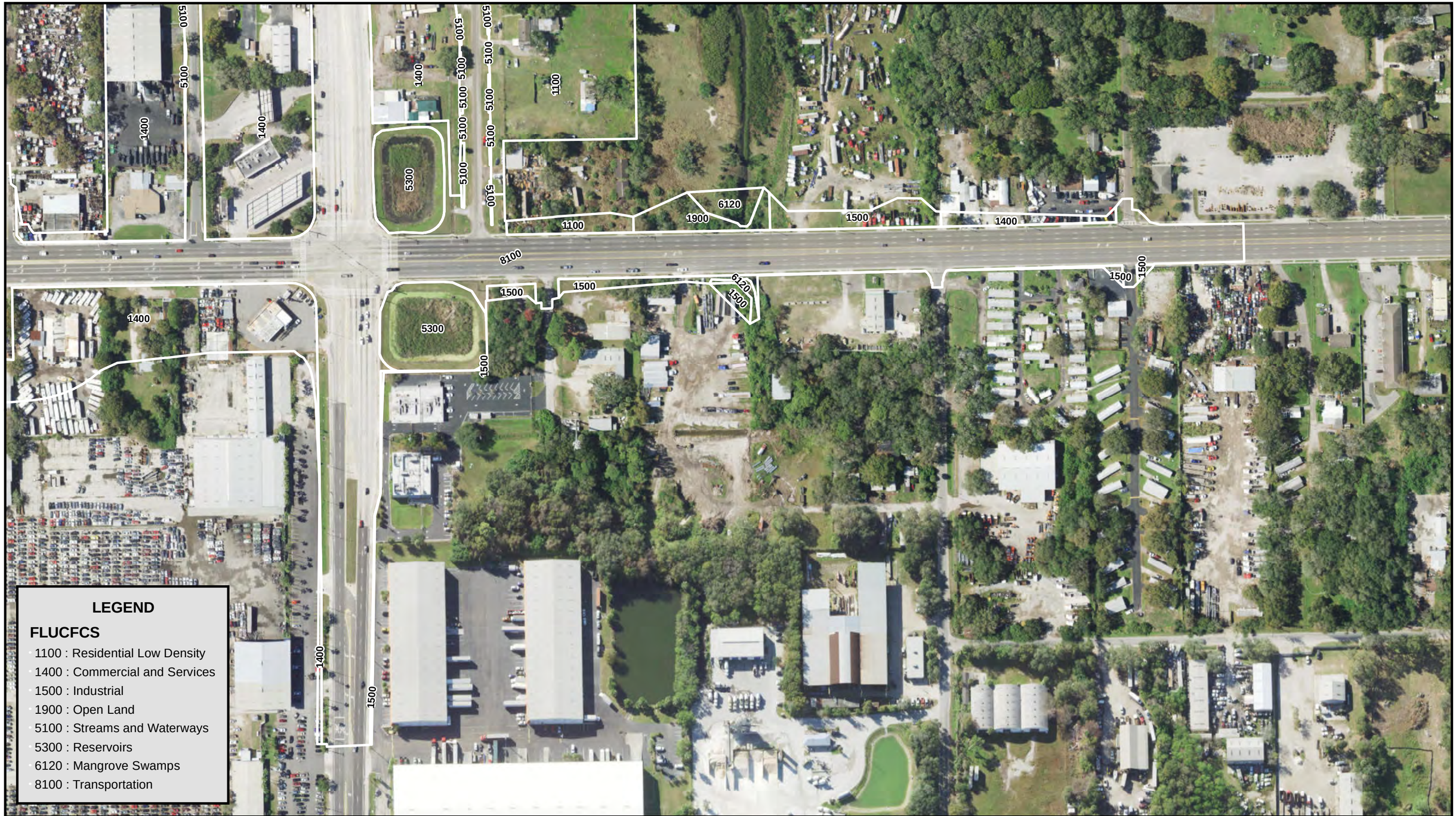


U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Land Use Maps

Sources:
ESRI 2022; SWFWMD 2017; RK&K 2022

0 200 400 600 800
Feet
1 inch = 200 feet



U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Land Use Maps

Sources:
ESRI 2022; SWFWMD 2017; RK&K 2022

0 200 400 600 800
Feet
1 inch = 200 feet

Appendix D

Project Site Photos

Photo 1: Typical roadside ditch (OSW-12) facing west along the south side of Causeway Blvd

Photo 2: Unnamed creek and WL-4 facing east, taken east of US 41

Photo 3: Unnamed tributary west of US 41 facing southeast

Photo 4: WL-5 facing north (located north of 26th Ave S)

Photo 5: Typical roadside ditch (OSW-50) facing east along the north side of Causeway Blvd

Photo 6: Planted mangroves and Fakahatchee grass (WL-6) along the north side of Delaney Creek facing southwest, taken west of US 41

Photo 7: OSW-71 facing northeast, located in the southwest quadrant of the CSX/US 41 crossing

Photo 8: Delaney Creek east of US 41 facing west

Photo 9: Delaney Creek and WL-8 facing east, taken from east side of US 41

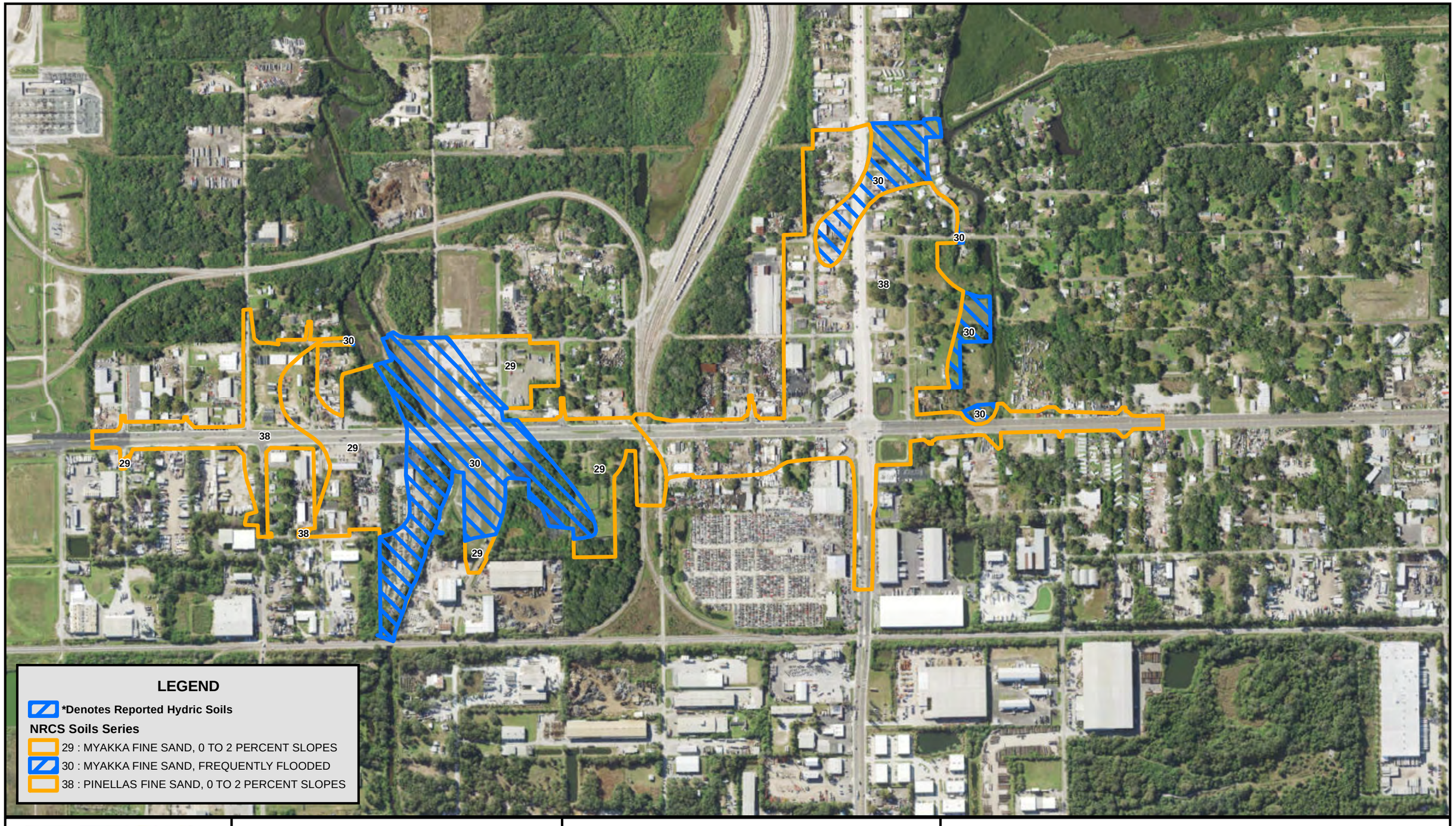
Photo 10: WL-9 and Delaney Creek facing east, taken from east side of US 41

Photo 11: WL-12 and Delaney Creek branch at low tide facing northeast, taken north of Trenton St

Photo 12: OSW-110 facing east, taken east of US 41

Appendix E

Natural Resources Conservation Service (NRCS) Soils Maps



FDOT

U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Soils Map

Sources:
ESRI, 2022; NRCS, 2021

0 600 1,200 1,800 2,400
Feet
1 inch = 600 feet
N

Appendix F

Florida Natural Areas Inventory (FNAI) Standard Data Report

FLORIDA
Natural Areas
INVENTORY

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

September 4, 2020

Brett Berube
RK&K
14055 Riveredge Dr, Suite 130
Tampa, FL 33637

Dear Mr. Berube,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). At your request we have produced the following report for your project area.

The purpose of this Standard Data Report is to provide objective scientific information on natural resources located in the vicinity of a site of interest, in order to inform those involved in project planning and evaluation. This Report makes no determination of the suitability of a proposed project for this location, or the potential impacts of the project on natural resources in the area.

Project: US 41 PD&E Study

Date Received: 8/28/2020

Location: Hillsborough County

Element Occurrences

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

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

Likely and Potential Rare Species

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

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

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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

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

CLIP

The enclosed map shows natural resource conservation priorities based on the Critical Lands and Waters Identification Project. CLIP is based on many of the same natural resource data developed for the Florida Forever Conservation Needs Assessment, but provides an overall picture of conservation priorities across different resource categories, including biodiversity, landscapes, surface waters, and aggregated CLIP priorities (that combine the individual resource categories). CLIP is also based primarily on remote sensed data and is not intended to be the definitive authority on natural resources on a site.

For more information on CLIP, visit http://www.fnai.org/clip.cfm .

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

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

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

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. **The maps contain sensitive environmental information, please do not distribute or publish without prior consent from FNAI.** FNAI data may not be resold for profit.

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

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl

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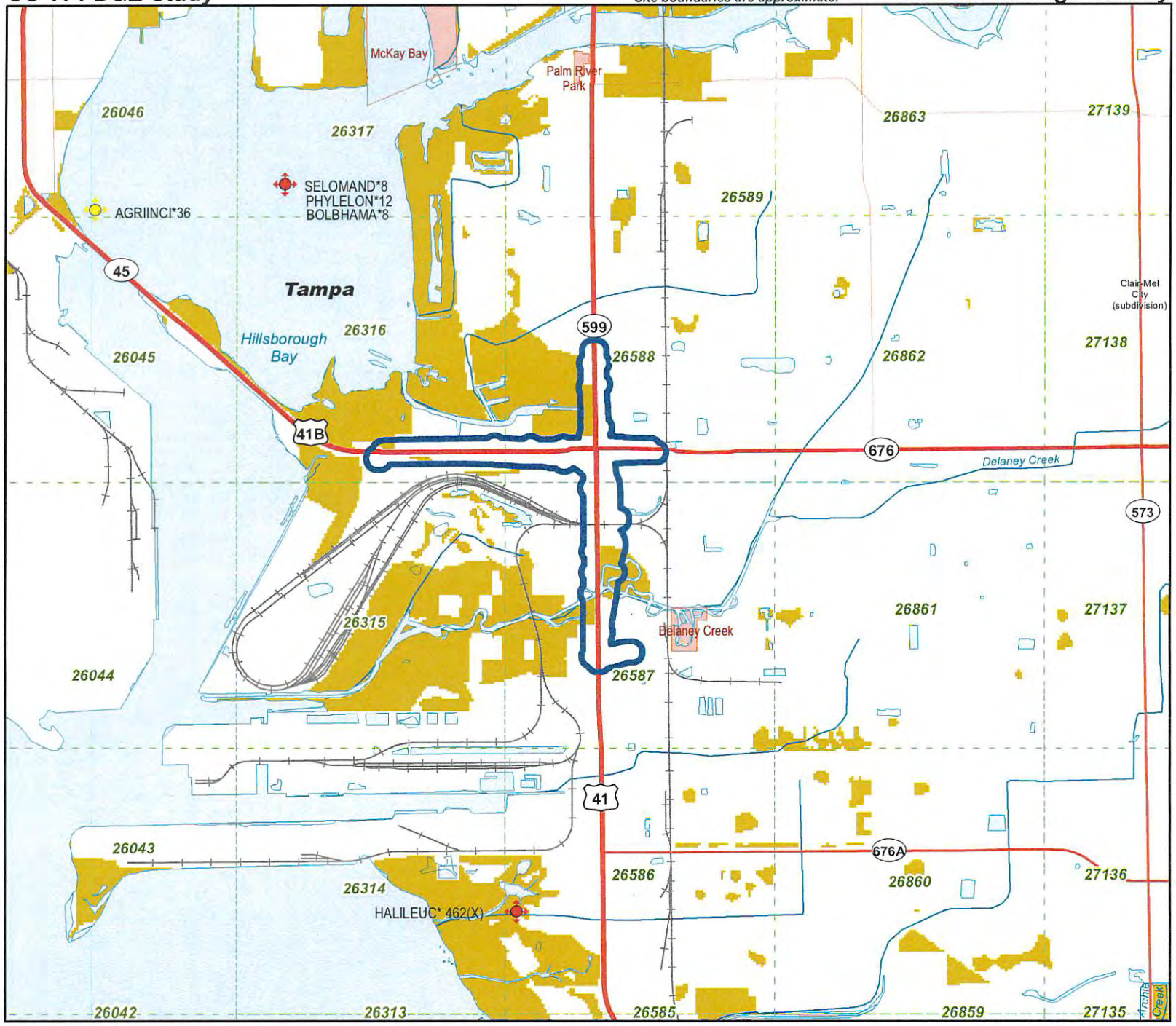
FLORIDA Natural Areas INVENTORY

US 41 PD&E Study

Site boundaries are approximate.

Hillsborough County



0 0.5 1 2 Miles

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

Point Indicates General Vicinity of Element

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

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

N

Land Acquisition Projects
- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Roads
- Water

NOTE
This map contains environmentally sensitive information. Please do not distribute or publish without prior consent from FNAI. Map should not be interpreted without accompanying documents.

Map produced by KAB
9/4/2020

US 41 PD&E Study

Site boundaries are approximate.

Hillsborough County

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FLORIDA Natural Areas INVENTORY

CLIP v4.0 Resource Priorities

Biodiversity Resource Category

- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

Landscape Resource Category

- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

Surface Water Resource Category

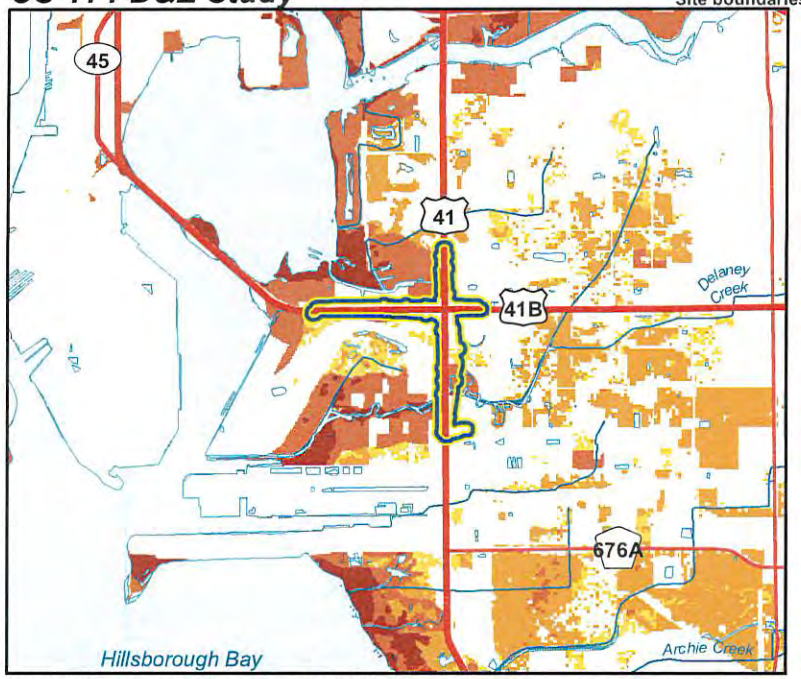
- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

Aggregated CLIP Priorities

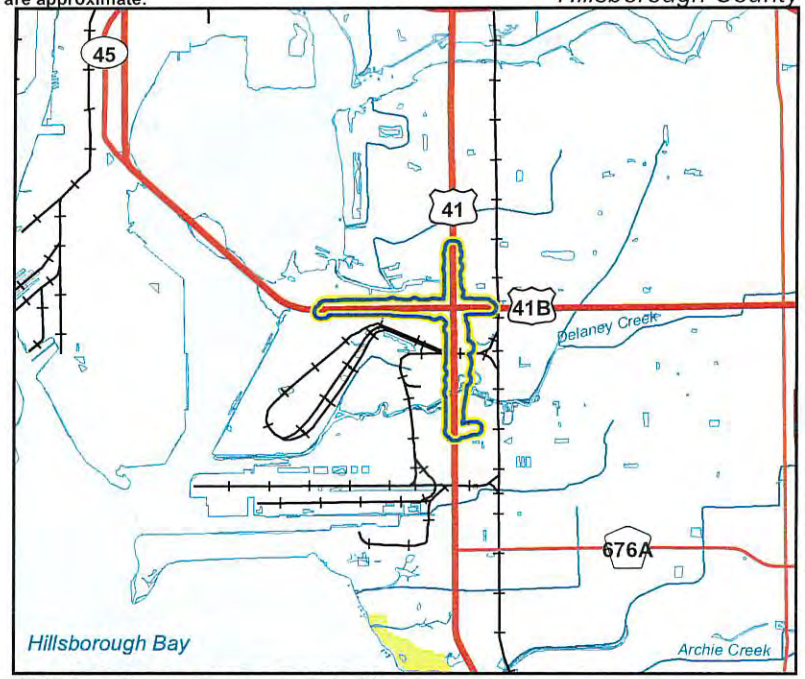
- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5
- Site Boundary

Map should not be interpreted without accompanying documents.

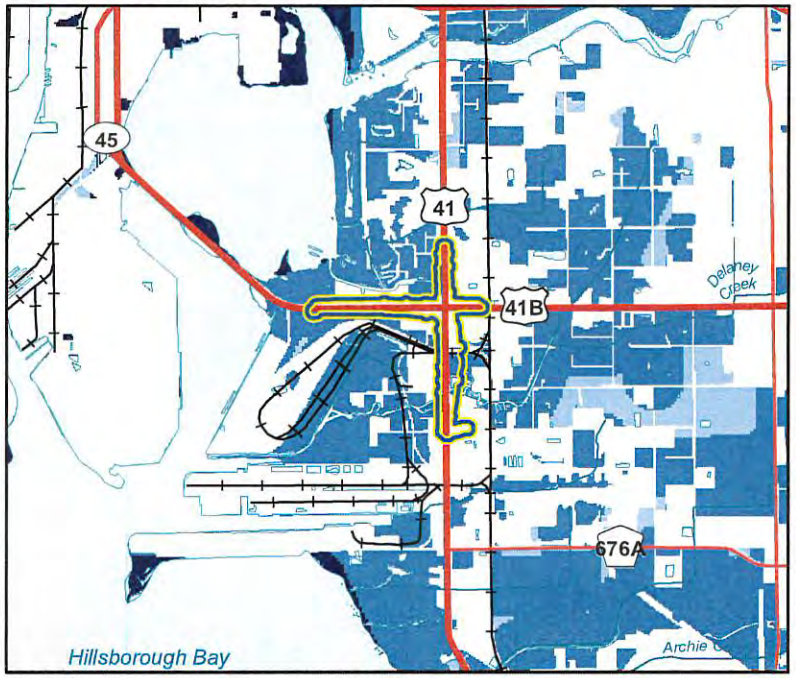
Critical Lands and Waters Identification Project (CLIP) is a cooperative effort between the FSU Florida Natural Areas Inventory, UF Center for Landscape Conservation Planning, and FL Fish & Wildlife Conservation Commission, with additional funding from FL Dept of Environmental Protection and US Fish & Wildlife Service.



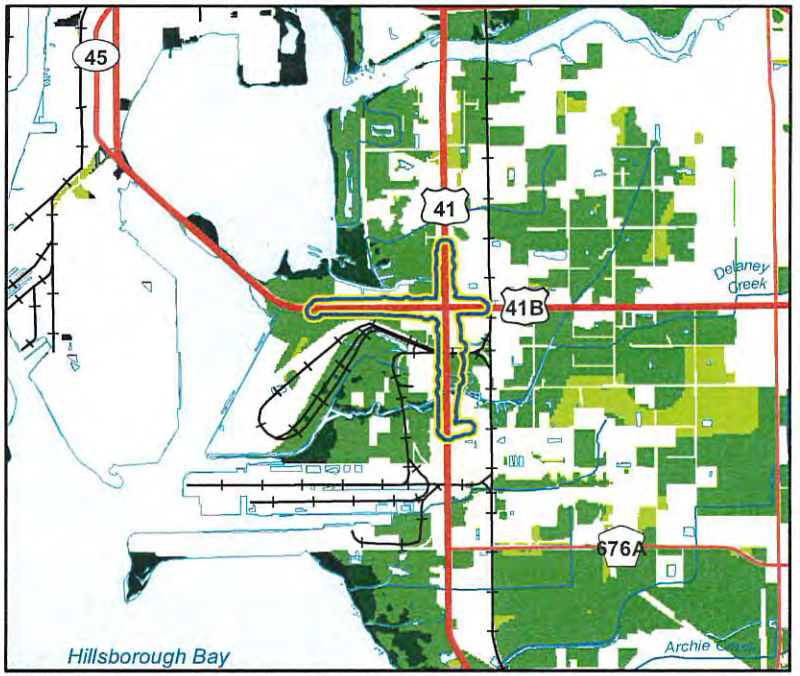
CLIP Biodiversity Resource Priorities



CLIP Landscape Resource Priorities



CLIP Surface Water Resource Priorities



CLIP Aggregated Resource Priorities

0 0.5 1 2 3 4 Miles

Map produced by KAB
9/4/2020

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FLORIDA Natural Areas INVENTORY

FNAI ELEMENT OCCURRENCE REPORT on or near

US 41 PD&E Study

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
AGRIINCI*36	*Agrimonia incisa*	incised groove-bur	G3	S2	N	T	1834	None given.	One flowering specimen collected
BOLBHAMA*8	*Bolbocerosoma hamatum*	Bicolored Burrowing Scarab Beetle	G3G4	S3	N	N	1964-11-04	1964-11-04: No description given (B73WOO01FLUS).	1964-11-04: One specimen was collected by Jean Beem (B73WOO01FLUS).
HALILEUC* (X)462	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	1990	No general description given	Nest status 1999-2003: Unknown/not assessed - 2003, 2002, 2001, 2000, 1999; Status 1995-98: Unknown/not assessed - 1998, 1997, 1996, 1995; (U03FWC01FLUS). Previous data (note different format) NEST: 1991: STATUS UNKNOWN; 1990: DESTROYED, ACTIVE BUT PRODUCED 0 YOUNG; 1989: PRODUCED 1 YOUNG; 1988 ACTIVE; FLEDGED YOUNG 1988.
PHYLELON*12	*Phyllophaga elongata*	Elongate June Beetle	G3	S3	N	N	1966-08-29	1966-08-29: No description given (B89WOO01FLUS).	1966-08-29: One specimen was collected by T.J. Favoroso using a Steiner trap. 1965-08-12: T.J. Favoroso collected 2 specimens in a Japanese beetle trap. 1952-08: J. Gross collected 1 specimen(B89WOO01FLUS).
SELOMAND*8	*Selonodon mandibularis*	Large-Jawed Cebrionid Beetle	G2G4	S2S4	N	N	1958-08-08	1958-08-08: No description given (B99GAL01FLUS).	1958-08-08: 1 specimen was collected and deposited at FSCA (B99GAL01FLUS). 1916-05-18: 3 specimens were collected and deposited at LACM (B99GAL01FLUS). 1916-05-10: 1 specimen was collected and deposited to LACM (B99GAL01FLUS).

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 26316					
Likely					
Mycteria americana	Wood Stork	G4	S2	T	FT
Trichechus manatus	West Indian Manatee	G2	S2	T	FT
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Bolbocerosoma hamatum	Bicolored Burrowing Scarab Beetle	G3G4	S3	N	N
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Charadrius melodus	Piping Plover	G3	S2	T	FT
Chrysopsis floridana	Florida goldenaster	G3	S3	E	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Drymarchon couperi	Eastern Indigo Snake	G3	S3	T	FT
Eretmochelys imbricata	Hawksbill Sea Turtle	G3	S1	E	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G3	S3	N	N
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Phyllophaga elongata	Elongate June Beetle	G3	S3	N	N
Platanthera integra	yellow fringeless orchid	G3G4	S3	N	E
Podomys floridanus	Florida Mouse	G3	S3	N	N
Pteroglossaspis ecristata	giant orchid	G2G3	S2	N	T
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G4	S2S4	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N
Matrix Unit ID: 26587					
Likely					
Mycteria americana	Wood Stork	G4	S2	T	FT
Trichechus manatus	West Indian Manatee	G2	S2	T	FT
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Chrysopsis floridana	Florida goldenaster	G3	S3	E	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E

Definitions: *Documented - Rare species and natural communities documented on or near this site.*
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi	Eastern Indigo Snake	G3	S3	T	FT
Eretmochelys imbricata	Hawksbill Sea Turtle	G3	S1	E	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G3	S3	N	N
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Platanthera integra	yellow fringeless orchid	G3G4	S3	N	E
Podomys floridanus	Florida Mouse	G3	S3	N	N
Pteroglossaspis ecristata	giant orchid	G2G3	S2	N	T
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N

Matrix Unit ID: 26588

Likely

Mycteria americana	Wood Stork	G4	S2	T	FT
Trichechus manatus	West Indian Manatee	G2	S2	T	FT
Upland hardwood forest		G5	S3	N	N

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Bolbocerosoma hamatum	Bicolored Burrowing Scarab Beetle	G3G4	S3	N	N
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Chrysopsis floridana	Florida goldenaster	G3	S3	E	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Drymarchon couperi	Eastern Indigo Snake	G3	S3	T	FT
Eretmochelys imbricata	Hawksbill Sea Turtle	G3	S1	E	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lampropeltis extenuata	Short-tailed Snake	G3	S3	N	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Phyllophaga elongata	Elongate June Beetle	G3	S3	N	N
Platanthera integra	yellow fringeless orchid	G3G4	S3	N	E
Podomys floridanus	Florida Mouse	G3	S3	N	N

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

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Pteroglossaspis ecristata	giant orchid	G2G3	S2	N	T
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Selonodon mandibularis	Large-Jawed Cebrionid Beetle	G2G4	S2S4	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N

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

Appendix G

Species Protection Measures/Supplemental Specifications

CONSTRUCTION SPECIAL PROVISIONS
GULF STURGEON PROTECTION GUIDELINES
(PURSUANT TO NMFS AND USFWS)

The Gulf sturgeon (*Acipenser oxyrinchus desotoi*) is listed under the Endangered Species Act as threatened. It is managed under the joint jurisdiction of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). Potential habitat for the Gulf sturgeon is located within the limits of this project.

The following special provisions will be incorporated into any construction contract where involvement with sturgeon may occur:

The FDOT has coordinated with the NMFS and USFWS early in the project development stage. The following provisions are intended to avoid/ protect known spawning habitats, nursery areas, feeding areas and thermal refuges.

1. The Florida Department of Transportation (FDOT) shall advise all FDOT project personnel and Contractor personnel on the project that there are civil and criminal penalties for harming, harassing or killing sturgeon. The FDOT and the Contractor will be held responsible for any sturgeon harmed, harassed, or killed as a result of the project activity.

2. The FDOT shall provide information to all FDOT and Contract personnel for identification of sturgeon.

3. Appropriate work shift personnel will be instructed in the appearance, habits, biology, migratory patterns, and preservation of sturgeon. At least one of these trained personnel will be on site during construction activities to maintain a constant surveillance for these species, assure the cessation of activities (such as dredging, excess turbidity, and construction barge activity), which may endanger these species, and assure that uninhibited passage for the animals is provided.

4. Post signs on site warning of the presence of sturgeon, of their endangered status and federal protection, and precautions needed.

5. Turbidity from construction activity will be adequately controlled to prevent degradation of the quality and transparency of the water. When sturgeon are present, turbidity curtains of appropriate dimension will be used to restrict the animals' access to the work area. Pollution booms or turbidity curtains should use tangle resistant or hemp rope when anchoring, or employ surface anchors' to prevent entangling sturgeon. Continuous surveillance will be maintained in order to free animals which may become trapped in silt or turbidity barriers.

6. No dredging of the river bottom will be conducted for barge access.

7. Drilled shaft pile construction will be used whenever prudent and feasible as determined by FDOT.

8. Care shall be taken in lowering equipment or material below the water surface and into the stream bed. These precautions will be taken to ensure no harm occurs to any sturgeon which may enter the construction area undetected.

9. Construction debris shall not be discarded into the water.

10. If the use of explosives is necessary, the following protection measures will be employed for projects in FDOT's District 3

    a. In riverine areas:
       - No blasting will occur in known spawning, staging, feeding, or nursery areas.
       - In-water explosive work should be avoided between the months of April to October.
       - If explosive work becomes necessary within the April to October time frame, a non-lethal "Fish Scare" charge will be detonated one minute prior to detonation of the underwater blast.

    b. In estuarine areas:
       - No blasting will occur in known spawning, staging, feeding, or nursery areas.
       - In-water explosive work should be avoided between the months of October to April.
       - If explosive work becomes necessary within the October to April time frame, a non-lethal "Fish Scare" charge will be detonated one minute prior to detonation of the underwater blast.

    c. In the event that a sturgeon is killed during blasting, the NMFS and the USFWS will be notified immediately.

    National Marine Fisheries Service
    by email at:
    takereport.nmfsser@noaa.gov

    US Fish and Wildlife Service
    1601 Balboa Ave.
    Panama City, Florida 32405
    Tel: (850) 769-0552

11. Any sturgeon carcass will be secured on site or held in a freezer until an agency representative arranges for its transport for analysis.

12. Following completion of the project, a report summarizing any involvement with sturgeon will be prepared for USFWS and NMFS.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – LAWS TO BE OBSERVED - COMPLIANCE WITH FEDERAL ENDANGERED SPECIES ACT AND OTHER WILDLIFE REGULATIONS (STURGEON).

(REV 5-25-17) (FA 6-28-17) (7-19)

SUBARTICLE 7-1.4 is expanded by the following new Subarticle:

7-1.4.1 Requirements for Atlantic Sturgeon, Gulf subspecies (*Acipenser oxyrinchus desotoi*): The Department has determined that the project occurs within the habitat of gulf sturgeon.

The Department will provide instruction at a preconstruction meeting regarding:

1. The presence of the species.
2. The appearance, habits, biology, migratory patterns and preservation of the species.
3. Their protected status.
4. The need to avoid collisions with these species.
5. The need to avoid any actions that would jeopardize the existence of these species.
6. The civil and criminal penalties for harming, harassing, or killing these species.
7. The times of year when the spotter will be required.

Provide a spotter at appropriate times of the year during in-water construction activities to maintain constant surveillance for the species; assure adherence to the requirements posted in the URL address in Spec 7-1.4; and assure that uninhibited passage for these fish is provided.

Post signs on site warning of the presence of sturgeon and their federal protection.

Use floating turbidity barriers of appropriate dimension to restrict sturgeon access to or entrapment in the work area. Properly secure, regularly monitor and maintain all deployed sediment and turbidity barriers to prevent entanglement and entrapment. Immediately free sturgeon trapped in sediment or turbidity barriers.

Do not dredge the river bottom for barge access.

Lower all equipment or material to the mudline in a controlled descent. Do not allow freefall of any equipment or material below the water surface.

PROTECTED SPECIES CONSTRUCTION CONDITIONS, NOAA FISHERIES SOUTHEAST REGIONAL OFFICE

The action agency and any permittee shall comply with the following construction conditions for protected species under the jurisdiction of NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD):[1]

Protected Species Sightings–The action agency and any permittee shall ensure that all personnel associated with the project are instructed about the potential presence of species protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). All on-site project personnel are responsible for observing water-related activities for the presence of protected species. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing listed species and all marine mammals. To determine which protected species and critical habitat may be found in the transit area, please review the relevant marine mammal and ESA-listed species at Find A Species (https://www.fisheries.noaa.gov/find-species) and the consultation documents that have been completed for the project.

1. **Equipment**–Turbidity curtains, if used, shall be made of material in which protected species cannot become entangled and be regularly monitored to avoid protected species entrapment. All turbidity curtains and other in-water equipment shall be properly secured with materials that reduce the risk of protected species entanglement and entrapment.

    a. In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) shall be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, shall be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line shall be allowed in the water. All anchoring shall be in areas free from hardbottom and seagrass.

    b. Turbidity curtains and other in-water equipment shall be placed in a manner that does not entrap protected species within the project area and minimizes the extent and duration of their exclusion from the project area.

    c. Turbidity barriers shall be positioned in a way that minimizes the extent and duration of protected species exclusion from important habitat (e.g. critical habitat, hardbottom, seagrass) in the project area.

2. **Operations**–For construction work that is generally stationary (e.g., barge-mounted equipment dredging a berth or section of river, or shore-based equipment extending into the water):

    a. Operations of moving equipment shall cease if a protected species is observed within 150 feet of operations.

[1] Manatees are managed under the jurisdiction of the U.S. Fish and Wildlife Service.

b. Activities shall not resume until the protected species has departed the project area of its own volition (e.g., species was observed departing or 20 minutes have passed since the animal was last seen in the area).

3. **Vessels**–For projects requiring vessels, the action agency, and any permittee shall ensure conditions in the Vessel Strike Avoidance Measures are implemented as part of the project/permit issuance (https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-and-guidance).

4. **Consultation Reporting Requirements–**Any interaction with a protected species shall be reported immediately to NOAA Fisheries SERO PRD and the local authorized stranding/rescue organization.

   To report to NOAA Fisheries SERO PRD, send an email to takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the species involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports.

   To report the interaction to the local stranding/rescue organization, please see the following website for the most up to date information for reporting sick, injured, or dead protected species:

   Reporting Violations–To report an ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States.

   NOAA Fisheries Enforcement Hotline (800) 853-1964

5. **Additional Conditions–**Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the project consultation and must also be complied with.

For additional information, please contact NOAA Fisheries SERO PRD at:
NOAA Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
Tel: (727) 824-5312
Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)

Revised: May 2021

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – LAWS TO BE OBSERVED - COMPLIANCE WITH FEDERAL ENDANGERED SPECIES ACT AND OTHER WILDLIFE REGULATIONS (SAWFISH).

(REV 5-25-17) (FA 6-13-17) (7-19)

SUBARTICLE 7-1.4 is expanded by the following new Subarticle:

7-1.4.1 Additional Requirements for Smalltooth Sawfish (*Pristis pectinata*): The Department has determined that the project occurs within the known habitat of smalltooth sawfish.

The Department will provide instruction at a preconstruction meeting regarding:

1. The presence of species and limits of critical habitat.
2. The appearance, habits and biology of the species.
3. Their protected status.
4. The need to avoid collisions with these species.
5. The need to avoid any actions that would jeopardize the existence of these species.
6. The civil and criminal penalties for harming, harassing, or killing these species.

Advise all work crews of this information.

Provide sediment and turbidity barriers constructed of material in which a smalltooth sawfish cannot become entangled. Secure and monitor the sediment and turbidity barriers to avoid protected species entrapment. Sediment and turbidity barriers may not block smalltooth sawfish entry to or exit from designated critical habitat without prior approval of the Engineer and concurrence from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

Operate all vessels at "Idle Speed/No Wake" at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. Follow marked channels or routes of deep water whenever possible.

All on-site project personnel are responsible for observing water-related activities for the presence of smalltooth sawfish. When smalltooth sawfish are observed, follow the smalltooth sawfish guidelines posted in the URL address in 7-1.4.

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.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC –LAWS TO BE OBSERVED - COMPLIANCE WITH FEDERAL ENDANGERED SPECIES ACT AND OTHER WILDLIFE REGULATIONS (INDIGO SNAKE).
(REV 5-25-17) (FA 6-13-17) (1-19)

SUBARTICLE 7-1.4 is expanded by the following:

7-1.4.1 Additional Requirements for Eastern Indigo Snake *(Drymarchon corais couperi*): The Department has determined that eastern indigo snake habitat exists in the project limits. Implement the Standard Protection Measures for the Eastern Indigo Snake published by the US Fish and Wildlife Service which are available at: http://www.fws.gov/northflorida/IndigoSnakes/20130812_Eastern_indigo_snake_Standard_Protection_Measures.htm.

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or in Vero Beach (1-772-562-3909) for south Florida, and emailed to FWC at ImperiledSpecies@myFWC.com.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8½ " by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.htm. Questions concerning these signs can be forwarded to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

APPENDIX C: Additional Conditions for In-water Activities in Manatee Habitat, March 2011

Note: These conditions may be subject to revision at any time. It is our intention that the most recent version of these conditions will be utilized during the evaluation of the permit application.

Depending on the work proposed and the location, further protective measures may be required in addition to the standard manatee conditions (Appendix B). Additional information regarding: (1) dredging techniques/methods; (2) planned start and end times; (3) the amount of material to be removed; (4) the specific project location; (5) spoil disposal location; and (6) a current submerged vegetation survey (documenting the presence/absence of vegetation and the extent of any project-related impacts, if any, to submerged aquatic vegetation occurring on-site) should be provided to expedite the review process.

The additional protective measures that may be required include (but are not limited to):

- Impacts to submerged aquatic vegetation (SAV) must be avoided. If impacts have been avoided to the greatest extent practicable, impacts must be minimized (see Appendix E and Appendix F for minimizing impacts after avoidance has taken place).

- For dredging projects that do not impact SAV and involve less than 50,000 cubic yards, additional measures outlined in the 2011 Manatee Key shall be followed. For dredging projects involving more than 50,000 cubic yards, additional measures may be necessary. Areas not identified in the Key may also require special conditions.

- In-water activities may need to be conducted at times of the year when manatees are not likely to be found in the project area. In particular, activities shall not occur in or near manatee aggregation areas or important manatee areas when manatees are present.

- Dedicated manatee observers, whose sole responsibility is to watch for manatees, may be needed and must be positioned on each vessel to watch for manatees. The observer must be experienced in manatee observation techniques and assist direct dredging activity-related personnel with complying with the standard manatee conditions (Appendix B). The manatee observer must be on site during all in-water activities.

- If observers are required, but conditions (weather, heavy currents, etc.) are such that manatees cannot be seen within 50 to 100 feet, in-water activity shall not be conducted.

- In areas of high manatee use, in-water activities may not be conducted at night, particularly clamshell dredging.

- Movement of work boats and barges should be minimized at night.

APPENDIX C: Additional Conditions for In-water Activities in Manatee Habitat, March 2011

- All watercraft-access facilities that accommodate large vessels, particularly those 100 feet or more in length, shall provide a fendering system to reduce the probability of crushing manatees between wharves and bulkheads or between vessels moored together. Fenders, mooring buoys, or cantilevered docks must provide a minimum standoff distance of 4 feet (for fenders and buoys, under maximum compression).

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – LAWS TO BE OBSERVED - COMPLIANCE WITH FEDERAL ENDANGERED SPECIES ACT AND OTHER WILDLIFE REGULATIONS (MANATEE).

(REV 6-15-17) (FA 6-20-17) (1-19)

SUBARTICLE 7-1.4 is expanded by the following new Subarticle:

7-1.4.1 Additional Requirements for Manatees *(Trichechus manatus*): The Department has determined that the project occurs within the known habitat of manatees.

The Department will provide instruction at a preconstruction meeting regarding:

1. The presence of the species and manatee speed zones.
2. The appearance, habits and biology of the species.
3. Their protected status.
4. The need to avoid collisions with and injury to the species.
5. The need to avoid any actions that would jeopardize the existence of these species.
6. The civil and criminal penalties for harming, harassing, or killing these species.

Advise all work crews of this information.

Operate all vessels at "Idle Speed/No Wake" at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. Follow routes of deep water whenever possible.

Do not dredge river bottom for barge access.

Lower all equipment or material to the mudline in a controlled descent. Do not allow freefall of any equipment or material below the water surface.

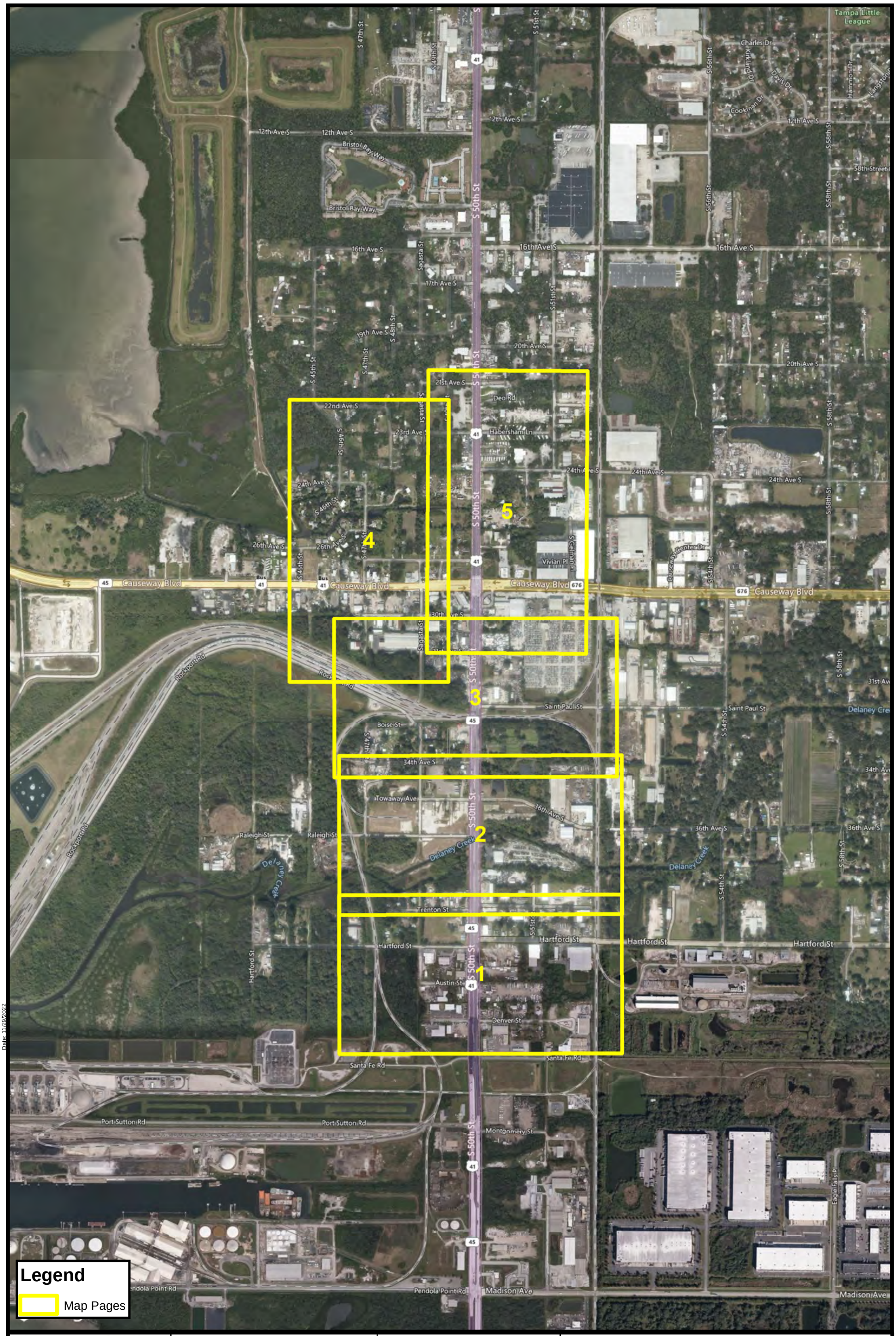
Advise all on-site project personnel they are responsible for observing water-related activities for the presence of manatees. Follow the requirements posted in the URL address in Spec 7-1.4 when manatees are observed.

Except for projects in Bay, Escambia, Franklin, Gilchrist, Gulf, Jefferson, Lafayette, Okaloosa, Santa Rosa, Suwannee and Walton:

1. Sediment or turbidity barriers shall be made of material which manatees cannot become entangled, shall be secured, and shall be monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
2. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the Contractor upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads "Caution: Boaters", must be posted in a location conspicuous to boating traffic. A second sign measuring at least 8-1/2 inches by 11 inches, explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations, must be posted in at least one location prominently visible to all onsite project personnel engaged in water-related activities. These signs can be viewed at: https://myfwc.com/wildlifehabitats/wildlife/manatee/education-for-marinas/

Appendix H

Project Wetland and Other Surface Water Maps

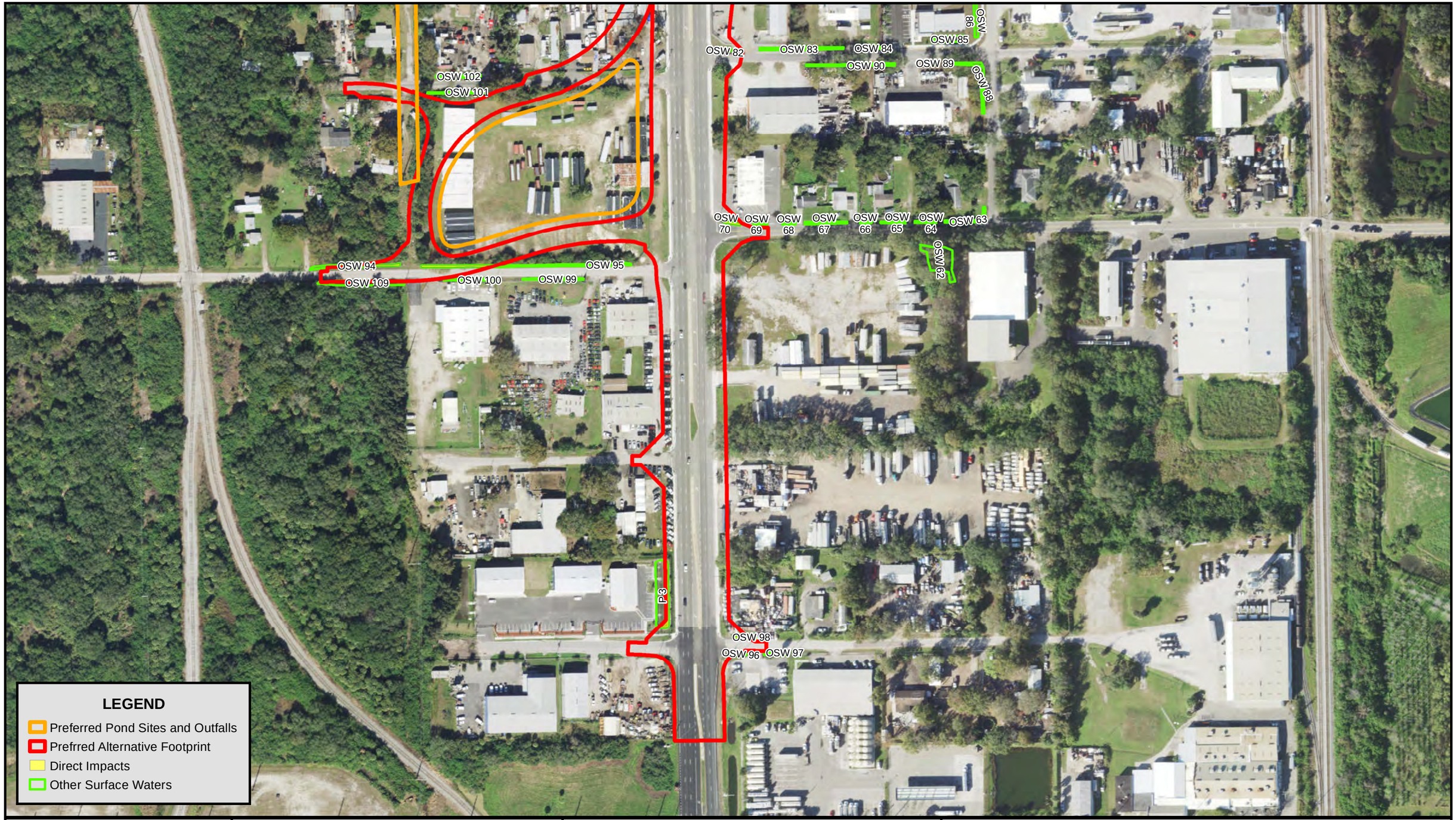


Date: 11/29/2022

Legend

Map Pages

FDOT	**U.S. 41 at CSX Grade Separation** **South of Causeway Blvd** **Hillsborough County, Florida** **FPID No.: 440479-1-22-01** Project Development and Environment Study	Map Index Sources: ESRI 2022	N 0 1,000 2,000 Feet 1 inch = 1,000 feet



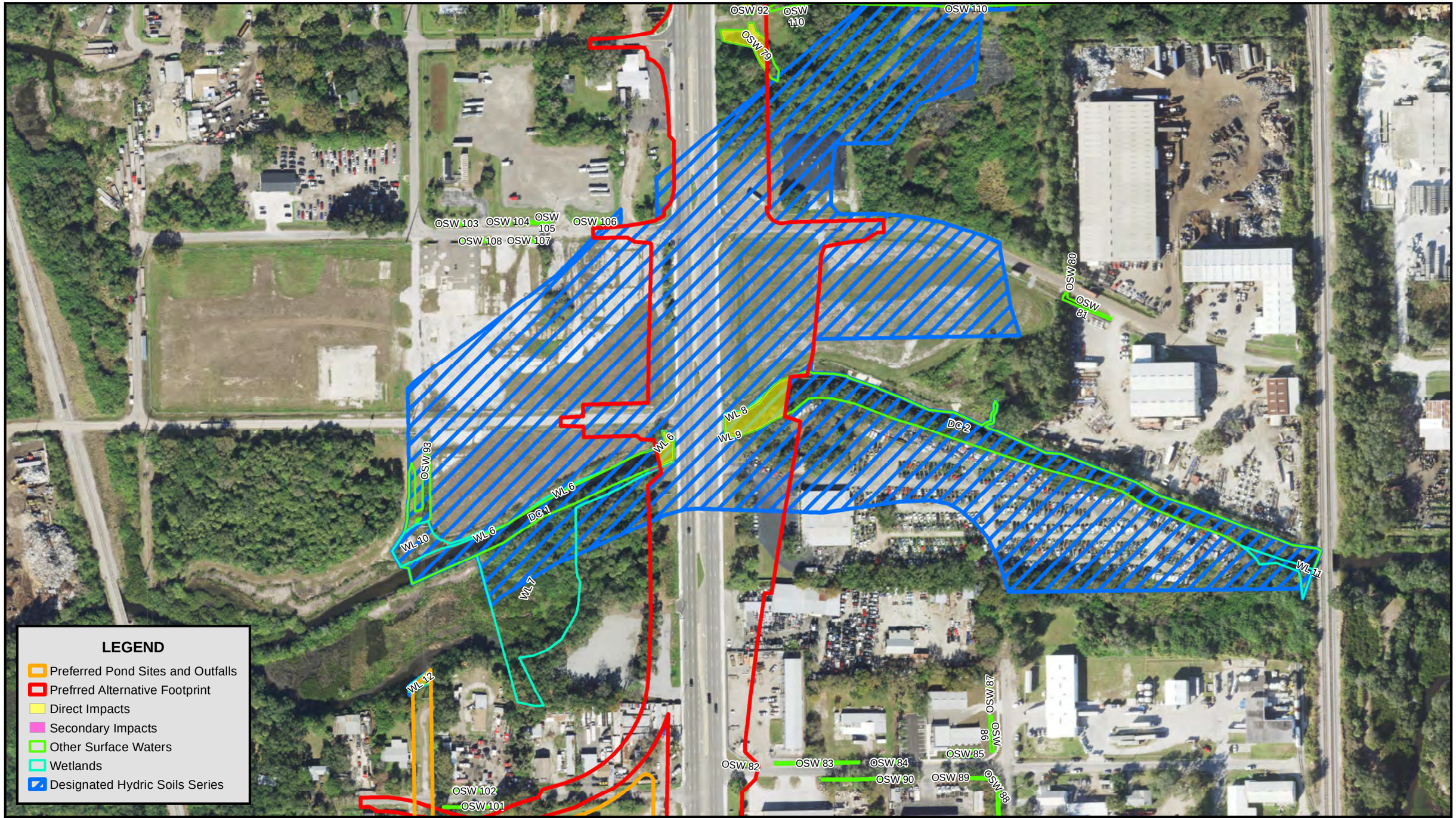
U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Project Wetland and Other Surface Water Maps

Sources:
ESRI 2022; NRCS 2021, SWFWMD 2017; RK&K 2022

N

0 200 400 600 800
Feet
1 inch = 200 feet



FDOT

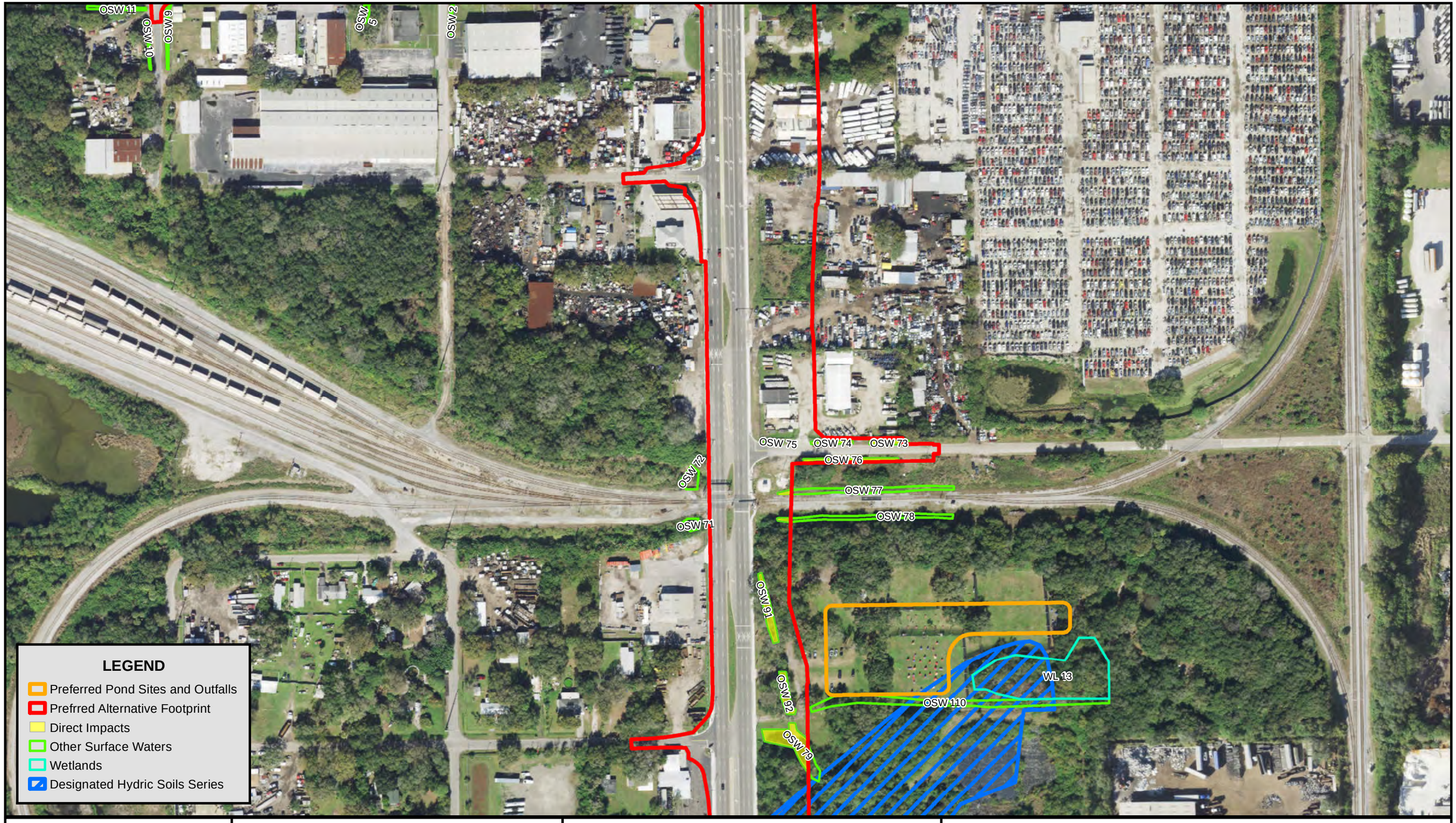
U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Project Wetland and Other Surface Water Maps

Sources:
ESRI 2022; NRCS 2021, SWFWMD 2017; RK&K 2022

N

0 200 400 600 800
Feet
1 inch = 200 feet



U.S. 41 at CSX Grade Separation
South of Causeway Blvd
Hillsborough County, Florida
FPID No.: 440479-1-22-01
Project Development and Environment Study

Project Wetland and Other Surface Water Maps

Sources:
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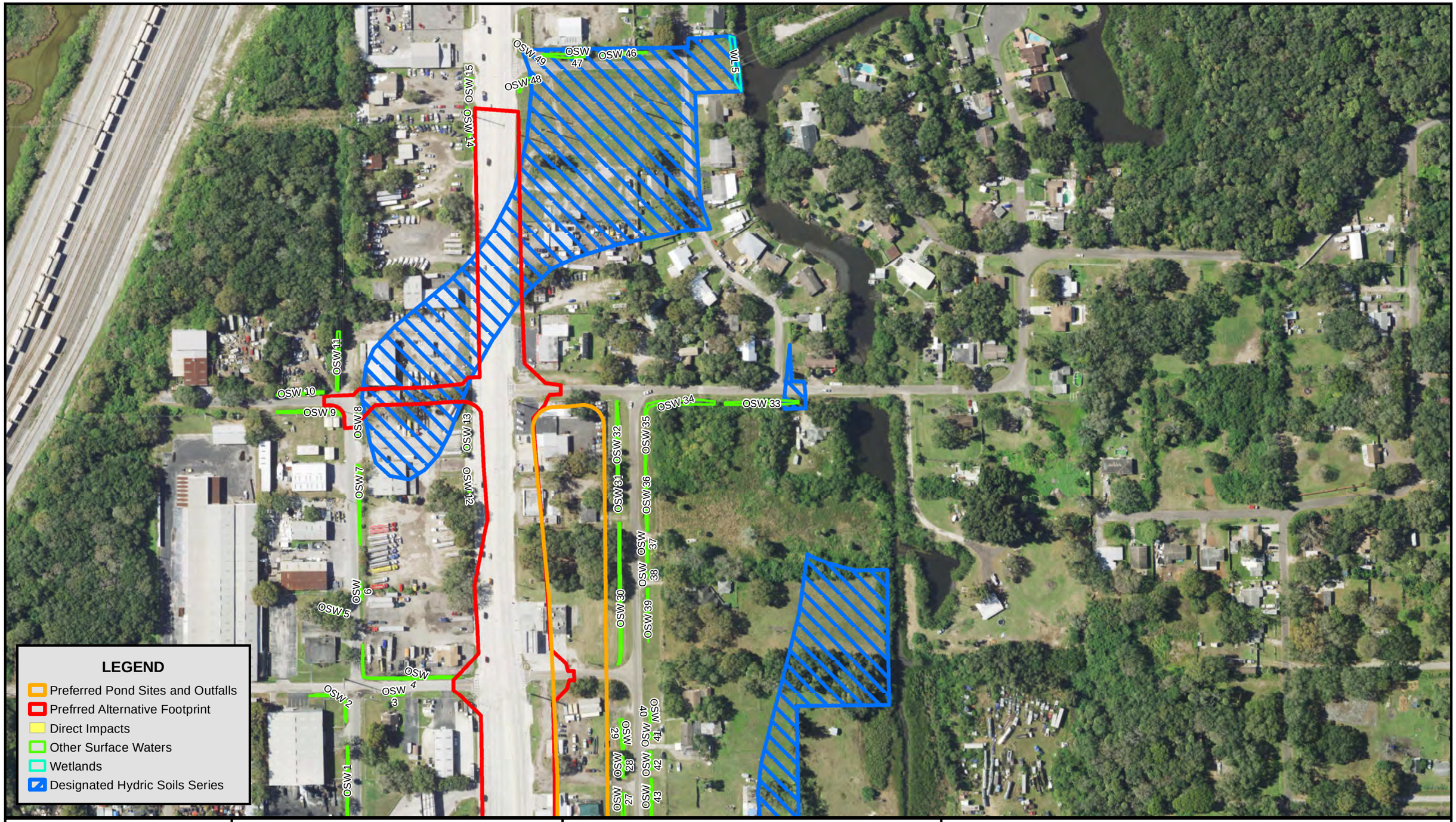
N

0 200 400 600 800
Feet
1 inch = 200 feet



U.S. 41 at CSX Grade Separation
South of Causeway Blvd
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FPID No.: 440479-1-22-01
Project Development and Environment Study

Project Wetland and Other Surface Water Maps

Sources:
ESRI 2022; NRCS 2021, SWFWMD 2017; RK&K 2022

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Feet
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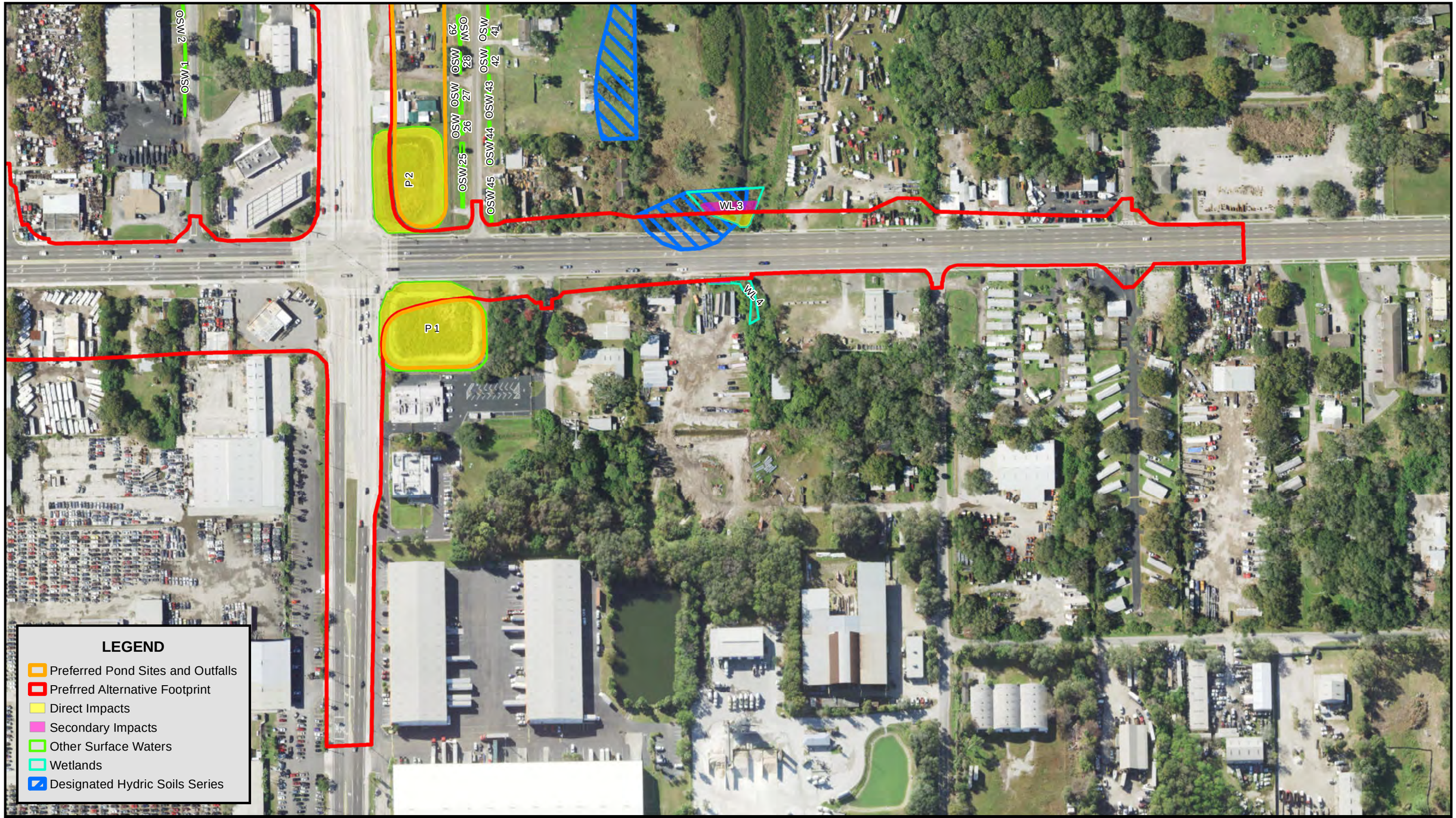
N



U.S. 41 at CSX Grade Separation
South of Causeway Blvd
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FPID No.: 440479-1-22-01
Project Development and Environment Study

Project Wetland and Other Surface Water Maps

Sources:
ESRI 2022; NRCS 2021, SWFWMD 2017; RK&K 2022

0 200 400 600 800
Feet
1 inch = 200 feet

N

Appendix I

Uniform Mitigation Assessment Method (UMAM) Data Sheets

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

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 at CSX		WL-3, WL-4, WL-6, WL-7, WL-9, and WL 12

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6120: Mangrove Swamps	E2FO3	Impact	1.48 acres (total size) 0.05 acres (direct impacts) 0.08 acres (secondary impacts)

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

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

These sites are tidally influenced forested systems that are hydrologically contiguous with Tampa Bay. Adjacent uplands contain CSX-owned railways and roadways.

Assessment area description

Forested wetlands adjacent to Delaney Creek that are dominated by mangrove species.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
CSX railroads, US 41, and Causeway Boulevard	Common for the area

Functions	Mitigation for previous permit/other historic use
Offers habitat and foraging for multiple species, enhances water quality, serves as a fire buffer	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
These areas are anticipated to provide habitat and foraging for: small mammals, wading birds, amphibians, reptiles, and fish	Gulf Sturgeon and smalltooth sawfish – potential refugia for juveniles Eastern Indigo Snake – FT, possible foraging habitat Wood Stork – FT, possible foraging and roosting habitat Little Blue Heron, Roseate Spoonbill, and Tricolored Heron – ST, possible foraging and roosting habitat

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Marsh Rabbit and Roseate Spoonbill observed on site

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Summer Sayre	10/19/2022

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

Site/Project Name US 41 at CSX	Application Number	Assessment Area Name or Number WL-3, WL-4, WL-6, WL-7, and WL-9 Direct Roadway Impacts
Impact or Mitigation Impact	Assessment conducted by: Summer Sayre	Assessment date: 10/19/2022

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

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

.500(6)(a) Location and Landscape Support w/o pres or current: 7 with: 0	These systems are able to provide optimal support for most wildlife species, but this support is limited due the fragmentation by roadways and the associated drainage structures which may inhibit support to and from these systems.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 9 with: 0	Most hydrologic indicators were consistent with the expectations for this system type. However, natural hydrology has been disrupted by roadways and their associated drainage structures.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 5 with: 0	These systems have some mitigation mangroves that are still young and establishing in the area, Brazilian pepper (an invasive) is largely present in these systems.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.7	0

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

For impact assessment areas
FL = delta x acres = -0.7x 0.05= -0.035

Delta = [with-current]
-0.7

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

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

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

Site/Project Name US 41 at CSX	Application Number	Assessment Area Name or Number WL-12 Direct Stormwater Pond Impacts
Impact or Mitigation Impact	Assessment conducted by: Summer Sayre	Assessment date: 10/19/2022

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
These systems are able to provide optimal support for most wildlife species, but this support is limited due the fragmentation by roadways and the associated drainage structures which may inhibit support to and from these systems.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 9	with: 0
Most hydrologic indicators were consistent with the expectations for this system type. However, natural hydrology has been disrupted by roadways and their associated drainage structures.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0
These systems have some mitigation mangroves that are still young and establishing in the area, Brazilian pepper (an invasive) is largely present in these systems.		

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.7	with: 0

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

For impact assessment areas
FL = delta x acres = -0.7x 0.014= -0.01

Delta = [with-current]
-0.7

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

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

Form 62-345.300(2) [effective date 02-04-2004]
Incorporated by reference in paragraph 62-345.300(3)(b), F.A.C.

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

Site/Project Name US 41 at CSX	Application Number	Assessment Area Name or Number WL-3, WL-4, WL-6, and WL-7 Secondary Roadway Impacts
Impact or Mitigation Impact	Assessment conducted by: Summer Sayre	Assessment date: 10/19/2022

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

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 6	These systems are able to provide optimal support for most wildlife species, but this support is limited due the fragmentation by roadways and the associated drainage structures which may inhibit support to and from these systems.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 9	with: 8	Most hydrologic indicators were consistent with the expectations for this system type. However, natural hydrology has been disrupted by roadways and their associated drainage structures.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 5	These systems have some mitigation mangroves that are still young and establishing in the area, Brazilian pepper (an invasive) is largely present in these systems.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.7	with: 0.633

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

For impact assessment areas
FL = delta x acres = -0.067 x 0.08= -0.005

Delta = [with-current]
-0.067

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

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

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

Site/Project Name US 41 at CSX	Application Number	Assessment Area Name or Number WL-12 Secondary Stormwater Pond Impacts
Impact or Mitigation Impact	Assessment conducted by: Summer Sayre	Assessment date: 10/19/2022

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

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 6	These systems are able to provide optimal support for most wildlife species, but this support is limited due the fragmentation by roadways and the associated drainage structures which may inhibit support to and from these systems.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 9	with: 8	Most hydrologic indicators were consistent with the expectations for this system type. However, natural hydrology has been disrupted by roadways and their associated drainage structures.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 5	These systems have some mitigation mangroves that are still young and establishing in the area, Brazilian pepper (an invasive) is largely present in these systems.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.7	with: 0.633

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

For impact assessment areas
FL = delta x acres = -0.067 x 0.01= -0.001

Delta = [with-current]
-0.067

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

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

Form 62-345.300(2) [effective date 02-04-2004]
Incorporated by reference in paragraph 62-345.300(3)(b), F.A.C.

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

Site/Project Name	Application Number	Assessment Area Name or Number
US 41 at CSX		WL-8

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6420: Saltwater Marshes	E2SS	Impact	0.013 (total size) 0.013 (direct impact)

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

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

This site is a non-forested system that is hydrologically contiguous with Delaney Creek. Adjacent uplands contain steep banks and a bridge for US 41.

Assessment area description

Emergent wetland within a cleared concave area between near a bridge for US 41 that contain species such as bulrush, fire flag, and Brazilian pepper.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
US 41, Delaney Creek, and Raleigh Street	Common for the area

Functions	Mitigation for previous permit/other historic use
Offers habitat and foraging for multiple species, enhances water quality, serves as a fire buffer	N/A

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
These areas are anticipated to provide habitat and foraging for: small mammals, wading birds, amphibians, reptiles, and fish	Gulf Sturgeon and smalltooth sawfish – potential refugia for juveniles Eastern Indigo Snake – FT, possible foraging habitat Wood Stork – FT, possible foraging and roosting habitat Little Blue Heron, Roseate Spoonbill, and Tricolored Heron – ST, possible foraging and roosting habitat

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Summer Sayre	10/19/2022

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

Site/Project Name US 41 at CSX	Application Number	Assessment Area Name or Number WL-8
Impact or Mitigation Impact	Assessment conducted by: Summer Sayre	Assessment date: 10/19/2022

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

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

.500(6)(a) Location and Landscape Support w/o pres or current: 5 with: 0	This system's ability to provide support for wildlife species and upstream and downstream systems is limited due the fragmentation by the adjacent roadway US 41 and adjacent contaminated property.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 5 with: 0	Hydrologic indicators were not consistent with what is expected for this system type. The steep banks associated with US 41 and adjacent Delaney Creek have disrupted the system's hydrology. The steepness results in unanticipated water levels, soil erosion, and soil moisture.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 5 with: 0	These systems have some suitable wetland species but is also dominated by Brazilian pepper (an invasive). However, the non-invasive species that are present are not consistent with what would be expected in a saltwater marsh such as black rush.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres: 0.5	with: 0

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

For impact assessment areas
FL = delta x acres = -0.5 x 0.013 = -0.0007

Delta = [with-current]
-0.5

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

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

Appendix J

1994 EA/FONSI Resource Agency Coordination

U.S. Department of Transportation
United States Coast Guard

Commander
Seventh Coast Guard District

909 S.E. First Avenue
Brickell Plaza Federal Bldg
Miami, FL 33131-3050
Phone: 536-5621
Staff Symbol: (oan)

16591/2430
Serial: 0268
17 JAN 1991

Mr. David A. Twiddy, Jr. P.E.
Project Development & Environmental Engineer
Florida Department of Transportation
4950 West Kennedy Boulevard
Tampa, FL 33609

Dear Mr. Twiddy:

This responds to your advance notification package of December 21, 1990 about the proposed widening of the 22nd Street Causeway (SR 676) bridges across McKay Bay and Delaney Creek, Hillsborough County, Florida. (State Project No. 10250-1525).

A Title 23 determination needs to be made by the Federal Highway Administration at the SR 676 bridge across Delaney Creek as soon as possible so that we can address our involvement at the bridge site. The tributary canals of Delaney Creek are non-tidal, therefore, are not considered navigable waters of the United States for bridge permitting purposes.

A Coast Guard bridge permit will be required for the proposed bridge widening project across McKay Bay. You should plan on navigational clearances no less than those provided by the existing fixed bridge across McKay Bay.

To determine if the reasonable needs of navigation might require greater clearances, we recommend you consult with waterway users early in your design process. This needs analysis should reduce the likelihood of your bridge permit being delayed for navigational considerations.

The Coast Guard decision on navigational adequacy is necessarily part of the permit approval process. We will consider any information you provide, the comments responding to the public notice we issue after receiving your application, and all other available information in making this decision.

Since there are federal funds involved in the proposed bridge replacement/modification project, we wish to be designated a cooperating agency for processing of the environmental documentation unlesss the Federal Highway Administration determines the project qualifies for a Categorical Exclusion.

Enclosed for your use in applying for a Coast Guard bridge permit is a Bridge Permit Application Guide and an Environmental Assessment Outline.

EXHIBIT 1

16591/2430
Serial: 0268
17 JAN 1991

If you should have any questions concerning this matter, please contact Mr. Brodie Rich at (305)536-4103.

Sincerely,

J. W. WINSLOW
Chief, Bridge Section
Aids to Navigation Branch
Seventh Coast Guard District
By direction of the District Commander

Encl: (1) Bridge Permit Application Guide
(2) Environmental Assessment Outline

Copy: FDOT Tallahassee, Mr. J. C. Kraft, Manager, Env. Office

Project Development [illegible]

File 7113839.20

STATE OF FLORIDA

Office of the Governor

THE CAPITOL
TALLAHASSEE, FLORIDA 32399-0001

LAWTON CHILES
GOVERNOR

March 4, 1991

Mr. David A. Twiddy, Jr., P.E.
District VII PD&E Administrator
Department of Transportation
4950 West Kennedy Boulevard
Suite 500
Tampa, Florida 33609

RE: State Project 10250-1525 - Work Program Item 7113839 - Advance Notification of 22nd Street Causeway/Causeway Boulevard PD&E Study in Hillsborough County, Florida

SAI: FL9101070882C

Dear Mr. Twiddy:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 83-150, section 216.212, Florida Statutes, the Coastal Zone Management Act Reauthorization Amendments of 1990 and the National Environmental Policy Act, has coordinated a review of the above referenced project.

Pursuant to Presidential Executive Order 12372, the project will be in accord with State plans, programs, procedures and objectives; and approved for submission to the federal funding agency when consideration is given to the enclosed agency comments.

The Department of Environmental Regulation (DER) indicates that permits will be required prior to start of construction. Sound development practices should be maintained during all phases of construction and early coordination with DER's district office in the project area may help to eliminate problems in the permitting process.

The Department of State (DOS) notes that a cultural resource survey will be conducted to identify significant archaeological and/or historic sites. The proposed project will have no effect on this site, if the Department of Transportation avoids or mitigates the impact on sites identified in the survey.

EXHIBIT 3

Based on the comments from our reviewing agencies, funding for the proposed action is consistent with the Florida Coastal Management Program (FCMP) advanced notification stage. Subsequent environmental documents will be reviewed to determine continued consistency with the FCMP as provided for in 15 CFR 930.95. These documents should provide thorough information regarding the location and extent of wetlands dredging and filling, borrow sources, dredging or filling associated with bridge construction and stormwater management. Continued concurrence with this project will be based, in part, on adequate resolution of issues identified during earlier reviews. Any environmental assessments prepared for this project should be submitted to the Florida State Clearinghouse for interagency review.

Pursuant to section 215.195, Florida Statutes, State agencies are required, upon federal grant approval, to deposit the amount of reimbursement of allocable statewide overhead into the State-Federal Relations Trust Fund. The deposits should be placed in SAMAS account code 31 20 269001 31100000 00 0015 00 00. If you have any questions regarding this matter, please contact your OPB budget analyst or Jean Whitten at (904)487-2814.

Please enter the State Application Identifier (SAI) Number, shown above, in box 3a of Standard Form 424 and append a copy of this letter and any enclosures to your application. These actions will assure the federal agency of your compliance with Florida's review requirements, help ensure notification of federal agency action under the Federal Assistance Award Data System (FAADS) and reduce the chance of unnecessary delays in processing your application by the federal agency.

Sincerely,

Estus Whitfield

Estus D. Whitfield, Deputy Director
State Clearinghouse

EDW/rt

Enclosure(s)

cc: Department of Environmental Regulation
Department of State
J. C. Kraft - Department of Transportation

Florida Department of Environmental Regulation
Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347
Lawton Chiles, Governor Carol M. Browner, Secretary

February 22, 1991

Director
State Clearinghouse
Office of Planning and Budgeting
Executive Office of the Governor
The Capitol
Tallahassee, FL 32399-0001

RE: SAI #FL9101070882C
22nd Street Causeway/Causeway Blvd. PD & E Study

Dear Sir:

The proposal to upgrade S.R. 60 to U.S. 301 involving potential additional lanes and limited access options has been reviewed by this office. Areas of potential impact to State jurisdictional wetlands include bridge reconstruction, fill to accommodate lanage and some reference to regulated floodways. State water quality certification will be required for this activity, and wetland resource permits are required under Chapter 403, F.S. Permitting considerations are as follows (1) the project involves impacts to shallow water productive marine habitat. Impacts to these areas must be minimized by the design of the project, (2) impacts to endangered or threatened species or their habitats are of particular concern due to the likelihood of the occurrence of the West Indian Manatee in the McKay Bay region and the utilization of the shallow water habitat by several wading birds on the State and Federal Threatened or Endangered lists, (3) impedance to navigation in the open water areas must be addressed. Further study is necessary to quantify the potential impacts to water quality and marine productivity of the area.

Thank you for the opportunity to comment on this proposal. Should you have any additional questions, please contact George Craciun at (813)623-5561 Ext. 332.

Sincerely,

Bob Stetler

Bob Stetler
Environmental Administrator
Water Management

EXHIBIT 4

BS/msb

United States Department of the Interior

FISH AND WILDLIFE SERVICE
P.O. BOX 2676
VERO BEACH, FLORIDA 32961-2676

May 28, 1993

Richard E. Adair
District VII Environmental Administrator
Florida Department of Transportation
11201 N. Malcolm Mckinley Drive, MS 7-500
Tampa, FL 33612-6403

FWS Log No: 4-1-93-318
Dated: April 26, 1993
Applicant: Florida DOT
County: Hillsborough

Dear Mr. Adair:

Reference is made to your letter for Project No. M-1802(1), State Project Number 15250-1525, dated April 26, 1993 to multilane 22nd Street/Causeway Boulevard (SR676), from the Crosstown Expressway to U.S. 301, Hillsborough County. The proposed project includes the replacement of the bridge over McKay Bay. This report is submitted in accordance with the provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)

The Florida Department of Transportation (FDOT) has stated that 19 conditions listed on your attached Special Provisions for Protection of Manatees will be included in any contract issued for the work. Therefore, the FDOT states that the project will have "no effect" on the West Indian manatee. Hillsborough County has a low level of watercraft related manatee mortality. Based on the information, the Service finds the bridge replacement is not likely to adversely affect the West Indian manatee.

In addition, based on our general knowledge of the area, your field surveys of federally-listed threatened or endangered species, the urbanized nature of the road corridor, combined with a check of our GIS database indicate that the proposed project is not likely to adversely affect federally-listed threatened or endangered species.

EXHIBIT 9

Although this does not constitute a Biological Opinion described under Section 7 of the Endangered Species Act, it does fulfill the requirements of the Act, and no further action is required. If modifications are made in the project or if additional information involving potential impacts on listed species becomes available, please notify our office (407-562-3909).

The Service will withhold our comments at this time under the Fish and Wildlife Coordination Act concerning the subject project. When more detailed information is prepared for Department of the Army Corps of Engineer permit applications, our comments will be provided.

Sincerely yours,

Joseph D. Carroll
Acting Field Supervisor

cc:
FWE, Jacksonville, FL
DNR, Tallahassee, FL

9.0 COORDINATION

Preliminary contact in the form of written and verbal correspondence was started early in the process. Agencies with jurisdiction were sent an informational package that included a description of the proposed improvements, the limits of the project, and aerial photography that covered the project limits. The following is a summary of the correspondence in Appendix "A".

Hillsborough County - Contact included meetings with Hillsborough County Stormwater Design Section staff to determine the design requirements for The three Delaney Creek basins. It was determined at a joint meeting with the Southwest Florida Water Management District that improvements to Delaney Creek would be completed before the design and construction of the 22nd Street/ Causeway Boulevard project was completed. It was agreed that there would be no special design requirements in the Delaney Creek basin provided the creek improvements had completed.

City of Tampa - City staff was contacted in reference to the Palmetto Beach Drainage Study. The study describes a nuisance flooding problem at the intersections of 22nd Street and several cross streets in the Palmetto Beach area. 22nd Street has been raised over the years by re-surfacing. Since the cross roads in the area were built originally without a storm water collection system, the difference in elevations causes ponding in the returns. City staff suggested that the improvements to 22nd Street include a side street stormwater collection system.

Florida Department of Transportation - FDOT staff confirmed existing drainage problems along the corridor.

Florida Department of Natural Resources - It was determined through written and verbal communication that FDNR within the area of this projects limits has delegated their jurisdiction to the Port Authority.

U.S. Fish & Wildlife Service - No response has been received to this date.

Florida Game & Fresh Water Fish Commission - Written response from the FG&FWFC included a list of potential endangered, threatened and special concern species. They also expressed a preference for wetland enhancement as compared to wetland creation for wetland mitigation. Specific concerns involving the Delaney Creek crossings were also discussed.

Florida Department of Environmental Regulation - Through written and verbal correspondence it was determined that FDER will not claim areas of Brazilian Peppers as jurisdictional. FDER would also prefer expansion along the causeway to be completed to the southwest to minimize encroachments into the existing stands of mangrove. Mitigation methods were also discussed.

U.S. Corps of Engineers - The U.S. Corps of Engineers will have jurisdiction over all wetlands along the project. Any impacts to McKay Bay will require a permit from the Corps.

U.S. Coast Guard - Improvements to the McKay Bay Bridge will require a permit if the configuration of the bridge is changed. The widening and slight lowering of the bridge during final design may require a permit.

National Marine Fisheries Service - No response has been received to this date.

Port Authority - Please refer to meeting minutes in the revised Preliminary Engineering Report.

resources. Any proposed wetland mitigation should include enhancing existing wetlands in preference to creation of new wetlands from native uplands. Any wetland mitigation, enhancement, or creation should at least be at a 1:1 ratio, and of the same type of natural wetland that the impacted site possessed prior to exotic invasion and man-made alterations. One or two large mitigation sites are preferable to numerous, isolated, small wetland areas that are likely to be impacted by future urban expansion. Any created mitigation areas should be protected from future impacts by conservation easement, deed dedication to a management entity, or a similar conservation mechanism.

Consideration for wildlife undercrossings/conveyances should be made in the two Delaney Creek crossing areas. The wildlife conveyances should be designed to provide a 4 to 5-foot ground height clearance, with an open width at least as wide as the road grade from toe of slope to toe of slope, or the limits of the wetland jurisdiction plus Southwest Florida Water Management District (SWFWMD) floodplain buffers. This could be achieved with a small bridge, box culverts, or properly sized oval culverts. The crossing of the creek wetland should be fenced with 5-foot minimum height chain link so as to funnel wildlife into the conveyance. These designs should be included in the permit plans for review by the CPC and the SWFWMD.

If you have any questions with regard to these projects please contact Jim Beaver at SUNCOM 721-7570, (813) 639-3515, at our Punta Gorda office.

Sincerely,

Brian Barnett

Brian S. Barnett
South Florida Section Leader

BSB/JWB/rs
ENV 2-1-1/2

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619
813-744-6100

Virginia B. Wetherell
Secretary

October 11, 1993

TOD MECKLENBORG
FL DEPT. OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL
MS 7-500
11201 N. MALCOM MCKINLEY DR.
TAMPA FL 33612-6403

RE: Work Program No. 7113839
State Project No. 10250-1525
Federal Aid No. M-1802(1)
22nd St. Causeway/Causeway Blvd.
S.R. 60 to U.S. 301
Hillsborough County

DER TAMPA OFFICE offers the following comments:

Where roadway improvements are proposed in or near Chapter 403/373 jurisdictional waters, a Binding Wetland Jurisdictional Determination is highly recommended as per the guidelines in 17-312, Florida Administrative Code.

Every efforts should be made to minimize wetland impacts including roadside conveyance ditches, with particular emphasis on avoidance oriented corridor alignments, and the minimization of fill placement via pile bridging and steeper slopes adjacent to wetland systems.

There is a need for further minimization of impacts to the east (i.e. McKay Bay) side of the Causeway.

Measures for reducing these (fill) impacts should include:

a. On Approachways:

1. Reduce median width of 19.5' by at least 8 feet.
2. Eliminate both 3' grass strips
3. Realign the roadway to the west utilizing more of your existing R/W.

EXHIBIT 12

Appendix J

Updated 440749-1 Resource Agency Coordination

FLORIDA DEPARTMENT OF Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

March 12, 2021

Brent Ivy, PSM
Florida Dept. of Transportation – District Seven
Surveying and Mapping Office
611201 McKinley Drive
Tampa, FL 33612

Re: Unnamed Creek and Delaney Creek; Hillsborough County

Dear Mr. Ivy,

This letter is in response to your e-mail inquiry requesting a determination of state-owned lands at Unnamed Creek and Delaney Creek in Hillsborough County. The subject site is located within Sections 28 & 27 and 33 & 34, Township 29 South, Range 19 East.

Review of Records within the Title and Records Section indicate that the Board of Trustees of the Internal Improvement Trust Fund has no title interest in the submerged lands of the unnamed creek and Delaney Creek in Hillsborough County. For further information regarding permitting regulations affecting your activity you may contact Mike Lynch at the Department's Southwest District Office at 813-470-5746. Additionally, we find no state owned uplands at the site.

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

If this office can be of any further assistance regarding this determination, please address your questions to Tanja Hall, Government Operations Consultant II, mail station No. 108 at the above letterhead address, or by telephone at (850) 245-2799.

Sincerely,

Karen McMillan for

Scott Woolam, Bureau Chief
Bureau of Survey and Mapping
Division of State Lands

SW/th
\TITLE\TANJA\2021 TITLE REQUESTS\1ST QUARTER\HILLSBOROUGH\440749-1 - DELANEY CREEK AND UNNAMED WATERBODY

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Seventh District

909 SE 1st Ave. Ste 432
Miami, FL 33131-3028
Staff Symbol: (dpb)
Phone: (305) 415-6747
Fax: (305) 415-6763
Email: Omar.Beceiro@uscg.mil

16591/FL
September 8, 2022

Ms. Allison Conner
Florida Department of Transportation
1120 N. Malcolm McKinley Drive
Tampa, FL 33612

Delivered via e-mail: Allison.Conner@dot.state.fl.us

Dear Ms. Conner

The Coast Guard has determined that Delaney Creek (27.91500, -82.40212) and the unnamed creek (27.92544, -82.40235) where they intersect the US Highway 41 project meets the criteria for Advance Approval per 33 CFR 115.70. This Advance Approval determination applies only to the location and structure described above. An individual Coast Guard bridge permit will not be required for the proposed replacement of the bridge. Although an individual Coast Guard bridge permit is not required, the following conditions apply to this determination.

1. This determination is valid for three years from the date of this letter. If the construction project on the above bridge does not commence within this time, the bridge owner must contact this office for reaffirmation of this determination.

2. Future bridge projects along the above waterway will have to be independently evaluated before they may be considered for placement in the Advance Approval category. This includes modification, replacement and removal of the above bridge.

3. This determination does not relieve the bridge owner of the responsibility for compliance with the requirements of any other applicable Federal, State, or local agency who may have jurisdiction over any aspect of the project.

4. When the bridge is no longer used for transportation purposes, it must be removed in its entirety and the Coast Guard must be notified that the waterway has been cleared.

Should you have any questions concerning this determination, please contact my representative Mr. Omar Beceiro at (305) 415-6747 or by email at Omar.Beceiro@uscg.mil.

Sincerely,

RANDALL D. OVERTON, MPA
Director, District Bridge Program
U.S. Coast Guard
By Direction

E-Copy: USCG Sector St Petersburg Waterways Management, Daniel.J.Donkel@uscg.mil

SWFWMD Pre-Application Meeting - Agenda
FPID 440749-1-52-01
BAR – PA 409994 US 41 and Causeway/CSX

Date: 12/01/2022
Time: 10:00 AM – 11:00 AM
Location: Microsoft Office Teams

I. Introductions

a. FDOT District 7 – Craig Fox, PE (Proj. Mgr.), Anthony (Tony) Celani, PE (Drainage), Joel Johnson (Environmental Permitting)
b. SWFWMD – Bob Dasta, PE, Russell Martin, Chaz LaRiche
c. Consultant Team – RK&K – Joe Baan, PE (Drainage), Liz Lorello PE (Drainage), Greg Lee, PE (Drainage), Gordon Mullen (Environmental), KCA - Branan Andersen, PE (Roadway)

II. Project Overview

a. Previous Pre-Application Meetings 3/12/2020 and 11/19/2020
   i. *Craig introduced the project and the proposed grade separation over CSX. He discussed the general changes in the design concept form what had been discussed with SWFWMD previously and what was presented at the November 2019 Alternatives Public Workshop. Major changes include: the removal of flyover ramp from NB US 41 to WB Causeway Blvd., shifted alignment and reduced limits along Causeway Blvd. west of US 41, extended limits along US 41 further to the south, roadway loop at Hartford St.,*
b. Grade separation over CSX with capacity and operational improvements
c. Recommended Alternative
d. Status

III. Design Criteria

a. Treatment
   i. Confirm only new pavement (*includes some compensatory treatment of existing areas*)
   ii. Impaired WBIDs - *No roadway impairments associated with roadway pollutants. Bob mentioned that WBIDs 1584B & 1584C are nutrient-impaired. The project may be within these WBIDs. RK&K will confirm as part of their drainage design/documentation.*
   iii. Confirm no nutrient loading (*Joe suggested that this would likely not be considered a direct discharge, over 1.5 miles from East Bay along Delaney Creek and over 0.75 miles from McKay Bay.*)

b. Attenuation

i. Delaney Creek Watershed Model

ii. No impacts that round to 0.1' or greater (*Bob clarified this as less than 0.05'*)

iii. Required storm events (*Bob – SWFWMD criteria are the mean annual 10-year, 25-year, 100-year storm events.*)

IV. Floodplain

a. Included in watershed model

V. Pond Siting

i. Finishing up PD&E Pond Siting Report. Currently evaluating 2-3 ponds per basin (3 alternatives in southern Basin 1, which discharges to tidally-influenced Delaney Creek); middle Basin 2 (2 pond alternatives, which also drain to Delaney Creek), and northern Basin 3 (3 alternatives, which discharge to the unnamed tributary to McKay Bay)

b. Bridge Hydraulic Report is in progress. Currently comparing a bridge to a box culvert alternative at Delaney Creek. There are also high-water flows periodically through the CSX ROW.

c. Phase II/60% design plans should be ready March 2023. Following FDOT review/comment and subsequent revisions, ERP application submittal anticipated in Summer 2023.

d. Joe discussed major industrial land uses. Gordon discussed existing elevated contamination levels locally. FDOT will evaluate this further and complete remediation as needed prior to construction.

e. Pond 3A/3B – propose to bore a cross drain hydraulically connecting both ponds to function as one pond. This would propose to lower the existing water table locally due to base clearance water elevation. It is anticipated to reduce the pond control elevation to 1 foot below SHWT to intentionally lower water table. No potable water wells in this area. Will not impact unnamed tributary to McKay Bay (or associated wetlands) since it is several feet lower in elevation. Bob indicated this was feasible as long as the criteria in SWFWMD Applicant's Handbook Section 3.6 are satisfactorily addressed.

f. Potential contamination involvement at several proposed pond sites. FDOT will clean-up as applicable/required. SWFWMD recommended consultation with FDEP that they have no issues.

g. Underdrains – direct discharge to Delaney Creek and the unnamed tributary. Bob asked Joe to clarify if this was from a water quality standpoint. Joe/Branan confirmed that this is the case. If compensatory treatment has been done within the same systems, this should not be a problem.

VI. Environmental

a. Wetlands and Other Surface Waters
    i. Urbanized area with mostly commercial and industrial land uses, minor residential areas adjacent to project study area.
    ii. 8.21 acres of wetlands and other surface waters present within the project study area
    iii. Includes two tidally-influenced systems
        1. Delaney Creek – Under US 41, approx. 0.55 miles south of Causeway Blvd. and drains west to East Bay; historically channelized
        2. Unnamed Tributary – Under US 41, approx. 875 feet north of Causeway Blvd. and drains west to McKay Bay
    iv. Polygon delineations have not been field-reviewed agency staff
    v. Direct and secondary impacts from the project total approximately 0.293 acre of wetland impacts.
    vi. Approx. 0.143 acre of direct WL impacts (0.063 acre from roadway improvements and 0.08 acre from the preferred pond sites)
    vii. Approx. 0.08 acre of direct impact to one OSW occurring within NRCS-designated hydric soils entirely from proposed pond outfall (confirm if mitigation required)
    viii. Approx. 0.15 acre of secondary wetland impacts (0.08 acre from roadway improvements and 0.07 acre from preferred pond sites)

b. Anticipated Mitigation
    i. UMAM assessments have been completed but not field-reviewed with agency staff
    ii. Direct wetland impacts from the project (0.143 acre) will result in an estimated functional loss of 1.11 units.
        1. Roadway impacts - 0.063 acre resulting in a functional loss of 0.05 unit
        2. Pond site impacts - 0.08 acre resulting in a functional loss of 0.06 unit.
    iii. Secondary wetland impacts - 0.15 acre will result in an estimated functional loss of 0.02 unit.
        a. roadway improvements - 0.08 acre of impacts resulting in a functional loss of 0.01 unit
        b. Pond sites - 0.07 acre of impacts resulting in a functional loss of 0.01 unit.
    iv. All impacts within the Tampa Bay basin.

v. The project will result in impacts to mangrove mitigation sites for adjacent superfund parcels. Any special considerations anticipated for this? (ERP could not be found for mitigation project on SWFWMD mapper)

vi. USACE RIBITS database reviewed on November 9, 2022. *A recent review indicates that sufficient estuarine forested mitigation credits are available (but subject to change).*

Bank Name	Credit Classification	Assessment Method	Basin	Available Credits
Mangrove Point MB	Estuarine Intertidal Emergent and Estuarine Intertidal Forested	UMAM	Tampa Bay	0.97 emergent 4.22 forested
Nature Coast MB	Palustrine Forested, Palustrine Emergent Estuarine Intertidal Emergent, and Estuarine Intertidal Forested	UMAM	Tampa Bay	2.66 forested (palustrine) 0.33 emergent (palustrine) 1.57 emergent (estuarine) 8.15 forested (estuarine)
Tampa Bay MB	Estuarine Intertidal Emergent, Estuarine Intertidal Forested, Palustrine Emergent, and Palustrine Open Water	E-WRAP WRAP	Tampa Bay	21.63 emergent (estuarine) 0.20 forested (estuarine) 6.88 emergent (palustrine) 2.94 open water (palustrine)

c. Listed/Protected Species

i. Primarily wood stork and wading birds, FL sandhill crane, eastern indigo snake

ii. Very low potential for involvement with federally-protected manatee and fish species

iii. No evidence of gopher tortoises/burrows observed in upland areas.

VII. *Russell – As per standard process, SWFWMD will need a field review to verify wetland boundaries, jurisdictional limits and UMAM functional assessment. Mitigation bank credits are tough to come by in the Tampa Bay basin, so FDOT will need letter of credit reservation prior to permit application submittal. Recommended that FDOT coordinate with Tampa Port Authority (TPA) on Sovereign Submerged Lands limits determination. Joel clarified that FDOT is exempt from TPA's Minor Works permits, but not SSL requirement. Would need to coordinate this with Hillsborough County. Russell also mentioned that manatee grates may be required due to tidal connection. Gordon mentioned downstream constrictions (CSX RR timber bridge on Delaney Creek and S. 47th St. culverts. More data is being collected on these features to see if these would negate the need for grates on the future drainage structure crossings under US 41*

VIII. Open Discussion

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Seventh District

909 SE 1st Ave. Ste 432
Miami, FL 33131-3028
Staff Symbol: (dpb)
Phone: (305) 415-6747
Fax: (305) 415-6763
Email: Omar.Beceiro@uscg.mil

16591/FL
September 8, 2022

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Sincerely,

RANDALL D. OVERTON, MPA
Director, District Bridge Program
U.S. Coast Guard
By Direction

E-Copy: USCG Sector St Petersburg Waterways Management, Daniel.J.Donkel@uscg.mil